

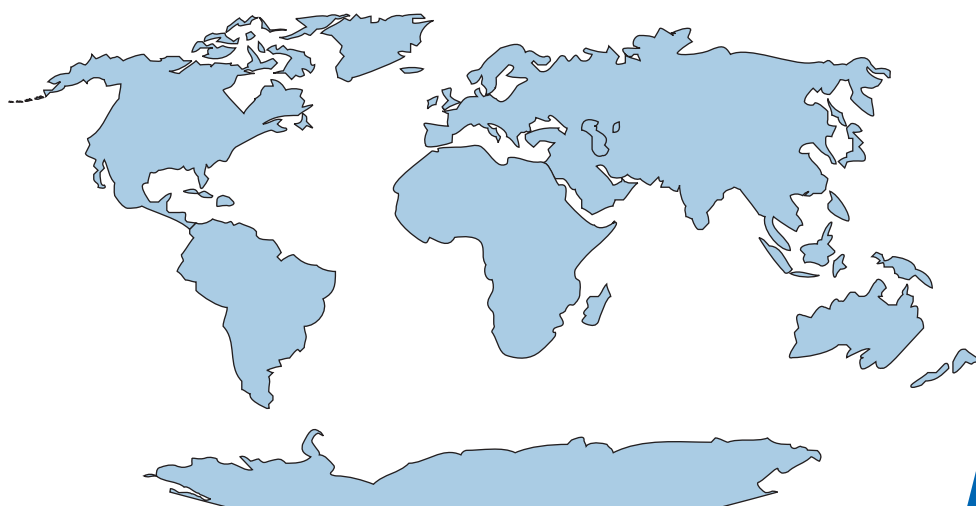
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On
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& Computer Science

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PREFACE



I feel very happy to be the Convener and part of team for the Two Days Doctoral Colloquium on “**Management, Social Science, Commerce, Economics, Entrepreneurship & Computer Science**” on 31st March and 1st April 2018 on account of which a Special Issue is being published in the UGC approved journal by IARA.

The theme of the Colloquium is relevant to the present Indian context and surely has implications on trade and commerce as well as common men across the world. This Colloquium provides a platform to Policy Makers, Academicians and Research Scholars to discuss and give their views from multiple dimensions on the theme. We have received more than 50 abstracts and published the same after a thorough review. I thank the Editor of the Journal and his team for their timely support in bringing out the journal.

I express my sincere gratitude to the university authorities of Maulana Abul Kalam Azad University of Technology, especially the Hon’ble Vice Chancellor, **Prof. Saikat Maitra**, Pro Vice Chancellor, **Prof. Subrata Kumar Dey** and Registrar, **Prof. Indranil Mukherjee** for their support in organizing this Colloquium. I thank all the young and enthusiastic teachers and other staff members of Institute of Management Study for their continuous effort and support.

I appreciate the efforts made by the co-convener and organizing secretaries for their active participation in organizing this event. Last but not the least I thank and appreciate the contributions of young scholars and students who have presented their research work in this platform. I wish each and everyone success in their endeavor.

Prof. Tapash Ranjan Saha
Convener – IMS Doctoral Colloquium 2018
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COMPARITIVE EFFECTIVENESS OF METHODS OF TEACHING IN TERMS OF SCIENTIFIC ATTITUDE

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ABSTRACT

The study was conducted to find out the effect of Smart class on the Scientific Attitude of students. The sample consisted of 443 middle school students of Classes VI, VII and VIII. The samples were taken from two higher secondary schools of Bhilai city, Durg Chhattisgarh. In the present study, Scientific Attitude Scale developed by Bhagwat was employed for collecting the data with respect to Scientific Attitude. The data was collected and analysed to find out the effect of Smart class in comparison to the traditional method, on the Scientific attitude of students.

Keywords: Smart Class, Scientific Attitude, Middle school, Traditional Method, instructional strategies

I. INTRODUCTION

Last few decades have witnessed giant strides being made in the field of science and technology. Life has completely been changed due to the advancement of science and technology. Things which were unimaginable some decades back have become reality. Yet there are some avenues which are yet not touched dramatically by the new advancements. In some areas both new and old co-exist. Education is one such area where new instructional methodologies and equipment are being used by some yet others stick on to the time-tested practices.

Smart Class is one of the modern technological features which is now introduced and is being gradually incorporated and adopted in Indian educational institutions, especially at school level. Most of the researches conducted in exploring the efficacy of Smart Class, examine the effectiveness in terms of academic achievement. But then it should be kept in view that along-with academic achievement, there are several other attributes which need equal importance for their development. Scientific attitude is one such attribute.

A student with positive scientific attitude possesses open-mindedness, accepts changes readily, adapts himself to various changes, has logical problem-solving approach and employs scientific method while accomplishing various works.

II. OBJECTIVE

The present study was conducted with an objective to study the comparative effectiveness of Traditional Method and Smart Class in terms of Scientific Attitude'.

III. HYPOTHESIS

There exists no significant difference in the scientific attitude of students taught by Smart Class and Traditional Method.

IV. SMART CLASS

Similar to rich-poor divide in economics there seems to be a new divide in education; Smart class and traditional class. Smart Class is seen as the demand of the age; the new paradigm for the new age. The adoption of Smart class is a relatively recent phenomenon has evoked mixed responses. As in the case of introduction of any new technology, there is a 'wow' effect in the case of Smart class also (Beauchamp, & Parkinson, 2005). The students are often thrilled to watch animations and videos in the class which might bring life to the otherwise monotonous lecture-recite-test-lecture cycle followed in the class. The 'newness' and appeal to auditory and visual faculties help to invoke more interest in the students (<http://www.smartclass.educomp.com>). How much of this interest is translated into conceptual learning and academic achievement is a subject to be deeply studied.

The smart class uses an interactive whiteboard connected to a computer kept in the classroom or a main server in the school. The desktop screen of the computer is projected on to the whiteboard through projectors usually mounted on the ceiling or attached to the board. The teacher can choose any topic from the course content from the software and display it on the interactive board. Thus the chapters are presented lively to the students with the aid of multicolour graphs, pictures, animations, videos and 3D displays all of which can be manipulated by the teacher. For example, in a biology class a 3D display of 'beating heart' can be made compared to the heart 'drawn' on a blackboard or 'printed' in the textbook to drive the point home. In short, the smart class is a traditional class with the whole syllabus mapped to the software of a computer and the contents of which can be projected to an interactive white board

V. METHOD

Most of the schools and colleges in our country still follow the traditional method of teaching. This can be viewed as an advanced version of Indian *Gurukul* system where students lived almost like a family member at their teacher's home doing the chores and studying simultaneously. The traditional classroom may be generally defined as a schoolroom with a large chalkboard, a teacher's desk and several rows of student desks. Classes are mainly teacher centred and lecture method is often preferred. Maps, charts, models etc. along with text books act as main teaching aids. Oral tests and pen-paper test are conducted as assessment tools. Most of the time students assume a passive role as they are only asked to listen to what the teacher has to say. The stress is less on understanding the subject and all that the students are asked to do is to rote memorise or write down what has been taught.

VI. SCIENTIFIC ATTITUDE

Scientific attitude is a disposition that helps to have a logical way of looking at things without any prejudice. Barnes and Dolby (1970) explained scientific attitudes as "values and norms which is held to be binding on the man of science. The norms are manifested in the forms of prescriptions, expulsion, inclination, and sanctions. They are legitimized in terms of institutional values" (Barnes and Dolby, 1970. p3). Moore and Sutman (1970) defined scientific attitude as an opinion or position is taken with respect to a psychological aspect in the field of science. Scientific attitude consists of objectivity, verification, rational outlook, aversion to superstition, flexibility, critical approach and identification of cause-effect relationship. Scientific Attitude Scale developed by Bhagwat, (2010) was employed for collecting the data with respect to Scientific Attitude. The Scale was developed with a total sample of 350 subjects including males and females. The test-retest reliability of the test was found to be 0.94.

Smart Class being a new technological intervention in education, might have its impact on various aspects of students and teachers. Scientific attitude of the students seems to be one such variable that might be affected because most of the vivid and interesting aspects of Smart Class was reported to be in its content related to Science and Social Science. It was assumed that these 3D animations and videos might help in developing the scientific attitude of students. Hence to test the validity of this assumption, the scientific attitude was taken as a variable for the present study.

VII. SAMPLE

The study was conducted on students of middle classes, i.e., Class VI, Class VII, and Class VIII, of two unaided, private Schools affiliated to CBSE and situated in Durg District of Chhattisgarh. Due care was given to ensure that the Schools chosen had students from similar socio-cultural backgrounds. Thus two Private English medium CBSE Schools, one which has traditional method of teaching and one which employs Smart Class were selected. The medium of instruction in both Schools was English.

The group-wise, class-wise and gender distribution of the sample has been provided in Table-1.

Table-1: Group, Class and Gender-wise distribution of Sample

Smart Class Group				Traditional Class Group		
Class	M	F	TOTAL	M	F	TOTAL
VI	36	33	69	30	32	62
VII	41	40	81	38	31	69
VIII	40	50	90	32	40	72
Total	117	123	240	100	103	203

VIII. TOOL

The data for the present study was collected with respect to scientific attitude. Scientific Attitude Scale developed by Bhagwat (2006) was employed for collecting the data with respect to Scientific Attitude. The scale contains 24 items. The scale was standardized by taking a random sample from students in different institutions, teachers, professors, officers, businessmen, sportsmen and professional persons. Equal number of males and females were taken in each category for the development of the tool. The Scale was developed with a total sample of 350 subjects including males and females.

Likert Method of Summated Rating was adopted for the construction of the Scale by Bhagawat. 24 items (12 favorable and 12 unfavorable to the issue) were selected on the criterion of the discriminative value (*t*-value) more than "1.75" and showing the high degree of significance. The test-retest reliability of the test was found to be 0.94 and it possesses content validity.

The students had to indicate the degree of their agreement for each 24 statements in the questionnaire by putting a tick mark in any one of the five alternative boxes given against each statement. The options were strongly agree (S.A), agree (A), undecided (U), disagree (D) and strongly disagree (S.D).

Out of the 24 items 1,2,5,6,7,8,11,14,15,19,22,23 were favourable and 3,4,9,10,12,13,16,17,18,20,21,24 were unfavourable towards the Scientific Attitude. For favourable items the scores given were 5,4,3,2,1 respectively for strongly (S.A), agree (A), undecided (U), disagree (D) and strongly disagree (S.D) while for the unfavourable items the scores were 1,2,3,4,5 for SA, A, U, D, SD categories respectively.

The total score for each student was found out by summing up the scores for all items. Higher the score, higher is the degree of scientific attitude.

IX. PROCEDURE

The data were collected as per the instructions are given in Scientific Attitude Scale Manual and the scores were computed for the analysis.

X. INTERPRETATION & ANALYSIS

One-Way ANOVA was employed for the analysis of the data collected with respect to this objective. The result of the analysis is provided in Table 2.

Table-2: Summary of One-Way ANOVA for Scientific Attitude

Sources of Variance	Sum of Squares	df	Mean Square	F
Between Groups	232.444	3	77.481	0.659
Within Groups	51599.240	439	117.538	
Total	51831.684	442		

From Table 2, it can be seen that the F-value of 0.659 for scientific attitude is not significant. by Smart classes and of the group taught through Traditional Method do not differ significantly. Therefore the null hypothesis stated as 'The mean score of scientific attitude of the group taught by Smart classes will not differ significantly from the mean score of scientific attitude of the group taught through Traditional Method.' is not rejected.

Thus the mean score of scientific attitude of the group taught by Smart classes (Mean= 75.37) is not higher than the mean score of scientific attitude of the group taught by Traditional Method (Mean= 76.38). It can be hence said that Smart Classes and Traditional Method, are equally effective as far as scientific attitude is concerned.

XI. RESULT

The present study revealed that Smart Classes and Traditional Method are equally effective in developing Scientific Attitude of the students.

XII. INTERPRETATION AND SUGGESTION

The present study demonstrated that the Smart Class and Traditional Method are equally effective as far as scientific attitude is concerned. The result underlies the prevalence of scientific attitude in the students from an early stage.

The findings also throw light on the role of teachers in developing scientific attitude in the students irrespective of instructional strategies. Various components of scientific attitude such as objectivity, verification, rational outlook, aversion to superstition, suspension of judgment and critical approach can and need to be nurtured by teachers.

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CURRENT CONSEQUENCES OF HIGHER EDUCATION IN INDIA: ECHOES ON SOME GRAVE ISSUES

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ABSTRACT

India, even after 69 years of its independence, is far away from the goal of universal literacy. There are number of schools in the country, but they don't have proper basic infrastructure. However on a positive note, India is engaged in the use of higher education as a powerful tool to build a knowledge-based information society of the 21st Century. There has been considerable improvement in the 'Higher Education' scenario in both quantitative and qualitative terms. Indian professionals are considered among the best in the world are in great demand. This signifies the inherent strength of Indian education system. The present paper is an attempt, to identify and discuss a number of critical issues, of quantity and quality of 'Higher Education' in India and studying abroad - form its core. It is meant to be a modest contribution to assessing 'Higher Education' against the background of the current scenario and the possibilities of meeting the challenges. India has to rise to the occasion urgently and reorient its higher education system to be vibrant, competitive, meaningful and purposeful; besides, there is absolutely no substitute to quality of higher education, although the country has been faced for a long time with the serious problem of meeting the quantity needs of our society. The paper is an outcome of a review of a substantial number of secondary sources on the current scenario and challenges of higher education in India. The following are the three major areas, for instance: The Quality of Education in terms of infrastructure, teachers, and accreditation. The Affordability of Education, ensuring poor and deserving students are not denied of education and the Ethics in Education avoiding over-commercialization of education system, are to be focused to ensure that Indian Higher Education system is sustainable and meets global standards.

Keywords: Indian higher education, quantitative, qualitative, reorient, global standards.

INTRODUCTION

The 'Higher Education' (HE) system in India has grown in a remarkable way, mainly in the post-independence period, to become one of the largest organisation of its kind in the world. There has been considerable improvement in the 'Higher Education' scenario of India in both quantitative and qualitative terms.

'Higher Education' in India is seen as one of the ways to upward social mobility. However, the system has many issues of concern at present, like financing and management including access, equity and relevance, re-orientation of programmes by laying importance on health consciousness, values and ethics and quality of higher education together with the assessment of institutions and their accreditation. These issues are significant for the country, as it is now engaged in the use of higher education as a powerful tool to build a knowledge-based information society of the 21st Century.

Carl Dahlman and Anuja Utz in their article "India and the Knowledge Economy: Leveraging Strengths and Opportunities", state that, "Higher Education in India suffers from several systemic deficiencies. As a result, it continues to provide graduates that are unemployable despite emerging shortages of skilled manpower in an increasing number of sectors. The standards of academic research are low and declining.

Some of the problems of the Indian higher education, such as – the unwieldy affiliating system, inflexible academic structure, uneven capacity across various subjects, eroding autonomy of academic institutions, and the low level of public funding are well known. Many other concerns relating to the dysfunctional regulatory environment, the accreditation system that has low coverage and no consequences, absence of incentives for performing well, and the unjust public funding policies are not well recognized".

There is, indeed, a multitude of interconnected issues that India faces in its higher education system; in a summary and particularly perceptive diagnostic, one of the more thorough recent analyses of the situation describes both the scope and the seriousness of the challenge.

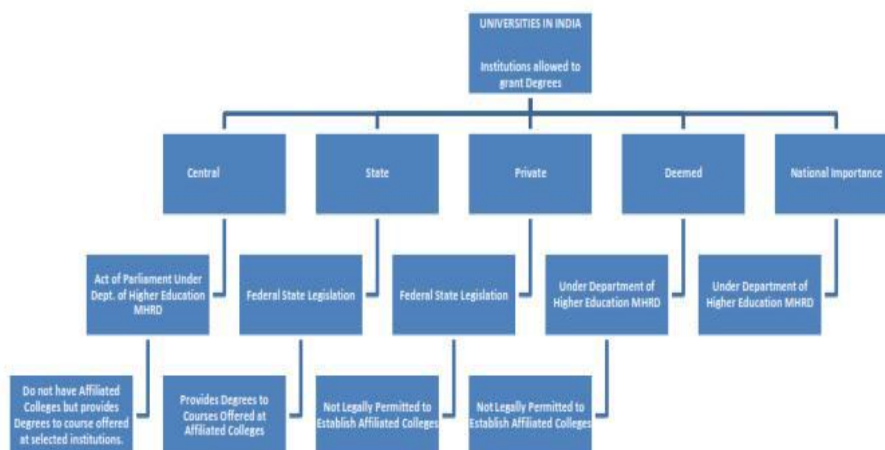


Figure: Universe of higher educational institutions in India

The Higher Educational Infrastructure in India Figure 1 shows the field of 'Higher Educational Institutions' in India. 'HE' in India is provided by five groups of institutions: Central, State, Private, Deemed Universities and Institutions of National Importance. ii There are 52 such institutions. They predominantly consist of the Indian Institutes of Technology, National Institutes of Technology and prominent Medical Colleges, including the All India Institute of Medical Science (AIIMSc). The following table shows the total number of universities in the country:

Total No-1: Universities in India (As on 25-05-2016)	
Universities	Total Number
State Universities	347
Deemed to be Universities	123
Central Universities	47
Private Universities	237
TOTAL	754

Source: <http://www.ugc.ac.in/oldpdf/alluniversity.pdf>

There are 47 central universities, 347 state universities, 237 private universities and 123 deemed universities in India as listed by the 'University Grants Commission' (UGC), the apex regulatory body for higher education. All the above university groups are legally entitled to grant degrees. State universities are the only institutions that are allowed to affiliate private as well as public colleges under them. However, these colleges are allowed to operate only within the individual federal state borders. Private colleges offering professional courses, which match specific needs of a sector or industry, are often affiliated to state universities. Affiliated colleges are called 2f and 12b colleges according to the latest figures, there are approximately 9,195 such affiliated colleges in India supported by the UGC. The federal states of Uttar Pradesh and Maharashtra have the maximum number of affiliated colleges of 1,677 and 1,185 respectively. Karnataka (766), Chattisgarh (488), Gujarat (486), Tamil Nadu (468), and West Bengal (433) too have large number of affiliated colleges under their federal state universities. While private universities do not have affiliated colleges, these universities also offer professional as well as regular courses in it.

Even after 69 years after Indian independence, we are far away from the goal of universal literacy. There are number of schools in the country, but they don't have proper basic infrastructure. But on a positive note, Indian professionals are considered among the best in the world are in great demand. This signifies the inherent strength of Indian education system. In technical education, the IIT's, and in management, the IIM's have already marked their names among the top higher educational institutions of the world. Moreover the Jawaharlal Nehru University (JNU), New Delhi; Delhi University (DU), Delhi and South Asian University (SAU), New Delhi, are also regarded as good higher educational institutions for doing postgraduate courses and research in science, humanities and social sciences. As a result, students from various parts of the world are coming today for higher education in India.

OBJECTIVES OF THE STUDY

The present paper is an effort,

- To identify and discuss a number of critical issues, of quantity and quality of Higher Education in India and studying abroad - form its core.

METHODOLOGY OF THE STUDY

The paper is an outcome of a review of a substantial number of secondary sources and personal experiences and observations on the current scenario and challenges of higher education in India.

CURRENT INDIAN HIGHER EDUCATION SCENARIO

While many reasons can be cited for the current scenario, these all boil down to decades of feudally managed, colonially modelled institutions run with inadequate funding and excessive political and bureaucratic interference. India should try to become “knowledge economy” to promote inclusive growth. The three major areas to be focused to ensure that Indian Higher Education system is sustainable and meets global standards are:

- Quality of Education - in terms of infrastructure, teachers, accreditation, etc.
- Affordability of Education - ensuring poor and deserving students are not denied of education.
- Ethics in Education - avoiding over commercialization of education system.

Academic Standards and Need of World-Class Quality Higher Education - Quantity and Quality (Q n Q):

Most observers agree that Indian higher education, the significant and impressive developments of the past few decades notwithstanding, faces major challenges in both quantitative and qualitative terms. Perhaps the clearest and boldest statement of this issue can be found in the ‘Report to the Nation 2006’ of the National Knowledge Commission (NKC) which concludes that, ‘there is a quiet crisis in higher education in India that runs deep⁶, and that it has to do with both the quantity and the quality of higher education in India’.

In any nation education is the basic necessity for the socio-economic development of the individuals and the society. In reality about 25 percent of the universities are having world class education. So, improved standard of education as first priority should be offered to the majority by the government authorities with sincere political will. Also, privatisation of higher education is absolutely necessary in a vast country like India as government alone is helpless to do so. Indian government is not giving priority to the development of standard higher education. It should aspire for the international form of higher education system. To achieve that goal, it should adopt uniform international syllabus in its educational institutions. Many national universities in USA, UK, Australia, etc. allow studies in higher education for foreign students in their countries and through correspondence courses as well. In the same way Indian universities of world class education can also offer courses of studies to foreign students taking advantage of the globalisation process.

In the way to compete globally in the 21st century, Indian ‘Higher Education’ system should adopt certain benchmarking techniques for improving instruction models and administrative procedures in universities/colleges to move forward. India needs a thorough study and evaluation of models implemented elsewhere and work out strategies to adopt such models in education system. India is yet to establish world class research facilities, recruiting profound academicians in universities/ colleges/ research institutions, etc. to sustain and forge lead in economic development. It is important to understand that countries like China, Singapore, South Korea, etc. are moving fast in investing in education system. Therefore, it is imperative that our educational institutions are equipped with the desired quality and standards which are essentials for transforming the younger workforce into productive ones. Needless to reiterate that in the higher education system focus on use of technology for effective learning by students also need to be encouraged to have cutting edge over the competitors in the globalised world.

Making Higher Education Affordable

In India, ‘Higher Education’ should be made affordable to all deserving students. The fee structure in Government owned/ sponsored institutions are economical. However, in some private sector institutions, which have the freedom to prescribe fee structure and despite broad guidelines from certain state governments, the fees are beyond the capacity of poor and deserving students. Although, the fees charged by some private colleges includes the infrastructural facilities, modern amenities, and so forth, there are still provisions of scholarships schemes, tuition-fee waiver schemes etc. by various govt. regulatory agencies like UGC, AICTE, DDE etc. All such schemes are introduced keeping in mind about the growing need of education and in parlance to the concept of “education for all”.

The University Grant Commission (UGC) of India is not only the lone grant giving agency in the country, but also responsible for coordinating, determining and maintaining the standards in institutions of higher education. Other professional councils those are responsible for recognizing courses, promoting professional institutes and providing grants to undergraduate / postgraduate programmes are: All India Council for Technical Education (AICTE), Distance Education Council (DEC), Indian Council for Agriculture Research (ICAR), Bar Council of India (BCI), National Council for Teacher Education (NCTE) Rehabilitation Council of India (RCI), Medical Council of India (MCI), Pharmacy Council of India (PCI), Indian Nursing Council (INC), Dentist Council of India (DCI), Central Council of Homeopathy (CCH) and the Central Council of Indian Medicine (CCIM).

Higher Education today, belongs to the Highest Bidder

Today in India the ambition of middle class and poor students to undergo higher and technical education is becoming a dream due to the huge amount of fees charged by the money minded private colleges. Every year the tuition fees depend upon the state and reputation of the college; besides the huge hostel fees and this is not in reach of a middle class/ lower middle class. Even for prospectus of MBA and MCA courses the private colleges are charging about Rs.500/- to Rs.1000/- depending upon the institute. If a middle class student has to apply for more than one course means he has to face financial problems. In a country where majority of people are groaning under the weight of poverty, hunger and increasing prices, the middle class Indians face difficulties in pursuing their HE. For surprise the project reports for various Post Graduate courses, M.Phil. and Ph.D. programmes are easily available for sale. This clearly shows how the HE system is commercialized. There is, indeed, a multitude of interrelated problems that India faces in its higher education system; it suffers from several systemic deficiencies, such as – the unwieldy affiliating system, inflexible academic structure, uneven capacity across various subjects, eroding autonomy of academic institutions, and the low level of public funding are well known.

At the same time, the gains to be derived from overcoming these problems and from seizing the opportunities of economic and technological development are shown by a recent 'World Bank' study to be tremendous. The time is very opportune for India to make its transition to the knowledge economy – an economy that creates, disseminates, and uses knowledge to enhance its growth and development. Measures are also needed to enhance the quality and relevance of higher education so that the education system is more demand driven quality conscious, and forward looking, especially to retain highly qualified people and meet the new and emerging needs of the economy. In one view, India's science and technology leadership, if India plays its cards right, it can become by 2020 the world's number one knowledge production centre, creating not only valuable private goods but also much needed public goods to help the growing global success.

Abroad Higher Education

Studying abroad, primarily in the United States (US) and the United Kingdom (UK) has played and continues to play a major role in expanding and enhancing the pool of qualified Indians. More than about 30,000 Indian students are pursuing higher education in the UK. In the US, the number of Indian students are about two lakh and in 2004/05 exceeded 80,000 and was twice what it was ten years earlier, having become the largest group of foreign students in the United States. Altogether, about three lakh Indian students study abroad, and it is likely that especially European efforts to attract larger numbers of talented students from abroad (as in the "Erasmus Mundus" programme) are likely to make these numbers grow further. These are impressive indicators of educational mobility, especially when one considers the educational and professional success of many of these students. Many Indian graduates of US universities have gone on to become major figures in the development of modern technology and entrepreneurs in their own right in areas like Silicon Valley.

At the same time, this large migration of young talent has a serious drawback. A significant portion of these students remain abroad after graduation, and while they often become interesting commercial partners for Indian firms (as in the case of many Indian-led companies in Silicon Valley), their academic talents and experience is largely lost to the task of advancing HE and research in India.

Furthermore, it is estimated that about 3 lakh Indians studying abroad are spending roughly \$5 to 10 Billion each year outside of India, and while some of this is covered by scholarships and assistantships of their host institutions, the overall financial drain on India's resources is considerable, and has to be added to the intellectual drain. It is not surprising that an important part of India's strategy for developing its system of HE is making at least some universities sufficiently attractive to persuade talented young Indians to remain at home, or to return. A related, but also controversial issue is the interest of a growing number of foreign universities, notably from the US, to set up programmes in India to tap into the growing demand for quality higher education. Programmes of this kind might prevent the inclination of some young Indians to study abroad; at the same time, there is a good deal of controversy over the financial and regulatory terms under which these

programmes would be permitted. A pending piece of legislation, the “Foreign Education Providers Bill”, is designed to regulate these programmes, but a bitter debate has emerged over the effect they would have on access to higher education for less fortunate members of Indian society.

12th five year plan (2012–2017) and beyond

The Twelfth Five Year Plan’s recommendation on ‘Higher Education’ from a private sector perspective and suggests strategies for quality improvement in higher education. With the objectives and proposals of the plan as the basis, the report cites that the private sector has played an active role in the growth of the sector. Private institutions now account for 64% of the total number of institutions and 59% of enrollment in the country, as compared to 43% and 33%, respectively, a decade ago. The Indian Government has also given the required thrust to the sector in its Five Year Plans. During the Eleventh Plan period (2007–2012), India achieved a Gross Enrollment Ratio (GER) of 17.9%, up from 12.3% at the beginning of the plan period.

INDIA’S HIGHER EDUCATION SYSTEM FACES CHALLENGES ON THREE FRONTS

1. Expansion

- India’s GER of 16% was much below the world average of 27%, as well as that of other emerging countries such as China (26%) and Brazil (36%) in 2010.

2. Excellence

- **Faculty Shortage:** There is 40% and 35% shortage of faculty in state and central universities, respectively.
- **Accredited Institutions:** 62% of universities and 90% of colleges were average or below average in 2010, on the basis of their NAAC accreditation.
- **Low Citation Impact:** India’s relative citation impact is half the world average.

3. Equity

- There is wide disparity in the GER of Higher Education across states and the Gross Attendance Ratio (GAR) in urban and rural areas, and gender- and community-wise.
- **Inter-State Disparity:** 47.9% in Delhi v/s. 9% in Assam.
- **Urban-Rural Divide:** 30% in urban areas v/s. 11.1% in rural areas.
- **Differences across Communities:** 14.8% for OBCs, 11.6% for SCs, 7.7% for STs and 9.6% for Muslims.
- **Gender Disparity:** 15.2% for female’s v/s. 19% for males.

Indian higher education - Road ahead

India’s HE system can be projected to be more transparent and inclusive by the end of Twelfth Plan period, provided the Government is able to create an enabling regulatory environment and put in place healthy implementation, monitoring and quality assurance mechanisms. The Ernst & Young LLP is a Limited Liability Partnership, registered under the Limited Liability Partnership Act, 2008 in India suggests the following strategies to be adopted:

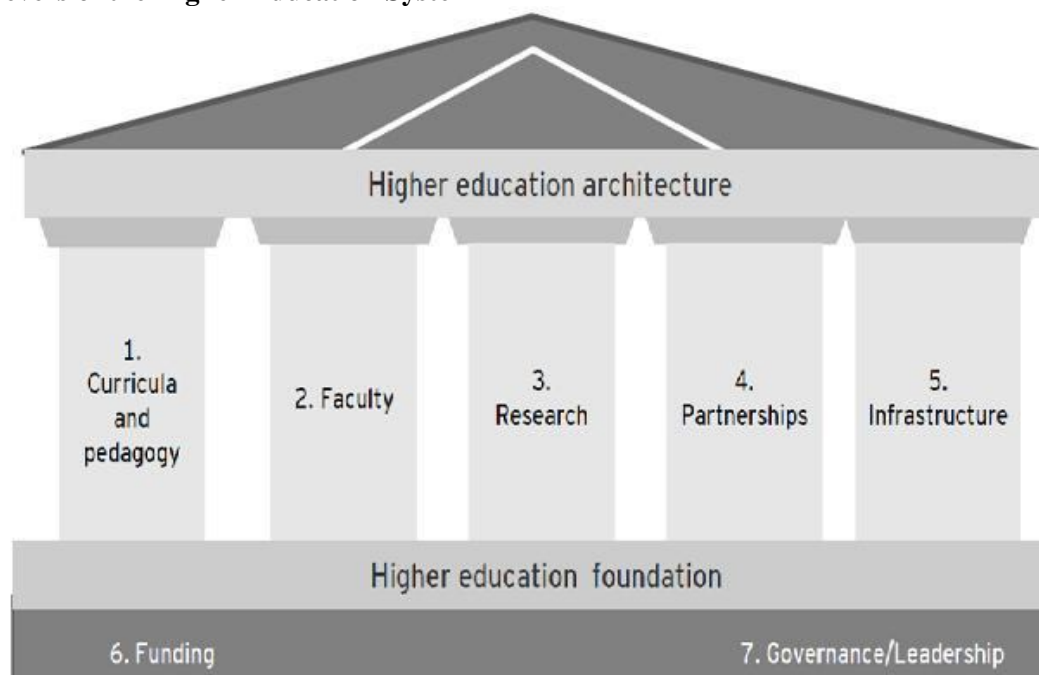
- **Merit-based Student Financing:** This should ensure admissions to meritorious students independent of financial background
- **Internationalisation of Education:** This would entail aligning different aspects of education (curriculum, faculty, etc) to international standards
- **Enabling a Research Environment:** This would involve creating adequate means of research funding and practical application of research
- **High Quality Faculty:** The need of the hour is to create a conducive environment and provide incentives to attract and retain high quality faculty
- **Improved Technology for Education Delivery:** Leveraging technology for enhancing the teaching learning experience will ensure better outcomes
- **Employability:** Making education-industry relevant and practical would be the right way to ensure a highly employable talent pool.

Vision 2030: where will Indian higher education stand?

It will be a ‘Tough Road Ahead’. Academically and institutionally, India has moved beyond traditional reticence and leaders are no longer discomfited by risky experimentations. Against such a backdrop there is more room to grow with equity and excellence. By 2030, India will have the largest population in the world, in

the higher education age bracket. Increasing urbanisation and income levels will drive demand for higher education. India's economy is expected to grow at a fast pace; rapid industrialisation would require a gross incremental workforce of about 250 million by 2030. India could potentially emerge as a global supplier of skilled manpower. Given the expected socio-economic scenario in 2030, India would need a robust higher education system that can deliver on multiple imperatives. A differentiated system of institutions with differing objectives and focus areas would be critical for achieving the proposed goals.

To achieve the envisioned state in 2030, transformational and innovative interventions would be required across all levers of the Higher Education System



TO SUM UP

The new challenge before the country at the beginning of the twenty first century is to become a developed society by the year 2020, which requires that not only a vibrant economy driven by knowledge has to be ushered in soon, but also a new society where justice and human values prevail has to be created. Moreover, challenges in higher education are no longer only nation centric. They have already attained global dimensions, particularly after trade in services has been brought under the purview of the WTO regime, with the explosive growth of knowledge in the past century and with the development of handy tools of information and communication technologies as well as of other scientific innovations, competition has become a hallmark of growth all over the World. As a result, knowledge is not only going to be the driver of Indian economy, but also, it is going to permeate into all the strata of Indian society for a better quality of life and living conditions. Therefore, India has to rise to the occasion urgently and reorient its higher education system to be vibrant, competitive, meaningful and purposeful; besides, there is absolutely no substitute to quality of higher education, although the country has been faced for a long time with the serious problem of meeting the quantity needs of our society. It is, therefore, essential that a careful balancing of the two is given priority to meet the twin requirements of the society in the foreseeable future.

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EDUCATION IN MUSLIM SOCIETY

Lalon Sarkar

ABSTRACT

Education is the single most important instrument for social and economic transformation. A well educated population, adequately equipped with knowledge and skill is not only essential to support economic growth, but is also a precondition for growth to be inclusive since it is the educated and skilled person who can stand to benefit most from the employment opportunities which growth will provide. The Constitution of India intended to assure Muslims status and opportunities with other citizens to accelerate the process of educational and socio economic justice. Muslims, the largest minority community in the country, constituting 13.4 per cent of the population, are seriously lagging behind in terms of most of the human development indicators. While the perception of deprivation is widespread among muslims, there has been no systematic effort since independence to analyze the condition of religious minorities in the country (Sachar Committee Report, 2006). According to IOSR Journal Of Humanities And Social Science (IOSR-JHSS) the educational status of Muslims in India is not satisfactory and needs special attention. It is found that more than half i.e., 53.95 per cent of the total population of the Muslims in India is illiterate with 17.48 per cent literate people just for the name sake only. Technical education or higher education is not enough among the muslims. From the results it is also clear that Muslims who accounts for 13.46 per cent of the total population of the nation show lowest literacy rate, lowest percentage of higher education and lowest degree of female education. The National Policy on Education (NPE) 1986 and revised in 1992 states "Some minority groups are educationally deprived or backward. Greater attention will be paid to the education of these groups in the interest of equality and social justice." Specially designed programmes would be implemented to ensure accelerated progress in addition to the ongoing programmes of Education Department for improving the educational status of such minority groups. There is also a common belief that Muslim parents feel that education is not important for girls and that it may instill a wrong set of values. Even if girls are enrolled, they are withdrawn at an early age to marry them off. This leads to a higher drop-out rate among Muslim girls. Our interactions indicate that the problem may lie in non-availability of schools within easy reach for girls at lower levels of education, absence of girl's hostels, absence of female teachers and availability of scholarships as they move up the education ladder. So we need to change the our social systems and also the theme of some educational techniques for the betterment of Muslim education.

Key words: Muslim, society, opportunity, minority, literate, ladder .

INTRODUCTION

Muslims, the largest minority community in the country, constituting 13.4 per cent of the population, are seriously lagging behind in terms of most of the human development indicators. While the perception of deprivation is widespread among muslims, there has been no systematic effort since independence to analyse the condition of religious minorities in the country (Sachar Committee Report, 2006). Today, globally Muslims show the lowest literacy rate. A study, conducted by a committee comprising of the former pro-vice-chancellor of Aligarh Muslim University, K M Bahavuddin, among others, says, "We started with the impression that the situation of Muslims is comparatively better [in Kerala] but after collecting the data, we have come to the conclusion that their situation in Kerala has also been deteriorating in the last 20 years". Studies on human cognitive development have established that literacy enhances the critical faculties of individuals and enables them to reflect on the existential reality in which they have been placed (Katiyar, 2008). Thus education of any community with no exception to Muslims will not only be helpful for their development but also for the development of the whole nation. Human capital theory suggests that just as a physical capital (machines) augments a person's economic productivity, so human capital acquired through education improves the productivity of individuals. Studies on the Sources of economic growth demonstrate persuasively that education plays a major role as a factor in rise of output per worker.

OBJECTIVES

The major objectives of this paper are: analysing the state wise educational status of the Muslims in India; comparing the educational status of Muslims with the educational status of other religious communities and to find out the relationship between the educational status of Muslims with their socioeconomic development.

FINDINGS

Administrative Divisions	Unclassified Literates	Primary Literates	Secondary Literates	Technical and Non technical Diploma Holders	Graduates and above	Literacy Rate	Percentage of Muslims to total Population
INDIA	17.489	21.187	7.446	0.198	1.728	48.05	13.43
Jammu & kashmir 1	10.93	16.985	9.496	0.039	2.558	40.01	66.97
Himachal Pradesh	15.46	22.776	8.555	0.2	1.253	48.24	1.97
Punjab	13.156	20.196	8.28	0.107	1.112	42.85	1.57
Chandigarh	14.409	26.243	9.714	0.141	2.625	53.13	3.95
Uttarakhand	17.408	16.943	4.54	0.113	1.279	40.28	11.92
Haryana	14.129	12.368	3.107	0.131	0.425	30.16	5.78
Delhi	15.357	25.256	9.912	0.144	3.609	54.28	11.72
Rajasthan	20.053	19.012	4.503	0.054	1.112	44.73	8.47
Uttar Pradesh	15.229	16.146	4.996	0.088	1.355	37.81	18.5
Bihar	13.741	12.91	4.471	0.151	1.479	32.75	16.53
Sikkim	19.602	21.422	7.006	0.182	1.963	50.18	1.42
Arunachal Pradesh	13.852	21.2	9.412	0.276	2.162	46.90	1.88
Nagaland	10.887	19.177	7.553	0.074	1.277	38.97	1.76

The new growth theories in Economics place education and human resource development at the centre of their explanation for long term economic growth. Education is not just a social amenity; it is the foundation of socio-economic development of a country.

Table-1: State wise Educational status Among the Muslims, India, 2001

It is revealed from the fig 2 that muslim literacy rate varies from 75.97 per cent in Kerela to 30.16 per cent in the state of Haryana in 2001. The whole range is divided into five groups. These groups along with their numerical values are as follows: Very High (70 per cent and above), High (60 per cent to 69.99 per cent), Medium (50 per cent to 59.99 per cent), Low (40 per cent to 49.99 per cent) and Very Low (below 40 per cent). The very high literacy rate of muslims is observed only in the two southern states namely, Kerela and Tamilnadu. The category of high level of literacy rate of muslims is occupied by the states of Gujrat, Maharastra, Goa, Chattisgarh and Tripura. Medium level of literacy is recorded in Madhya Pradesh, Orrisa, Andhra Pradesh, and Karnataka. Low level of literacy is observed mainly in the upper hilly States of Jammu and Kashmir, Himachal Pradesh, Punjab, Uttarakhand and one arid state. However, the other states of the same category are Rajasthan, Jharkhand, West Bengal, Sikkim, Arunachal Pradesh, Mesoram and Manipur. Very low level of literacy among the muslims is observed in the form of a belt running from west to east covering the states of Haryana, Uttar Pradesh, Bihar, Meghalaya, Assam and Nagaland.

Table-2: Educational Status of Muslims in Relation to Other Religious Communities

Religious Groups	Per cent of total population	Literacy Rate	Below Primary Literacy Rate	Primary Literacy Rate	Secondary Literacy Rate	Technical and non Technical Diploma holders	Graduates and above	Sex Ratio	Male Literacy Rate	Female Literacy Rate
	100.00	54.51	16.04	23.04	11.38	0.39	3.66	932	63.24	45.15
Hindu	80.46	54.92	15.88	23.16	11.63	0.39	3.85	930	64.22	44.92
Muslim	13.43	48.05	17.49	21.19	7.45	0.20	1.73	936	54.99	40.63
Christian	2.34	69.45	16.14	27.56	18.18	1.52	6.05	1009	72.76	66.17
Sikh	1.87	60.56	12.53	26.01	17.27	0.54	4.20	892	65.03	55.56
Budhist	0.77	62.16	18.60	26.29	13.52	0.22	3.54	952	71.05	52.83
Jain	0.41	84.09	11.51	23.64	30.03	0.87	18.05	940	86.67	81.35
Other Religions	0.65	38.57	13.80	16.91	6.09	0.10	1.68	992.36	49.78	27.27

From the above table it is clear that more than eighty per cent of the total population belongs to Hindu community. Muslims accounts for 13.43 per cent of the total population whereas, a little less than ten per cent of the total population is constituted by Christian, Sikh, Budhist, Jain and other religious communities. Literacy rate is highest (84.09 per cent) among the jains who only accounts for less than half per cent of the total population; Christian occupies the second position followed by Budhist, Sikh, Hindu and the last Muslims in this order. A detailed analysis of the concerned table shows that below primary literacy rate is highest among the muslims and secondary, technical and higher education is lowest among the muslims. Apart from it male female literacy gap is also highest among the muslims. While analyzing the sex ratio, it is found that muslims lie that second last position they come only after Hindus; and Christians occupies the top most position as far as sex ratio is concerned.

CONCLUSION

Thus, it can safely be said that the educational status of Muslims in India is not satisfactory and needs special attention. It is clear from the Tab 1 that more than half i.e., 53.95 per cent of the total population of the Muslims in India is illiterate with 17.48 per cent literate people just for the name sake only. Technical education or higher education is meager among the muslim population. From the results it is clear that more than eighty per cent of the total population belongs to Hindu community. Muslims accounts for 13.43 per cent of the total population, whereas, a little less than ten per cent of the total population is constituted by Christian, Sikh, Budhist, Jain and other religious communities. Literacy rate is highest (84.09 per cent) among the jains who only accounts for less than half per cent of the total population; Christian occupies the second position followed by Budhist, Sikh, Hindu and the last Muslims in this order. Primary literacy rate is highest among the muslims and secondary, technical and higher education lowest among the muslims. Apart from it male female literacy gap is also highest among the muslims.

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IMPORTANCE OF TEACHERS' ROLE IN INCLUSIVE EDUCATION

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ABSTRACT

Every child is inexhaustible source of human resource. If they are provided with proper care and treated with special needs according to their disability or without disability, they may be developed and improved with knowledge, ability and skill by which they may become the important part of the society. In Inclusive Education, special need is a term used in clinical diagnostic and functional development to describe individuals who requires assistant for disabilities that may be medical, mental or psychological. So, for developing those children in all respect, there is a great role and responsibility of their parents, members of the family, society, country and ultimately of the teachers. Those children should be brought to the care of trained and skilled teachers of Inclusive Education where all children are learning under one umbrella. After thorough investigation about those children, required curriculum should be constructed and infrastructure should be provided in the school thereof. Teachers always should be the friend, guide and philosopher. In this case, no such children should be called in the term 'handicapped'. Instead of that they should be called 'physically challenged'. Teachers should take care of those children considering their needs for developing knowledge, skill and expression of talents. If necessary, for preparation of studies and motivation, special remedial classes should be provided for, so that they can acquire self-confidence and power to combat with the obstacles they face in their lives. They should be allowed to do small parts of a big works divided in groups. Teachers will teach them clearly and easily with long process. Teachers' role is not ended in the classroom; they have responsibility to stretch out their hands for co-operation in every phase of their lives in every opportunity outside the classroom or educational institution. They should organize seminars for achieving consciousness among the parents and others for treating those children with special needs. In this continuous process, under the umbrella of Inclusive Education, all those children may be able to contribute the society and become human resource.

INTRODUCTION

The invention and introduction of the special system of education was not happened all on a sudden. Behind that, there was a long history of evolution. The pioneer of that great revolution for freedom of total mankind of the world was the French Revolution. The main challenge of that revolution was to have freedom of people, to establish feeling of respect and fraternity among the people all over the world. Being the human being, every man has his own dignity and he has the right of free thinking and free speaking. From the result of that revolution and afterwards by dint of long revolution of the people, today, we have established our individual dignity, equality and right to live with education for all and other fundamental requirements. Now, man is being treated as human resource.

As a result, all over the world, every Government has compelled to introduce and implement Inclusive education for teaching all the children including the children with special needs who are physically challenged under the umbrella of an institution. There, the children disabled requiring care with special needs, the play therapy, cognitive behavior therapy and other therapy useful for them has been arranged for by which they may acquire self confidence and awareness and during the course of time they may be able to contribute the society, participate in the activities of National Productivity being a human resource. In this respect, considering the situation, Vocational Education like Computer Education, tailoring, IT in different trades, handicraft and others has been introduced in most of the higher secondary schools. Even, arrangement of their rehabilitation and placement in the main stream of the society is considered by the Government. In India 20.42 lakh children aged 0-6 year are disable according to- census report of India Government, 20011 and over 150 million children worldwide have a disability, according to CRIN.

INCLUSIVE EDUCATION

Now, in the present education system, Inclusive Education is a well discussed matter. But, what does it mean? It means that all students attend and are welcomed by their neighborhood schools in age-appropriate, regular classless and are supported to learn, contribute and participate in all aspects of the life of the school. Inclusion, in education refers to the model wherein special needs students spend most or all of their time with non-special (general education) needs students. Inclusion is about the child's right to participate and the school's duty to accept the child. Every child has potential to contribute the society and to participate to a certain extent to the activities of National Productivity whether they are nondisabled or disabled with special needs that means

physically challenged. Child with special needs (CWSN) is to be placed always in the main stream of education with all other nondisabled students from the pre- Primary, Primary, Upper Primary, and higher Secondary level and onward where they should be spared with teaching of proper infrastructure by the trained and skilled teachers. In order to ensure the Inclusive education we should be attentive about some essential matter like Curriculum, sufficient and trained teachers, proper infrastructure, arrangement of money remuneration for the teachers involved with teaching of CWSN, grow awareness among the parents as well as all the members of the society and among the no-teaching staff of the educational institution. Apart from the above, every Government should take planning for reducing of born or appearing of children with disabilities because it is observed by the experts that out of many causes conflict and poverty continue to cause high rate of disabilities.

EDUCATION FOR ALL (EFA)

The fundamental right of the children with developmental disabilities to receive an education was the first issue to mobilize the community living movement in the 1050s. In India, the right to Free and Compulsory Education Act or Right to Education Act, 2009 is included in the Constitution to provide free and compulsory education for all children in the age group as appropriate. Therefore, all the children who are disabled or physically challenged, even among them who are not attending schools due to different causes should be put in to the main stream of education system of the country so that they are not deprived from the education as per RTE. Those children, in course of time, if treated properly will certainly overcome the barriers they usually face and become an educated, confident, skilled and responsible member of the family as well of the society and able to participate in different social program being a complete man.

DUTY OF THE PARENTS OR GUARDIANS

1. Parents or guardian should accept the disabilities of the children with the challenge and they should take proper care according their disabilities and provide the opportunity of proper education for becoming a complete man.
2. They should find out the mode or system of teaching by which such children may learn best.
3. Those children should be motivated and praised when they work comparatively good.
4. They should find out the trend on any subject of the children and take care about that.
5. They should allow those children to participate in domestic work because in that case self confidence is grown and increased.
6. It is important and necessary to the parents or guardians to make connected regularly with the educational institution where their children are sent for learning.

ROLE OF TEACHERS FOR CHILDREN WITH SPECIAL NEEDS (CWSN)

1. Identification of the children with disabilities in the classroom.
2. Developing positive attitude between normal and disabled children.
3. Placing the children in the classroom places so that they feel comfortable and are benefited by the classroom interaction.
4. Preparation of teaching aids which helps disabled children
5. Awareness about learning of the disabled or physically challenged students.
6. Knowledge about the barriers of the CWSN clearly and time to time examination of the physical, mental and environmental condition of those children.
7. If necessary, consultation with the parents or guardians, doctors and psychologist if there are any difficulties lying with those children in spite of taking action on their disablement.
8. To concentrate over the preventive measures of learning, if any, and provide advice thereof.
9. Teaching being very closely for proper and easy identification of their work and barriers.
10. Generally, Lesson plan is prepared for considering the need of all students. But, sometimes, problems of some disable students show different. So, separate lesson plan should be prepared for them.
11. To inspire those children and give the opportunity of practice as good as possible.
12. Awareness about all the ways of helping for teaching and about Teaching and Learning Materials (TLM) e.g. books, instruments, special type of pen and pencil and its support for holding, computer application etc.

13. Evaluation of the learning of those students during teaching.
14. Maintenance of regular contacts with the parents or guardian for progress and provide inspiration of those children.
15. Taking care to build self confidence of this CWSN and motivate them regularly.
16. Instruction to those students for doing a big work in group dividing it smaller parts and in this respect help is be provided both in verbal and in writing.
17. Encouraging in co-operative teaching and consciousness about the environment and society of the neighborhood.
18. Sparing of much more time and co-operation to those students.
19. Use of multi-perceptible teaching system.

With a view to provide teaching in proper way to those children by the untrained teachers in service Government has taken different plans. In the recommendation of National Commission on Teacher, 1983-84, it was empathized upon the arrangement of training of teachers in service. Afterwards, in 1990, Rammurti Committee recommended for that purpose in their report. They suggested for introduction of Refresher Course useful to the teachers for identification of weakness and problems of the teachers in service and taking necessary steps according to their requirements. As per recommendation of National Teachers' Commission, 38 nos. IASE (Institute of Advanced Studies in Education) have been established. Moreover, DIET (District Institute of Education and Training)-500 nos. and SCERT (State Council of Educational Research and Training)- 30 nos. and Block and Cluster Resource Centre have been established. It is stated in the infrastructure of National Curriculum that the teachers serving in IASE and DIET may be used for training of the teachers in service in the school level. SCERT will make plans and be in the leadership and control. Besides, Block and Cluster Resource Centre may also play mentionable role for training of the teachers working under Inclusive Education and untrained teachers in service.

SOME IMPORTANT INSTRUCTIONS TOWARDS TEACHING AND LEARNING OF CWSN

There may be different system of teaching of different disable children. In this case, teachers may use different strategy of teaching.

1. Providing of clear, easy and summed up Instructions.
2. The letters of Instruction written on black board would be bigger in size.
3. Proper use of different languages and letters.
4. In black board, the subject and instructions should be written clearly and keep it until the students may have the opportunity of reading and note to their exercise books.
5. Use of chalks in different colours, charts, picture, posters etc.
6. Use of recitation of different rhymes.
7. Slow but clear and sound presentation.
8. Providing of opportunity of working in groups and asking questions.

CONCLUSION

In this context, everybody who are involved to provide education to all specially to the children disabled with special need that provision of quality education is to be ensured thinking the present and future need of the life as well as society i.e. how well children learn and the extent to which their education translates into a range of personal, social and developmental benefits. Goal 6 of the Dakar Framework for Action (2000) emphasizes the need of a stimulating pedagogy. It is the teaching and learning process that brings the curriculum to life that determines what happens in the classroom and subsequently the quality of the learning outcomes. Therefore, Government, Teachers, Educational Institutions, society, parents altogether should think over the issue sincerely to achieve the goal of successful implementation of Inclusive Education for the greater interest of the present and future of those children.

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ROLE OF PARENTS FOR PROMOTING THE DEVELOPMENT OF CHILDREN OF ELEMENTARY SCHOOLS

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ABSTRACT

This area of parent involvement is one of the most controversial. Surveys show that most parents would like to play a more active role in this type of involvement, whereas most school administrators and teachers exhibit great reluctance to encourage parents to become partners in governance. Parent involvement in children's learning is positively related to achievement. Parents can be instrumental in many ways. Like - A. Identifiable patterns of family life contribute to a child's ability to learn in school. Family practices are listed here under three headings like-i. The parent/child relationship - Daily conversation about everyday events; expressions of affection. Family discussion of books, newspapers, magazines, television programmes etc. ii. Routine of family life- Formal study time at home; A daily routine that includes time to eat, sleep, play, work, study and read. iii. Family expectations and supervision - Priority given to schoolwork and reading over television and recreation; Expectation of punctuality etc. B. Children benefit from a parent/child relationship that is verbally rich and emotionally supportive - Language development begins at birth and centres on the child's interactions with his or her parents. Several parent/child interactions are important in preparing the child to learn in school: talking to the infant, listening attentively to the child, reading to children and listening to them read, talking about what the parent and the child are reading, storytelling, daily conversation and letter writing. C. The routine of family life - Children do best in school when parents provide predictable boundaries for their lives, encourage productive use of time, and provide learning experiences as a regular part of family life. D. Parents set standards for their children, and these standards determine what children view as important - Parents of good learners also place importance on verbal interaction; they question their children to prompt further thought and expression, they challenge them to use new words, and they expect them to speak with precision. E. School/home communication - Children benefit from communication between their parents and their teachers that flows in both directions. Parental involvement also includes involvement with their own children, involvement with parents of other children, and involvement with their children's school. F. Parent education - It includes home visits by parent educators, group sessions led by previously trained parents, and workshops and courses taught by experts. The home-visit model is typically directed at parents of pre-school children and includes explanations of the child's developmental stage and examples of appropriate parent-child activities. G. Family/school relationships- It because families vary in their relationship to schools, schools must use different strategies to engage all families in the learning lives of their children. H. Families and communities - When the families of children in a school associate with one another, social capital is increased, children are watched over by a larger number of caring adults, and parents share standards, norms and the experiences of child-rearing. The investigator has tried to study the role of parents for promoting the development in different aspects in case of children of elementary schools.

Keywords: Development, elementary school, encourage, child-rearing, benefit, expectation, communication, relationship, experience, norms.

INTRODUCTION

It is no wonder that parent involvement with the schools has become a major educational issue in the 1980s. This is an era of increasing concern about the quality of education in this country. States are taking a greater role in monitoring and maintaining academic standards. Communities are ever more watchful of the expense of public education. Local schools are concerned about continuing to provide high-quality teaching and other services with dwindling resources. And parents want assurance that their children will receive adequate preparation to lead rewarding adult lives. Is parent involvement a valuable, if largely untapped, resource for schools struggling to provide state of the art instruction with diminishing funds--a way to instill pride and interest in schooling, increase student achievement, and enhance a sense of community and commitment? Or is it one more responsibility to add to overburdened teachers and administrators--or even a threat to the autonomy and professionalism of the schools?

Parents can support their children's schooling by attending school functions and responding to school obligations (parent-teacher conferences, for example). They can become more involved in helping their children improve their schoolwork--providing encouragement, arranging for appropriate study time and space, modeling desired behavior (such as reading for pleasure), monitoring homework, and actively tutoring their children at

home. Outside the home, parents can serve as advocates for the school. They can volunteer to help out with school activities or work in the classroom. Or they can take an active role in the governance and decision making necessary for planning, developing, and providing an education for the community's children.

OBJECTIVES

The paper overwhelmingly demonstrates that parent involvement in children's learning is positively related to achievement. Further, it shows that the more intensively parents are involved in their children's learning, the more beneficial are the achievement effects. This holds true for all types of parent involvement in children's learning and for all types and ages of students.

Looking more closely at the research, there are strong indications that the most effective forms of parent involvement are those which engage parents in working directly with their children on learning activities in the home. The paper also shows that the earlier in a child's educational process parent involvement begins, the more powerful the effects will be. We have also found that the schools with the most successful parent involvement programs are those which offer a variety of ways parents can participate. Recognizing that parents differ greatly in their willingness, ability, and available time for involvement in school activities, these schools provide a continuum of options for parent participation. It also to find out the language development, begins at birth and centres on the child's interactions with his or her parents. Several parent/child interactions are important in preparing the child to learn in school: talking to the infant, listening attentively to the child, reading to children and listening to them read, talking about what the parent and the child are reading, storytelling, daily conversation and letter writing.

FINDINGS

Research on the development of parent involvement in promoting the children life pattern which constitute a school community leans heavily on a long body of sociological literature on communities of all types. Recently, however, primarily within the past decade, a strand of this sociological research has focused on schools as communities, and we are arriving at a set of understandings that may soon achieve the status of theory. My findings are discussed as follows

1. The curriculum of the home: Research on the curriculum of the home isolates specific patterns of family life that correspond with a child's success in academic learning. Specifically, studies have positively linked certain family practices with a child's learning. These family practices are listed here under three headings :-

A. THE PARENT/CHILD RELATIONSHIP

- i. Daily conversation about everyday events.
- ii. Expressions of affection.
- iii. Family discussion of books, newspapers, magazines, television programmes.
- iv. Family visits to libraries, museums, zoos, historical sites, cultural activities; and
- v. Encouragement to try new words, expand vocabulary.

B. ROUTINE OF FAMILY LIFE

- i. Formal study time at home.
- ii. A daily routine that includes time to eat, sleep, play, work, study and read.
- iii. A quiet place to study and read; and
- iv. Family interest in hobbies, games, activities of educational value.

C. FAMILY EXPECTATIONS AND SUPERVISION

- i. Priority given to schoolwork and reading over television and recreation.
- ii. Expectation of punctuality.
- iii. Parental expectation that children do their best.
- iv. Concern for correct and effective use of language.
- vi. Parental monitoring of children's peer group.
- vii. Monitoring and joint analysis of televiewing ; and
- viii. Parental knowledge of child's progress in school and personal growth.

2. The routine of family life: Studies find that the routine of family life, the daily interactions between parents and children, the types of hobbies and recreational activities the family enjoys, all have a bearing on children's readiness for school learning. When children from low-income families do things with their parents on weekends, have dinner as a family and engage in family hobbies, they make up for some of the disadvantages of poverty, and their school performance improves. How time is used is an important consideration in the homes of high-achieving students. While the parents encourage their children's independence, they do so with a constant eye on how successfully their children are managing their freedom. They praise productivity and accomplishment. They challenge their children to use time wisely. Children in these homes are accustomed to calendars, schedules, grocery lists, 'to do' lists, household chores, reading, studying and playing mentally challenging games. One study found that high-achieving students spend about twenty hours each week outside of school in constructive learning activities, often with the support, guidance or participation of their parents. These activities might include homework, music practice, reading, writing, visiting museums and engaging in learning activities sponsored by youth organizations.

3. Family expectations and supervision: Studies find that children do better in school when their parents set high but realistic academic standards for them. Parents of good learners also place importance on verbal interaction; they question their children to prompt further thought and expression, they challenge them to use new words, and they expect them to speak with precision. Families with high expectations for their children's school performance also provide consistent guidance and support for schooling. They are aware of their children's progress and interested in the academic route their children are plotting. Researchers find that a strong work ethic contributes to success in school. Also important is a family attitude that accomplishments result from effort rather than innate ability or 'playing the system'. Further, children benefit when their parents are attentive to their whereabouts, know their friends, monitor their televisioning, and maintain contact with their teachers.

4. Homework: Homework, properly utilized by teachers, produces an effect on learning three times as large as family socio-economic status. Homework is effective in student mastery of facts and concepts as well as critical thinking and formation of productive attitudes and habits. Homework has compensatory effects in that students of lower ability can achieve marks equal to those of higher ability students through increased study at home. Homework is also a significant factor in differences in achievement test scores. In addition to its positive effect on academic achievement, homework:

1. establishes the habit of studying in the home.
2. prepares the student for independent learning.
3. can be a focal point of constructive family interaction.
4. allows the parents to see what the student is learning in school.
5. competes with televisioning rather than with constructive activities in most homes.
6. extends formal learning beyond the school day.
7. enables the student to reflect on material and become more intimately familiar with it than is often allowed in a busy, sometimes distracting school setting; and
8. provides the teacher with a frequent check on the student's progress.

5. School/home communication: Students do best when parents and teachers understand each other's expectations and stay in touch with one another regarding the child's learning habits, attitudes toward school, social interactions and academic progress. The school, through the leadership of its administration and the school's policies and programmes, can create an atmosphere conducive to communication and provide convenient opportunities for communication. Teachers are most inclined to initiate communication with parents when they perceive that administrators value such communication, their colleagues are supportive of parental involvement, and the parents seem appreciative of the outreach. Communication between the school and the home is most effective when it flows in both directions, and schools should distinguish between efforts to inform parents and opportunities to communicate with parents.

6. Parental involvement: 'Parental involvement' is an all-encompassing and imprecise term that includes everything from the parent's child-rearing practices at home to the parent's participation in events held at school. Included in the child-rearing practices may be those aspects of parenting that have particular application to the child's performance in school (the curriculum of the home), as well as more general practices of feeding, nurturing and caring for children. Included in the category of events held at the school would be everything

from attendance at athletic competitions to participation in parent/teacher conferences and completion of extensive parent education courses. A commonly accepted typology of parental involvement includes the following categories: i. parenting (caring for and nurturing the child); ii. communicating (maintaining a flow of information between parent and school); iii. volunteering (helping at the school); iv. learning at home (supporting and supplementing the instruction of the school); v. decision-making (part of the school's decision-making structure); and vi. collaboration with the community at large (representing the school in partnerships with other organizations).

7. Parent education: Parent education includes home visits by parent educators, group sessions led by previously trained parents, and workshops and courses taught by experts. The home-visit model is typically directed at parents of pre-school children and includes explanations of the child's developmental stage and examples of appropriate parent-child activities. Parent group sessions enable parents to learn in a small-group setting, carry out activities with their children between sessions, and discuss their experience with other parents. When led by other parents rather than teachers or experts, these parent groups are collegial and non-threatening. Workshops and courses conducted by experts—educators, psychologists or paediatricians, for example—have the advantage of research-based content and access to professional knowledge. Research shows that programmes that teach mothers to improve the quality of cognitive stimulation and verbal interaction produce immediate effects on the child's intellectual development. When parents learn systems for monitoring and guiding their children's out of-school time, the children do better in school. Schools that teach parents ways to reinforce school learning at home find that students are more motivated to learn and attend school more regularly. Parent education programmes enhance teacher/parent communication and the attitude of parents toward the school. Efforts to encourage family reading activities result in the children's improved reading skills and interest in reading. Programmes that include both parents and children are more effective than programmes that deal with only the parents. Home-visit programmes are most effective when combined with group meetings with other parents.

8. Family/school relationships: It may be viewed as corresponding to three historical phases of economic development. In the first phase, typical of agricultural societies, but also of some families in all societies, the family lives at a subsistence level, relying on children for work (or, more commonly in modern States, for emotional comfort). In this situation, the family may limit the educational potential of the child, and the school's role is to expand the possibilities for the child's development. In the second phase, common to the industrial economy, the goals of the family and the school converge, with both institutions seeking the improvement of the child's ultimate economic situation. In the third phase, that of post-industrial affluence, parents find the demands of child-rearing competing with the pursuits of their adult lives. They expect the school to fill the void. From a relevant study (Suresh Kumar N Vellymalay, School of Distance Education, University Sains Malaysia, Penang, 2011) it was showed that :-

Table-1: Parents' education level

Education level	Frequency	Percentage
No formal education	7	4.7
Completed primary	21	14.0
Did not complete secondary	39	26.0
Completed secondary	68	45.3
Cert/Diploma	8	5.3
First Degree	6	4.0
Masters/PhD 7	1	0.7
Total	150	100

Table 1 presents the education level of the parents in a study. Analysis shows that 90.0% of the parents only attained secondary education or less. Almost half of the parents (45.3%) completed secondary education, and 26.0% of the parents managed to go to secondary school but did not complete their secondary education. Approximately 14.0% of the parents only completed primary education, and 4.7% of the parents never went to school. Only 10.0% of the parents in this study completed their tertiary education. As can be seen from Table 1, 90.0% of the parents had no professional qualifications. It is apparent from this table that 4.7% of the parents had no formal education. Moreover, even though 45.3% parents completed their secondary education, there was no evidence that they passed their examinations.

Table-2: Strategies of parental involvement in children's education

Strategies	Strongly disagree (%)	Disagree (%)	Disagree /Agree (%)	Agree (%)	Strongly agree (%)	Mean	Sd.
Discussion of future planning	1.3	7.3	5.3	36.0	50.0	4.26	0.95
Discussion of school activities	0.7	7.3	5.3	46.0	40.7	4.19	0.89
Identifying learning patterns	1.3	10.0	16.0	42.0	30.7	3.91	0.99
Identifying academic problems at school	3.3	10.0	9.3	40.7	36.7	3.97	1.08
Identifying academic problems at home	0.7	6.7	10.0	35.3	47.3	4.22	0.93
Assisting with homework	4.0	15.3	9.3	34.0	37.3	3.85	1.19
Identifying homework	1.3	6.7	15.3	38.0	38.7	4.06	0.96
Guidance in examination preparation	1.3	10.0	18.7	36.7	33.3	3.91	1.02
Monitoring academic performance at school	1.3	8.0	15.3	36.7	38.7	4.03	0.99
Motivation	0.7	6.0	9.3	32.7	51.3	4.28	0.91
Time limits	1.3	9.3	12.0	46.0	31.3	3.97	0.97
Getting reading materials	3.3	8.0	16.0	32.0	40.7	3.99	1.09
Tuition	8.7	15.3	9.3	26.0	40.7	3.75	1.36
Monitoring activities	2.0	10.7	6.7	38.7	42.0	4.08	1.05

As can be seen in Table 2, there are 10 strategies with which parents show involvement in their child's education at home. About 86.7% of the parents discussed their child's activities in school in order to get an overview of the things done by their child in school. Information about activities organised by the school was gathered by the parents from their children. About 86.0% of the parents also discussed their child's future with their child. In addition, 84.0% of the parents showed high involvement in motivating their child to achieve academic success. A total of 82.6% of the parents also showed high involvement in identifying problems faced by their child in the learning process at home.

In addition, 77.3% of the parents provided time limits for their children on studying activities, watching television and other personal activities. About 76.7% of the parents identified the homework given to their child by the school. About 72.7% of parents often provided additional reading materials (such as newspapers and magazines) for their child in order to allow their child to gain access to additional information that could help them in their learning and increase their academic achievement. 71.3% of the parents also helped their child with school homework if the child experienced difficulty in completing it. They helped the child to complete all the homework assigned by the school. 70.0% of the parents showed high involvement in guiding their children in their preparation for school examinations. Finally, 66.7% of the parents provided tuition so that their child could increase their educational achievement. Most of the parents preferred classes that were operated by trained teachers and conducted at the teachers' homes.

According to Table 2, the usage of three other strategies show parents' involvements at school. About 77.4% of the parents identified academic problems faced by their child in school. Many parents met their child's class teachers regularly. They obtained feedback from the teachers and discussed the educational problems faced by their child. 75.3% of the parents monitored their child's academic performance at school from time to time by making note of their child's examination scores.

In addition, 72.7% of the parents identified the learning patterns of their child at school by communicating with their child's teachers. In addition to involvement at home and at school, the parents showed involvement in their child's education outside home and outside school. About 80.7% of the parents monitored their child's behaviour in activities other than regular activities at home and at school (Table 3). Monitoring the child's activities was intended to ensure the discipline of the child outside home and school. Monitoring was also done to prevent children from developing social problems.

CONCLUSION

Although there has been little research done on parents' education level and their involvement in their children's education, the few studies done validated the fact that parents' education is an important factor in encouraging parental involvement in children's education. The higher the standard of parents' education, the higher the involvement they have in their children's education. It can be said that parents with more education have greater confidence in helping their children to perform well in school. As they have a higher educational background,

they seem to project the strength of their confidence onto various strategies of involvement at home and at school. Even though the current study did not reveal a strong relationship between parents' education and their involvement in their children's education, it indicates a moderate relationship for most of the strategies implemented by the parents. Although the relationship between parents' education level and parental involvement is not strong, the extent to which parents were involved in their child's education accounts for some of the advantages associated with the parents' education level. So it has to be said that - parent involvement in children's learning is benefits for the Children because of –

- i. Children tend to achieve more, regardless of ethnic or racial background, socioeconomic status, or parents' education level.
- ii. Children generally achieve better grades, test scores, and attendance.
- iii. Children consistently complete their homework.
- iv. Children have better self-esteem, are more self-disciplined, and show higher aspirations and motivation toward school.
- v. Children's positive attitude about school often results in improved behavior in school and less suspension for disciplinary reasons.
- vi. Fewer children are being placed in special education and remedial classes.
- vii. Children from diverse cultural backgrounds tend to do better when parents and professionals work together to bridge the gap between the culture at home and the culture in school.
- viii. Junior high and high school students whose parents remain involved usually make better transitions and are less likely to drop out of school.

Benefits for the Parents because of

- i. Parents increase their interaction and discussion with their children and are more responsive and sensitive to their children's social, emotional, and intellectual developmental needs.
- ii. Parents are more confident in their parenting and decision-making skills.
- iii. As parents gain more knowledge of child development, there is more use of affection and positive reinforcement and less punishment on their children.
- iv. Parents have a better understanding of the teacher's job and school curriculum.
- v. When parents are aware of what their children are learning, they are more likely to help when they are requested by teachers to become more involved in their children's learning activities at home.
- vi. Parents' perceptions of the school are improved and there are stronger ties and commitment to the school.
- vii. Parents are more aware of, and become more active regarding, policies that affect their children's education when parents are requested by school to be part of the decision-making team.

Benefits for the School because of

- i. Schools that actively involve parents and the community tend to establish better reputations in the community.
- ii. Schools also experience better community support.
- iii. School programs that encourage and involve parents usually do better and have higher quality programs than programs that do not involve parents.

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A STUDY ON INDIAN EDUCATION INDUSTRY ON SERVQUAL MODEL

Anju Karna Pandey

ABSTRACT

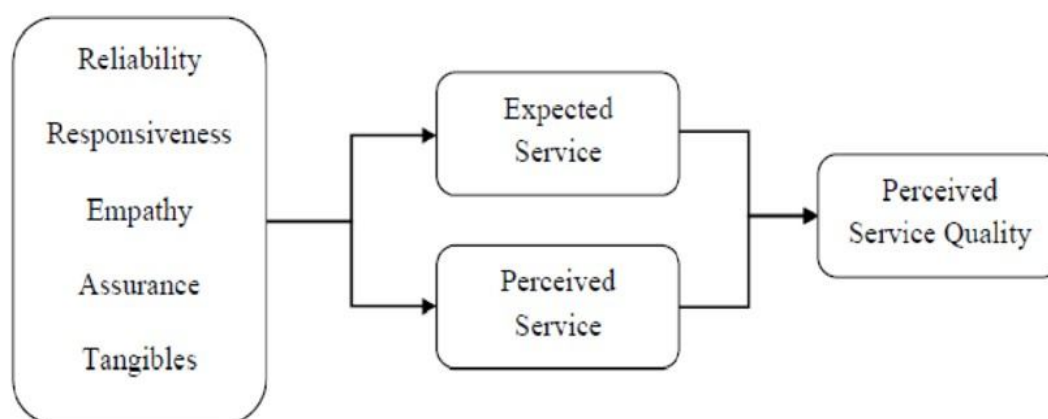
This research paper cynosures to understand the Indian Education industry in India and how does it work based on the SERVQUAL model. Indian education industry comprises of one of the biggest industries in India, providing a valuable amount to the GDP of the country. As every service industry is dependent on its consumers, the more satisfied a customer is, the better the industry works. In this research paper, secondary data is been analyzed to understand how the SERVQUAL model works in education industry in India, and what are the suggestions to keep in consideration for the betterment of the industry as a whole.

INTRODUCTION

SERVQUAL is a multi-dimensional research instrument, designed to capture consumer expectations and perceptions of a service along the five dimensions that are believed to represent service quality. SERVQUAL is built on the expectancy-disconfirmation paradigm, which in simple terms means that service quality is understood as the extent to which consumers' pre-consumption expectations of quality are confirmed or disconfirmed by their actual perceptions of the service experience. When the SERVQUAL questionnaire was first published in 1988 by a team of academic researchers, A. Parasuraman, Valarie Zeithaml and Leonard L. Berry to measure quality in the service sector.

Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001). There are a number of different "definitions" as to what is meant by service quality. One that is commonly used defines service quality as the extent to which a service meets customers' needs or expectations (Lewis and Mitchell, 1990; Dotchin and Oakland, 1994a; Asubonteng et al., 1996; Wisniewski and Donnelly, 1996). Service quality can thus be defined as the difference between customer expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman et al., 1985; Lewis and Mitchell, 1990). Always there exists an important question: why should service quality be measured? Measurement allows for comparison before and after changes, for the location of quality related problems and

for the establishment of clear standards for service delivery. Edvardsen et al. (1994) state that, in their experience, the starting point in developing quality in services is analysis and measurement.



As later suggested by the original developers of the SERVQUAL model, the easy way to recall the five dimensions are by using the letters of RATER, as follows:

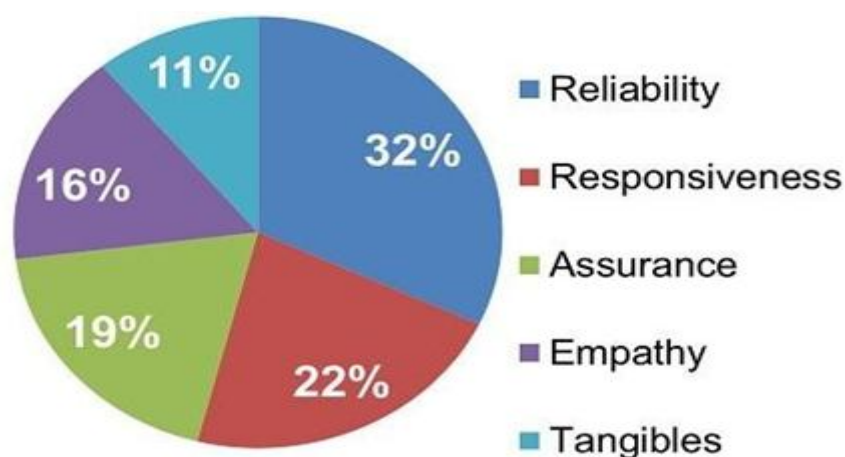
- R = Reliability
- A= Assurance
- T = Tangibles
- E = Empathy
- R = Responsiveness

According to the original academic journal article:

- **Tangibles** refers to physical facilities, equipment and appearance of personnel
- **Reliability** is the firm's ability to perform the promise service accurately and dependably
- **Responsiveness** is the firm's willingness to help customer and provide prompt service
- **Assurance** is knowledge and courtesy of employees and their ability to inspire trust and confidence
- **Empathy** is caring and individualized attention paid to customers.

Not All Dimensions Are Equal

- All dimensions are important to customers, but some more than others.
- Service providers need to know which are which to avoid majoring in minors. At the same time they can't focus on only one dimension and let the others suffer.
- SERVQUAL research showed dimensions' importance to each other by asking customers to assign 100 points across all five dimensions.
- Here's their importance to customers.



There are seven major gaps in the service quality concept. The model is an extension of Parasuraman et al. (1985). According to the following explanation (ASI Quality Systems, 1992; Curry, 1999; Luk and Layton, 2002), the three important gaps, which are more associated with the external customers are Gap1, Gap5 and Gap6; since they have a direct relationship with customers.

Gap1: Customers' expectations versus management perceptions: as a result of the lack of a marketing research orientation, inadequate upward communication and too many layers of management.

Gap2: Management perceptions versus service specifications: as a result of inadequate commitment to service quality, a perception of unfeasibility, inadequate task standardisation and an absence of goal setting. •

Gap3: Service specifications versus service delivery: as a result of role ambiguity and conflict, poor employee-job fit and poor technology-job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork.

Gap4: Service delivery versus external communication: as a result of inadequate horizontal communications and propensity to over-promise.

Gap5: The discrepancy between customer expectations and their perceptions of the service delivered: as a result of the influences exerted from the customer side and the shortfalls (gaps) on the part of the service provider. In this case, customer expectations are influenced by the extent of personal needs, word of mouth recommendation and past service experiences.

Gap6: The discrepancy between customer expectations and employees' perceptions: as a result of the differences in the understanding of customer expectations by front-line service providers.

Gap7: The discrepancy between employee's perceptions and management perceptions: as a result of the differences in the understanding of customer expectations between managers and service providers.

India holds an important place in the global education industry. The country has more than 1.5 million schools with over 260 million students enrolled and about 751 universities and 35,539 colleges. India has one of the largest higher education systems in the world. Around 35.7 million students were enrolled in higher education in India during 2016-17. However, there is still a lot of potential for further development in the education system.

India has become the second largest market for e-learning after the US. The sector is currently pegged at US\$ 2 billion and is expected to reach US\$ 5.7 billion by 2020. The distance education market in India is expected to grow at a Compound Annual Growth Rate (CAGR) of around 11 per cent during 2016-2020.

In this research paper, we are trying to analyze the education industry on the basis of SERVQUAL model. Education industry comprises of a huge chunk of the GDP and hence it is very important for the us to understand the gaps in this industry, not only to satisfy the consumers, but also for the overall development of the education industry. If compared to the Education industry outside india, India has been seen as a country with huge options for betterment and development.

RESEARCH METHODOLOGY

Primary research : Primary research (field research) involves gathering new data that has not been collected before. For example, surveys using questionnaires or interviews with groups of people in a focus group. Secondary research (desk research) involves gathering existing data that has already been produced.

In this research , secondary data has been taken into consideration wherein, data from sources like books, Projects, Online data, articles, Journals has been taken into consideration.

OBJECTIVES

The following are the objectives of the study

1. The major objective of the study is to analyze the education sector on the basis of servqual model
2. To study and analyze how education sector overall works and to what extent it contributes to the GDP of the nation by studying the importance of it.
3. To study the Gaps if any, in the education sector and what can be done to rectify the problem.

LIMITATIONS

1. The primary limitation of the study was the data collection method. Here, the data collection method has been secondary data.
2. Another limitation of the study was time and monetary constraint.

GAP

1. The study has been done through the collection of secondary data and hence, a suggested research could be with some fresh data through primary research.
2. Also the sector taken into consideration is education, any other sector could also be studied based on the Servqual model.

India's aspirations to establish a knowledge society in the context of increasing globalization, is based on the assumption that higher and technical education essentially empowers people with the requisite competitive skills and knowledge. It has been realized that it is the quality of education that prepares one for all pursuits of life and in the absence of an acceptable level of quality, higher education becomes a mere formalism devoid of any purpose or substance. As a result, from around the turn of the century, increasing attention has also been paid to quality and excellence in higher education. Post-independence India has witnessed an above average growth in the number of higher educational institutions vis-à-vis its population. While there were just about 20 Universities and 500 Colleges at the time of independence, today these numbers have grown exponentially. Please find below a snapshot of the current higher education sector in India:

- India has a total of 574 universities. 44 central universities, 286 state universities, 111 state private universities, 129 deemed universities and 4 institutions established through state legislation, 30 Institutions of National Importance³
- There are 45 technical institutes, 13 management institutes, 4 information technology institutes, 6 science and research institutes and 3 planning and architecture institutes • Currently, the Government spends around 3.8% of its GDP on education
- Less than 1% of the \$38 bn of the Government spend on education was towards Capex (2008-09)

- According to the 2011 census, the total literacy rate in India is 74.04% compared to the world average of 83.4% (2008)
- The female literacy rate is 65.46 % and male literacy rate is 82.14 %
- FDI inflows in the education sector during May 2012 stood at \$31.22 mn It is imperative to understand how the student perceives the performance of quality service and also the factors which influences service quality in management education institutes. Students are considered to be a customer and also a product of the management education institute. So, quality of education has to be monitored regularly because students (customers) are directly involved in the education process.

Higher education, like most business today, is increasingly concerned about the quality of its goods and services. There is increased competition for a shrinking pool of students and those students are becoming more sophisticated and demanding. While some organizations make products that are tangible, higher education's product is largely intangible. As a result, assurance of quality can be more difficult than in traditional manufacturing industries. Further, unlike tangible goods, the higher education product cannot be returned if customer is dissatisfied.

QUALITY OF EDUCATION SECTOR

Though in the current scenario, the education system is split between primary, secondary, higher and professional systems, a thorough and joint participation from parents, students, teachers, management and government will create a different and a better education system that will be more effective for the young learners. Improving higher education quality demands revising the curricula every three years and changing the pedagogy to replace learning with more self-learning and creativity, as observed by Mr. Surendra L.Rao Chairman, Institute of Social and Economic Change (ISEC). He also put it, access, concepts, creation application and services deserved better attention in higher education. —The education system has changed a great deal since the last century. The environment, inputs, outputs are still changing, keeping in mind the change in lifestyle, technology.

Students nowadays crave for life- long education. Today, many management institutions and technical universities with various course structures compete with each other as well as with foreign institutes for imparting quality education. The concept of quality when applied to higher education is still not well defined. Definitions of quality in education follow the general definitions of quality. For better understanding the concept of quality applied in education, it is essential to look for a suitable definition (Thomas H, 2003). The most broad and accepted (Houston, 2008; Cartwright, 2007; Venkatraman, 2007; Srikanthan and Dalrymple, 2001, 2004, 2005, 2007; Lomas, 2007, 2002; Parri, 2006; UNESCO, 2006; Lagrosen et al, 7

Towards quality education system : The Hindu. 2004; Harvey, 2002) definition of quality in the field of education is that proposed by Harvey and Green (1993) who developed a framework which consists of five definition of quality, namely quality as exceptional, quality as perfection, quality as value for money, quality as fitness for purpose and quality as transformation. It is extremely difficult in posing a comprehensive definition of quality in education because there has been lot of discrepancy in the concept of quality in education sector. From the point of view of service provider, educational services are intangible, heterogeneous and inseparable, on the other hand, customers' (students) viewpoint of educational services are variable and perishable. Due to so many options available in regard to choosing management institutes the students have become more demanding in their selection (Khan, 2007).

From a customer perspective, it is important to identify the needs of students as primary customers and strives to meet their needs, it is also important to recognize the needs of other customers of education (Hwang and Teo, 2001). This is supported by Lagrosen et al (2004) who suggest that further research in this area should be valuable taking into account the view of other stakeholders. In the same stratum, Rowley (1997) states that all stakeholders' perspectives should be taken into account when attempting to measure service quality in education. In fact the all society is concerned about the quality of education as pointed out by Nagel and Kvernbekk (1997) who stated that social groups and society at large do have vested interests in education. On the other hand, as observed by Cheng et al (2003), despite the fact that stakeholders may be satisfied with

educational services if education does not cater for the future needs and challenges of the new millennium than it is still ineffective and —useless for the new generation. The author, therefore conclude that ability for education to meet the needs of the future both at individual and societal level is one of the critical elements of quality in education. A more comprehensive approach to classify the quality attributes in higher education was proposed by West et al (2000). This is called the Input-Process-Output (IPO) framework in which 'Input'

refers to the selection of students, ‘_Process’ refers to the teaching and learning process, and ‘_Output’ refers to the employability and academic standings. In this way, one can associate the quality improvements with the operating system of any organization including those from the education sector.

FINDINGS

1. Hence, it has been analyzed that, Indian education sector forms the very important chunk towards the development of the society.
2. Also, the overall development of this sector is extremely essential for the overall development of the country.
3. It could be said that by understanding the education industry from the perspective of Servqual model, there are many gaps which require immediate attention.

CONCLUSION

1. It could be hence concluded that education sector therefore requires a lot of improvement to fulfill the gaps as per the Servqual model.
2. By applying servqual model, to Indian education sector, a complete analysis has been done and hence can be applied in different fields.

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ADVANTAGE OF COMMUNICATIVE COMPETENCE APPROACH (ENGLISH AS SECOND LANGUAGE)

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Objectives

Introduction

Definition

Reference to European Common Framework for Language

Why we need Communicative Competence Approach in a foreign Language

Main goal in English Class Room (Goal of a Language course and goal of a Language Learner)

Communicative in class room

Task-Based Language teaching

The role of instruction in Task-Based learning

Role of Language Games

Characteristics of English Language Learner by level of English Language Proficiency. Practical Fields Where effective Communication is needed

Summing up

OBJECTIVES

In this essay we will read Advantage of Communicative Competence Approach (English as Second Language). We first comprehend why we need the Approach now, Global Commerce & Scientific Research grow and develop day by day. It is an attempt to focus on the use of language (English) for the purpose of effective communication. We will look into how a learner, according to age and grade, acquires communicative skill through class room teaching, which ultimately help him or her in various kinds of job oriented theoretical and practical fields. The goal of a language course is to teach the grammar and vocabulary of the language but the goal of a language learner is to be able to communicate in that language.

INTRODUCTION

In order to develop language proficiency, Communicative Competence approach has manifold advantages. The Principle idea of the Communicative approach is Communicative competence. Communicative Competence approach means understanding, manipulating and producing the target language within socio-cultural context. It involves interactions in meaningful context, with emphasis on meaning in natural setting rather than form of the language. Learners are motivated to acquire the competence in all areas in holistic manner such as listening, speaking, reading and writing. In order to develop it, learners are given task-based activity and language games such as pictures, chart, true-false... etc. The goal of the task is not to use correct language but to engage them in communication. Learners will be helped to use their own cultural resources within their interest to improve knowledge, skill, value and behavioural change of the language.

In this way, learners acquire the ability of understanding, producing and interpreting different communicative events in authentic social and school environments. The efficient communicators are socially and culturally privileged. With the advancement of global commerce and scientific research, Communicative Competence approach is also in parallel way valuing. However, this approach empowers learners to be able for different job opportunities such as in multi-national companies, corporate banking and IT (Information Technology) sectors, in the higher echelons of legislative, executive and judicial power, its hegemony in the academia, at seminars, in professional sectors and in technology. It is also evident that coaching institutes offer courses for 'English Conversation', prepare candidates for job interviews, competitive exams. and for aspiring emigrants. On the whole, Communicative Competence approach plays a major role in developing English Language in the socio-cultural context of our country, which gradually contributes to social advancement.

DEFINITION

Before studying Communicative Competence, we should know the meaning of the term "communication" and "Competence" separately.

Communication is a process by which information is exchanged between individuals through a common system of symbols, signs or behaviour. These example sentences are selected automatically from various online news sources to reflect current usage of the word communication. (merriam-webster dictionary)

Plainly to say, communication (noun) means : Speaking, writing, or using some other medium, information is exchanged. Sometimes with the help of Telephone line and Computer, information is sent and received. Communication is a good mean of travelling or transporting goods, such as roads or railways.

Competence (noun) means Skill. The Skill refers to the ability of using and responding to the language. The effective communication is possible if the learner is able to integrate all the skills of language such as listening, speaking, reading and writing. So communicative competence is a term in linguistic which refers to a language user's grammatical knowledge of syntax, morphology, phonology and the like, as well as social knowledge about how and when to use utterances appropriately.

REFERENCE TO EUROPEAN COMMON FRAMEWORK FOR LANGUAGE

Down the ages, the goal of a language course (specially for English as Second Language) is to teach solely grammar and vocabulary. Now the trend is changed. Fortunately, the new trend suggests the hint to focus of second language teaching to provide the skills for effective communication. In authentic social and school environment, learner are motivated to learn on the basis of meaning, not on form. So It is clear now that the second language teaching has moved from purely teaching grammar and vocabulary.

Communicative Competence is a term coined by Dell Hymes in 1966 in reaction to Noam Chomsky's (1965) idea of "Linguistic Competence". Chomsky's "Linguistic Competence" could not explain all the factors for a communicative purpose in natural situation. According to Chomsky's idea, Linguistic Competence only deals with the knowledge of language rules and forms and Communicative Competence is the part of the knowledge of the language forms. Here Chomsky's idea does not fulfil on the way to improve effective Communication. Therefore, Communicative Competence is the only means we use to transform language into Communication instead of Linguistic Competence.

Dell Hymes observes - "... A normal child acquires knowledge of sentences not only grammatical, but also appropriate he or she acquires competence as to when to speak, when not, and as to what to talk about with whom, when, where, in what manner. In short, a child becomes able to accomplish a repertoire of speech acts, to take part in speech events, and to evaluate their accomplishment by others". (Hymes 1972, 277)

In other words, a language user needs to use the language not only correctly (based on Linguistic Competence) but also appropriately (based on Communicative Competence). Certainly, this approach does not lower the importance of learning the grammatical rules of a language. In fact, Communicative Competence has four components such as Linguistic Competence, socio-Linguistic, discourse Competence and strategic competence

LINGUISTIC COMPETENCE

- Understanding and using
- Vocabulary
- Grammar, Punctuation, Spelling
- Syntax (Sentence Structure)
- Phonetics (Sounds & Pronunciation)
- Semantics (Meaning of Language)
- Morphology (Formation of words by inflection and derivarion)

SOCIO-LINGUISTIC

It is the ability to understand and use language effectively to communicate in authentic social and school environment.

Having awareness of

- Social rules of language (e.g. formality, politeness, directness)
- Non-verbal behavior
- Specific attitude (authority, friendliness, courtesy, irony etc)
- Cultural references (e.g. idioms, expressions, Background knowledge)

STRATEGIC COMPETENCE

It is the ability to recognise and repair communication break downs before, during, or after they occur.

Using Technique to

- Overcome the language gaps.
- Plan and assess the effectiveness of communication.
- Achieve conversational fluency.
- Modify Text for audience and purpose.

DISCOURSE COMPETENCE

It is the ability to understand how ideas are connected through :

- Patterns of organisation
- Producing and comprehending oral or written text in the modes of speaking, writing and listening and reading respectively.
- Cohesive and transitional devices.

WHY WE NEED COMMUNICATIVE COMPETENCE APPROACH IN A FOREIGN LANGUAGE

Communication skills tops the lists of fundamental skills needed to succeed in the workplace. A decade and a half later, with the rise of social media networking and texting, communication is becoming more casual, even in situations where more formal ways of communicating are required.

The communicative competence enable the learners to meet the needs of the global commerce and the scientific research. It is strongly needed to develop the cognitive and non-cognitive side of the learners. Hence, learners should acquire competence and strategies to be fluent in the second language. This skill should be acquired in all areas - speaking, reading, listening and writing. In order to improve the knowledge in all the fields in a classroom of a school, task-based method is proper. According to Rod Ellis, the task-based method is a continuation of communication language teaching.

MAIN GOAL IN ENGLISH CLASS ROOM (GOAL OF A LANGUAGE COURSE AND GOAL OF A LANGUAGE LEARNER)

If a language learner is asked what they think the goal of language course is, they would probably answer that it is to teach the grammar and vocabulary of that language. However, if they are asked what their goal is as language learners, they would most probably answer that it is to be able to communicate in that language.

The Goal of a language course is to teach solely grammar and vocabulary. Fortunately, the focus of second language teaching has moved from purely teaching grammar and vocabulary to providing the skills for effective communication.

In Linguistic terminology, a language course should not only have “Linguistic Competence” as its goal, but communicative competence in general.

Teachers in English classroom should develop in students communicative abilities and strategies in order to reach the minimum level of communicative competence by the end of this period. This competence should be acquired in all areas : Listening, Speaking, Reading and Writing. So It is the main goal of english classroom. In order to analyse how communicative competence is implemented, Task-based method which is a continuation of communicative language teaching according to Rod Ellis, is very appropriate.

COMMUNICATIVE IN CLASS ROOM**Task-Based Language teaching**

Task-based language teaching is very appropriate method to learn foreign language (English) according to their grade and age. It is equally important to bridge the gap which they possess in the class. Learners have their specific home environment, social convention and cultural influence. So, the disparity appears in them for their own skill, knowledge and those of their peers.(e.g. physical education, beginning language classes). In this regard, the learners' prior knowledge should be assimilated with the tasks they are trying to do.

Tasks are based on authentic events where authentic language is used, such as describing school, visiting a doctor, shopping etc. Here assessment of error is not important because accuracy will be gained while practising second language in an incidental way. Rod Ellis defends that what students really acquire is the implicit knowledge, looking at the language as a whole.

Tasks are different from activities, because tasks focus on meaning rather than on form. So learners will be inspired to use their own language rather than reproducing the language given to them. In this regard, it is seen

that in the conversation of the learners, they have an informational or reasoning gap which make the conversation interesting and they are very eager to continue it even outside the classroom.

Learners often in this matter, use their own resources instead of reproducing the language given to them or memorisation. So, the goal of task is not to make learners use a correct language but to engage them in communication.

THE ROLE OF INSTRUCTION IN TASK-BASED LEARNING

Instruction is based on interpretation to facilitate the learners on the process of learning. The main goal of the instruction must be the acquisition of implicit knowledge.

It is true that if teachers make their students to focus mainly on language form, they won't be able to communicate effectively. So, effective communication develops through the process of explicit knowledge. In this regard, excessive correction process is ignored. It hints that the Task-Based theorists don't care about the grammar, they defend explicit teaching of rules, thinking that the main goal is communication.

In order to develop, effective communication instruction should be based on the meaning rather than on form. Rod Ellis suggests that grammar is not needed for basic communication. Basic survival in language relies on vocabulary and formulaic sequences, not on grammar. Grammar is needed to the students when they face complex task to determine grammatical form.

In other words, Instruction is to be motivating, i.e based on things that learners may find interesting, because it is very important to call their attention in order to get them involved in the work.

Task-based language learning, in contrast to form-based approaches, involved specification not of a sequence of language item, but of a sequence of communication task to be carried out in the target language. (Dave Willis and Jane Willis, 2001).

Communicative task is defined as "piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form." (Nunan, 1993), J. Willis (1996)

ROLE OF LANGUAGE GAMES

One of the significant aspect of achieving communicative competence is that of that language games. If playing and learning could be integrated, English learning would have been the child's daily reality. The main aim of language games is for learners to know English. Knowing English means knowing how to communicate in English. This involves the productive skills (speaking and writing) and the receptive skills (listening and reading).

It has been already said that knowing English involves not only producing English correctly but also using language for particular purpose. Within socio-cultural context, in association with the familiar resources, learners are able to perform communicative functions, that they need, they achieve communicative competence. Language games help to achieve this. It is generally agreed that English has a rich vocabulary and complicated mixture of Germanic and Romance. So, though language games, all unfamiliar vocabulary will be acquired.

Students need to develop skills such as listening, speaking, reading and writing. In order to acquire all these skills different language games such as picture games, card and board games, sound games, true/false games, back chaining drill games and so many other games. Language games make all the learners involved and participated. They learn with fun and ease. Not only this, but also they discover new idea from the commonly known games.

Generally, speaking and writing skill are called productive skills. In this act of speaking, sound of speech, stress and intonation, accent are emphasised. In the act of writing the rules of grammar vocabulary, punctuation and spelling are needed to learn. Then Students will also learn the ways how to join sentence together in connected speech. So games are defined as the natural self-expression for both the young and old.

Needless to say, Language games provide a kind of activity or exercise. Certainly it introduces an element of competition into the selected area of the lesson. Hence, Learners notice the sequence of action which give them knowledge of the language. At the same time they are very prompt of winning or losing a point. They see that language games are performed according to certain rules. In this way, a link is established between the classroom and the learners' own environment.

It is, no doubt, to say that a lot of research work in the field has been already done on language games. Today computer game is the continuation of the earlier trend. Geoffrey Barnard (1959) in his book, *Better spoken*

English, provides a lot of games. In the game, he stresses flexibility and agility and provide materials help in communication. Jane Ellis(1984) in her book, Teaching English through english - A course in classroom language and teachings feels that “games should provide some light hearted fun and entertainment.”

In our country, many a language lover, like crossword puzzles. CBSE has brought out English text books titled inter act for classes VI onwards. The British council helps English teachers books and materials on language games. They conduct workshops on language games at different levels. The NCERT offers valuable training to teachers in the different methodologies.

Language games have been researched more abroad than in India. The selection criteria for language games should be as follows. Games must motivate and interest the students and should focus on relevant content from across the curriculum. Games must also be grade and age-appropriate, must appeal to different learning styles and be related to current events or concerns. Such games always integrates listening, speaking, reading and writing skills. Games generally draw students' prior knowledge and lead to newer information. The size of the class will be small. The purpose and rules of the game have to be explained to the student carefully and mother tongue can be used if it is necessary. Trial runs should be initiated first before the game is played. The whole class divided into small group and games are played on a team basis, points can be awarded for each correct answer and scores written on the black board.

Marks may be deducted for grammatical errors. Later, Writing Skill should be stressed upon, with the rules of grammar, vocabulary and a few structures. In this way language games help improving the communicative competence of the students. The speaking and the writing skill also develop.

CHARACTERISTICS OF ENGLISH LANGUAGE LEARNER BY LEVEL OF ENGLISH LANGUAGE PROFICIENCY

Different English language learners require different organisational structures and instructional supports based on their English language proficiency levels.

The following Chart shows some of the key characteristics of English language learners working at each of the five levels of English language proficiency as described in the Alberta K-12 ESL Proficiency Benchmarks.

Level 1: Beginning

- New to English
- Little or no exposure to English as a foreign Language classes.
- Usually literate in first language.
- May have previously been a student who required English language and literacy development.

Level 2: Developing

- Beginner with some prior English instruction
- Has limited English proficiency
- Usually has had previous schooling
- Age appropriate literacy in first language

Level 3: Expanding

- May have study English in home country
- May have been in foreign country for some time with academic-language gaps.

Level 4: Bridging

- Listening and speaking skills approaching native English speakers in conversational English, however academic oral proficiency is developing in specificity and complexity.
- Reading and writing skills at grade with scaffolding, direct instruction and extra time.

Level 5: Extending

- May have studied english for many years (International or missionary schools)
- May appear fluent in oral language or may be less fluent orally and more competent in reading and or writing
- Requires support and instruction to understand literature and cultural references, word choices and sophisticated grammatical structures

PRACTICAL FIELDS WHERE EFFECTIVE COMMUNICATION IS NEEDED

The writer Nirad C Chaudhuri once observed : “English is not a mere instrument for us but a force shaping and moulding personality, making us a wholly different kind of character from what we shall have been if we did not know the language. ”

The pupil studies English at school but speaks Bengali at home. Speaking Bengali is equated with stupidity. The mastery of english on the other hand, is rewarded with prestige and applause. All exams are to be written in english. If a student fails in English, he/she fails the entire exam. Obtaining good marks in English put the student in the top most bracket. “ English was the official vehicle and magic formula to colonial elitedom ” - says Ngugi.

The efficient communicators are socially and culturally privileged . With the advancement of global commerce and scientific research, Communicative Competence approach is also in parallel way valuing. However, this approach empowers learners to be able for different job opportunities such as in multi-national companies, corporate banking and IT (Information Technology) sectors, in the higher echelons of legislative, executive and judicial power, its hegemony in the academia, at seminars, in professional sectors and in technology. It is also evident that coaching institutes offer courses for ‘English Conversation’, prepare candidates for job interviews, competitive exams. and for aspiring emigrants. On the whole, Communicative Competence approach plays a major role in developing English Language in the socio-cultural context of our country, which gradually contributes to social advancement.

SUMMING UP

In our time, Communicative competence approach in English as second Language(L2) has manifold advantages. It is a good attempt to acquire knowledge in all fields such as listening, speaking, reading and writing. In English classroom, age-old linguistic competence technique should be changed by communicative competence method, through the task-based language learning. In order to do it joyfully, students may be given language games. However, the goal of a language learner is to be able in communicative competence, not to learn grammar and vocabulary. In order to improve communicative skill in learners, they may be trained according to their proficiency level. Now, an effective communicator is always required in his /her workplace, instead of the rapid spread of social networking .

Finally it is evident that an effective communication grows out of the following factors

- Listening, being a good listener is one of the best ways to be a good communicator.
- Non-verbal communication
- Clarity and concision.
- Friendliness
- Confidence
- Empathy
- Open- mindedness
- Respect

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EDUCATIONAL MANAGEMENT OF SWAMI VIVEKANANDA: AN OVERVIEW

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ABSTRACT

Swami Vivekananda (1863-1902) - the cyclonic monk of the nineteenth century had enriched our national life by his talent and personality. Swamiji defined education as the manifestation of perfection already in men (1970:438). According to him education is for man-making, life giving, character-building and an assimilation of noble ideas. It reflected from his thought and dialogue that, all it requires is proper educational management.

This exploratory study is trying to illuminate the educational management of Swami Vivekananda with a qualitative approach based on secondary data with inductive analysis (study and scene mapping approach). The objectives or goals of the study is to analysis the different human resources and material resources concerned with education. Educational objectives are set by the management committee of educational department/educational institution, teachers (Guru) played the role of supervisor, medium of instruction helps the students to understand easily. Practical training build up mind-body all round development of students. For the upbringing of child family and society must be affectionate towards the child, education be made on the basis of individuality of students and teacher must be friend-philosopher-and guide. All these educational process are result of educational management with the use of human and material resources.

Keywords: Manifestation, educational management, human resources.

INTRODUCTION AND CONCEPTUAL BACKGROUND

Swami Vivekananda realized that mankind has been passing through a crisis. The intensive emphasis on the scientific and mechanical ways of life is fast and reducing man to the status of a machine. Moral and religious values are being undermined. Conflicts of ideas, manners and habits are pervading the atmosphere. Vivekananda seeks the solutions of all these social and global evils through educational management.

According to Henry Fayol, management is forecast and plan to organize, command, process of planning, coordinate to control over the situation. Educational management is the process of planning, organizing, directing, controlling and evaluating to accomplish pre-determinate objectives of an institution through coordinated use of human and material resources. Educational philosophy helps to set the goals, educational psychology set the principles, educational administration leads how to achieve educational objectives. Educational management is concerned with human resources like entire staff (teaching, non-teaching, clerks, researchers etc), students, Parents, members of managing committee, departments of officials etc and material resources as like building, playground, laboratories, furniture, computer-lab, projector, internet connection, charts, maps, model etc.

Swamiji tried to unite Indian spirituality and western materialism through his educational view with a managerial approach to coordinate and use of resources to reach the goal of education. Though he did not write any book on education but through the intensive analysis of writings and lectures of Swami Vivekananda, we will find his views on education and its managerial aspects. He recommends that physical exercise as part of an educational training to build up sound body and mind should be nurtured through meditation, concentration and practice of ethical purity. For the upbringing of child family and society must be affectionate, education be made on the basis of individuality of students and teacher must be friend-philosopher-and guide. All these educational process are the result of educational management with the use of human and material resources. This exploratory study is trying to illuminate the educational management of Swami Vivekananda with a qualitative approach based on secondary data with inductive analysis (case study and scene mapping approach) So education must be a package form of educational management with the coordinate of human and material resources. It is pertinent to find out elaborately the effectiveness of educational management of Swami Vivekananda and its relevancy with the present situation.

BRIEF REVIEW OF LITERATURE

Review of literature is a critical and depth evaluation of previous research paper concerned with the present study to avoid biasness, duplication, and integrate present study with new findings.

Somnath Gupta. 2017, Comparative view of Education: On the light of Swami Vivekananda and Rirshi Arabinda, The study enlighten: according to Swami Vivekananda education is the manifestation of the

perfection already in man. Education should be positive since negative education weakens men. If young boys and girls are encouraged and not unnecessarily criticized all time, they are bound to improve in time. Swamiji suggested taking courage, patience and steady work is the only way to achieve success.

Research gap

Find out the impact of educational management with the coordination of human resources to achieve the goals.

Sundaresan Shobha & Nanda Kumar Kala. 2014, Value Education Towards Empowerment Of Youth-A Holistic Approach The study shows the role of value (a specific mode of conduct) education in the light of swami Vivekananda towards the empowerment of youth in making a positive difference in their personality-discipline, moral uprightness, greater team spirit, levels of confidence, power of concentration and interpersonal relationships. Values generate from human resources like parents, teachers, friends and others and become a part of their character.

Research gap

The study wants to find out types of human resources and their effectiveness with a managerial approach to attain the value of education.

Anu Balhara, 2014, Ethics of Education as Conceived by Swami Vivekananda. The work has laid down more emphasis on ethics that has role in character building, Curriculum framing, the teacher, concentration of mind, with the aim of transmission of truthfulness, firmness, patience, kindness, dignity, diligence and other virtues. In Gurukula culture, students patience, kindness, dignity, diligence and other virtues. In Gurukula culture, students are advised to behave ethically and adopt ethic-centered altruistic personality in place of ego-centered individuality.

Research gap

To find out the factors and effectiveness of human resources that develops ethical uprightness.

Ajit Mondal., Jayanta Mete. 2012, Swami Vivekananda: Some Reflection on Education. The study enlighten : the aim of education is to manifest our perfection- the very nature of our inner self and man-making through self-confidence, self reliance, balanced human relationships with the development of will-power, courage, stamina and fearlessness by taking off the cover of own soul. The agencies responsible for moulding a person's character are parents, teachers, social conditions in which he/she grows. The method of learning should be student centric. Mother tongue is the right medium but we have to learn English and Sanskrit.

Research gap

The study points out Swami Vivekananda's scheme of education to build up a strong nation. The study also points out it is still a far cry. So we should go for the managerial approach in education to reach the goals.

OBJECTIVES

The objectives of the study are as follows

- i) To discuss the objectives or goals of education according to Swami Vivekananda.
- ii) To find out the impact of human resource management in education to achieve the objectives or goals.

METHODOLOGY

This is an exploratory study to illuminate the impact of educational management of Swami Vivekananda with a qualitative approach and the types of data used are secondary- printed data (books, field study, case study, scene mapping etc.) the moral values to be observed are responsibility, honesty, love, affection, patience, bravery, optimistic attitude etc.

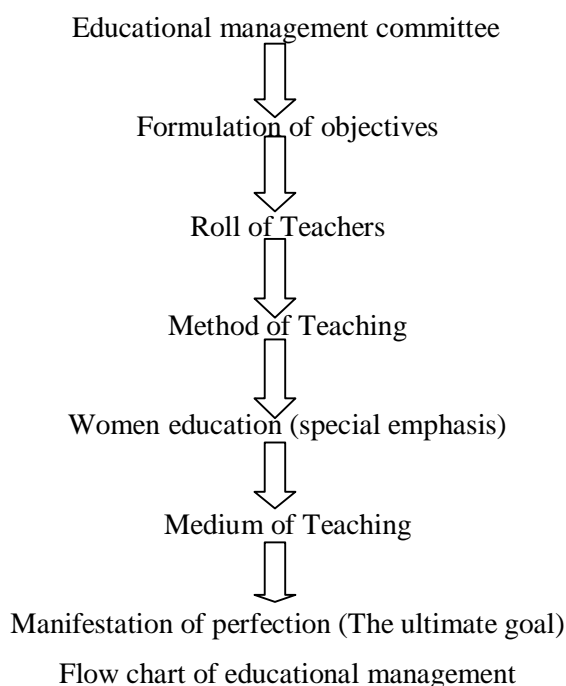
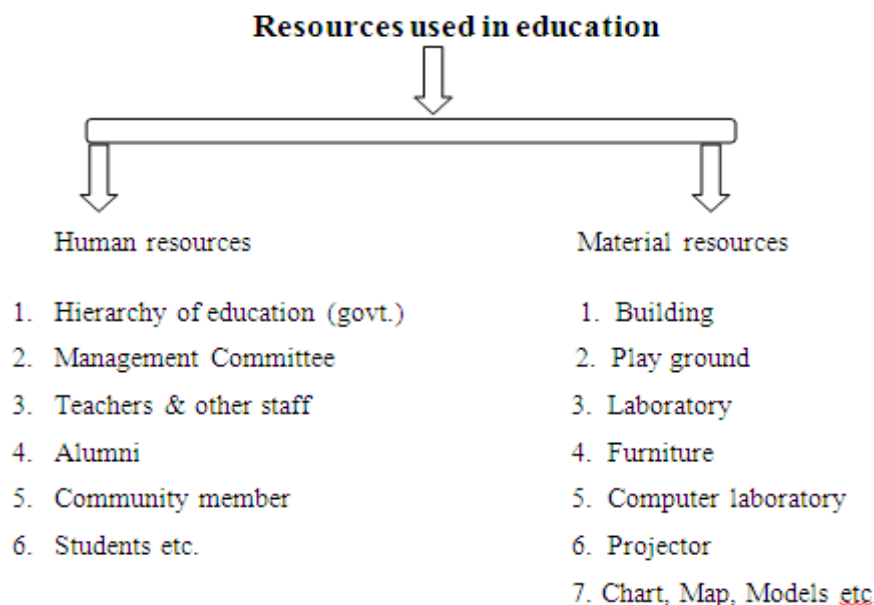
DEFINING EDUCATION

Swami Vivekananda describes education as the manifestation of the perfection already in man. The word '**manifestation**' implies that something already exists and is waiting to be expressed. The main focus of learning is to manifest the hidden ability of a learner. Like sparks in a flint, knowledge is the potentiality of human mind. The stimulus of education causes the friction that ignites the fire of knowledge (1:26). It is the unfolding of the potentialities of one's own mind with the removal of impediments.

The word '**perfection**' in Swami's definition of education is also very significant. The Greek word 'teleics' translated as 'perfect', and suggests the idea of attaining a goal or an end. The English word 'perfect' implies completion, or something being made whole. We can see that every act connected with learning, training etc. is part of a process directed towards an end. Drawing on these meanings, one may conclude that perfection in education parlance is the goal of actualizing the highest human potentialities. This pragmatic approach leads the

learner to stand their own feet finally the discovery of the inner self i.e. self revelation with the help of educational managerial support.

The researcher opined a following framework of resource management in education.



THE GOAL OR OBJECTIVE OF EDUCATION

According to Swamiji a sculptor has a clear idea about what he wants to shape out of the marble block or a painter knows what he is going to paint. But a teacher has no clear idea about the goal of his teaching. According to Swamiji the end of all education is man-making. He prepares his man-making concept of education in the light of philosophy of Vedanta. Education is meant for to helping people to build up self-confidence and self reliance, and balanced human relationships. The ultimate goal of all educational effort is to strive towards character development characterized with the development of will-power, leading to courage, stamina and fearlessness. According to Vedanta, the essence of man lies in his soul and ultimate goal of life is attainment of bliss (Satchindananda). Mind should be nurtured through meditation, concentration and practice of ethical purity. Bramacharya fortified by moral purity and passion for truth, helps man to leave behind the body, the ego and all other non-self elements, which are perishable other hand develops self-control and consequently secure harmony of impulses. Education should lead us to acquire the spirit of renunciation. But it does not mean the isolation of soul from body and mind. Man realizes immortal devine self. All it are requires a proper guidance of teacher –‘Guru’, who leads the way and played the role of mentor.

Role of Teacher

It is true that today's education does not produce properly developed personalities having faith, hope, confidence, motivating power, balanced outlook on life, conscious of their rights as well as their duties, poor in culture – in the knowledge of our ancient literature, arts even they are unable to think originally, incapable of standing on their own feet, and virtually untouched by religion which Swami Vivekananda regarded “the innermost core of education” (V: 232). The reason does not lie with the youth or with their mind but lies with the agencies responsible for moulding a person's character like as parents, teachers, social conditions in which he/she grows, and the system of education to which we trust his/ her future. The teacher should share with the student the conviction that they are both truly one in Spirit – at the same time cultivating in the student a feeling of dignity and self-respect. As Vivekananda said “The only true teacher is he who can immediately come down to the level of the student, and transfer his soul to the student's soul and see through the student's eyes and hear through his ears and understand through his mind. Knowledge exists in the mind, like fire in a piece of flint. Friction brings it out (I: 26). Swami Therefore, a teacher's job is only to remove obstruction from the pupil's path. What we call learning is actually ‘unfolding’ or ‘unveiling’. Each of us is naturally growing and developing according to our own nature. Our duty is to offer them opportunity and remove obstacles; that is, if we provide conducive environment the rest will happen by itself. The teacher's role is not unimportant. It necessitates the teacher's personal, constant contact with the student. The student must live with his / her teacher like in the Upanishadic times (V: 224). And the teacher, on his / her part, has to undergo a proper training to equip himself / herself better for his / her task.

Method of Teaching

After the analysis of the objectives of education the next pertinent question arises is about the method of imparting education. According to Swami Vivekananda a man ‘knows’ is only what he ‘discovers’ by taking the cover off his own soul. He draws our attention to the fact that the task of the teacher is only to help the child to manifest knowledge by removing the obstacles in its way. He compares the situation with the growth of a plant. Just as in the case of a plant, one cannot do anything more than supplying it with water, air and manure while it grows from within its own nature. The same case happens with a human child in the course of education. Vivekananda's method of education resembles the heuristic method of the modern educationists. In this system no one can teach anybody and the teacher invokes the spirit of inquiry in the pupil who is supposed to find out things for himself under the bias-free guidance of the teacher. Student centric method of learning is adopted where the teacher played the role of a facilitator. Vivekananda asks the teacher to come down to the level of the learner and to give them a push to move upwards. So there should be least intervention and the ideal teacher should consciously under-teach so that the learners get ample scope for learning themselves.

All Round Development: (Training of mind and exercise of body)

Swami Vivekananda's vision of education lays extreme emphasis on the training of the mind but it does not undermine the importance of an all-round development of the human personality. The development of the personality in all sphere – physical, mental and spiritual are the goal of education. In the scheme of education, Swamiji lays more emphasis on physical health because a sound mind resides in a sound body. He often quotes the Upanishadic dictum ‘*nayamatma balahinena labhyah*’; the self cannot be realized by the physically weak. Accordingly, he recommends that physical exercise as part of an educational training.

Swamiji lays stress on special attention to the culture of the mind. Mind should be nurtured through meditation, concentration and practice of ethical purity. Concentration leads to detachment from other things as like as a chemist in the laboratory concentrates his all power of his mind and brings them into one focus- the elements to be analysed and finds out their secrets. According to Swamiji, the mind of the students has to be controlled and trained through meditation, concentration and practice of ethical purity. He emphasizes all success are the result of the power of concentration.

Women's Education

Like Vidyasagar, Vivekananda also stresses on the importance of women education. Swami Vivekananda did not preach two different kinds of scheme for educating men and women. With a brilliant flight metaphor Vivekananda explains the point about how female illiteracy retards the progress of a society: he says that it is not possible for a bird to fly on only with one wing. He realizes that if the women of our country get the right type of education, then they will be able to solve their own problems in their own way. The main objectives of his concept of female education is to make them strong, fear-less and conscious of their chastity and dignity. Hence he recommends the introduction of subjects like sewing, nursing, domestic science, culinary art, etc which are not a part of education in his time.

Medium of Instruction

As regards to medium of instruction, Vivekananda strongly advocated for mother-tongue as medium of instruction. With his concept mother tongue is the right medium for social or mass education so that it will reach to everyone. He wanted Indians to learn from the west the lessons of science, organization capacity for unremitting toil and sense of equality. He prescribes the learning of English is necessary for mastering Western science and technology, Sanskrit that leads one into the depths of our vast store of classics. The implication is that if language does not remain the privilege of a small class of people, social unity will march forward unhampered.

EMPIRICAL RESULT AND DISCUSSION

This is a qualitative study with inductive analysis based on case study and scene mapping approach..

Case Study

The case study research method as an empirical inquiry to investigate a contemporary phenomenon within its real-life context with a view to formulating general principles.

A thirteen years old student namely Kunal Datta (not real name), read in class seven standard in a govt. sponsored high school (Biraballavpara High School (H.S.), Barasat, North 24 Parganas. The class teacher of this class find that, academic performance of this boy is extremely slow, inattentive in class, misbehave with classmates, attendance in class is two to three days in a week and used to prefer to seat in last bench, carrying biri (smoking item) and lighter in his school bag.

By collecting other information about the child it is found that, father of the child is illiterate and belongs to lower income group, worked as day-labour in construction work in other state but he loved the boy too much. Mother of the child had left the boy due to extra marital relation and the boy has step-mother. The boy usually passes his time with some upper age wicked boys. He has negative attitude to his mother but loves his father and missed him every moment. Last session the boy was suspended for misbehave with his classmate more than times. The boy can't read mother tongue and don't have basic knowledge of elementary mathematics even class two standard. Most of the teachers are less interested on him except physical education teacher.

The major factors behind the situation are the boy loses the motherly love. His mother had gone away and his step-mother did not love rather hate, rebuke and physically tortured him but she loves his step-brothers. The boy loved his father but his father return home after one or two month gap. So the family can't spend too much time for the boy. The boy is alone. On the other hand though he can't read even mother tongue and don't have primary level of knowledge in mathematics he is unable to understand the classes. So he is inattentive in class. Though the boy is wicked enough some of teachers are not affectionate enough for him, except physical education teacher.

The problem lies on the role play of human resource management (parents, teachers, friends etc). If the child is provided enough love and affection from parents and family members to grow-up properly then the misbehave attitude would not appear.

Intensive care of the boy in academic field, motivational activity of teachers, accompany of teachers and well-wisher that develop power, spirit, stamina, fearlessness, attentiveness in class activity, uprightness of moral and cultural values, are undermined. Even the individuality of the boy is neglected.

It entails that, i) for the upbringing of child family have to play a positive role of affection and transmission of cultural and ethical values. ii) academic institution must have a plan to run the institution with the vision to provide education on the bases of individuality of students. iii) teacher must be sympathetic, friend-philosopher and guide.

Analysis of a scene mapping

In this situation the scene mapping of a hindi movie can be referred namely 'Taare Zameen Par' released on December 2007 (Indian drama film) directed and role-played by eminent artist Amir Khan. The film explored manifestation of potentialities of Ishaan Awasthi son of Nandakishore and Maya Awasthi, Bombay, Maharashtra, India. The fact is that, eight years old Ishaan Awasthi and his elder brother namely Yohan Awasthi read in St. Anthony's High School. Yohan Awasthi was excellent in academic and sports but Ishaan Awasthi was unable to cope with daily life, failed twice in third standard, suppressed his report card. For the betterment, his parents sent him to a boarding school. In boarding school Ishaan Awasthi was a dyslexic child and added trauma for the separation from family and gradually deteriorated. Finally the new art teacher namely Ram Shankar Nikumbh found out the problem of the boy when he was inspiring students to think, to dream, to imagine freely but Ishaan Awasthi remained silent and unhappy. With the care, compassion, affectionate and

friendly behaviour Ishaan Awasthi found himself. (Aamir Khan played the role of an art teacher, and Darsheel Safary played the role of Ishaan Awasthi-a eight years old dyslexic child).

The scene enlighten life time lessons:

- i) Identifying students' potentialities: Every student is unique and has different potentialities. We should nurture them properly for manifestation.
- ii) Meaning and monitoring: once the teacher understand the ability of student, it becomes easier to mentor him.
- iii) learning is unconditional: Imposing something among students has negative impact on students' health and abilities. The parents of Ishaan thought that, Ishaan might be as like as their elder son Yohan. They forced Ishaan to do so and Ishaan enter the tunnel of darkness.
- iv) Understanding the 'no response': The film made it clear that, If any students keep silence - 'no response' it means the child facing difficulty to learn something. It is an indication that, the method of teaching must be changed.
- v) No corporal punishment: Rebuke or punishment lead students not to attend school rather love and affection encourage them to attend school.

CONCLUSION

Educational objectives are set by the management committee of educational department/educational institution, teachers (Guru) played the role of supervisor to guide the students in positive way as per the individuality of students, medium of instruction (mother tongue) helps the students to understand easily, practical training helps to build up mind-body all round development finally manifestation of perfection. All these educational process are result of coordinate educational management with the use of human resources. The child imbibed cultural and ethical values from his/her family, friend, teachers and entire society. So they must be compassionate and affectionate for the child.

FUTURE GUIDELINES

The paper is based on case study (taken on 21.01.2018) and scene mapping of a movie. In present situation education is also a commodity, society is the buyer. So education must be a package form of educational management with the coordinate of human and material resources. It is necessitates to find out elaborately the effectiveness of educational management of Swami Vivekananda and its relevancy in present situation.

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**AN ANALYSIS OF FINANCIAL PERFORMANCE OF OIL AND GAS SECTOR IN INDIA BY
APPLYING THE DISCRIMINANT ANALYSIS APPROACH**

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ABSTRACT

Discriminant analysis has been employed in this paper in order to identify and explain key features of the selected companies of oil and gas sectors profitability levels during 2013-2017. The particular oil and gas sectors profitability is set up in the form of two categorical variables : profit or loss recorded and above or below average return on equity. Predictor variables are selected from various groups of financial indicators usually included in the empirical work on microeconomic determinants of oil and gas sector profitability. In marketing, 'brand' positioning is very commonly used term. Many companies used to do brand positioning for acquiring the strategic advantage and finally to gain the competitive advantage. The data from the Indian oil and gas sector is analysed using the Discriminant Analysis. General recommendations for a more profitable business of oil companies found in the literature and existing empirical framework such as asset growth, increase of non-interest income by expanding scale and scope of financial products proved to be important for classification of oil and gas sector companies in different profitability levels. Company positioning with respect to Discriminant Analysis and Market capitalization, this paper try to find out the chances of financial distress and the level of financial performance in terms of good performer and bad performer.

Altogether, discriminant analysis turns out to be a suitable statistical method for solving presented research problem and moving forward from the bankruptcy, credit rating or default issues in finance.

Key words: Discriminant analysis, oil and Gas sector, Financial Performance

1. INTRODUCTION

Analysis of Financial statement is one of the most significant analytical techniques to describe the financial strength and weakness as well as overall financial health of the companies. It helps to describe the trend and changes in the financial performance of the companies over the periods. The financial performance of companies plays a significant role in the successful functioning of a firm. Poor financial performance threatens the survival of the company in a particular sector and leads to bankruptcy and ultimately financial failure.

It is usually accepted that the intend of financial statements is to offer information about the financial position, performance and changes in financial position of a company which become very effective for the users in making economic decision (Deloitte, 2007). Financial distress refers to a situation where a company cannot pay or faces difficulties to pay off its obligations to creditors. If a company suffers from such situation for a long time it has every possibility to become bankrupt in near future. To determine the financial performance, discriminate analysis can be applied. Discriminant analysis is one of the most reliable statistical tools to determine the financial distress of the industry. The present study aims at determining the financial performance of Indian Oil and Gas sector for a period of five years since 2013-2017

Indian GDP: India is the third biggest economy in the world in terms of GDP measured at purchasing power parity (PPP), according to a World Bank report. India is also projected to become the third largest economy (Nominal GDP) in the world by 2043.

The industrial sector underwent significant changes due to the 1991 economic reforms, which removed import restrictions, brought in foreign competition, led to the privatisation of certain government-owned public-sector industries, liberalised the foreign direct investment (FDI) regime, improved infrastructure and led to an expansion in the production of fast-moving consumer goods. Post-liberalisation, the Indian private sector was faced with increasing domestic and foreign competition, including the threat of cheaper Chinese imports. It has since handled the change by squeezing costs, revamping management, and relying on cheap labour and new technology. However, this has also reduced employment generation, even among smaller manufacturers who previously relied on labour-intensive processes.

India's industrial economy is gathering momentum on the back of improved output of eight core sector industries – coal, crude oil, refining, steel, cement, natural gas, fertilizers and electricity.

INDIAN OIL SECTOR: INTRODUCTION

The oil and gas sector is among the six core industries in India and plays a major role in influencing decision making for all the other important sections of the economy.

In 1997–98, the New Exploration Licensing Policy (NELP) was envisaged to fill the ever-increasing gap between India's gas demand and supply. India's economic growth is closely related to energy demand; therefore the need for oil and gas is projected to grow more, thereby making the sector quite conducive for investment.

The Government of India plans to merge state oil companies to create integrated oil major that could compete globally, and utilise the synergy between various state entities for achieving efficiency and cost competitiveness in order to create more value for all shareholders.

The Government of India plans to unveil a new policy for renewing and extending the lease of 28 oil and gas blocks in the country, with a view to attract more investments into these fields.

2. REVIEW OF LITERATURE

Discriminant analysis has been widely applied to numerous issues in the financial theory and practice. Bankruptcy or financial distress models for enterprises (financial institutions and/or non-financial enterprises) as well as credit rating and scoring models usually employ discriminant analysis technique or logistic regression. The most famous example of such a practice is the work of Edward Altman who developed one of the first bankruptcy prediction models for non-financial enterprises using financial ratios in a discriminant analysis yet in 1968 and named it Z-score model.

Since then various bankruptcy prediction and credit capacity models have flooded financial literature and business practice.

The detection of company operating and financial difficulties is a subject which has been particularly susceptible to financial ratio analysis (Chouhan et. al, 2010, 2011a, b).

Formal aggregate studies concerned with portents of business failure were evident in the 1930's. Altman (1968) was the first researcher to apply the Multiple Discriminant Analysis (MDA) approach to the financial distress prediction domain. He developed a Z-score bankruptcy prediction model and determined a cut point of Z-score (2.675) to classify healthy and distressed firms. The results showed that the Z-score model had sound prediction performance one year and two years before financial distress, but did not indicate good prediction utility three to five years before financial distress. A number of authors followed Altman's work, and applied the Z-score model into different markets, different time periods and different industries, such as, Taffler (1982, 1984), Pantalone and Platt (1987), Betts and Belhoul (1987) and Piesse and Wood (1992).

The first multivariate study was published by Altman (1968). He has used multivariate discriminant analysis to develop a five-factor model to predict bankruptcy of manufacturing firms. The "*Z-score*", as it was called, predicted bankruptcy if the firm's score fell within a certain range.

Moreover, Hamer (1983) evaluated the sensitivity of financial distress prediction models in terms of four different variable sets from previous research (Altman, 1968; Deakin, 1972; Blum, 1974; Ohlson, 1980) and she pointed out that the covariance matrices in each variable set were statistically different. Beaver (1967) was the first to identify the characteristics of failing firms in comparison to a matched paired sample of healthy firms. Using univariate discrimination test and found that financial ratios are proved to be useful predictors and found that certain financial ratios can be very useful predictors of failure even five years before it happens.

This study can be thought of as the pioneering work which initiated a series of other works in the same area. Following this first study two major statistical techniques, Multiple Discriminant Analysis (MDA) and Regression Analysis (RA), were applied by many authors to predict imminent bankruptcies. E. Altman (1968, 1978) was the first to apply the MDA method to the failure prediction problem and his model (known as Z Score analysis) was 90 % accurate in classifying firms correctly one year prior to failure. In other methods, Regression Analysis was applied by Edmister (1971) who obtained high classification results. However, one major shortcoming was the fact that he did not use the variables in their raw form but, instead, he transformed each. MDA was also applied by Deakin (1972) who found that his models were at least 95 % accurate for the first three years prior to bankruptcy. The two techniques (MDA and RA) were compared in a study by Collins (1980) who concluded that both methods provided good predictive results.

In all of these studies the estimated models had high success rates ranging from 70 % to 90 %. Similar studies by Altman (1973) in France and Castagna and Matolscy (1981) in Australia obtained average results. Generalized linear models or multiple logistic regression models are also popular. Ohlson's O-Score (Ohlson, 1980) is based on generalized linear models with the logit link function, also referred to as logit analysis. In India prediction models have been developed by Gupta (1979), Kaveri (1980), Srivastava (1981), and Yadav (1986). Gupta (1979) has made an attempt to examine a variety of ratios and determined the best set of ratios.

Yadav (1986) developed discriminant model by using financial ratios which covers the financial characteristics of the firm.

Regardless of the advantages or the disadvantages of the predictive model, the very idea of developing such models to predict financial distress and failure itself is welcome all over, for a model could help to detect the likelihood of forthcoming sickness and thus facilitate to prevent its onslaught in an early stage. The bankruptcy models can be used as early warning signals, such that, corrective action may be undertaken immediately by the management. The paper begins with a literature review on the credit risk measure, followed by discussion on the option-based credit risk measure. The paper also describes the data collected, the variables analyzed and the statistical methods adopted in the paper. We conclude, after statistical results for the Altman's Z-score and the comparison with the option-based measure are discussed.

Taking into consideration methodological features of the aforementioned bodies of literature it has been found, to the best of our knowledge, that the discriminant analysis has not yet been applied in descriptions of bank profitability. Thus, the paper attempts to answer on two main research questions:

What is the scope of discriminant analysis when applied to the chosen research problem? Are results obtained through discriminant analysis (i.e. explicators of differences in bank profitability levels) in line to the ones obtained through the panel data analysis?

DISCRIMINANT ANALYSIS

Discriminant analysis uses continuous variable measurements on different groups of items to highlight aspects that distinguish the groups and to use these measurements to classify new items. Common uses of the method have been in biological classification into species and sub-species, classifying applications for loans, credit cards and insurance into low risk and high risk categories, classifying customers of new products into early adopters, early majority, late majority and laggards, classification of bonds into bond rating categories, research studies involving disputed authorship, college admissions, medical studies involving alcoholics and non-alcoholics, anthropological studies such as classifying skulls of human fossils and methods to identify human fingerprints.

The Z score formula for predicting bankruptcy was published in 1968 by Edward I Altman.

Studies carried out by Altman (2003) using financial ratios to predict occurrence of bankruptcy was able to predict 94% correctly one year before bankruptcy occurred and 72% two years before its actual occurrence. Z score is used to predict corporate defaults and is easy to calculate control measures for the financial distress status of companies. Z score uses multiple corporate income and balance sheet values to measure the financial health of a company.

$$Z = .012X_1 + .014X_2 + .033X_3 + .006X_4 + .999X_5$$

Where:-

X_1 = Working capital/Total assets

X_2 = Retained Earnings/Total assets

X_3 = Earnings before interest and taxes/Total assets

X_4 = Market value equity/Book value of total debt

X_5 = Sales/Total assets

Z = Overall Index

Z-SCORE ANALYSIS

Altman used five ratios to calculate the Z-Score. These different ratios were combined into a single measure Z-Score Analysis with the help of MDA. The formula used to evaluate the Z-Score analysis as established by Altman is as follows:

$$Z = 0.012X_1 + 0.014X_2 + 0.033X_3 + 0.006X_4 + 0.999X_5$$

"Z" is the overall index and the variables X_1 to X_4 are computed as absolute percentage values while X_5 is computed in number of times.

RATIOS USED IN Z-SCORE ANALYSIS

The following accounting ratios are used as variables to combine them into a single measure (index), which is efficient in predicting bankruptcy.

X1 -The ratio of working capital to total assets ($WC/TA \times 100$). It is the measure of the net liquid assets of a concern to the total capitalization.

X2 -The ratio of net operating profit to net sales ($NOP/S \times 100$). It indicates the efficiency of the management in manufacturing, sales, administration and other activities.

X3 -The ratio of earnings before interest and taxes to total assets ($EBIT/TA \times 100$). It is a measure of productivity of assets employed in an enterprise. The ultimate existence of an enterprise is based on the earning power (profitability).

X4 -The ratio of market value of equity to book value of debt ($MVE/BVD \times 100$). It is reciprocal of the familiar debt-equity ratio. Equity is measured by the combined market value of all shares, while debt includes both current and long term liabilities. This measure shows how much assets of an enterprise can decline in value before the liabilities exceed the assets and the concern becomes insolvent.

X5 -The ratio of sales to total assets (S/TA). The capital turnover ratio is a standard financial measure for illustrating the sales generating capacity of the assets

3. OBJECTIVE OF THE STUDY

i) To find out the discriminant score of the companies undertaken for the study.

ii) To classify the companies on the basis of discriminant score.

iii) To rank the companies in Oil sector on the basis of discriminant score.

4. SOURCE OF DATA

The present study is envisaged to be predominantly empirical in nature and based on secondary data. The relevant data are collected from secondary sources like CMIE database, audited balance sheets and profit and loss account, annual reports of respective companies, economic survey and annual survey of Industries.

V. SELECTION OF DATA

Traditionally Indian Oil and Gas sector is selected for the present study. The sample of companies has been chosen on the basis of their market capitalisation for the year 2017-18. The top 14 companies have been selected. The referred period of study is 5 years from 2010-2011 to 2014-15. Table-1 is presented to show the market share of the selected 10 sample companies:

6. RESEARCH METHODOLOGY

Since the purpose of this research is to gain a better insight into the profitability of Oil and Natural Gas Industry and the effects of various independent variables on the dependent variables. A descriptive research was adopted to obtain necessary data for the study

6.1 Method of Data Collection

In conducting this research paper, the available data on the study are secondary source of data.

6.2 Period of study

The study is based on last 5 years data i.e. from 2013-2017

H1: Discriminant analysis is a suitable statistical method for distinguishing and classifying companies in different profitability levels, according to some generally accepted predictors (determinants) of oil and gas sector profitability.

6.3 Method of Data Analysis

Descriptive Analysis

Descriptive analysis is the first step of this analysis, it will help researchers to describe relevant aspects of financial management (both mobilization of funds and deployment of funds) and provide detailed information about each relevant variable. Researchers have already been conducted in our area of study and a lot of information is already on hand and SPSS Software has been used for analysis of the different variables in this study.

7. RESULTS AND DISCUSSIONS OF FINDINGS

Table-1: Company names as per Market capitalisation

Company Name	Market Capitalisation
	(Rs. cr)
ONGC	2,41,778.15
GAIL	77,377.12

Petronet LNG	37,500.00
Oil India	26,481.09
IGL	21,381.52
Gujarat Gas	12,234.07
Gujarat State Petro	11,515.79
HOEC	1,590.71
Aban Offshore	1,010.60
Asian Oilfield	665.68
Deep Industries	608.64
Alphageo	511.57
Jindal Drilling	471.67
Selan Explore	344.4
Dolphin Offshore	151.71
Duke Offshore	45.84

The above table shows the market capitalization of the selected company in the Oil and Natural Gas sector of India.

In the further study we excluded some company due to non –availability of data. Our main study focuses on the below mentioned company.

Table-2: Oil and Gas Sector

Dolphin		2013	2014	2015	2016	2017	Total	Average Z Score	
	Z	1.53	1.63	1.49	1.62	1.79	8.07	1.61	Bad
Selan									
	Z	1.41	1.40	1.59	2.19	2.69	9.29	1.86	Good
Gujarat State									
	Z	7.74	5.87	5.71	5.40	5.14	29.86	5.97	Good
Deep Ind									
	Z	1.41	1.03	1.26	1.20	1.13	6.04	1.21	Bad
Petronet									
	Z	2.75	2.83	4.12	3.64	3.42	16.76	3.35	Good
Oil India									
	Z	0.66	0.92	0.94	1.19	1.48	5.19	1.04	Bad
GAIL									
	Z	1.44	1.25	1.38	1.57	1.47	7.11	1.42	Good
Aban									
	Z	0.48	0.62	0.35	0.19	0.11	1.75	0.35	Bad
HIND OIL									
	Z	1.00	0.91	10.35	0.67	1.31	14.24	2.85	Good
Cairn									
	Z	0.88	0.94	1.50	2.38	0.56	6.26	1.25	Bad
Alphageo									
	Z	2.14	0.80	1.84	1.68	0.98	7.43	1.49	Good
ONGC									
	Z	1.77	1.73	1.98	1.08	1.17	7.73	1.55	Good

The average Z score was found 1.45. From the above table it can be seen that 5 out of 12 companies are having their Z score above the average Z score. 3 companies are having good Z score and they are in the top rank companies' market capitalization share. The exception companies are Selan Explore and Alphageo. However the Z score of Alphageo Company is on the borderline of average Z score, so we comment that only one exception is there which Selan Explore. The company Selan Explore which is despite of very low market capitalization but come out as a good company as per Z score.

8. FINDINGS

Oil India has ranked as a top company as per market capitalization but the company has come out as a bad company as per Z score.

The value of Chi square at 5 % significance level at 7 d.f is 22.55

The chi-square value and p value indicates that sample units are equally sound in terms of financial health. The visible difference is due to sampling fluctuations and not due to major reasons.

Chi square value: 22.553282139661

Degree of freedom: 44

P value: 0.9969889284

9. CONCLUSION

The Z score values reveals that during the period of study and with the selected companies in the oil and natural gas sector found that companies reveal good financial health. The z score of 60 % of the companies is financially well and their Z score also reveals a healthy figure. The most of the companies are in safe zone, some companies fall in alarming zone. So it can be concluded that companies of oil and natural gas sector are financially healthy and there is less scope of bankruptcy or any cause of concern regarding financial health in this sector. The investors in this sector have their investments safe. The management has no reason or very little worry as regards the financial health of those companies is concerned.

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WOMEN EMPOWERMENT IN ANCIENT INDIA

Babulal Roy

ABSTRACT

Women during the early Vedic period enjoyed equal status with men in all aspects of life. Works by ancient Indian grammarians such as Patanjali and Katyayana suggest that women were educated in the early Vedic period. Rigvedic verses suggest that women married at a mature age and were probably free to select their own husbands in a practice called swayamvar or live-in relationship called Gandharva marriage. Scriptures such as the Rig Veda and Upanishads mention several women sages and seers, notably Gargi and Maitreyi. Originally, women were allowed to undergo initiation and study the Veda's. In the Dharmasutra of Harita, it is mentioned that: "There are two types of women: those who become students of the Veda and those who marry immediately. Of these, the students of the Veda undergo initiation, kindle the sacred fire, study the Veda, and beg food in their own houses. In the case of those who marry immediately, however, when the time for marriage comes, their marriage should be performed after initiating them in some manner." In medieval times, this was dismissed on the ground that this was only the case in a previous age (yuga). In approximately 500 BCE, the status of women began to decline. Although reform movements such as Jainism allowed women to be admitted to religious orders, by and large women in India faced confinement and restrictions. The practice of child marriages is believed to have started around the sixth century. Several Dharmashastras mention the restricted role of women, such as the Manu Smriti: "Her father guards her in her childhood; her husband guards her in her youth; and her sons guard her in her old age." A woman is not fit to act on her own. These were normative texts however, and descriptive statements do describe women participating independently and becoming vanaprastha (forest hermits) and samnyāsini (renouncers). Some kingdoms in ancient India had traditions such as nagarvadhu ("bride of the city"). Women competed to win the coveted title of nagarvadhu. Amrapali is the most famous example of a nagarvadhu. This paper throws some insights into the status of Women & their empowerment in the context of Ancient India.

Keywords: Women, Ancient India

INTRODUCTION

Empowerment is a multi-faced, multi-dimensional and multi-layered concept. As such, it is not this or that, but is the action and interaction of various factors-physical, socioeconomic, political, mental, psychological, and attitudinal and so on. Women's empowerment could be described as a process in which women gain greater share of control over resources-material, human and intellectual like knowledge, information, ideas, and financial resources like money and access to money and control over decision making in the home, community, society and nation, and to gain power. The term 'women's empowerment' has come to be associated with women's struggle for social justice and equality.

A subject of concern, policy making in India is women-women's rights, women's education, women's role and so on. Many people have different views on "Women Empowerment". All of us know that it is a pertinent topic and we also know it is a misunderstood and controversial topic. Whenever we say an empowered woman, what is the picture that comes to mind? What is the picture that is cultivated? It is something like a woman who is free, who questions, who fight for her rights, who is angry, who is an achiever.

In this era the Feminist/Liberals just take the full use of Topic "Women Empowerment" to run their agenda and to impose their thinking. They pretend to be a Women Right Activist and carry their so called Broad Minded activities for Publicity and Political Benefits. Liberal groups opposes current use of the ancient Indian code. They see it as a culture that dominates women and denies the freedom and empowerment. The Indian Liberal feminists view the Vedas and Ancient Indian practices as anti-women, where women are degraded. They put allegation on the ancient Hindu Code of conduct – that they are grossly anti-women and denigrates the Matri Shakti (motherly force). They claims that one of the ancient Hindu Code of Conduct "Manusmriti" (also known as Manu Dharma Shastra) dominates women and denies the, freedom and empowerment. Well this is not true. First we need to understand that a soul doesn't have any gender. But the soul is the journey of realizing itself, takes various lives, various bodies and once it comes to the human body it takes a male or a female body in different parts of the world. It is not that a man is a man in all the births, sometimes it is a man, sometimes it is a woman.

As we know in our culture we look at woman as an expression of "जगतजननी/Jagatjanani" which means Universal Mother. In "Saptashati" it is written "विद्याः समस्तास्तव देवि भेदाः । स्त्रियाः समस्ताः सकला जगत्सु

||” means “Mother, all the vidyas in this universe as well as all the women in this world ,they are your own expression, your own forms, your own manifestations.” If we read Manu Smriti, we will come to know that no other text in world accords so much of respect and rights to women. “यत्र नर्यस्तो पूज्यन्तय,रमन्तय तत्र देवता । “means ” Where females are provided place of honor, Gods are pleased and reside there in that place” .”Protector of children, having definite knowledge, worth thousands of prayers and impressing all directions, O women, you accept prosperity. O wife of deserving husband, teach your husband to enhance wealth. ” – Atharva Ved.

In our country a woman was never called by her name. Though she even be younger she will be addressed as mother. Swami Vivekanand says that “In India Woman is a mother first and Mother last”. When Swami Vivekanand went to America many women became his admirers, his followers; they used to listen and interact with him. Any women he came across he used to address them as Mother.

Woman is a “Shakti”. The whole world is manifested because of “Shiv Shakti”. “Shiva” is the potential aspect and the manifestation takes place because of “Shakti”. If we respect her it brings out the best in Shakti. If we disrespect her, the negative qualities come out .

A woman is not “Achetan Shakti”, she is a “Sachetan Shakti”. It doesn’t mean that someone should handle her, she is herself Shakti. It is men who have to respect that “Shakti” to bring out the best in it so that Shakti will help in constructing, connecting, nurturing. If we disrespect her “Shakti” becomes Destructive.

Today this control is not taught at all to both men and women. We need to understand woman is neither good nor bad; she is a power. She should realize that she is Shubashakti and express those Shubha qualities in her. Empower women to do their ordained task of guiding the women of the world.

CONCEPT OF EMPOWERMENT IN ANCIENT INDIAN WOMEN

Studies believe that in ancient India, the women enjoyed equal status with men in all fields of life. However, some others hold contrasting views. Works by ancient Indian grammarians such as Patanjali and Katyayana suggest that women were educated in the early Vedic period Rigvedic verses suggest that the women married at a mature age and were probably free to select their husband. Scriptures such as Rig Veda and Upanishads mention several women sages and seers, notably Gargi and Maitreyi.

Some kingdoms in the ancient India had traditions such as nagarvadhu ("bride of the city"). Women competed to win the coveted title of the nagarvadhu. Amrapali is the most famous example of a nagarvadhu.

According to studies, women enjoyed equal status and rights during the early Vedic period. However, later (approximately 500 B.C.), the status of women began to decline with the Smritis (esp. Manusmriti) and with the Islamic invasion of Babur and the Mughal empire and later Christianity curtailing women's freedom and rights.

Although reformatory movements such as Jainism allowed women to be admitted to the religious order, by and large, the women in India faced confinement and restrictions. The practice of child marriages is believed to have started from around sixth century.

400 B.C. India was not women's age and it is supposed to be the 'dark age' for them. This India saw many foreign conquests, which resulted in the decline in women's status. When foreign conquerors like Muslims invaded India they brought with them their own culture. For them women was the sole property of her father, brother or husband and she does not have any will of her own. This type of thinking also crept into the minds of Indian people and they also began to treat their own women like this. One more reason for the decline in women's status and freedom was that original Indians wanted to shield their women folk from the barbarous Muslim invaders. As polygamy was a norm for these invaders they picked up any women they wanted and kept her in their "harems". In order to protect them Indian women started using 'Purdah', (a veil), which covers body. Due to this reason their freedom also became affected. They were not allowed to move freely and this lead to the further deterioration of their status. These problems related with women resulted in changed mindset of people. Now they began to consider a girl as misery and a burden, which has to be shielded from the eyes of intruders and needs extra care. Whereas a boy child will not need such extra care and instead will be helpful as an earning hand. Thus a vicious circle started in which women was at the receiving end. All this gave rise to some new evils such as Child Marriage, Sati, Jauhar and restriction on girl education.

POSITION OF WOMEN IN ANCIENT INDIA

a. Women in Pre-Vedic Period

Historical studies and the scriptures indicate that Indian woman enjoyed a comparatively high status during the early Vedic period (2000 B.C. to 1000 B.C.), surpassing contemporary civilizations in ancient Greece and

Rome. The Aryans, who were mostly busy fighting wars, regarded woman as useful and productive members of society. The condition of Vedic Woman was good. Woman also enjoyed religious status like that of men, especially in Vedic initiation and studies. The Rig Veda provides ample evidence to prove the concept of equality of woman with men as regards access and capacity to acquire the highest knowledge, even the absolute knowledge.

The Rig Veda had rendered the highest social status to qualified woman of those days. But status of woman fell in the later Vedic and Epic period. They were not at all treated equally with men or we can say that they were not enjoying equal rights and privileges as compared to men. Though the woman participated in each family ceremony with men but they only played a role as a silent observer not an active participant. As per Manu, men always enjoy unchallenged authority over their wives. Child marriages, Polygamy and Sati were prevalent at that time. Still out of all these things woman at that time were respected by the society. However, changes into the status of woman introduced in 15th century.

Saints and supporters of bhakti movement were expounded and spoken about equality of woman with men. During these period men were polygamous and widow burning was an accepted norm. Arthashastra imposed more stigmas on woman as Kautilya dismissed woman's liberation. They were not free even to go elsewhere without husband's permission. They became worse off in the Gupta period. But in Vedic period position of woman was not worse as that of today. Our history shows that woman in Vedic period was also on strong footage as compare to men and therefore they were not subjected to 'Female Foeticide' and Infanticide or people never think about that.

Though the overall position of women was lower than men, yet on the whole the position of woman was good. In the post Vedic period, woman started being discriminated on the ground of education and other rights. The 'Child Marriage', emphasis on physical chastity of woman and their unquestioned obedience to husband lead's to progressive deterioration of their position. In the Smriti Sastras as well, as in Manu, it has been mentioned in strongest terms that woman should be honored. But then again Manu has given absolute rights to men to inflict corporeal punishment on her and discard her if she said anything disgraceful to him. Thus, a contradiction in the rules of treatment to woman was there. Manu's system continued for long after the Mauryan period in the Indian society. However, the upper class woman enjoyed freedom and were respected in society. Besides these woman, a vast majority worked in the fields and homes. Their condition worsened in the 20th century.

b. Women in Vedic Age

As we have studied position of woman in Pre-Rig Vedic period was very high. In later Vedic period, the position enjoyed by woman in the early Vedic society, was not retained. In Vedic society participation of wives was required in many rituals. Woman could select their husband in an assembly called 'स्वयंवर'. But in most cases the woman had to lead an unhappy married life. This was simply because their husbands were allowed to have more than one wives and this was especially quite common among the upper classes of the ancient Indian society. A widow was expected burn herself on the funeral pyre of her husband. This would make her 'Sati'. Manu assigns to the Woman of Vedic age, a position of dependence, not of subordination. In the work called Amarkosh written in the Gupta era names of the teachers and professors are there and they belonged to female sex. They were the authors of Vedic scripts and 'mantras'.

c. Women in Hindu Dharma

The roots of Hindu religion are in Aryan society of patriarchal system. The family unit was large one, generally extending over three generations and with the male off springs living together. The birth of a son was especially welcomed in the Aryan family for the son's presence was essential and one of the important ceremonies. At the same time the position of woman was on the whole free.

Hindus considered that the man and woman represent the two aspects of one person. Scriptures says that Lord Shiva consists of a body of a two halves – one is of male and other is of female and he is called 'अर्धनारेश्वर'.

Woman was considered more powerful than man and treated as Goddess of 'शक्ति'. The society was governed by certain established norms approved by 'मर्यादाशास्त्र'. The highest social ends in ancient Indian society were four, Arth, Kaam and Moksha. Woman along with man participates in all activities equally and hence she was considered as 'सहर्मयचारणी'. In the area of spirituality woman were not inferior to men. Yajunvalykyha had imparted divine knowledge of the most difficult nature to Maitrai and that she had not only been able to comprehend the high philosophy but had also actually attained divine knowledge. The traditions which brought the woman into slavery by fixing her duties to serve like Dasi (servant); to feed like mother; give advice like

Minister; and give conjugal sanction like a Rambha of heaven. At the same time, woman is considered to be under the protection of father during childhood; under the protection of husband during youth and under the protection of son during old age. As the woman lost her property right she lost independence and became lifelong dependent on male dominated society.

Therefore, the social, cultural and religious backbone of Indian society is based on patriarchal structure which gives comprehensively secondary status to woman. Actually this philosophy of patriarchal family based on principle that, family tree grows up with male only, which makes man a valuable product of family, who needs special protection and attention. Second important thing in this philosophy is marriage, in which woman are given a subordinate status, having no right to say anything about their rights; body feeling or we can say that, men are the whole and sole owner of soul of woman. Hence in this way the derogation of social status of woman lead to 'Female Foeticide'.

d. Women Education in Ancient India

In the golden age of Aryans wherein the men were free, brave, vigorous, fearless themselves civilized and civilizing others, Noble and deeply spiritual: and the woman were learned, free and highly cultured; conjointly they offer sacrifices to the gods, listening sweetly to discourses, and preferring spiritual upliftment to the pursuit of mere riches. Additionally, woman represented the best example of conjugal love, offering the supreme sacrifice of their lives as a demonstration of their feeling for their partners in the brief journey of life. This was to be an enduring legacy of Vedic woman who perform sacrifices to the gods by the side of her husband as an equal partner in offering oblations. There were two types of scholarly woman firstly the Brahnavadinis, or the woman who never married and cultured the Vedas throughout their lives; and secondly the Sadyodvahas who studied the Vedas till they married. Panini mentioned of female students studying Vedas. Ashoka got his daughter, Sanghamitra, inducted into preaching Buddhism. From the Jain texts, we learn about the Kousambi princess, Jayanti, who remained a spinster to study religion and philosophy. Woman did write Sanskrit plays and verses, excelled in music, painting and other fine arts. It clearly shows that our kings were aware of woman education and even they were also interested to educate their children without the discrimination of male or female.

e. Women in Mughal Period

Unlike in the ancient Indian period, the position and status of woman in the Mughal period was not quite high. Purdah and child marriage had become common. Except those of the lower classes, woman in Mughal period did not move out of their houses. The Muslims woman observed purdah much more strictly than the Hindus. The birth of a daughter was considered inauspicious, while that of a son was an occasion for celebration. On account of early marriage, there were many widows in our society. Generally, woman in Mughal Period were not allowed to remarry. Polygamy was common among rich society. Divorce was not common among the Hindus, while it was permitted both for Muslim men and woman. However, woman exercised great influence at home and some of them helped their husbands in their occupations.

Though, the overall position of woman in Mughal period was low, there were many Hindu and Muslim woman of outstanding ability, whose fame is still relevant today like, notably Rani Durgawati of Gondwana, Rani Karmawati, Mira Bai, Tarabai, etc. Among the Muslim woman in Mughal Period, Nur Jahan, Mumtaz, Chand Bibi, Jahanara, Raushanara, Zeb-un-nisa, etc. played an important part in the affairs of that time.

f. Concept of Abortion and Family Planning in Ancient Time

Abortion was also there in ancient time. Families also aborted the foetus in different ways. It was a mostly found in tribal people. The woman who performed an abortion against the will of her husband was subjected to severe punishment and the higher caste woman, who performed abortion with the help of slave, that slave was also punished with hard punishment. At that time religion and community always criticized the abortion and preferred preparation or self-punishment for abortion and rarely enforced other punishment. In ancient time, pregnancy can be terminated by way of consuming some herbs, by using injurious weapon, by creating abdominal pressure and many other ways.

In 19th century, the British's declared some area as Infanticide prone. In 1805 they had found a high incident of female Infanticide among the Rajputs of Saurashtra. In Eastern Uttar Pradesh, there was a village with no daughters. In 1808, Alexander Walker, the chief authority in Baroda summoned the head of all the communities and asks them to give an understanding that they would not kill girl babies. In 1870, the British Government enacted the Prevention of Murder of Female Infants Act. To begin with, it was to be enforced only in the Northwestern Provinces including Punjab and Oudh. In 1872 some areas were notified as Infanticide prone after census figure indicated 40% deficit of woman. Already the woman killer belt was getting established. In 1898,

female Infanticide was recognized as a crime and a Government order was passed making it a cognizable offence. However, within eight years, in 1906, the Prevention of Female Infanticide Act was repealed as the Government claimed that Infanticide was no longer practiced in these areas. The 1901 census actually indicated that there were just 832 females to 1000 males in Punjab. So obviously the Act was withdrawn because of some other political consideration.

In this way in ancient time also there were a system of abortion and no medical facility available or medical science not improved at that time, but it could be done by them by using traditional harmful method. So at that time also abortion was punishable and punishment was being inflicted upon that person who is personally liable for abortion. Therefore, the concept of abortion has embedded its roots from our forefather.

g. Male Ratio Adverse Female Ratio

The decreasing ratio of woman from society is connected with status of woman in ancient period as well as religion and cultural influence of communities. In Hindu community as well as other community's son is always preferable than a girl child and it is deeply rooted in our culture from ancient period. Forgetting birth of a male child many prayers and offering made to God in every community. Even woman wants birth of a male child though they themselves are woman only. But because of prestige issue of the family or to run family tree or to enhance their status between all other family members they also want male child not female. Nowadays this choice of male and female fulfilled by Doctors by using medical Techniques that is by using ultra sounds Sonography machine. Therefore, due to this it has adversely affected on sex ratio of male and female child.

Hence the ancient period is an evidence, which shown that as they were having importance of woman in their life. In the same way they were also the strong follower of male dominating society. They were of the view that woman have been actually made for their use only like giving birth to children, to enhance their family tree, and most importantly give them their heir in the form of son and lastly above all she is a servant of their own family who is the whole and sole care taker of the family with all responsibly. But as per above study it is clear that they were not of the view to kill the daughters in mother womb or after birth of girl child. Because at that time there were not found any reason of 'Female Foeticide' or increase of technology and most importantly family planning or anything else. Hence it is clear that, in Vedic period communities neither committed female Infanticide nor they were supporter of woman community. They were always treated woman in inferior status as compare to men and abortion was also illegal.

FIVE GREAT WOMEN IN THE HISTORY OF ANCIENT INDIA AS EXAMPLES OF WOMEN EMPOWERMENT

From time immemorial, women have played an extremely important role in shaping the history of India. Some of them may be mythological but their influence on society and culture cannot be overlooked. We choose five of them as role models.

Sita

Sita in Valmiki's Ramayana does not typically represent Vedic stridharma. To begin with, she chooses her own husband in a competitive svayamvara – only the strongest and the smartest prince will do. Again, after Kaikeyi's intervention, when Rama goes into forest exile, she insists on accompanying him. Sita's strength and self-possession are apparent. She is dutiful, indeed, but she has to argue her case in order to do what she knows is right. She is not an obedient servant to a godlike husband; she has a will of her own and her relationship to Rama is governed by love for him, rather than obedience to his orders. She shows her determination and independence throughout the years in the forest; her insistence that Rama get the gold-spotted deer and her command that Lakshmana come to his rescue, eventually leads to her abduction by Ravana. She doesn't give in to Ravana's will. On being freed, she defends herself wholeheartedly against Rama's accusations. Her ability to stand through all trials and tribulations with fortitude make her an icon of fidelity and chastity.

Savitri

Savitri, who is mentioned among godly women, took Satyavan as her husband knowing full well that he would not live long. When he was left with only four days to live, she undertook a vow to defeat death. On the fourth day Satyavan died with Yamaraja (the God of Death) walking away with his vitality. Savitri walked after Yamaraja. As they were walking, one behind the other, a conversation ensued. Yamaraja was very much impressed by the gentle behaviour of Savitri, her wisdom, her single-minded devotion to her husband. Pleased, he granted her a boon. Savitri asked for the well-being of both her father's and her husband's families and compelled Yamaraja to return the vitality of Satyavan.

Draupadi

Draupadi is a strong personality in Mahabharata. When Arjun won her hand at a Swayamvar, she was never ready to compromise on either her rights as a daughter-in-law or even on the rights of the Pandavas and remained ever ready to fight back or avenge high-handedness and injustice meted out to her and them. Draupadi had unconditional faith in Krishna, who came to her rescue while she was being disgraced by the Kauravas. Following an exile in the jungle, Draupadi, with a view to fulfill her vow (to tie her untied hair only after washing them with the blood of Dussasana) and to punish all those who had perpetrated the offence against her, nurtured the fire of revenge burning in her heart, in the hearts and minds of Pandavas. The refulgence (glow) of Draupadi's lustrous prototype of womanhood will always be a source of inspiration for the women of India. She is one of the rare examples of polyandry in Indian mythology.

Rani Durgavati

Durgavati was a brave woman of India during the 16th century of Kaliyugas i.e. 16th century A.D. who fought with alien invaders with utmost courage and heroic bravery. Lest her living body may be vilified with the touch of the aliens she, with her own sword, sacrificed herself and attained Viragati. After the death of King Dalpatishah of Gadha Mandala, there came a crisis over the state. The Mughal ruler, Akbar, sent a huge army to capture the state of Gadha (fort) Mandala. Mounting an elephant, Maharani Durgavati fought with utmost bravery and provided constant encouragement and inspiration to her army. Unfortunately, because of internal disunity and her army being too small in comparison with the invaders, she did not succeed in self-defence. Among the brave women who resisted, retaliated and acted towards the Mughal thirst for empire-building, Maharani Durgavati occupies a prime spot.

Ahilya Bai Holkar

After the death of Malhar Rao Holkar (1694-1766), founder of the Holkar dynasty, he was succeeded by his daughter-in-law, Ahilya Bai Holkar. She ruled from 1767 to 1795 with great skill and understanding. She governed the state from a palace fort at Maheshwar on the northern bank of the Narmada river. Though Ahilya Bai never stayed in Indore, it is in her reign that Indore grew up into a city. Indore was an island of prosperity in a sea of violence. Her rule came to signify justice and wisdom. She contributed a lot to the heritage of India by establishing several religious edifices remarkable in architecture – the Kashi Vishweswar temple at Varanasi being notable among them. Her unique pan-Indian outlook is reflected in the fact that she built Dharmashalas at Badrinath in the north and Rameshwaram in the south, established Anna Chhatras at Dwarka in the west, Jagannathpuri in the east, and at Omkareshwar and Ujjain in central India. She also established charitable institutions at Gaya, Varanasi, Ayodhya, Prayag (Allahabad), Haridwar and Pandharpur. She was at heart a queen of entire India, rather than that of the Holkar kingdom. She died at Maheshwar where a large mausoleum stands in her memory.

CORRELATION WITH NEWER PERIOD

The seed of Woman Empowerment has actually been sowed in early 18th century on an International level. Then there after in 19th century it came to India. The Indian scene is more articulate with marked preference for boys and girls as reflected in nutritional and health differentials and clear disparity in discernible between male and female mortality rate. It has been seen that girls receive less food and medical services less frequently. Due to malnutrition the rate of maternal mortality is quite high in India. It has been observed that despite restraints placed on child marriages the practice is quite common particular rural area. It adds that prostitution is rampant in India. The report further pointed out that a Dowry giving, though illegal remain customary and brides often become victims of mental and physical abuse when they fail to satisfy the avarice for more and more Dowry after being wedded. It reiterates that violence against woman as reported maybe the most pervasive yet least recognized Human Rights abuse in the world. Given the social scene hopes are finally pinned with law as an instrument of social change. It is believed that law empowered woman by equipping her with the rights and powers so as to enable her to fight against male hegemony. Woman Empowerment has to be seen as a concomitant of the total process of social change leading to a Just Society and therefore its success will depend upon the success of the supportive socio- economic policies and simultaneous changes in the political process. The operations on all these strategies have to be spontaneous, to achieve the desired results. This may not be achieved unless the present scenario is analyzed. The idea of justice required that, the law should likewise create similarities whenever possible. In order to correct the imbalance in the social system sex neutral language appears to be one of the tools for the reduction of inequality between sexes.

CONCLUSION

The women were highly empowered in real essence in Ancient India. However, their position started to deteriorate with the centuries. During Medieval period, it reached to the peak of harassment. In Modern era,

several reformers lighted various flames to uplift again the status of women. Several laws were introduced. Now women have equal rights and freedom to male counterparts, however, in the most real framework, the position lies still the same.

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EFFECT OF GOODS AND SERVICES TAX(GST) ON FAST MOVING CONSUMER GOODS(FMCG)**Bishnu Pada Das**

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ABSTRACT

After a long wait, the Goods and Services Tax (GST) was implemented on 01.07.2017. It is a most remarkable tax reform in the history of Independent India. The introduction of GST has removed the cascading effects or tax-on-tax. GST, which is now described as CGST or central GST and SGST or state GST, has replaced the earlier VAT, CST and other major indirect taxes. Different rates of GST have been imposed on different goods and services. Since GST is an Indirect Tax which is levied on Goods and Services, Fast Moving Consumer Goods (FMCG) is one of the effective areas. This paper will attempt a study which is specially focused on FMCG as well as consumers' tastes and preferences regarding different goods and services. This paper will also take a look at the history of GST, i. e, road map of GST.

Keywords: GST, CGST, SGST, IGST, VAT, FMCG, Indirect tax

LITERATURE REVIEW

According to Dr. Mohan Kumar, "Goods and Services Tax (GST) will be a game changing reform for Indian economy by developing a common Indian market and reducing the cascading effect of tax on the cost of goods and services. GST is a consumption based tax levied on sale, manufacturing and consumption on goods & services at a national level. Many taxes such as central excise duty, service tax, central surcharge and cess etc. levied by Central Government and VAT / sales tax, entertainment tax, octroi & entry tax, purchase tax, luxury tax, taxes on lottery etc. levied by State Governments have been subsumed under GST".

In this topic CA Yogesh Kumar explains, "The fast moving consumer goods (FMCG) sector of India comprises more than 50 percent of the food and beverage industry and another 30 percent from personal and household care, thereby spanning the entire rural and urban parts of the country (Subramanian, 2015). Under the proposed GST regime, it is expected that it would result in a simpler tax regime, especially for industries like FMCG. Presently the peak tax costs for industry players amount to approximately 27% (i.e. Excise Duty of 12.5% and VAT ranging from 12% to 15%). Under the GST regime, it is proposed that the revenue neutral rate would be in the range of 16% to 19%, thereby resulting in significant benefit for the sector."

Nidhi stated that, "Goods and Service tax would be a comprehensive indirect tax on manufacture, sales and consumption of goods and services in India, to replace taxes levied by central and state governments. GST would be levied and collected at each stage of sale or purchase of goods or services based on the input credit method. Amalgamating several central and State taxes into a single tax would mitigate the double taxation, facilitating a common national market. The introduction of GST would be a significant step in the reform of indirect taxation in India".

RESEARCH METHODOLOGY

This is basically a qualitative research methodology. The paper is purely based on secondary data. The data is collected from different newspapers, magazines and reputed journals as it is a study on the latest amendment of constitution i.e. 122nd amendment of Goods and Services Tax. In This article I want explain about effect of GST on FMCG sector and on general consumers. This study is done to study the effect of new amendment on the prices of products and how it is going to reduce the tax burden of the consumers.

EMPIRICAL RESULTS AND DISCUSSION

As per the current tax system, previously FMCG pay many taxes like VAT, Service Tax, CST. Now GST covers all the above taxes under one single point of tax in form of GST. The current tax rates around 22 -24%. Now the rate of GST come down to 18 - 20 %. Its welcomed by all the major players in the FMCG industry. No input credit was available for certain taxes like CST, CVD and SAD. Under the current tax regime. Therefore, under GST there is a input credit available for all the GST payments made in the course of FMCG business as well as other business also. Now FMCG sector also benefit from GST in the form of saving a considerable amount of expenses on logistics. Distribution cost currently amounts to 2-7% of total cost on an average, which is drop to 1,5 % after implementation of GST.

Due to smoother supply chain management, payment of tax, claiming input credit removal of CST under the GST regime. There will be a cost reduction in terms of transportation and storage of goods. It is expected that the reduction cost and Taxes would make the consumer goods cheaper.

CONCLUSION

As per 25th GST council meeting on 18th January 2018, rates of 23 goods and 53 services have been revised. Indian FMCG sector is the fourth largest sector in the economy with a total market size in excess of US 13.1 billion dollar. FMCG are popularly named as consumer packaged goods. Items in this category include all consumables people buy at regular intervals. FMCG is also one of the fastest growing sector in the Indian economy. The GST rate schedule indicates that nearly 81% of all items are in the 18% tax bracket or below. The remaining 19% fall in the 28% slab. After implementation of GST.

So the benefit due to GST must be passed on the consumers by reduction in prices. Rules for the same are not specified properly and this could be a tricky aspect of GST in regards of companies to protect the profitability from this clause.

GST regime will bring several benefits for economy and could particularly vitalise the FMCG industries in India. The main benefit of GST on FMCG that local and interstate supply would be a tax neutral ground which will provide the small start-ups with a level playing field. This would lead to India emerging as single largest common market, promoting opportunities for all size of FMCG business.

GST removed cascading effect i.e. tax on tax. therefore extra burden of tax is not possible for any FMCG and the goods and services also. Excise Duty, VAT, CST, Octree, Entry tax submitted into GST. As a result, consumers of FMCG pays on a tax. Effective GST rates decreased from 22 – 24% to 18-20%. So consumers of FMCG and industry both will be benefited.

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**FACTORS AFFECTING TOURISTS' PLEASURE AT CULTURAL HERITAGE DESTINATIONS:
AN OVERVIEW OF WEST BENGAL**

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ABSTRACT

Cultural heritage plays a vital role that changes a location to a destination. "Culture" and "heritage" constitute the mosaic of places, traditions, art - forms, celebrations and experiences that portray the region and its people, reflecting their diversity and character. It is one such factor that can develop the competitiveness of a tourism destination. Cultural Heritage Tourism is one of the largest and fastest growing global markets covering all aspects of travel and tourism. The present study highlights the relationship between the tourists' satisfaction and the attributes of cultural heritage destinations in West Bengal.

The area of the study is selected cultural heritage destinations of West Bengal, which is located in the eastern part of India and the data of this study have been collected from the on-site survey method at Belur Math,

Bolpur, Hazarduari, Shantiniketan, Bishnupur and Bankura. These destinations are highly enriched of the rich cultural heritage of the State of West Bengal.

In this study we have 160 observations; the sample population for this study is composed of tourists who visited in these places in between December 2017 and January 2018, and are analyzed using the Statistical Package for Social Sciences (SPSS) version 16. Exploratory Factor Analysis (EFA) is used to identify the significant factors. Four important factors – Destination Brand, Internet Adoption, Value for Money and Service Quality - have been identified to have a significant influence on the Tourists' satisfaction at Cultural heritage Destinations in West Bengal.

Keywords: Culture, Heritage, Tourism, Tourist satisfaction, Cultural Heritage Destinations in West Bengal.

INTRODUCTION

Cultural heritage tourism is an important form of tourism that specifically targets the art, architecture, history, monuments, museums, theatres, religious heritage, cultural festivals or social interaction, food habits, and lifestyle of people in a certain geographical region. Culture heritage have also become major forces in economic and rural or urban revitalization. As cultural heritage tourism becomes an progressively important factor for tourist destinations involved in evolving their cultural capital in order to attract more global visitors, there is value in assessing how cultural heritage tourists can be better understood and serviced through marketing, planning and programming with local and regional communities. Cultural heritage tourism is an important aspect of India's tourism industry.

According to a report by the World Travel and Tourism Council, India's travel and tourism economy is poised to grow 7.5% in 2015 over last year, exceeding the 6.9% growth that the global forum has predicted for the South Asian region. In 2014, the industry contributed Rs7.64 trillion and 36.7 million jobs to the Indian economy. By the end of 2015, the travel and tourism sector will contribute Rs8.22 trillion or 7% of India's gross domestic product (GDP) and 37.4 million jobs—almost 9% of total employment, the report said. Moreover, Investment in this sector is expected to rise by 9.3% in 2015 over 2014 when travel and tourism investments in the country accounted for Rs2.11 trillion, or 6.2% of total investments.

Tourist Customer satisfaction is an appraisal of how a service delivered by a company meets or surpasses client's expectation. It is seen as a key performance indicator within business and is an indication of how successful the company is at providing products and or services to the market. Customer satisfaction is a conceptual concept and the actual happening of the state of satisfaction will vary from person to person, product to product and also service to service. In an inexpensive market where industry competes for customers, customer satisfaction is considered a key element of corporate strategy (Gitman & McDaniel, 2005). Much debate and confusion has been assigned to the interrelatedness of service quality and satisfaction and in what sense the concepts differ from each other. In simple terms quality refers to some attribute of what is offered whereas satisfaction or dissatisfaction refers to a customer's emotive reaction to that offer (Kasper et al., 2006). In this logic they are separate, where quality is something the company is responsible for and satisfaction is an experience in the customer's domain. However, the concepts are clearly related since we might use customer reaction (satisfaction/dissatisfaction) as means of evaluating whether the right quality has been delivered.

Parasuraman et al. (1985) conceptualized perceived service quality as a totality evaluation of a service-process, whereas satisfaction is a transaction-specific evaluation. In other words, they posited that incidents of satisfaction altogether result in perceptions of the service quality, which constitutes the reasoning of the SERVQUAL model. In contrast to this perspective, Cronin & Taylor (1996) argues that perceived service quality is an antecedent of customer satisfaction. In this topic, customer satisfaction is conceived of as a result of service quality in the following order: Service quality → satisfaction → repeat purchase intention.

BRIEF LITERATURE REVIEW

A study of existing description of cultural heritage tourism shows that the terms “cultural heritage tourism” have been used to describe not only the consumption of art, monuments, folklore, built heritage and cultural manifestations, but also to describe experiences pursued and motivations of travelers at destinations. The omnipresent nature of the cultural heritage tourism phenomenon makes it difficult to assess exhaustively.

Long and Perdue (1990) opines, Tourist destinations are developing and promoting the cultural and heritage of the people as a means of attracting and enhancing visitor experience. This is also because cultural and heritage tourism is being used as a tool to boost local economy and has the potential to aid in the seasonal and geographical spread of tourism.

McKercher (2002) suggests that a definition of cultural tourists can be developed by considering two issues: the main reasons for a trip and the level of experiences at the destinations. A number of both conceptual and empirical studies have attempted to implement this process and explore the typology of cultural tourists.

D. K. Shifflet and associates (1999) identified three types of heritage tourists: “core”, “moderate” and “low”, with each of the segments demonstrating different behavior and spending patterns.

Aluza et al. (1998) observed, the cultural heritage tourism market potential consists of five distinct segments with each having different trip characteristics, suggesting that not all cultural and heritage tourists are alike and should be targeted in different ways. McKercher (2002) also suggests that cultural tourism can be fragmented into five different markets based on the depth at which the tourists engage in a culture or a cultural attraction, and how central the culture or attraction was to their choice of destination. To some segments, culture or the attraction played a major role in their decision while, for other segments, culture played either a minor role or no role in their decision-making (McKercher and Du Cros 2003).

Prentice (1993) opined the term “heritage” as not only the landscapes, natural history, buildings, artifacts, cultural traditions and the like that are literally or metaphorically accepted on from one generation to the other, but those among these which can be promoted as tourism products. He also proposed that heritage sites should be differentiated in terms of types of heritage: built, natural, and cultural heritage.

Bitner and Hubbert (1994) describe customer satisfaction as a feeling or an attitude of a customer towards a service after it has been used. Studies have also confirmed that there is a relationship between service quality, satisfaction and behavioral intention and then service quality and behavioural intention. As defined by Cronin and Mackey (1992:127) service quality reflects a consumer’s evaluative perceptions of a service encounter at a specific point in time. In contrast, customer satisfaction judgments are experimental in nature, involving both an end-state and process, and reflecting both emotional and cognitive elements.

From above literature, it can mention that heritage tourism is a component of most tourists’ trips and properly promoted attractions have the potential to bring in significant numbers of tourists and remarkable amounts of tourist spending. Cultural heritage tourism may be beneficial both economically and in terms of preserving local history and culture.

RESEARCH QUESTION

❖ What are the factors affecting tourist satisfaction at cultural heritage destinations of West Bengal?

RESEARCH OBJECTIVES

Cultural heritage tourism is a rapidly growing niche market. This market is inspired by an increasing number of both the domestic and international tourists, and by the increasing availability of global communication. Therefore, this study has two specific objectives in order to repetitive understand the cultural heritage tourism.

- To evaluate the factors affecting the tourist satisfaction with the attributes of cultural heritage destinations in West Bengal.
- To recognize the potential of cultural heritage tourism destinations in West Bengal.

RESEARCH METHODOLOGY OF THE STUDY

SAMPLING PLAN

The study required to identify the relationships between the West Bengal (WB) cultural heritage destination attributes and tourists' satisfaction."

Sampling Frame: List of Cultural Heritages in West Bengal.

Sampling Technique: Multistage Sampling (2-stage Sampling Technique)

Extent: The research area for the study at cultural heritage places in WB, which is situated in eastern part of India and the data of this study are collected from the on-site survey method, Belur Math, Bolpur, Hazarduari, Shantiniketan, Bishnupur, Bankura.

Time frame of the study: The sample population for this study was composed of tourists who visited WB between December 2017 and January 2018.

Sample Size: 200 People was contacted, but 171 people agreed for responding to the questionnaire and finally 160 people delivered valid response.

DATA ANALYSIS

Descriptive Statistics is used to analyze the Central Tendency and the nature of dispersion of the dataset. Exploratory Factor Analysis (EFA) is then conducted to reduce the complexity of the dataset and identify the latent constructs (Factors) Factors with Eigen Value >1 is only selected for the purpose. Communalities value >0.7 is accepted. Factor Loadings > 0.6 is accepted and clustered as individual factors.

FINDINGS

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.691
Bartlett's Test of Sphericity	Approx. Chi-Square	2607.759
	df	105
	Sig.	.000

Table 1 shows the KMO and Bartlett's test value. KMO measures the sampling adequacy which should be greater than 0.5 for a satisfactory factor analysis. If any pair of variables has a value less than this, consider dropping one of them from the analysis. In the above table, KMO value is 0.691, which is good for further proceeds.

Bartlett's test is another indication of the strength of the relationship among variables. From the table 1, we can also observe that the Bartlett's test of sphericity is significant, i.e., its associated probability is less than 0.05. Hence, KMO and Bartlett's Test confirms that the data is perfect for factor analysis (Hair et al., 1998).

Communalities		
	Initial	Extraction
history and heritage	1.000	.814
ambience and experience	1.000	.806
International reputation	1.000	.732
Natural wonders	1.000	.795
Service delivery through internet	1.000	.822
Standardize the travel products or services	1.000	.873
Well established on line transaction	1.000	.678
Offering multiple choices	1.000	.708
Quality hotels and restaurants	1.000	.943
Vacation met all expectations	1.000	.877
Superior value for money	1.000	.858
Fine local transportation system	1.000	.907
Provide services as it promise	1.000	.025
Perform services right at the first time	1.000	.862
Extraction Method: Principal Component Analysis.		

Table 2 shows the table of communalities before and after. The communalities in the column labeled Extraction reflect the common variance in the data structure. Like 81.4% of the variance associated with question 1 is common, or shared, variance.

Rotated Component Matrix ^a				
	Component			
	1	2	3	4
history and heritage	.020	.899	-.004	-.078
ambience and experience	-.066	.890	.041	.095
International reputation	.005	.850	.036	-.085
Natural wonders	-.060	.884	-.012	.104
Service delivery through internet	-.029	.053	.904	.043
Standardize the travel products or services	.009	-.010	.934	.015
Well established on line transaction	.014	-.044	.822	-.009
Offering multiple choices	.026	.047	.840	-.018
Quality hotels and restaurants	.969	-.042	-.020	.030
Vacation met all expectations	.935	-.048	.006	.006
Superior value for money	.925	-.045	.013	.000
Fine local transportation system	.950	-.050	-.039	.027
Provide services as it promise	.034	.029	.054	.926
Perform services right at the first time	-.026	.001	-.035	.938
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

Table 4 labeled Rotated Component Matrix, contains the loading value of each variables. Factor loadings less than 0.4 have not been displayed because researcher has asked these loading to be suppressed.

FINDINGS

Component 2: The second column of the rotated matrix has revealed that respondents have perceived these factors to be the most important factors .Four out of fifteen variables load on significantly to this component. Jointly it named as **Destination brand**.

Component 3: The third column of the rotated matrix has revealed that respondents have perceived these factors to be the most important factors.Four out of fifteen variables load on significantly to this component. Jointly it named as **Internet adoption**.

Component 4: The first column of the rotated matrix has revealed that respondents have perceived these factors to be the most important factors. Four out of fifteen variables load on significantly to this component jointly it named as **Customer satisfaction**.

Component 4: Two out of fifteen variables load on significantly to this component in forth column. Jointly it named as **Service quality**.

CONCLUSION

From this study, it has been highlighted the identification of tourists'' characteristics and an investigation of the relationship between the attributes and tourists'' satisfaction. It is concurred that such research efforts would help tourism practitioners and planners to have a better understanding of cultural heritage tourism and to formulate improved strategy and planning about cultural heritage tourism destinations. From the result of the regression analysis on the basis of factor score, we got R² values which are statistically good and are approaching 1, it means the variables of factor 1 and factor 2 having great influence on the tourists'' satisfaction of cultural heritage destinations in West Bengal.

Moreover, the overall tourists will be more satisfied at cultural heritage destinations in WB and then only, more number of tourists will visit these destinations in future. From the result of the study, WB tourism needs to improve in few areas like - First need to create more information outlets in various markets and also need to improve the accessibility. Second, Ministry of Tourism, GOI and WBTDc should work more closely with the cultural heritage areas to spread the awareness and remove hurdles. Finally, need to work towards getting tie-up with various travel agencies & tour operators to build up awareness of quality among domestic and international tourists. There is no doubt that WB has immense potential and tourists are satisfied at cultural heritage destination in WB. Hope, WB will receive more domestic and international tourists in future to be the leader in providing the flavor of cultural heritage tourism to the world.

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A STUDY ON GLOBAL STRATEGY ON GLUTEN ADVERSITY WITH SPECIAL REFERENCE TO RICE CULTIVATION

Debarati Basak

ABSTRACT

The main objective of the study was to understand the adversities of Gluten in the main dietary composition and the problems felt all over the world with the increase of westernization of diet and incorporation of more gluten in the global food composition. The second objective includes the key factors for the consumption of wheat & wheat based products among general population of the world. These factors include the process of globalization, an income growth, climatic change and global warming. The study is based on secondary data published in different journals. A comparative study is shown on the cultivation of three major cereal crops like rice, wheat & maize in the total cultivated land of the world giving special preference to rice cultivation.

The study would show that the adverse effect of Gluten is already felt all over the world, hence many countries have started a movement against avoidance of gluten containing dietary products. They have started giving preference to rice cultivation over other gluten containing cereals. This is an effort on the part of the researcher to make the society aware against the westernization of diet composition.

Keyword: Gluten, disease, rice production, changed food habit, global food production

INTRODUCTION

The world food situation is currently redefined by new driving forces like globalization, income growth & urbanization. The effect of globalisation & income growth is seen in the food composition of developing countries of Asia. The consumption of food budget is shifting from cereal to other food types like vegetable fruits, meat, dairy & fish. The consumption for ready to cook & ready to eat food is also rising in urban areas. The more nontraditional food is getting into the regular dietary composition and the consumption of wheat & wheat based products & temperate zone vegetables & dairy products are increasing (Pingali 2006)

Today's shifting pattern in consumption will be reinforced in future days too. The shift to new dietary consumption has resulted in evolution of many diseases that are not so common before. The investigation has shown that, this is due to the influence of increase percentage of **Gluten** in the regular food consumption. Gluten is triggering the immune-mediated disorders along with the coeliac disease (Biesiekierski JR, 2017). It is observed that gluten has many **adversities**. It causes coeliac disease, non-coeliac gluten sensitivity, gluten ataxia and dermatitis herpetiformi among general population

WHAT IS GLUTEN?

Gluten comes from the Latin word "gluten" which means glue. It is the storage protein found along with starch in the endosperm of various cereals like wheat, barley, rye, oat and other related species. The compound gives elasticity to the dough and keeps its shape and the final chewy texture. It is observed that gluten has many **adversities** which will be discussed in the process. Currently, this **adverse situation** is felt all over the world with the increase of westernization of diet. Hence the increasing use of wheat-based foods which was predominant in the Mediterranean diet is slowly getting replaced by rice & other dairy products in many countries.

AIM OF THE RESEARCH

The aim of this research is to study observe the adverse effect of gluten on over all general population and the precautions taken by different countries to combat the issue. The study will identify the reason why the rice cultivation will be gaining certain predominance over wheat with the spread to awareness of gluten adversity as researcher wants to aware the society against the westernization of diet composition giving preference to rice consumption over the wheat. The study makes a comparative study of the spread of cultivation of three major cereal crops rice, wheat & maize in the world total cultivated land to understand the popularity of wheat over other staple cereals.

LITERATURE REVIEW

Gluten & its Adversity

Gluten is found in wheat, barley, rye, oat and other related species (J Gastroenterol Hepatol.) Wheat gluten or glutenin can trigger coeliac disease, non-coeliac gluten sensitivity, gluten ataxia and dermatitis herpetiformi among general population

Celiac disease (CD) is a chronic systemic autoimmune disorder caused by a permanent intolerance to gluten proteins. The proteins may exert a toxic effect on intestinal mucosa in genetically susceptible individuals by triggering an immune-mediated response, responsible for a typical villous atrophy and lymphocyte infiltrate in small intestine mucosa. Classic symptoms include gastrointestinal problems such as chronic diarrhea, abdominal distention, malabsorption, loss of appetite, and among children failure to grow normally

It is also associated with other autoimmune diseases, such as diabetes mellitus type 1 and thyroiditis. **Diabetes mellitus type 1** (also known as **type 1 diabetes**) with the classical symptoms are frequent urination, increased thirst, increased hunger, and weight loss is a result of gluten intolerance too. **Thyroiditis** is a group of disorders that all cause thyroidal inflammation.

Non-celiac gluten sensitivity (NCGS) is described as a condition of multiple symptoms that improves, on switching to a gluten-free diet, recognized since 2010. People with NCGS may develop gastrointestinal symptoms resembling irritable bowel syndrome, wheat allergy, headache, chronic fatigue, fibromyalgia, atopic diseases, neurological diseases, or psychiatric disorders,

Dermatitis herpetiformis is an itchy cutaneous condition linked to a transglutaminase enzyme in the skin occur due to gluten intolerance.

Gluten ataxia is an autoimmune disease triggered by the ingestion of gluten. With gluten ataxia, damage takes place in the cerebellum, the balance center of the brain that controls coordination and complex movements like walking, speaking and swallowing, with loss of Purkinje cells. People with gluten ataxia usually present gait abnormality or incoordination and tremor of the upper limbs. Early diagnosis and treatment with a gluten-free diet improves ataxia and prevents its progression.

Industrial inclusion of Gluten in dietary consumption

Gluten is widely used in food industries, in bakery to ordinary **flour**, to improve the dough's ability to increase in volume.

Gluten, especially **wheat gluten**, is often used as the basis for **imitation of meat in food industry** resembling **beef, chicken, duck, fish, and pork**. Gluten, when cooked in **broth**, absorbs some of the surrounding liquid (including the flavor) and becomes firm to the bite thus giving a mock effect.

Gluten is often present in **beer** and **soy sauce**. It is used as a **stabilizing agent** in food products, like **ice cream** and **ketchup**. Foods of this kind raise a problem for consumers suffering from **celiac disease**

International standards & global consciousness regarding gluten consumption

The *Codex Alimentarius* international standards for food labeling has a standard relating to the labeling of products as "gluten-free". It only applies to foods that would normally contain gluten.

Brazil

By law in Brazil, all food products must display labels clearly indicating whether or not they contain gluten.

Canada

The Canadian Celiac Association estimates that one in 133 Canadians experiences adverse symptoms from gluten in celiac disease. Labels for all food products sold in Canada must clearly identify the presence of gluten if it is present at a level greater than 20 parts per million.

United Kingdom

In the United Kingdom, all prepackaged foods and non-prepacked foods from a restaurant, take-out food wrapped just before sale, or unpackaged food served in institutions must be identified if gluten-free. "Gluten-free" is defined as 20 parts per million of gluten or less and "very low gluten" is 100 parts per million of gluten or less and only foods with cereal ingredients processed to remove gluten can claim "very low gluten" on labels.

United States

In the United States, gluten is not listed on labels unless added as a stand-alone ingredient. Wheat or other allergens are listed after the ingredient line. The US Food and Drug Administration (FDA) has historically classified gluten as "generally recognized as safe" (GRAS). In August 2013, FDA issued a final rule, effective on August 2014, that defined the term "gluten-free" for voluntary use in the labeling of foods as meaning that the amount of gluten contained in the food is below 20 parts per million.

COMPARATIVE STUDY OF MAJOR CEREAL CULTIVATION& CONSUMPTION AROUND THE WORLD

Cereals are the only group of crops, the cultivation of which exceeds 20% of global land area or may be 61% of the total cultivated land. In particular, wheat, maize, barley, rice, and millet constitute over more than two thirds of the cropland of the world

Wheat is the most abundant crop, occupying 22% of the total cultivated area in the world. The global per capita consumption of wheat is relatively steady over the past 50 years. The consumption in developing countries has increased significantly during globalisation in contrast to the overall declining of consumption of wheat in the developed world. For example, per capita consumption of wheat flour in several Asian and Sub Saharan Africa countries has been growing steadily. India consumed about 40 kg wheat per person per year in 1970, and almost 66 kg/person/year in 2007. In many Asian countries, increase in wheat consumption has been partly at the expense of rice. This is attributed to diversification of diets as a result of growing economies and increased global trade.

In the U.S.A., there was a steady decline of wheat consumption from 1890s to 1960s with the growth of American economy. During this time people switched off more to animal based products. The reversion of trend occurred in the 1960s when the health concerns regarding animal product consumption leading to the cholesterol and heart disease became the primary concern of the people of U.S.A. Hence an increase in consumption of wheat flour and other plant based products is observed till the late 1990s. But the trend is again reversed with the fad of low carbohydrate diet by weight loss programs. Yet, the low carbohydrate dietary trend faded quickly, and the major contributor to the failure was the limited sensory appeal of consistent intake of low carbohydrate products. Man cannot live by bread alone so also man definitely cannot live without bread. The U.S.A. experience with wheat consumption clearly indicates that health concerns are a major driver of consumer behavior in terms of their food choices. It also illustrates that potential health benefits alone are not enough to sustain a trend in the long term. Food must also meet consumer sensory needs and expectations; this has been a major bottleneck in attempts to provide healthier food to consumers.

Rice is the single most important source of calories for humans and the second most extensive crop in the world. Rice is grown mainly for direct human consumption with very little making it to other uses. It contributes approximately 21% of world per capita caloric intake and 27% of per capita calories in the developing countries. It is the major crop of South and Southeast Asia, cultivated in the Amazon Basin, the southern United States, and southern Australia.

The world average per capita consumption of rice in 2009 was 63 kg (milled), with the highest intake in Asian countries (90% of world rice production), thus making only a small fraction of world rice production (6.8%) to enter international trade. This indicates that most non-rice producing countries generally consume limited quantities of rice. Further, it is predicted that rice demand will decline as poor economies in Asia become more affluent and begin to diversify their diet. For example, per capita annual rice (polished) consumption in South Korea has declined steadily from a high of about 140 kg in late 1970s to 75 kg in 2010.

In China, per capita annual consumption has declined since 2000; over the same period. Overall world per capita consumption has declined from 66 kg to 63 kg.

However, future overall global per capita of rice consumption is not be that easy to predict. There has been significant increase in rice consumption in some Asian countries, like the Philippines. Many countries in Sub Saharan Africa have shown significant growth in per capita rice consumption as their economies improve and they seek to diversify their diet from traditional maize and sorghum/millet. For example, in Ivory Coast, per capita rice consumption increased from 67 kg to 76 kg between 2000 and 2010 (5).

Maize (Corn)

The U.S.A. is the largest producer of maize. Maize, in U.S.A is mostly used as animal feed and only 15% of the grain is used as breakfast cereal and snacks. In Africa and Latin America, however it is a major staple, consuming 30% of world food maize. It contributes to 90% of the consumption with an average per capita consumption of about 50 kg.

In 2004 - 2006 the wheat production in European Union & U.S have decreased by 12 to 16 percent while rice production in China & India have seen an increase by 12 & 9 percent respectively (based on data from FAO 2006a & 2007b). Hence predominance of rice cultivation over wheat & other gluten containing cereals can find a solution to the growing health hazard spread around the world. As oppose to cereal production, agricultural commodities like vegetables, fruit, milk, & meat are also gaining more importance and getting included at a faster in daily platter of developing countries.

Pingali (2004) has identified six keystylized facts characterizing the changes in food *demand* in Asia. These facts are pertaining to changes in the consumption of rice, wheat, protein and energy-dense foods, and diet diversification. We can explain these facts by identifying a two-stage process of diettransformation. During the first stage, consumers move away from inferior goods to superior foods and substitute some traditional staples with primary food products thatare more prevalent in western diets. In the second stage the influences of globalization are much more marked with increased consumption of proteins, sugars, fats andtemperate zone products.

RESEARCH GAP

The adverse effect of gluten is felt yet many countries especially developing countries are not taking proper set to make the general population aware about its ill effect& encourage rice cultivation & consumption over gluten containing cereal crops.

RESEARCH QUESTIONS

- How globalization, income growth, climatic change, global warming, market & urbanization has contributed to the increase of adverse effect of westernization of diet in developing countries rather than more healthy traditional one?

RESEARCH OBJECTIVES

- To gain knowledge about the ill effect of gluten consumption
- To understand the key factors for the consumption of wheat & wheat based products among general population
- To compare the cultivation of three major cereal crops in total cultivated land with special preference to rice cultivation

SCOPE OF THE STUDY

The study is based on the secondary data based on the cultivation pattern of three major cereal crops of the world with special reference to the adverse effect of gluten consumption on general population.

METHODOLOGY

The study is descriptive in nature and seeks to identify the problems faced by gluten consuming general populationData is collected over internet & journals to understand the consumption pattern of major staple cereals & awareness of developed countries against the aloofness of developing ones regarding gluten consumption.

DATA INTERPRETATION

The effect of globalization is felt all over the worldin both the developing and developed countries.The process of diet transformation has involvedtwo separate stages:

• Income-induced diet diversification.

At the start of the process of fastereconomic growth, diets diversify but maintain predominantly traditionalfeatures.Economic prosperity enablesconsumers to afford a more varied balanced diet and to demand nutritionally superior food products. In this stage, the demand for food IS largely directed towards traditional foods with positive income elasticities of demand. Consumers typically move away from rice consumption or may consume higher quality varieties of rice. Increased consumption of wheat, in the form of bread and other wheat-based products, such as cakes, and cookies is observed.

• Dietglobalisation.

Asglobalisation begins to exert its influenceand anew dietary habits is observed in global patterns which is unlike thehabits practiced locally over many generations. Consumers exhibit strong preferences for meat or fish, temperate zone foods such as apples and highlyprocessed convenience foods and drinks that are readily available in the emerging supermarkets and fast-food outlets. This change contributes to more gluten intake in regular dietary in the form of sauce, ketchup, processed food & ice-cream. During this secondstage of change with more global influences there is an increase in demand of wheat, animal products and related foods, There is a declinein the consumption of traditional foods such as rice, pulses and cereals. As there is more wheat intake, the gluten percentage in regular food increases.Hence the globalization truly influences the wheat consumption leading to gluten adversities .Now a days many developed countries have become more conscious about its ill effect and are ready to adapt food with lesser gluten concentration and other animal products.

CONCLUSION & RECOMMENDATION

It is already observed that wheat is more popular as staple cereal over rice and maize. The most famous problem with wheat is celiac disease which is an autoimmune reaction induced by gluten and treatable only with a gluten-free diet. 30-40% of people having any genetic background of celiac disease are potential recipients to develop the disease. Yet plenty of people sensitive to wheat are not actually having celiac disease. The overlapping problem is due to wheat germ agglutinin and amylase trypsin inhibitors present in wheat as proteins. One can be sensitive to them regardless of how the body handles gluten. The proteins in wheat are gut irritants and work as splinters digging into the lining of the gut, causing an inflammatory response. Amylase trypsin inhibitors (Ati) cause an inflammatory immune response in the GI tract by stimulating immune cells. It can occur in people regardless of whether they have celiac disease or not. Inflammation in the gut contributes to a problem called intestinal permeability. The gut has a very complex system of "border control" that lets digested food into the bloodstream as nutrients while keeping the rest out. Inflammation in the gut messes up this system of border control and loosens the junctions between cells in the gut wall as a result of which many non-nutrients pass through the gut wall a condition commonly described as gut "leaky" or "leaky gut". The gut biome or the gut flora is the collection of friendly bacteria, living inside our gut. They help to regulate our immune system, control intestinal permeability, digest food, synthesize nutrients like vitamin K2 and send hunger/fullness signals to the brain. Gluten affects the biome causing gut inflammation, diarrhea, constipation, heartburn, pain, bloating and gas. Brain fog and fatigue are symptoms of both celiac disease and non-celiac gluten sensitivity are caused by gluten alone. Gluten may even increase vulnerability to dementia and Alzheimer's disease. Hence it is high time for global awareness and movement against gluten-free diet. The adversity of western diet and inclusion of wheat and wheat products have a far-reaching effect in the wellness of human race.

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MUNICIPAL WASTE MANAGEMENT: ISSUES & CHALLENGES

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ABSTRACT

The increasing industrialization, rapid pace of urbanization and significant changes in the life styles along with the process of economic growth and development are mainly responsible for the generation of waste in the municipal areas in our country. All types of wastes are causing threats to sustainable development. In recent years, technologies are being developed globally in order to reduce the waste considerably as well as generating substantial quantity of decentralized energy.

However, municipal waste management is a relatively recent development in India. In our present study, we will address relevant issues and challenges which are being mainly confronted by the municipalities in the urban areas. We will showcase various challenges in the process of municipal waste management and their probable solutions.

Keywords: Municipal waste management, Sustainable development, Municipalities, Issues, Challenges, Solutions.

PRELUDE

The rapid industrialization, urbanization and changes in life style, etc. have given rise to generation of huge quantum of waste leading to increased threats to the environment. In recent years, technologies are being developed and demonstrated globally that not only help in reducing the quantum of waste considerably, but also could generate substantial quantity of decentralized energy.

However, solid waste management is a relatively recent development in Indian context. According to India's Constitution, Solid Waste Management (SWM) falls within the purview of the State Government. The activities are entrusted to Urban Local Bodies (ULB) through state legislations. In most of the Indian cities, the Municipal Solid Waste (MSW) collection, segregation, transportation, processing and disposal is carried out by the respective municipal corporations and the State Governments enforce regulatory policies from time to time.

Management of Municipal Solid Waste (MSW) is one of the most neglected areas of urban development in India. Magnitude and density of urban population in India is increasing at an alarming rate and consequently the civic bodies are facing considerable difficulties in getting adequate services such as supply of water, electricity, roads, education and public sanitation, including Municipal Solid Waste Management (MSWM).

Municipalities spend about 5-25% of their budget on Municipal Solid Waste Management. In spite of such a heavy expenditure, the present scenario of service in many urban areas is abysmal low and there is frequent threat to public health in particular and to environmental quality in general.

OBJECTIVES OF THE STUDY

The objectives of our present study are as follows:

1. To highlight the importance of solid waste management in India;
2. To give some lights on the present and future scenario of solid waste generation in India;
3. To showcase various issues of municipal waste management system prevails in India;
4. To address various challenges and their solutions of solid waste management in India.

METHODOLOGY

For conducting this study, secondary data have been used. We have taken information from various reports published by Planning Commission of India, various published articles, books, periodicals, etc.

DISCUSSION & OBSERVATION

We have discussed the followings keeping in view the present objectives of our study. We have discussed about the importance of solid waste management in India, present and future scenario of solid waste generation, various issues of municipal waste management system, and various challenges and their solutions of solid waste management in India.

IMPORTANCE OF SOLID WASTE MANAGEMENT IN INDIA

As per estimates, 1,15,000 tons of solid waste are generated per day in the country. Urban Local Bodies (ULBs) spend about Rs. 500 to Rs. 1,500 per ton on solid waste collection, transportation, treatment and disposal. However, hardly any amount is spent on scientific disposal of waste.

It is estimated that solid waste generated in small, medium and large cities and towns in India is about 0.1 kg, 0.3 – 0.4 kg and 0.5 kg per capita per day respectively. Studies carried out by National Environmental Engineering Research Institute (NEERI) indicated that the per capita generation rate increases with the size of the city and varies between 0.3 to 0.6 kg/day in the metropolitan areas have been recorded. The estimated annual increase in per capita waste quantity is about 1.33% per year.

Solid waste management (SWM) is a major problem for many urban local bodies (ULBs) in India, where urbanization, industrialization and economic growth have resulted in increased municipal solid waste (MSW) generation per person [1]. Effective SWM is a major challenge in cities with high population density.

Despite significant development in social, economic and environmental areas, SWM system in India has remained unchanged. The informal sector has a key role in extracting value from waste, with approximately 90% of residual waste currently dumped rather than properly landfilled [2]. There is an urgent need to move to more sustainable SWM, and this requires new management systems and waste management facilities. Current SWM system is inefficient, with waste having a negative impact on public health, the environment and the economy [3]. The waste Management and Handling Rules in India were introduced by the Ministry of Environment and Forests (MoEF) [4], although compliance is variable and very limited.

Improvements in civil infrastructure are required for India to become a world leading economy. Developing high-quality infrastructure that meets the needs of the people and protects the environment is fundamental to achieving effective economic growth [5]. Waste management infrastructure has an important role in delivering sustainable development. Rapid population growth in India has led to depletion of natural resources. Wastes are potential resources and effective waste management with resource extraction is fundamental to effective SWM. Value extraction from waste can be materials, energy or nutrients, and this can provide a livelihood for many people [6]. The transition from wastes to resources can only be achieved through investment in SWM as this depends on a coordinated set of actions to develop markets and maximize recovery of reusable/recyclable materials [7]. Materials, energy and nutrient recovery must be the aim of future SWM infrastructure development in India.

From the above discussion, it is very clear to us that solid waste management is prerequisite for sustainable development and need of the hour.

PRESENT & FUTURE SCENARIO OF SOLID WASTE GENERATION IN INDIA

India is experiencing rapid urbanization and population growth which are the major contributors of waste generation. Megacities are also a relatively recent phenomenon in India. In order to showcase the present scenario of waste generation in India, we have considered seven megacities in our country. Megacities in India include Ahmedabad (6.3 million), Hyderabad (7.7 million), Bangalore (8.4 million), Chennai (8.6 million), Kolkata (14.1 million), Delhi (16.3 million) and Greater Mumbai (18.4 million [8]). These have dynamic growth of population and high waste generation per capita, as shown in table 1 [6].

Table-1: Major Cities in India and Per Capita Waste Generation (2010–2011)

City	Population (2011)×10 ⁶	Total Waste Generated in Tons Per Day	Waste Generation (Kg.Per Capita Per Day)	Rank
Ahmedabad	6.3	2300	0.36	5
Hyderabad	7.7	4200	0.54	1
Bangalore	8.4	3700	.44	3
Chennai	8.6	4500	.52	2
Kolkata	14.1	3670	.26	7
Delhi	16.3	5800	.41	4
Mumbai	18.4	6500	.35	6

Source: *Census of India 2011, #CPCB Report 2011.

From the above table 1, we observe that waste generation per capital per day is the highest in Hyderabad, followed by Chennai, Bangalore, Delhi, Ahmedabad, Mumbai, and Kolkata. It is also observed that southern India is generating more waste per capital in comparison to other parts of India.

Estimating the quantity and characteristics of MSW in India and forecasting future waste generation is fundamental to successful waste management planning [9]. The quantity of MSW generation depends on living standards, the extent and type of commercial activity, eating habits and season [10]. India generates approximately 1,33,760 tons of MSW per day, of which approximately 91,152 tons is collected and approximately 25,884 tons is treated [11]. MSW generation per capita in India ranges from approximately 0.17 kg per person per day in small towns to approximately 0.62 kg per person per day in cities, as shown in table 2[12].

Table-2: Waste Generation Per Capita in Indian Cities

Population	Waste Generation Rate (kg per capita per day)
cities with a population < 0.1 million (eight cities)	0.17–0.54
cities with a population of 0.1–0.5 million (11 cities)	0.22–0.59
Cities with a population 1–2 million (16 cities)	0.19–0.53
Cities with a population > 2 million (13 cities)	0.22–0.62

Source: Kumar Et Al. [12, 13]

World waste production is expected to be approximately 27 billion tons per year by 2050, one-third of which will come from Asia, with major contributions from China and India [14]. Waste generation in urban areas of India will be 0.7 kg per person per day in 2025, approximately four to six times higher than in 1999. The problems associated with waste become more acute as the size of communities increase and this provides opportunities for decentralized waste management by self-help groups and NGOs [15].

The waste produced in urban areas of India is approximately 1,70,000 tons per day, equivalent to about 62 million tons per year, and this is expected to increase by 5% per year owing to increases in population and changing lifestyles [16]. Table 3 shows that urban India generated 31.6 million tons of waste in 2001 and is currently generating 47.3 million tons. By 2041, waste generation is predicted to be 161 million tons, a fivefold increase in four decades [17]. This is shown in the following table.

Table-3: Predicted Population Growth and Overall Impact on Waste Generation

Year	Population $\times 10^6$	Total Waste Generation ($\times 10^5$ Tons Per Year)	Per Capita Generation (Kg Per Day)
2001	197.3	31.63	.439
2011	260.1	47.30	.498
2021	342.8	71.15	.569
2031	451.8	107.01	.649
2036	518.6	131.24	.693
2041	595.4	160.96	.741

Source: Amepu [17]

VARIOUS ISSUES OF MUNICIPAL WASTE MANAGEMENT SYSTEM

1. Composition of MSW in Indian Metro Cities

The local economy impacts on waste composition, as high-income groups use more packaged products, resulting in higher volumes of plastics, paper, glass, metals and textiles. Changes in waste composition can have a significant impact on waste management practices [18]. MSW may also contain hazardous wastes such as pesticides, paints, used medicine and batteries. Compostable organics include fruits, vegetables and food waste. Healthcare waste contains disposable syringes, sanitary materials and blood containing textiles and is governed by the Biomedical Waste (Management and Handling) Rules 1998 and the Amended Rules, 2003, and should not be mixed with MSW [19,20]. The average composition of MSW produced by Indian cities is approximately 41 wt. percentage organic, approximately 40 wt. percentage inert, with approximately 19 wt. percentage potentially recyclable materials, as shown in table 4 [21]. Most organic waste is generated from households, and inert waste is generated from construction, demolition and road sweeping. Waste samples collected from Delhi, Ahmadabad and Bangalore indicate that MSW composition varies between cities [13, 22].

Table-4: Average (% by Weight) Composition of MSW in Indian Metro Cities

Composition of MSW	Compostable	Inert	Paper	Plastic	Glass	Metals	Textile	Leather
Average (% by Weight)	41	40	6	4	2	2	4	1

Source: Sharholy et al. [21]

The MoEF issued MSW (Management and Handling) Rules 2000 to ensure proper waste management in India and new updated draft rules have recently been published [4]. Municipal authorities are responsible for implementing these rules and developing infrastructure for collection, storage, segregation, transportation,

processing and disposal of MSW. Chandigarh is the first city to develop SWM in a planned way and has improved waste management compared with other Indian cities [23].

2. Waste Collection and Transport

Waste collection, storage and transport are essential elements of any SWM system and can be major challenges in cities. Waste collection is the responsibility of the municipal corporations in India, and bins are normally provided for biodegradable and inert waste [24–26]. Mixed biodegradable and inert waste is often dumped, with open burning a common practice. Improvements to waste collection and transport infrastructure in India will create jobs, improve public health and increase tourism [27]. Local bodies spend around Rs. 500–1000 per ton on SWM with 70% of this amount spent on collection and 20% spent on transport.

3. Waste Disposal

SWM disposal is at a critical stage of development in India. There is a need to develop facilities to treat and dispose of increasing amounts of MSW [28]. More than 90% of waste in India is believed to be dumped in an unsatisfactory manner. It is estimated that approximately 1400km² was occupied by waste dumps in 1997 and this is expected to increase in the future.

Properly engineered waste disposal protects public health and preserves key environmental resources such as ground water, surface water, soil fertility and air quality. Indian cities with containment landfill sites include Mumbai, Kolkata, Chennai, Nasik, Vadodara, Jamshedpur, Allahabad, Amritsar, Rajkot, Shimla, Thiruvananthapuram and Dehradun [12]. Table 5 shows treatment facilities available in different states in India and table 6 has information on landfills associated with different cities.

Table-5: State-Wise Status of MSW Processing Facilities in India in 2011

State	Composting	Vermicomposting	Biomethanation	Pelletization	Waste to Energy
Andaman and Nicobar	1	Nil	Nil	Nil	Nil
Andhra Pradesh	24	Nil	Nil	11	2
Assam	1	Nil	Nil	Nil	Nil
Chandigarh	Nil	Nil	Nil	1	Nil
Chhattisgarh	6	Nil	Nil	Nil	Nil
Delhi	3	Nil	Nil	Nil	3
Goa	14	Nil	Nil	Nil	Nil
Gujarat	3	93	Nil	6	Nil
Himachal Pradesh	10	Nil	Nil	Nil	Nil
Jammu and Kashmir	1	Nil	Nil	Nil	Nil
Jharkhand	4	Nil	Nil	Nil	Nil
Kerala	21	7	10	1	1
Madhya Pradesh	7	Nil	Nil	2	Nil
Maharashtra	6	2	5	5	2
Meghalaya	1	1	Nil	Nil	Nil
Nagaland	1	1	Nil	Nil	Nil
Orissa	1	1	Nil	Nil	Nil
Punjab	1	3	Nil	Nil	Nil
Sikkim	1	Nil	Nil	Nil	Nil
Tamil Nadu	162	24	Nil	3	Nil
Tripura	1	Nil	Nil	Nil	Nil
West Bengal	13	7	Nil	Nil	Nil
Total	282	139	15	29	08

Source: Planning Commission 2014 [16]

Table-6: Landfill Sites Associated with Different Cities in India

City	Number of Landfills	Area of Landfills (Hectare)
Chennai	2	465.5
Coimbatore	2	292
Surat	1	200
Greater Mumbai	3	140
Greater Hyderabad	1	121.5
Ahmadabad	1	84

Delhi	3	66.4
Jabalpur	1	60.7
Indore	1	59.5
Madurai	1	48.6
Greater Bangalore	2	40.7
Greater Vishakhapatnam	1	40.5
Ludhiana	1	40.4
Nasik	1	34.4
Jaipur	3	31.4
Srinagar	1	30.4
Kanpur	1	27
Kolkata	1	24.7
Chandigarh	1	18
Ranchi	1	15
Raipur	1	14.6
Meerut	2	14.2
Guwahati	1	13.2
Thiruvananthapuram	1	12.5

Source: Parvathamma [29]

CHALLENGES AND THEIR SOLUTIONS OF SOLID WASTE MANAGEMENT IN INDIA

1. Issues in Household Storage and Segregation of Waste

Most households, shops, and establishments throw their waste just outside their premises, on streets, indrains, in open spaces, in water bodies, and in other inappropriate places. In most cases, source segregation is not done.

Solution

- 1) Citizens must be informed and motivated not to litter the streets so they develop the habit of storing their waste at its source in at least two separate bins (one for biodegradable waste and one for recyclable waste).
- 2) Citizens also need to be educated about risks to human health and the environment and taught to separate domestic hazardous waste and infectious waste.
- 3) Municipal authorities must take concerted efforts to convince all classes of citizens to store and segregate their waste properly.

2. NoSystem of Primary Collection

- 1) Municipal authorities consider themselves responsible only for waste collection at street collection points and do not feel it is their job to provide doorstep collection service, even though such service is now mandated in the rules.
- 2) Lack of citizen involvement in the storage of waste at source, which would facilitate primary collection from the doorstep.

Solution

- 1) An assessment of the housing situation, street conditions, and geographic and topographic situation is always a prerequisite for efficient planning and decision making for primary collection equipment.
- 2) According to the Municipal Solid Waste (Management and handling) rules 2000, there are two options for primary collection: door-to-door collection at preset intervals or community bin collection (known as the bring system).

3. Irregular Street Sweeping

- 1) No planning is done to ensure that all streets are swept regularly; there is no benchmark, or yardstick, prescribed by municipal authorities for street sweeping.
- 2) The street sweepers are not given appropriate tools to perform their duties effectively. They are given short-handled brooms, which necessitate constant bending and cause fatigue and loss of productivity.

Solution

- 1) A schedule of street cleaning that indicates which roads require daily cleaning and which ones need to be cleaned periodically.
- 2) A program for street cleaning, keeping in view the norms of work (yardsticks) prescribed.
- 3) A timetable for cleaning of open public spaces daily or periodically.

4. Poor Secondary Storage of Waste

- 1) Waste depot sites are not evenly distributed in cities and towns.
- 2) They are often very poorly designed and are not synchronized with the primary collection system.
- 3) Waste depots are not emptied on a regular basis.
- 4) Inappropriate secondary storage of waste leads to a “not in my backyard” (NIMBY) syndrome.

Solution

- 1) Municipal authorities should identify suitable locations, preferably from among the existing locations of waste storage depots in the city.
- 2) Large containers ranging from three cubic meters to seven cubic meters should be placed for secondary storage of waste.
- 3) Transfer stations should be decentralized within the city, allocated to an enclosed area, and situated in the general direction of the main landfill site.

5. Issues in waste Transportation

- 1) Open trucks and tractors used to transport waste are loaded manually. This time-consuming activity results in loss of labour productivity and increases the occupational health risk to workers.
- 2) The transport system is not synchronized with the secondary storage system.
- 3) Problems arise when a transport fleet is not modernized, because waste at the secondary storage system is still dumped on the ground. If the secondary storage system is modernized without an adequate fleet of modern vehicles, similar problems arise.

Solution

- 1) The longer the distance to the landfill site, the more volume should be transported with each load. In case of long haul distances to the landfill site, transfer stations are found to be most efficient.
- 2) Vehicles should be selected according to capital costs, carrying capacity, life expectancy, loading speed, local spare part availability, speed, fuel consumption, and maintenance costs.
- 3) The transport of waste can be managed and monitored centrally or through a large decentralized arrangement. Transport can be contracted out to private operators.
- 4) The transport system must be harmonized with the secondary storage system of waste to prevent manual and multiple handling of waste.

6. Lack of Waste Treatment

- 1) The MSW generated in Indian cities is, by and large, not treated but is directly taken to the open dumpsites.
- 2) Although India is known for its age-old technology of composting agricultural waste, composting of municipal organic waste is infrequent. In a few cities, however, initiatives exist for aerobically composting or vermicomposting of municipal organic waste.
- 3) However, many plants are not operated according to their installed capacity. Many plants face problems with compost marketing and find financial sustainability difficult.

Solution

- 1) The municipal authorities must treat the organic fraction of waste before disposal.
- 2) The authorities are expected to set up a plan for composting waste or to adopt waste to-energy technology as may be appropriate.
- 3) Municipal authorities have to assess the suitability of new technology to Indian conditions.

7. Inappropriate Disposal of Waste on Open Dumping Grounds

- 1) Waste is dumped in low-lying areas that are within or outside the cities and that are designated as dumping grounds or in unauthorized areas on the outskirts of the city.
- 2) Sometimes waste is even dumped on the approach roads to rural areas, which do not have their own land for disposal of waste. Such practices result in extremely unsanitary conditions and create serious environmental degradation problems.

- 3) Because no segregation of waste at its source takes place, domestic waste of all types, infectious waste from medical facilities, and even hazardous industrial waste are deposited at dumpsites that are actually designated for domestic waste.

Solution

i) The state pollution control boards are required to prescribe the criteria for site selection in terms of distance to be maintained from habitation, water bodies, highways, railways, and so forth.

ii) The municipal authorities should follow the rules carefully when constructing an engineered landfill.

CONCLUSION

Rapid growth of population and particularly the emergence of megacities is making SWM in India a major problem. The present situation is that India relies on inadequate waste infrastructure, the informal sector and waste dumping. There are major issues associated with public participation in waste management system and there is a lack of responsibility towards waste management in the community. There is a need to enhance community awareness and change the negative attitude of people towards waste, as this is fundamental to developing proper and sustainable waste management systems. Sustainable and economically viable waste management must ensure maximum resource extraction from waste, combined with safe disposal of residual waste through the development of engineered landfill and waste-to-energy facilities. Until these fundamental requirements are met, India will continue to suffer from poor waste management and the associated impacts on public health and the environment.

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BROILER POULTRY FARMING IS A METHODOICAL RURAL BUSINESS : A CASE STUDY IN BASIRHAT, WEST BENGAL

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ABSTRACT

Broiler poultry farming is one of the profitable but methodical business in the small-scale industry. In rural semi-urban areas, this is one of the best well accepted growing business usually seen among young generations. There is always a high demand for broiler chicken for high volume good quantity meat which can be produced in a short time but through the scientific methods. Special care for all diseases like bird flu, good food for good nutrition to chicks, selection of high productive breeds, ventilation system based housing, right temperature & best feed with water. The objective of this study is to show the consistent business without heavy investment but with the help of proper maintenance of broiler chicks methodically. This study is based on the executions of the processes in a sequence for every 2 months interval, till growth of 2.8 to 3.3 kg broiler chicken from the initial stage of the order. As per observation, each chick was 50-60 gm average while taken into farmhouses. The study used primary data collected for the 2 years, since January 2016 till December 2017 from a young 27-year-old farmer who was genetically in this business located in Basirhat in North 24 Parganas, West Bengal. The study was conducted on the basis of nos. of total baby chicks sent by the company as a distributor to his farm at an interval of 60 days that became 6 batches in each year. The study shows total 12 batches baby chicks of a nos. of average 2800 to 3300 chicks per batch. Out of which in spite of 11% -15 % death of growing chicks or full grown birds due to diseases, still a profitable amount of meat came into the urban market just because of special-care, maintenance, right processing.

Keywords: broiler farming, poultry business, rural business, low cost business, entrepreneurship

INTRODUCTION

The broiler poultry industry is rapidly growing all over the world due to increased demand for good quality meat to get enough animal protein. India is one of the top countries occupies 3rd place in the world egg production and is among the twenty top producers of broiler poultry meat. As this is a growing rural business in India, so like other semi-urban areas, West Bengal mainly North -24 Parganas is highly contributing to the poultry industry. Perhaps Basirhat is the most potential & consistent performer analyzing the records since last two decades as the genetically adopted rural business. Basirhat is a city under north 24 Parganas district in West Bengal, very potential in terms of all business mainly the rural business, small-scale industries or cottage industries. Broiler poultry farming is a one of the popular & fastest growing rural business in Basirhat on the basis of increased demand of broiler chicken meat in towns. Although this is a lucrative rural business without so much investment having proper scientific methods & maintenance. Broilers which are young male & females chicken that grows from 40-60gm of weight as baby chicks up to 2.8 kg to 3.5 kg of tender meat. To start this business, farmer has to know the basic like a) Licenses making & all the laws b) Knowing the market – Urban, semi-urban, & city markets c) Basic simple plan which can be learned by genetically from father or grandfather d) proper maintenance & right Processing e) Diseases free farming & quality meat for the consumers e) making ready for sale in market as high-quality tender meat as quick as possible by 60 days approximately time frame.

So many broilers breeds are available but a farmer has to check the best breed for best quality high volume meat. Generally, it is always checked that if 1 or 2-day old baby chick shows good weight, seems better return in terms of weight after 30-45 days of farming. To procure good meat firstly it is important to take care nutritional parts for the baby chicks. This ultimately gives not only good business but overall good animal protein to the consumers. This can be said, from 0 to 7 weeks, birds should be nourished with 23 % protein enriched by Lysine & Methionine & metabolic heat should be 3000-32000kcal. Apart from these, all the minerals mainly Iodine, potassium, zinc carbonate & manganese sulfate should be enough added to prepare foods called 'Mash' or medicated foods or 'Grower Feed'. Never to forget that baby chick need a frequent clean water to drink. Most important arrangements must be done by i) housing with 1000-12000sq.ft per thousand birds with a distance from 11-12 meters from one house to another. ii) The houses should be well maintained by ventilation & hover temperate in & around 97 °F at 1st week with a reducing 5 °F until 70 °F.

If all the procedures go right in a proper sequence then a farmer can produce a very high-quality meat which is given here nutrition to each consumer.

NUTRITION FACTS – 100GM BROILER CHICKEN**Nutrition Facts for a Serving Size of 100 grams .Calories 214.3.**

Calories from Fat 136.6 (63.7%)% ,Daily Value -**Total Fat** 15.2g , Saturated fat 4.5g, **Cholesterol** - 75.9mg , **Sodium** -196.4mg - 9% , **Carbohydrates** 0g - Net carbs 0g. Fiber 0g -0% , **Protein** 18.8g ,Vitamins and minerals - Vitamin A 16.1µg - 2%, Vitamin C - 1.6mg - 3% , Calcium 0mg , 0% Iron 0 mg , 0% Fatty acids. 0% Amino acids

The Percent Daily Values are based on a 2,000 calorie diet, so person to person variable.

Source:<https://www.eatthismuch.com/food/view/broiler-chicken,91293/>

REVIEW OF LITERATURE

India occupies 3rd place in the world egg production and is among the twenty top producers in the world in broilers. Indian poultry industry provides direct and indirect employment to over 4 million people, particularly in rural areas, and contributes about Rs.40,000 crores to the national GDP. Layers in India have registered an annual compounded growth rate of 7% to 8% for the past three decades. ^[1]

The poultry farming plays an important role in the rural economy of India. During the last two decades, the poultry industry in India has gained a tremendous momentum and has virtually reached a stage of self-sufficiency and specialization. The rapid growth of poultry industry has been encouraging many farmers to adopt poultry farming as the main source of their income. In spite of various developments in modern poultry farming, disease problems remain as a major constraint affecting its successful functioning. In India, for the survival of any poultry farm, the most important factor that has to be taken into account is Raw material or Poultry Feed. Feed cost is the most important element of poultry cost, accounting for more than 60% of the cost. The main feed ingredients are maize, soya, rice bran and other cereals. In India, the feed is mainly maize and India is still dependent on monsoon for its agriculture. Any problem in monsoon can lead to fluctuation of maize cost thus affecting the profitability of poultry farms. ^[2]

Poultry production itself stands to suffer directly or indirectly because of climatic change. Changes in the shortfall of agricultural production will indirectly lead to the shortage of feed ingredients and escalation of costs while global warming will have a direct bearing on poultry production, productivity, and profitability. ^[3]

Tandon and Dhaudyal defined net farm income as the difference between receipts and total expenses. Net farm income is derived by subtracting the cost of the gross income. He also stated that selection of right breed is a prerequisite for successful poultry keeping. The selection of suitable breeds is not merely a matter of individual preferences and requirements but a choice hedged in by such factors as the environment, husbandry conditions, marketing facilities and local prejudices ^[4]

According to Singh and Patel fixed costs includes the cost of chicks, depreciation, and interest on fixed capital and rent. Variable cost includes the feed, labor, medicine, litter costs, miscellaneous costs and interest on operating capital. The total cost of production varies from farm to farm and also it is influenced by climatic and soil conditions ^[5]

Kumar opined that cost of production of egg/poultry should include establishment charges, supervisory charges, labor charges, expenditure on feeds, medicine, miscellaneous expenses, depreciation on poultry bird building, poultry house, implements and furniture and interest on working and fixed capital ^[6]

Singh and Gaikward included the cost of birds, depreciation on building machinery equipment, interest on investment, cost of litter, feed, medication, labor charges, marketing charges and miscellaneous costs in the cost of production ^[7] .

Arputharaj and Kamaladevi included depreciation of building and equipment, the cost of chicks, electricity, and fuel, litter, labor charges in cost of production ^[8]

Verma and others while studying the economics of poultry farms included depreciation on building and equipment, cost of chicks, cost of feeding, cost of electricity, cost of labor, insurance charges of birds, cost of medicines, cost of repairs and maintenance of house and equipment in the cost of production of an egg. ^[9]

Bhat conducted a study to analyze the problems of marketing poultry and poultry products. The problems disclosed were the monopoly of middleman, low consumption of poultry meat, lack of grading, poor market research, seasonal fluctuation and market intelligence. The solutions suggested against the problems were proper planning and execution of price support operations, development of storage facility, effort to remove religious misconception and grading of dressed birds. ^[10]

Mitra in his study observed that as a routine disease-preventive measure, most of the people compromised with vaccination, which cannot be a substitute for sanitation or biosecurity. An effective vaccination may protect the flock against a specific disease, but lack of bio-security, poor sanitation or poor management can expose the birds too numerous health problems. Also, he recommended a few management practices for sanitation and disinfection ^[11]

Surat Singh analyzed the marketing of poultry products - broiler marketing, and the marketing aspects of the industry in terms of marketing costs, margins and behavior of prices. According to the study the marketing costs incurred and margin earned by the retailers were 10.47% and 6.74% respectively of the consumer price in Gurgaon district and it was 10.43% and 7.58% respectively in Ambala district. The market structure was analyzed by the concentration ratio. The indices revealed an absence of monopoly in the broiler market. The impact of seasonality was found rather weak. ^[12]

Gueye observed that the high incidence of the disease is one of the major constraints to smallholders of poultry systems in Africa. In order to control various poultry diseases, Ethno Veterinary medicine was widely practiced by poor village farmers. Natural products, which were locally available were used. Though the village poultry farmers claimed that these practices were effective there was an urgent need for applied research to substantiate their assertions. ^[13]

Chandrasekaran emphasized the importance of water management in poultry farming. He stated that the supply of pure water to the birds plays a significant role in disease prevention and mortality of birds. The expense of water management was comparatively less than the loss due to the waterborne diseases and consequent mortality.

Chandrasekaran R, "Importance of Water in Poultry Rearing", KozhiNanban (Tamil), June 1999, pp.13-19 ^[14]

Mohan explained the necessity for adopting latest techniques to face the present situation in poultry farming. Also, he has discussed the management procedures for better performance and higher profit, under 3 heads namely, general maintenance procedures, feed and water management and disease control. ^[15]

OBJECTIVE OF THE STUDY

1. To find out the consistency of earning without any significant amount of investment by the farmer in respect of the contract with the company
2. To Find out & understand the risks, procedures, maintenance & methods of business to procure high volume of chicken yield.
3. To find out the total sales, maintenance expenditures, loss & profit.

METHODOLOGY

The research study included available sales data from January 2016 till December 2017 from a young 27-year-old farmer who was genetically in this business located in Basirhat in North 24 Paraganas, West Bengal. The study involved farmer & a poultry distribution cum marketing company. An interview schedule was used to gather the needed information on each batch to start by receiving baby chicks till procurement of poultry meat.

The data categorically collected from the log book of the farmer for complete analysis & understanding as mentioned below:

INCLUSION CRITERIA

Farmer: (for each batch on the basis of 60 days interval).

- i. Total Nos. Chicks received in farm & Costs.
- ii. Total Nos. of dead birds in a batch duration & costs as the loss.
- iii. Total maintenance costs due to wood dust (sawdust), electricity, labor on contract & for washing.
- iv. Batch wise, cock & hen wise meat production & total sales with actual earning.

Company under contract: (for each batch on the basis of 60 days interval).

- i. Total Nos of chicks sent to the farmer (farm)
- ii. Company costs to farm for farming all the birds by the farmer due to medicines, mash as poultry feeds
- iii. Total nos. of dead birds & meat loss.
- iv. Batch wise, cock & hen wise meat production & total sales with profit resulted due to proper, scientific maintenance by farmer though out 60days of farming. An uninterrupted growth of the bird from a baby chick 40-60gm to 2.8-3.2 kg full size as expected weight -based cock or hen as ready chicken.

EXCLUSION CRITERIA

- i. Sale of dead birds used as feeds of fishes.
- ii. No specific transportation costs; in this study, some local arrangements included very low costs incurred by the farmer.

RESEARCH TOOL

- i. Documents & records maintained by farmer year wise.
- ii. Some sales records & expenses record incorporated here gathered from company authorized person.



Pic.-1: Baby Chicks on 2nd-5th day in Farm



Pic-2: Medication on Babi chicks on 15th day in the farm.



Pic-3: Broiler birds are on 40th day in the farm

RESULT & DISCUSSIONS

The study was to find out the productivity in response to nominal investment just as maintenance costs done by a rural farmer who was 27 years young graduate with a co-operation of his father. In that, 2 years duration, there was average 2942 pcs of baby chicks which were received in the farm for the farming with the help of knowledge & experience. The main resources were these two & tools were a sequence of scientific methods to do proper maintenance of broiler chicks. Therefore ultimate aim is to gain high yield as broiler chicken meat for all consumers.

BUSINESS CONTRIBUTION BY FARMER

Although like all business, sales were not similar in each lot but by the tremendous efforts of farmer sales was consistent, progressive, low but sure profit. As per business module cum format under the contract between company & farmer, baby chicks which were high-quality breeds & volume building, received in the farm with an approximate weight of 50-60 gm or some time may be less. Now it was farmer's job to start maintenance by proper methods following ventilation system based housing, right temperature & best feed with water. It was always natural for each lot due to particular diseases attack among like bird flu, gout, gastric disorders, allergy etc minimum 10 % to maximum 15 % or more death of birds. So in spite of certain amount loss each batch, still farmer was growing with tremendous energy to grow the birds & at the end of 55 to 60 days a baby chick become a cock of weight around 3.2 kg & hen around 3 kg. As per market demand, more volume by kilogram birds was productive & more profitable.

Further to add, in this business farmer has to spend some money for maintenance the successful farming which was sawdust or wood dust, Rs.2000/- per 1000 birds, labor to employ on the contract basis of wages of around Rs.7000/-, washing cost of approx. Rs.1200/- & electricity costs around 2500/- per batch (for total birds during 60 days). In this study, although per pc dead bird taken as 2kg/pc as an average but alive birds calculated on variable rate like cock 2.5 kg/pc to 3.3 kg/pc & in gross total nos of both birds in Kg. & sales amount in the market. As per Table No- 1, the overall growth & final sales by high-quality chicken meat became by the successful maintenance & farming by the farmer who finally sent to the company the all ready broilers birds for sales in the market. So the major contribution was by the farmer.

Table No –1: 12 Batches Maintenance Costs & Sales –In favor of Farmer

Batch	Start		Done	By	Farm									Production	By	Farmer	Sale By Company			
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S		
MONTH	Chicks Recd.	Dead	Birds	Loss	Maintenance	Cost				Cock Weight/pc	Tot Wt	Production	Hen	Weight/pc	Tot Wt	Production	Meat sale	Meat sale		
	At Farm	Birds	Weight/pc	Lost meat	Wood dust	Labour	Washing	Electric	Alive Birds	pcs	Kg/Pc	Kg	In Tot.-Rs	pcs	Kg/Pc	Kg	In Tot.-Rs	Kg. Tot	Market	
	Pcs	Pcs	2kg/pc-Avg	Rs	Rs	Rs	Rs	Nos					64/kg	pcs			64/kg		Rs-Tot.	
			Kg-Tot.	64/- kg																
JAN	2800	300	600	38400	6000	7000	1000	2500	2500	1400	2.5kg	3500	224000	1100	1.2kg	1320	84480	4820	308480	
MAR	3000	420	840	53760	6300	7200	1100	2600	2580	1500	2.8kg	4200	268800	1080	1.9kg	2052	131328	6252	400128	
MAY	3200	350	700	44800	6300	7500	1300	3500	2850	1300	3kg	3900	249600	1550	1.8kg	2790	178560	6690	428160	
JULY	2800	330	660	42240	6100	7000	1100	3200	2470	1100	2.7kg	2970	190080	1370	1.8kg	2466	157824	5436	347904	
SEP	3300	380	760	48640	6400	7400	1400	3800	2920	1420	3.2kg	4544	290816	1500	1.9kg	2850	182400	7394	473216	
NOV	3000	410	820	52480	6200	7100	1300	3100	2590	1400	3.3kg	4620	295680	1190	2kg	2380	152320	7000	448000	
FEB	2800	770	1540	98560	6000	7000	1000	2500	2030	800	2.9kg	2320	148480	1230	1.7kg	2091	133824	4411	282304	
APRIL	2600	380	760	48640	5800	7000	1100	3300	2220	1100	3.2kg	3520	225280	1120	2kg	2240	143360	5760	368640	
JUNE	3400	410	820	52480	6600	7600	1300	3900	2990	1500	3kg	4500	288000	1490	1.9kg	2831	181184	7331	469184	
AUG	2600	365	730	46720	5700	7000	1000	3300	2935	1300	3.2kg	4160	266240	1635	2kg	3270	209280	7430	475520	
OCT	2800	340	680	43520	6000	7300	1200	3300	2460	1100	3kg	3300	211200	1360	2.2kg	2992	191488	6292	402688	
DEC	3000	508	1016	65024	6200	7500	1300	2700	2492	1200	2.8kg	3360	215040	1292	2kg	2584	165376	5944	380416	
TOTAL																				
12 Bth	35300	4963	9926	635264	73600	86600	14100	37700	31037	15120		44894	2873216	15917		29866	1911424	74760	4784640	

BUSINESS CONTRIBUTION BY COMPANY TO WHOM A CONTRACT WITH FARMER

The company who was a marketer did sales by directly or channel marketing mainly in the urban areas like in Kolkata or all the cities including villages as broiler chicken has had always high demand mainly in occasional places, marriages or other social functions. This was not popular only in urban or cities but villages or remote locations as well because of tastes, affordability & standard price or even sometimes less price than fishes which were mostly liked by Bengali people.

In this case study, as per contract on every 60days interval, Company sent to the chicks minimum 2600 pcs to 3500pcs as per market or availability to the farmer's farm located in Basirhat just 5 km from main town having complete amenities, arrangements like 1800 Sq.ft. spaced-house with the good ventilation system. In this

business, the attack of diseases was very common as discussed already so many died of chicks or after the 1 month bird was showing weight approximately 2 kg or more, so that amount also incorporated in the part of loss sheet & calculated profit accordingly. There were medicine costs duly incurred by the company only around Rs.9000 to 15000/- depends upon the season. So the medicines & spray named as Arsenic Album, Marshal, Formalin, Microsites were sent to the farmer for emergency used for keeping alive the birds. The company bought chicks Rs.29.50/ per baby chick along with feeds like Mash which was costed Rs.29/- per bag, & the average requirements were minimum 23 bags to 29 bags of an amount born approximately Rs 700/-. So once all the costs were incorporated (See Table -2). As per some marketing & sales data collected, total production in each batch calculated in gross 12 batches (bi-monthly or 60days interval) on the basis of nos.of cock & hen grown in the farm & finally made ready for chicken meat as total kilograms & total sales in rupees. Here also calculated the total expenditures including death birds loss, feeds, medicines except for nominal transportations & finally profit received by the company by calculating total income – expenditures = Profit.

Table No –2: 12 Batches Maintenance Costs & Sales through Farmer - In favor of Company

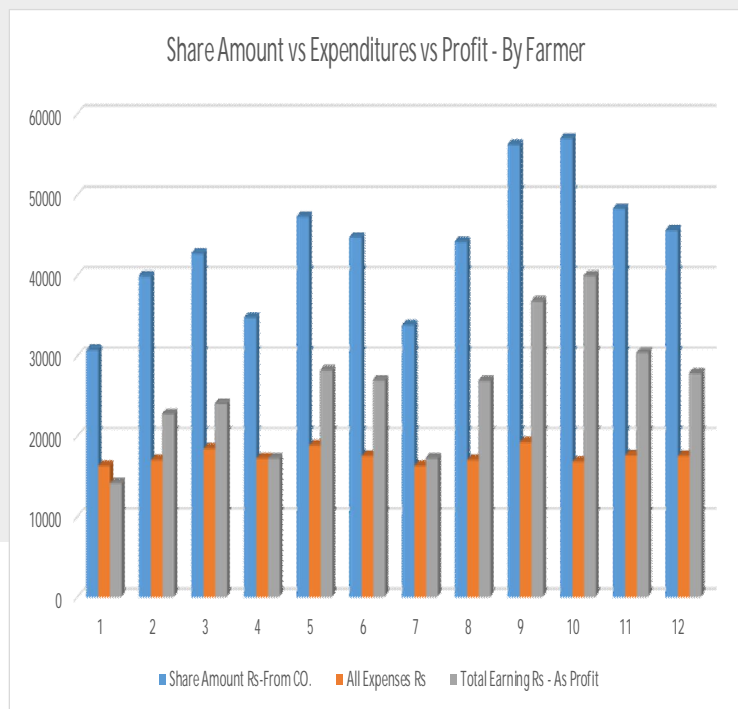
Table No. 17-22 Data on Maintenance Costs of Sares through Farmer in favor of Company																
	Company Cost To Farm (beared by Company)				Dead	Birds		Production				Cum	Sale	Note :	*Pro - production	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
MONTH	Chicks To farm	Company Cost	Medicine	Mash (Foods)	Birds	Weight/pc	Expected meat	Cock	Weight/pc	Tot.*Pro	Hen	Weight/pc	Tot.Pro	Meat sale	Meat sale	Profit
	from Company	Chicks	CO. cost	CO. Cost	Dead	2kg/pc	Lost	pcs	Tot.	Rs	pcs	Tot.	Rs	Kg. Tot	At Market	O-(B+C+D+G)
	Pcs	Rs	Rs	Rs 29/- x 25 bags	Pcs	Kg-Tot.	Rs			64/kg			64/kg		Rs-Tot.	Rs
		Rs 29.50/chick		Bhutta Mixtures		average	64/- kg									
JAN	2800	82600	9000	725	300	600	38400	1400	3500	224000	1100	1320	84480	4820	308480	177755
MAR	3000	88500	10200	812	420	840	53760	1500	4200	268800	1080	2052	131328	6252	400128	246856
MAY	3200	94400	9500	754	350	700	44800	1300	3900	249600	1550	2790	178560	6690	428160	278706
JULY	2800	82600	9000	725	330	660	42240	1100	2970	190080	1370	2466	157824	5436	347904	213339
SEP	3300	97350	10300	870	380	760	48640	1420	4544	290816	1500	2850	182400	7394	473216	157160
NOV	3000	88500	11000	696	410	820	52480	1400	4620	295680	1190	2380	152320	7000	448000	152676
FEB	2800	82600	10500	667	770	1540	98560	800	2320	148480	1230	2091	133824	4411	282304	89977
APRIL	2600	76700	8800	725	380	760	48640	1100	3520	225280	1120	2240	143360	5760	368640	233775
JUNE	3400	100300	11200	899	410	820	52480	1500	4500	288000	1490	2831	181184	7331	469184	304305
AUG	2600	76700	9000	725	365	730	46720	1300	4160	266240	1635	3270	209280	7430	475520	342375
OCT	2800	82600	8800	754	340	680	43520	1100	3300	211200	1360	2992	191488	6292	402688	267014
DEC	3000	88500	12000	696	508	1016	65024	1200	3360	215040	1292	2584	165376	5944	380416	214196
TOTAL :																
12 Bth	35300	1041350	119300	9048	4963	9926	635264	15120	44894	2873216	15917	29866	1911424	74760	4784640	2678134

Table -3: Total 12 Batches Sales Contribution by Farmer vs Company

Batch No.	Farmer's Contribution					Company's Contribution				
	Share Amount Rs-From CO.	Total Income Rs-From CO.	All Expenses Rs	Total Profit Rs	Profit %	Share Amount Rs-From CO.	Total Income Rs-From CO.	All Expenses Rs	Total Profit Rs	Profit %
1	30848	16500	14348	22813	13.8%	40013	17200	22813	22813	13.3%
2	42816	18600	24216	24216	13.0%	34790	17400	17390	17390	13.4%
3	34790	17400	17390	17390	13.4%	47322	19000	28322	28322	14.9%
4	47322	19000	28322	28322	14.9%	44800	17700	27100	27100	15.3%
5	44800	17700	27100	27100	15.3%	33876	16500	17376	17376	13.5%
6	33876	16500	17376	17376	13.5%	44237	17200	27037	27037	15.7%
7	44237	17200	27037	27037	15.7%	56303	19400	36903	36903	18.5%
8	56303	19400	36903	36903	18.5%	57062	17000	40062	40062	23.6%
9	57062	17000	40062	40062	23.6%	48323	17800	30523	30523	17.2%
10	48323	17800	30523	30523	17.2%	45650	17700	27950	27950	15.8%
11	45650	17700	27950	27950	15.8%					
12										
TOTAL	526040	212000	314040							

Table -4: Share Amount received by Company vs Expenditures vs Profit – By Farmer

Share Amount	All Expenses	Total Earning
Rs-From CO.	Rs	Rs - As Profit
30848	16500	14348
40013	17200	22813
42816	18600	24216
34790	17400	17390
47322	19000	28322
44800	17700	27100
33876	16500	17376
44237	17200	27037
56303	19400	36903
57062	17000	40062
48323	17800	30523
45650	17700	27950
TOTAL	526040	314040

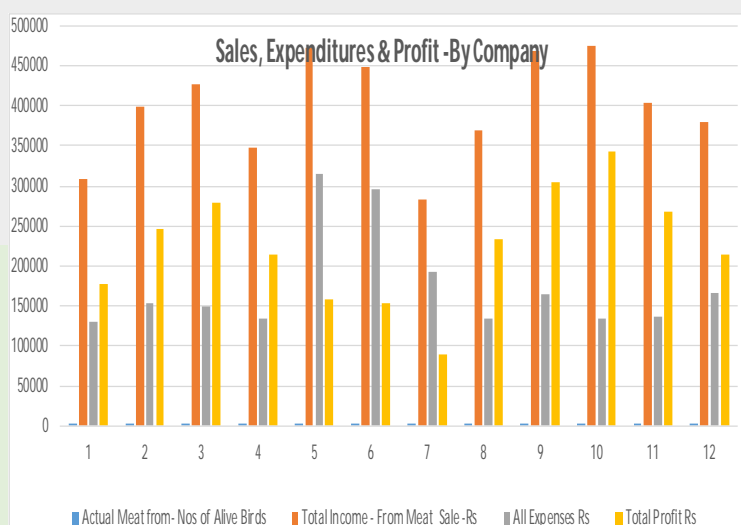


DURATION

DURATION

Table -5: Total Sales through Farmer's efforts vs Expenditures vs Profit – By Company

Actual Meat from- Nos of Alive Birds	Total Income - From Meat Sale -Rs	All Expenses Rs	Total Profit Rs
2500	308480	130725	177755
2580	400128	153272	246856
2850	428160	149454	278706
2470	347904	134565	213339
2920	473216	316056	157160
2590	448000	295324	152676
2030	282304	192327	89977
2220	368640	134865	233775
2990	469184	164879	304305
2935	475520	133145	342375
2460	402688	135674	267014
2492	380416	166220	214196
TOTAL	31037	4784640	2106506
			2678134



Duration

CONCLUSIONS

The study was conducted to find out the consistency of business & to understand the profitability without such heavy investment except for some maintenance costs. This was a low-cost rural business that needed to continue even though some risks like the death of birds, environmental factors, insufficient weight even though regular efforts. Those factors could lead to heavy loss or unexpected loss mainly to the company under contract & applicable for farmer too who was looking for the high volume chicken yield. This study showed in two years business under the contract of the company, out of total 12 batches, 31037 pcs birds yielded Rs 47,84,640 of meat in the market in total with all as net earning. As per study results, The total expenses amount was Rs 21,06,506 & profit amount Rs 26,78,134 where average Rs 85.52 of profit amount achieved by the company for per pc broiler chicken after the sale. On the same way in case of the farmer, only by spending as maintenance costs average Rs 17,67/- per batch (every 2months) , the farmer got profit average 11% which was very much consistent started from 10% to increased rate 12% per batch on the 2nd year (2017). The study also showed the risks of business mainly due to so many diseases attack in every season on every batch birds. Although the company was investing required money from the 1st day while chicks received at farm till getting in front of the consumer for sale the main responsibility always came on the farmer who was always under pressure to fulfill the overall business requirements. So successful accomplishments by performing all necessary jobs by proper follow up of scientific methods keeping all maintenance every day in & day out by farmer. As because housing, dust, labor, electricity, washing, all were up to the mark, so majority birds became a successful yield & that showed consistently in every batch. This study also showed all the costs categorically under the expenditure, maintenance, loss of amount due to death of birds & total sales batch wise, male & female birds calculated in total weight by kilogram & sales amount received in the market.

The ultimate success behind this risky & interesting rural business is the secret tireless efforts of a young entrepreneur who proved that without so much of investment, a small business can be started & after start, this can continue in spite of ups & downs or so many hindrances.

RECOMMENDATION

Farmers needed more into focus to get financial supports apart from regular existing maintenance costs or other farming costs born by the company. They deserved little more profit percentage in an increased rate of 5 % per year with some additional facilities from the government like mediclaim, insurance for themselves & their housing cum farms in addition to the higher education costs of their children at almost no cost or very negligible cost. They were always behind the screen but the majority accountability & responsibility went on them, still, they were successfully continuing their business & fulfilling their business contract all time.

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IMPACT OF SOCIO-EDUCATIONAL PROFILE ON JUVENILE DELINQUENCY: A STUDY ON HUMAN RESOURCE MANAGEMENT APPROACH ON KOLKATA REGION

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ABSTRACT

This study investigated the socio-educational profile of juvenile delinquents as they are future human resource of our society. If the young commits delinquencies then the social structure will break down. The research made use of the 40 juveniles who were in the Juvenile Detention Centre (JDC) in Kolkata at the time of this research. Relevant data were collected through the use of structured questionnaires. The data were properly framed and analyzed by t-test and one way ANOVA. According to the findings the rate of delinquency in urban area differs from the rate of rural area. Another most unfortunate outcome is that the education is not the only solution to overcome this burning issue. This requires urgent attention from the Government (Ministry of Human Resource Development) to tackle and implicate proper Human Resource Management Policy to handle this situation.

Keywords: Juvenile, Delinquency, Socio-Educational Profile, Juvenile Detention Centre, Human Resource Management Policy

1. INTRODUCTION

In the late nineteenth century the concept of juvenile delinquency was relatively unknown as a distinct area of academic interest to most scholars in human resource management and related disciplines. In early decade a 15 years old boy commit guilty and a 50 years old man commit crime. But, now a day the guilt of the 15 years old boy transformed into delinquency and that is called juvenile delinquency. Juvenile delinquency means bad or criminal offences, usually of young people. However, behaviors considered as delinquent vary across countries. In this regard, what may be treated as delinquent behavior in one country or state may not necessarily be treated as such in another, so is the age at which a child may be held legally responsible for his or her actions. There is huge age gap between the juvenile and the adult but unfortunately there is a tiny gap between their adulthood behaviors. A child is born innocent, but due to the unhealthy environment, negligence of the basic necessities and wrong company, a child may turn into a delinquent. Now a day juvenile acts like adult while they are actually not adult by age. Sometime this adulthood leads them to commit offences like sexual assault, robbery, drug trafficking etc.

At present time, there is a clear indication that the population of the Juvenile Detention Centre is increasing because of the fact that children are being involved in various types of anti-social acts in Kolkata. This study, therefore, developed to investigate the social as well as educational background factors that are most commonly associated with juvenile delinquency in Kolkata and surroundings. The young are the pillar of our nation. If the pillars become misbalanced by committing these offences, then the whole nation will fall down. We need a properly structured social system to restore and maintain the human resource for our future nation. So we should focus on the human resource management approach on this ground. This current study is important because since juvenile delinquency is a social problem which affects the future human resource, the results may be useful in identifying major contributing factors to the incidence of delinquency and manage the social problem. Therefore the search for a holistic knowledge motivated this study towards the social patterns of the future human resource and today's delinquents in Kolkata.

2. BRIEF REVIEW OF RELATED LITERATURE

Haque, H.U. (2012) studied on juvenile system and its delinquency in India. This study shows that the factors of delinquency were poverty, unhealthy living condition, broken homes, family tension, break-down of social values. This paper tried to highlight the growth and development of Juvenile Justice Act, 2000 in India.

Barton, P.E. (2011) studied on education as crime prevention by providing education to prisoner. The study says that prisoners should receive higher education. There should be a financial support by the Govt. or private agencies for correctional educational program.

Khetwal, G.S., Khetwal, C., & Rawat, U. (2009) studied on the victim of juvenile crime in Uttarakhand. According to the study, due to poverty and unemployed father and employed mother, a six years old girl became a situational delinquent. It has been held accountable for female delinquency.

Monk- Turner, E., & Oleson, J. (2009) studied on gender disparity in criminal offence among persons of high IQ. The study shows that the male geniuses are significantly more likely to self report ever having committed violent felonies. Unethical behaviors are not significantly different between male and female respondents.

Matsueda, R.L., & Kreager, D.A. (2007) studied on deterring delinquents by using of rational choice model of theft and violence. According to this article theft and violence were the function of perceived risk of arrest, subjective psychic rewards, including excitement and social status; and perceived opportunities.

Nichols, T.R., Graber, J.A., & Botvin, G.J. (2006) studied on sex difference in overt aggression and delinquency among urban minority middle school students. The result shows that the girls had greater increase in rate of aggression relative to boys. In case of delinquency boys had higher rate than that of the girls. Across sex, anger, self control predicted increases in both overt aggression and delinquency.

Ozabay, O., & Ozcan, Y.Z. (2006) studied on classical strain theory and gender as a case of turkey. The results showed that the lower class youths were less like to commit assault, school delinquency and public disturbances. Middle class males are exceptional in case of social delinquency.

Palmer, E.J., & Begum, A. (2006) studied on the relationship between moral reasoning, pro victim attitudes, and interpersonal aggression among imprisoned young offenders. The findings showed that the majority of the participants were involved in victimizing behaviors with only 43.3% of them falling into the perpetrator victim category.

Schinke, S.P., Schwinn, T. M., & Ozanian, A.J. (2005) studied on alcohol abuse prevention among high risk youth by using a computer based invention. The findings suggested that CD-ROM technology offers a new and promising medium for engaging high risk youths in alcohol abuse prevention program. The technology is very effective for human resource management.

Snow, P.C., & Powell, M.B. (2005) studied on an exploration of narrative language abilities in male juvenile offenders. The paper concludes that the story telling ability of an offender is poorer than a non-offender. Narrative language ability became destroyed in case of delinquents.

3. RESEARCH GAP

From the above literature I would like to conclude that some pre-dominant literature and research present on poverty, family conflict, parental love, family status of delinquents. But there is scanty research present in

A. The home location that is rural and urban area of the juvenile delinquents.

B. The literacy level of the juvenile delinquents.

4. RESEARCH QUESTIONS

After going through the literature, we find that juvenile delinquents have an adjustment problem with the society in relation to their social management ability and obviously some natural questions arises. They are

A. Is there any effect of Home Location of juveniles to be delinquents?

B. Is there any effect of Literacy Level of juveniles to be delinquents?

5. OBJECTIVES

A. To determine the difference of offences committed by the juveniles between rural and urban area.

B. To study the difference of offences committed by the juveniles in three consecutive literacy levels.

6. HYPOTHESES:

A. Ho: There is no significant difference of offences committed by the juveniles between rural and urban area.

H₁: There is a significant difference of offences committed by the juveniles between rural and urban area.

B. Ho: There is no significant difference of offences committed by the juveniles in three consecutive literacy levels.

H₁: There is a significant difference of offences committed by the juveniles in three consecutive literacy levels.

7. RESEARCH METHODOLOGY

7.1 Sample Size: The study was conducted over 40 juvenile delinquents made up of 6 girls and 34 boys, of different socio economic background between the age group of 12-18 years.

7.2 Sample Area: The study was conducted at Juvenile Detention Centre (JDC) Kolkata.

7.3 Sampling Techniques: Survey method was adopted here. Interview following discussion By using a Structured Questionnaire, was the technique to collect data with a view to determine the delinquency.

7.4 Sampling Tool: The data was subjected to statistical analysis by computing t-test and One Way ANOVA.

8. DATA ANALYSIS AND INTERPRETATION

8.1 Difference of offences committed by the juveniles between rural and urban area

t-Test: Two-Sample Assuming Equal Variances		
	Rural	Urban
Mean	1.71428571	4
Variance	1.23809524	10.6666667
Observations	7	7
Pooled Variance	5.95238095	
Hypothesized Mean Difference	0	
df	12	
t Stat	-1.7527122	
P(T<=t) one-tail	0.05256842	
t Critical one-tail	1.78228755	
P(T<=t) two-tail	0.10513683	
t Critical two-tail	2.17881283	

Table-1

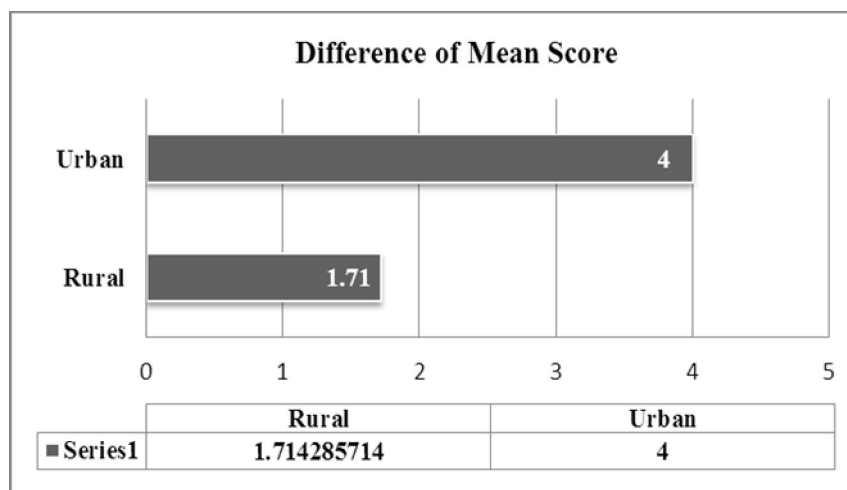


Chart-1

8.2 Difference of offences committed by the juveniles in three consecutive literacy levels

ANOVA: Single Factor						
SUMMARY						
Groups	Count	Sum	Average	Variance		
Not Educated	7	9	1.285714	0.238095		
Secondary Level	7	19	2.714286	5.904762		
Higher Secondary Level	7	12	1.714286	0.571429		
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	7.52381	2	3.761905	1.680851	0.214156	3.554557
Within Groups	40.28571	18	2.238095			
Total	47.80952	20				

Table-2

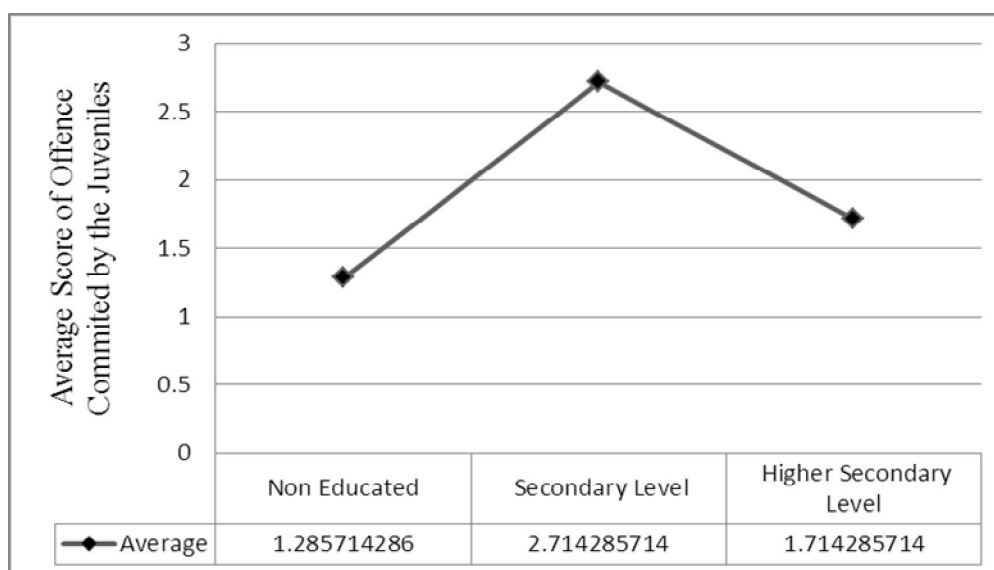


Chart-2

8.3 INTERPRETATION

In the first hypothesis test (Table 1) the result shows that, the p-value of two tailed test is 0.10, which is less than 0.05 level of significance ($\alpha = 2.17$). So the H_0 gets rejected and H_1 gets accepted. The data concludes that there is a significant difference of offences committed by the juveniles between rural and urban area. The mean score of offence committed by the juvenile from urban area is more than the juvenile from rural area (Chart 1).

On the other hand, in the second hypothesis test (Table 2) the result shows that, the p-value is 0.21 ($p\text{-value} > \alpha$). The F value is 1.68 and the critical F value is 3.55. Thus $F < F_{crit}$. It is the strong evidence to accept the H_0 . Therefore we can conclude that there is no significant difference of offences committed by the juveniles in three consecutive literacy levels. The mean score of offence committed by the juvenile shows significant difference in three consecutive literacy levels (Chart 2).

8.4 DISCUSSION

The rural locations are more controlling compared to the urban. From the present study, it was discovered that most of the juveniles from urban area (70%) were committed offences. The findings show that most respondents from the rural areas are convicted of drug trafficking, while those from urban areas were mostly implicated in sexual offences. We agreed that Education is important and attending school may be regarded as decreasing chances of engaging in delinquency. According to the present study the scenario was just opposite. There 77.5% school going students were found delinquents while only 22.5% illiterate juvenile were found commit offences. However, the findings reveal that about $3/4^{\text{th}}$ of the sample (respondents) were attending school at the point of their arrest or conviction, while the rest were not. Peer groups and activities have always been linked to delinquency. In this present study it has been consistently found that males are more likely to be involved in lawbreaking and offences than female due to some sociological, biological and economic factors.

9. POLICIES IN INDIA

The Ministry of Human Resource Development, Under Government of India has various policies to control and prevent this issue. They are,

- The **National Policy for the Welfare of Children, 1974** focused on children's programs for development of human resources and equal opportunities for development of all children.
- The **Juvenile Justice Act, 1986** was to bring to provide a specialized approach towards the prevention and control of juvenile delinquency.
- The **Juvenile Justice (Care and Protection of Children) Act, 2000** with all additional inputs has been enforced since April 1, 2001, to deal with the children.
- The **Juvenile Justice (Care and Protection of Children) Act, 2015** : In our country, it was the high time to bring some reform in the Juvenile laws. After the "*Nirbhaya rape case*" the Juvenile Justice Act, 2000 was restructured and the new act is considered as the biggest legal reform by the Indian judiciary.

- **Prevention And Early Intervention** : In this ground huge research is being conducted to determine which of the existing programs are truly effective for human resource management. In general the following types of school and community prevention programs are effective:
 - ✓ Classroom and behavior management programs
 - ✓ Conflict resolution and violence prevention curriculums
 - ✓ Positive Youth Development
 - ✓ Multi-component classroom-based programs
 - ✓ Social competence promotion curriculums
 - ✓ School organization and after school recreation programs
 - ✓ Mentoring programs
 - ✓ Comprehensive community interventions

10. LIMITATIONS AND FUTURE SCOPE

The result of the study interprets the presence of some limitations. First, the sample size is limited to properly understand the socio educational background of the juvenile delinquents in a comprehensive manner. Second, the study employs a self structured questionnaire. Thus the possibility of response and non response bias exists. Third, the study focuses only on the juvenile of Juvenile Detention Centre, Kolkata. Other populations could have also been considered which might exhibit different opinions. The limitation suggests the above possible scope for further research. In particular, the future study can analyze the age, sex, parental occupations, marital status of parents and parental violence of the juvenile which could be causal factors of delinquency.

11. CONCLUSION

Juveniles are found to be delinquent rather than guilty in the juvenile justice system, the outcome is less severe than in the adult system. This is because the juvenile system focuses on rehabilitation and restitution, rather than punishment. There are some social background patterns that are correlated with juvenile delinquencies which affects our future human resource. In-depth understanding of the pathways of these factors will lead to dealing with some of the problems and delinquencies that emanate from them. It is more important to minimize delinquency rather than to punish the delinquents. A proper social management program is needed for meaningful and expected outcome based rehabilitation and training of the juveniles, which will be achieved by instituting appropriate intervention program. It will minimize these social crimes, and will appear like a human resource management program. In other words, the ongoing human resource management process should target towards altering the social profile and increasing focus on constructive school work.

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THE EFFECT OF ROTATING SHIFT WORK ON PSYCHOLOGICAL WELL-BEING AND STRESS LEVEL OF A GROUP OF MALE AND FEMALE EMPLOYEES WORKING IN BUSINESS PROCESS OUTSOURCING (BPO) SECTOR

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1.1 INTRODUCTION

In recent years India has shown a consistent and huge progress in the areas of communication, software and power developments. Across the world India has already established itself as the major BPO hub for outsourcing to various manufacturers. The scheduling of work is undoubtedly one of the major problems of BPO organizations. For achieving the maximum production level 24*7 schedules are being introduced in the organizations in terms of shift work. Shift work is broadly defined as scheduled work that is completed outside the parameters of the traditional day shift, i.e. from 9am to 5pm (Costa, 2003). There is no uniform work hours that companies used in different shifts. Usually a 24 hours day is divided into three 8 hours work shift like:

- 1) Day shift
- 2) Swing or afternoon shift
- 3) Night shift

Normally the shift work schedules are practiced in 2 patterns-1) Permanent shift and 2) Rotating shift. In permanent shift the employees remain in a fixed working hours i.e. fixed day or night shift. But in rotating shift the employees work in different work schedules which may include working in day, evening and night. The problem lies with the rotating shift work as here the employees experience disruptive circadian sleep-wake cycle physiology, less degree of psychological well-being, perceive more stress in the environment and hazardous health conditions (Presser 2003, Simon 1990). Even the organizations also experience more employee turnover and less employee satisfaction (Magid Igbaria, J.H.Greenhaus 1992). Still it is practiced to maximize the production level to meet the market demand. The term Psychological Well-Being can be defined as-the happiness one perceives from his/her relationships with others, self acceptance, autonomy, environmental mastery and the like expectations (Caroll D. Ryff, 1989). According to Ciccarelli & Meyer (2008) Stress is the term used to describe the physical, emotional, cognitive and behavioral responses to events that are appraised as threatening or challenging.

The different kind of services offered by BPO's includes –Customer Support, Technical Support, Telemarketing, Insurance Processing, Data Processing and Internet/Online/Web Research and so on. It requires round the clock service to meet the demands of the market. Thus the practice of Rotating Shift becomes inevitable, as a result the employees confront stressful working schedule, specially the changing one (Deery, Iverson and Walsh, 2002). This creates psychological and physical disorders, which ultimately results in attrition among the employees.

Due to the ever increasing demanding life style and awareness towards personal growth women of our country have become the consistent part of this BPO sectors. At present, women workers constitute about one-third of the total Call Centre and BPO workforce in India. But, as it is well known that a working woman specially working mother faces a lot of problems in achieving the 'Work-Life Balance'.

1.2 NEED OF THE STUDY

Towards the end of the 20th century, when the western world was preparing itself for the great Y2K database threat, it opened the doors for India as an important back-office destination of the world. Ever since then, India's BPO industry has never looked back, and it continues to grow from strength to strength. According to a Nasscom-McKinsey study conducted in 2007, the Indian BPO industry grew 7 times the annual GDP growth. In 2009, the industry contributed nearly 2.5 percent to the GDP. While this growth has been inspiring, the lifestyle of employees from this industry has also changed drastically. While the nature of jobs in other industries like manufacturing is called 'blue collared' jobs which involves some manual work and could also be factory related jobs, BPO jobs are considered to be 'white collared' jobs on account of the job being professional in nature, and it requires a strong academic background and it is generally an office job. Though the income in the BPO industry is high, the job satisfaction level of BPO female employees is still a question mark. And this is even true in the case of women employees because balancing family and work life are making more stress and challenge in today's context.

1.3 STATEMENT OF THE PROBLEM

The present problem is to study “The Effect of Rotating Shift Work on Psychological Well-Being and Stress Level of A Group of Male and Female Employees Working in Business Process Outsourcing (BPO) Sector.”

In selected BPO's around Kolkata women employees are facing a lot of stress related to their changing work-shift which in turn lowering down their psychological wellbeing as compared to their male counter part.

1.4 OBJECTIVE OF THE STUDY

The main objective of the study is to investigate and examine the effects of rotating shift work on psychological well-being and stress on male and female employees of BPO sector.

1.5 RESEARCH DESIGN

Sources of data collection: Primary Data - Survey method was employed to collect the data from the respondents and the data was collected with the help of structured Questionnaire. Sampling: The study was planned among 100 BPO employees 50 male and 50 female in Kolkata and the data was analyzed with the help of Microsoft excel.

2. REVIEW OF LITERATURE

- 1) **Harvard business review August 04, 2016:** Everyone in today's supercharged workplaces experiences stress. Yet executive and professional women consistently experience more stress, anxiety, and psychological distress than do men. The reason being -more domestic responsibilities, having been socialized to say —yes! to all requests, and receiving lower pay for similar work immediately come to mind. But, based on our experience coaching and mentoring thousands of women over the years, we believe women experience more workplace stress than men primarily because they must contend with stereotype threat - a phenomenon that is virtually unknown to men.
- 2) **Muddanagouda Patil (2016)** Stress is a part of modern life, with increasing complexity of life, stress is likely to increase. Stress is built in the concept of role, which is conceived as the position a person occupies in a system. Women's in modern global world have to play a dual role as housewife and career builder. The present investigation was conducted to examine the stress among the working and non workingwomen's. It was hypothesized that the working women's has more stress than the non- working women's.
- 3) **Tamizharasi and Dr. Uma Rani (2014)** It is been concluded that as the competitive environment, technological advancements, HR Practices, economic development, social developments are taking place day by day. Consequently, every employee is expected to work for long hours, perform multiple jobs, available for 24 hours in seven days. These reasons give a mentally as well as physical problems to the employees. When these problems increase, then it gives a pressure, strain, anxiety, tension, trauma to the employees and ultimately the productivity of the employee_s decreases. More ever women get high stress than men.
- 4) **Srimathi, N. L. and Kiran Kumar, S. K. (2010)** Present study examines the level of psychological well being among working women in different professions. A total of 325 women working in different organizations – industries, hospitals, banks, educational institutions and in callcenters/BPOs were randomly selected. They were administered Carol Ryff's Medium Form of Psychological Well Being Scale. Results revealed that women employees working in BPO industries had least psychological well being in all the sub factors and total psychological well being scores, followed by women working in health organizations. Women employees working in banks had medium level of psychological well being scores. Women teachers had highest total Psychological Well Being scores and also in the entire sub factors of Psychological Well Being. Each sub scale of PWB is correlated significantly and positively with rest of the sub scales.
- 5) **Patel, (2006),** The Call Centre work becomes specially challenging for women due to the dual burden of work and family. Working in the Call Centre changes the role of the women in a number of ways. It challenges and changes the position of the women by physically taking her away from home and family. They have little time to spend with family members even if they are physically present at home during daytime.
- 6) **Fisher, et.al., (2004)** The married employees have to deal with the dual burden of work and home. The erratic hours of work leads to a high level of stress and health problems, particularly for women employees. The night shift disrupts the natural sleep-wakefulness cycle, results in irregular eating patterns and alters the usual social and family life routine. The health problems ranges from voice problems, eye strain, hearing problem, pain in neck shoulder, back, waist, insomnia, etc.
- 7) **Sujatha Mellacheruv (2008)** in their article titled —A study on Home related pressures of working women

states that women as a part of the workforce and gaining recognition and choosing challenging careers .As a result ,they face a variety of pressures at home as well as at work place. Home related pressures are high in case of women who needed to take care of either younger children or elderly family members back home. On the other hand, women with grown up children and who enjoy support from the family members have less pressures. To deal with home related pressures these women adapt a variety of coping strategies.

3.1 SAMPLE

Sample comprised of 100 employees engaged in rotating shift work at BPO industry.50 subjects were chosen from each of the selected groups namely, male and female. The samples of employees are chosen on the basis of Purposive Sampling matched on socio-economic and education level.

3.2 TOOLS USED

The following tools were used in the present study:

1) Information Schedule

It was designed in order to drive information regarding subject's age, designation, experience in rotating shift.

2) Psychological Well-Being Scale (Carol D. Ryff, 1989)

It measures the prominence of six dominant factors as follows

- Autonomy
- Positive Relations With Others
- Purpose in Life
- Self Acceptance
- Environmental Mastery
- Personal Growth

The scale consists of 18 questions and is divided into six-parts each having 3 items. The reliability of the scale ranges from 0.83-0.91.Good validity of the scale has also been confirmed.

3) Assessing Stress Level Adopted By Hellriegel et. all Developed By Sheldon Cohen (1999)

The questionnaire is comprised of 10 questions. The reliability of the questionnaire ranges from 0.88-0.90.The good validity of the questionnaire has also been confirmed.

3.4 STATISTICAL ANALYSIS

The obtained data were scored and the respective means (M) and standard deviations (S.D) and the “t” value for each group and each component were calculated.

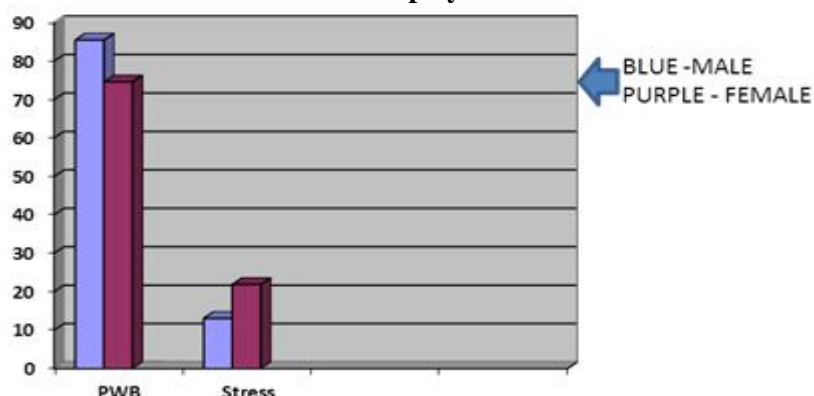
4.1 RESULT AND INTERPRETATION

Table-1: Means (M), Standard Deviation (S.D).and t values for Male and Female BPO workers about PWB and Stress

Groups	PWB			Stress		
	M	SD	t	M	SD	t
Male Employees	85.48	4.77	7.23**	13.06	3.95	13.19*
Female Employees	74.60	9.53		21.88	2.59	

*p, 0.05; **p, 0.01

Figure-1: Graphical Representation of the Mean Scores for Psychological Well-Being and Stress of the Male and Female Employees of BPO Sector

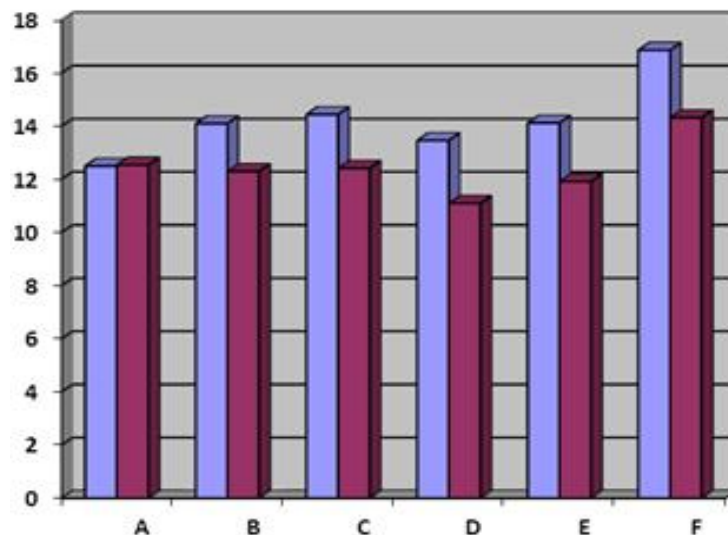


The results indicate that the male employees working in the rotating shift have higher level of perceived Psychological Well-Being (PWB) in comparison to the female employees of BPO industry (Table-1, Figure-1). There also exists significant differences in their perceived PWB. The results also indicate that the female employees working in the rotating shift of the BPO industry experience higher level of stress in their daily life as compared to the males. (Table-1, Figure-1) and there also exists significant difference in their experienced stress level.

Table-2: Mean (M), Standard Deviation (S.D.) and' t'values of the components of PWB for Male and Female Employees of BPO Sector

Components of PWB	Male			Female		
	M	SD	t	M	SD	t
Autonomy	12.50	2.60	0.78	12.54	2.54	0.78
Positive Relations With Others	14.10	2.37	3.20*	12.30	3.20	3.20*
Purpose in life	14.44	2.76	3.67	12.42	2.74	3.67
Self Acceptance	13.46	2.34	5.05	11.10	2.33	5.05
Environmental Mastery	14.12	1.90	5.06	11.92	2.41	5.06
Personal Growth	16.86	1.13	7.56**	14.32	2.10	7.56**

Figure-2: The Graphical Representation of the Mean Scores for the Six Components of PWB of the Both Genders:



Here in Figure 2

- A = Autonomy
- B = Positive Relations with Others
- C = Purpose in Life
- D = Self Acceptance
- E = Environmental Mastery
- F = Personal Growth

Psychological Well-Being is the happiness one perceives from his/ her relationships with others. This Variable is comprised of six components:-

- Autonomy
- Positive Relations with Others
- Purpose in Life
- Self Acceptance
- Environmental Mastery
- Personal Growth

Comparison considering all the six components among the male-female employees working in the Rotating Shift at BPO sector revealed that

- Male and Female Employees working in the Rotating Shift of BPO sectors have same level of Autonomy in their daily life and there exists no significant differences among them.(Table-2).
- When comparison was made on Positive Relation with Others between the male and female employees the result indicated that the male employees have significantly higher positive relationship with others, than the female employees of BPO and there exists significant difference (Table-2).
- The results also indicated that the male employees have higher level of Purpose in Life as compared to the females of BPO sector working in the Rotating Shift, but there exists no significant differences (Table-2).
- The result also indicated that the male employees have higher level of Self Acceptance than female employees of BPO sector engaged in the Rotating Shift, but there is also no significant difference exists (Table-2).
- Male employees also have higher level of perceived Environmental Mastery as compared to females of BPO sector working in the Rotating Shift, but there exists no significant differences among them (Table-2).
- The results also revealed that male employees significantly seek higher level of Personal Growth than female employees of BPO sector and there also exists significant difference among them (Table-2).

CONCLUSION

On the basis of the obtained result, it appears that there is significant difference in the level of perceived Psychological Well-Being and Stress between the employees of the two sexes engaged in Rotating Shift work and it is confirmed by the work of **Janet L. Barners-Farrell et al (2008)** who said that the characteristics of shift work account for significant variation in all the measures of well-being and stress beyond that accounted for work and family demands. The women employees of BPO due to their changing nature of shift experiences more stress and lesser psychological well-being. In today's context women of our society plays dual role in career building as well as taking care family elders and children (**Sujatha Mellacheruv ,2008**).This actually creates so much pressure on them making them psychologically disturbed causing burn out. Men in our Indian societal structure is considered to be born-lucky. The irregularity of working hours, responsibilities towards off-springs and question of secured environment specially for the employees working in night shift bother them less, thus they are more adaptive to the environment and well functioned.

The results revealed are suggestive as to be necessary components of managing the Stress level and Psychological Well-Being to the needs of the male and female employees engaged in Rotating Shift at BPO sectors. The employees engaged in Rotating Schedule cannot usually plan their work ahead of time (Costa, 2003). Thus, they fail to maintain proper social relations and face a lot of distress which hampers their well being (Philip Bohle, Andrew J Tulley, (1989). Different types of problems arise in adjusting with their surroundings and they develop some sort of mental pressure which disrupts their Psychological-Well-Being.

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QUALITY OF PRIMARY EDUCATION: A STUDY ON EAST MEDINIPUR DISTRICT, WEST BENGAL**Masud Ahmed**

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INTRODUCTION

India adopted its first ever National Policy for children in 1974 declaring children to be the Nation's most precious asset. Several policy and execution initiatives have been taken by Govt. of India since independence to strengthen the education system of the country Kothari commission (1964), National Policy in Education (1986), Programme of Action (1992), Central Advisory Board of Education (1991), Sarva Siksha Abhiyan (2000), and Right to Education Act (2010), New Education Policy (2016) to focuses on improving the quality of education and restoring the credibility of the education system is landmark policy decisions and actions that the country has taken so far for achieving the goal of providing education to all through universal enrolment, either by formal or non formal system of education. However, the quality aspect of education has remained so far a neglected policy area. As a result, the qualitative growth of education in India has suffered a setback.

India should strive for quality education right from the school stage along with the target to achieve 100 percent literacy, which in turn would improve the human development index, and economic indicators. The poor economic condition of rural India, most parents cannot afford to send their children to early schooling. For a large number of first generation learners who do not get any support from their parents at home, the role of teachers in imparting education is extremely important. About 7% of the population that goes to school manages to graduate, and only 15% of those who enroll manage to make it up to High School.

Purba Medinipur, a district of west Bengal state of the country. In brief, the present work aimed at analyzing the "Quality of Primary education in East Medinipur District".

The specific objective of the study was:

*To find out the quality of Primary education in terms of infrastructure, facilities, teacher-student learning, and students' achievement.

- ❖ The total **3252** Primary Schools and **666** Upper Primary Schools of the districts (as on 2015). Total 50 Primary and Upper Primary schools (govt. as well as private) were randomly selected for the detailed study.

Block wise Primary and Upper Primary School in Purba Medinipur District (Table 1)

Block Name	No. of Primary School	No. of Upper Primary School
Bhagwanpur	313	65
Chandipur	122	33
Contai	404	75
Egra	225	46
Haldia	134	24
Khejuri	198	42
Kolaghat	152	32
Mahisadal	128	29
Moyna	153	29
Nandakumar	163	29
Nandigram	213	48
Panskura	202	42
Patashpur	245	54
Ramnagar	227	39
Sahid Matangini	139	24
Sutahata	82	24
Tamluk	153	31
Total	3252	666

Source: purbamedinipur.gov.in

PROFILE OF PURBA MEDINIPUR DISTRICT

Purba Medinipur district is an administrative unit in the Indian state of West Bengal. It is the southernmost district of Medinipur division – one of the five administrative divisions of West Bengal. The head quarters in Tamluk. It was formed on 1 January 2002 after the Partition of Medinipur into Purba Medinipur and Paschim

Medinipur which lies at the northern and western border of it. The state of Odisha is at the southwest border; the Bay of Bengal lies in the south; the Hooghly river and South 24 Parganas district to the east; and Howrah district to the north-east.

Purba Medinipur is formed of the sub-divisions of Tamluk, Contai and Haldia of erstwhile Medinipur district.^[1] Another sub-division, Egra has been created out of the erstwhile Contai sub-division during the partition of Medinipur. In 2011, the state government has proposed to rename the district as Tamralipta district after the ancient port city of Tamralipta which used to lie near the modern district headquarters.

Purba Medinipur saw many political movements during the British Raj. A parallel government named the Tamralipta Jatiya Sarkar was formed during the Quit India Movement in Tamluk.^[2] In 2007, Purba Medinipur witnessed the Nandigram violence, an incident of police firing that killed 14 farmers.

Purba Medinipur district is part of the lower Indo-Gangetic Plain and Eastern coastal plains. Topographically, the district can be divided into two parts – (a) almost entirely flat plains on the west, east and north, (b) the coastal plains on the south. The vast expanse of land is formed of alluvium and is composed of younger and coastal alluvial. The elevation of the district is within 10 metres above mean sea level. The district has a long coastline of 65.5 km along its southern and south eastern boundary. Five coastal CD Blocks, namely, Khejuri II, Contai II (Deshapran), Contai I, Ramnagar I and II, are occasionally affected by cyclones and tornadoes. Tidal floods are quite regular in these five CD Blocks. Normally floods occur in 21 of the 25 CD Blocks in the district. The major rivers are Haldi, Rupnarayan, Rasulpur, Bagui and Keleghai, flowing in north to south or south-east direction. River water is an important source of irrigation. The district has a low 899 hectare forest cover, which is 0.02% of its geographical area.

Panskura, Tamluk, Nandakumar, Contai, Egra, Haldia, Mecheda, Mahishadal, Digha, Mandarmani, Khejuri, Ramnagar, Patashpur, Kolaghat, Nandigram are the major cities and towns.

Purba Medinipur district is divided into the following administrative subdivisions (Table 2)

Subdivision	Area km ²	Population (2011)
Tamluk	1084.30	1,791,695
Haldia	683.94	959,934
Egra	940.96	958,939
Contai	1251.21	1,385,307

Source: Wikipedia

According to the 2011 census Purba Medinipur district has a population of 5,094,238, roughly equal to the United Arab Emirates or the US state of Colorado. This gives it a ranking of 20th in India (out of a total of 640). The district has a population density of 1,076 inhabitants per square kilometer (2,790/sq mi). Its population growth rate over the decade 2001-2011 was 15.32%.

Purba Medinipur has a sex ratio of 936 females for every 1000 males, In 2006 the Ministry of Panchayati Raj named Purba Medinipur one of the country's 250 most backward districts (out of a total of 640). It is one of the 11 districts in West Bengal receiving funds from the Backward Regions Grant Fund Programme (BRGF)

According to the 2011 census, the district has a literacy rate of 87.66 up from 80.20% of 2001 census. As per 2001 census, this district had a male literacy rate of 89.1% and female literacy rate was 70.7%. The education index of this district is 0.74 and it is ranked first in literacy in comparison to other districts of West Bengal.

Source: https://en.wikipedia.org/wiki/Purba_Medinipur_district

EDUCATION SYSTEM OF PURBA MEDINIPUR

Under the formal system of education structure, the main categories of Primary schools in Purba Medinipur are:

- 1. Primary School:** The schools which run up to class V are called Primary School.
- 2. Upper Primary School:** The schools which run up to class VIII are called Junior High School.

METHODS

Data collected on the particular aspects on Quality of Primary education in Purba Medinipur District:

Each and every indicator having some attributes which helps to develop a structured questionnaire, which was administered to every of the 50 schools during the years 2016 and 2017. (Table 2) Indicators and related some attributes (Table 3)

Aspect	Indicators	Attributes
Quality of Primary Education	Infrastructure	class room size connected with road
	Facilities	Benches Black board Drinking water Play ground Toilets
	Teaching-Learning Process	Teacher-Student ratio Home work Teacher experience Medium of teaching
	Student's Achievement	Board exam pass Intelligence level

Data collected in total 50 pry. Schools across Purba Medinipur district in WB.

Combination of all indicators (Infrastructure, Facilities, Teaching-Learning process and Students Achievement), were compare Top 10 govt. and 10 private primary school within my sample in Purba Medinipur.

No. 1 ranked Pry. Schools in selected blocks based on combined of all indicators score (Table 4)

Block	Sector	Name of School	DISECODE	Score
Contai	Govt.	Contai Ramesh Chandra Pry. School	19192901002	100
	Private	Contai ST. Paul's School	19192900303	80
Egra	Govt.	Kasba JR. B School	19192800301	90
	Private	Egra Public School	19192801002	80
Haldia	Govt.	Kumarchak Pry. School	19192602401	90
	Private	Durgachak Town School	19192602102	70
Tamluk	Govt.	Tamluk Hamilton H.S. (Pry.)	19192701701	100
	Private	Tamralipta Public School	19192700407	80
Ramnagar	Govt.	Balisai Patna Board Pry. School	19193006301	90
	Private	Digha Nursery School	19191807104	70
Bhagwanpur	Govt.	Garbari Board Pry.	19192005801	90
	Private	Barberia Profulla Ranjan Sishu	19192010707	80
Khejuri	Govt.	Amjadnagar No-1 Pry. School	19191706402	100
	Private	Azad Hind Nursery School	19191707306	80
Chandipur	Govt.	De-Kashimpr B. Pry. School	19190703601	90
	Private	Chaknan Netaji Srada Sishu Mandir	19190704103	70
Nandigram	Govt.	Amdabad Madhya Palli Pry. School	19190900801	90
	Private	Asadtala Vivekananda Sisutirtha	19190905103	80
Panskura	Govt.	Panskura Pry. School	19193100601	100
	Private	Parasmani Vidyalaya	19193101702	80

After compare of only No.1 private and govt. primary schools in selected 10 blocks, were found that the overall mean score of govt. primary schools (94%) far exceeded the score for private primary schools (77%).

But, if we take all the govt. pry. Schools as well as private primary schools in selected 10 blocks of Purba Medinipur district in west Bengal, than what was the result come? (Table5).

Pry. Schools (Govt. & Private) in selected blocks and their average score (Table 5)

Name of the Block	Management	Average Score
Contai	Govt.	62%
	Private	87%
Egra	Govt.	55%
	Private	74%
Haldia	Govt.	58%
	Private	84%
Tamluk	Govt.	61%
	Private	81%

Ramnagar	Govt. Private	53% 78%
Bhagwanpur	Govt. Private	57% 75%
Khejuri	Govt. Private	56% 78%
Chandipur	Govt. Private	54% 73%
Nandigram	Govt. Private	51% 69%
Panskura	Govt. Private	58% 79%

After taking all govt. and private pry. Schools within sample 50 in selected blocks were found that the mean score of private pry. Schools (77.8%) far better than the mean score of govt. pry. Schools (56.5) in Purba Medinipur district.

FINDINGS

1. The overall mean score of private pry. Schools were far better than govt. pry. Schools.
2. The mean students' strength of govt. Pry. Schools were greater than the private pry. Schools.
3. However, the mean teachers per school in private pry. Schools were higher than govt. pry. Schools.
4. The overall ranking of infrastructure and facility, the private pry. Schools ranked higher than govt. pry. Schools.
5. Students' achievement in terms of board exam pass with better marks, participate in quiz, outdoor game competition, private pry. Schools are better than govt. pry. Schools.
6. Teachers' absenteeism was a general feature in govt. pry. Schools, which were non-existent in private pry. Schools.

CONCLUSION

After my research study I found many thing likes student strength in govt. pry. Schools are far better than private pry. Schools but same times another side private pry. Schools performing better in infrastructure, facility, student achievement etc. The overall mean score of private pry. School is higher than govt. pry. Schools. So Govt. needs to invest a good amount in pry. Education section which can help to create a quality-educational environment. We all know quality education is most importance asset that can totally change the future of India because quality education increases skills which helps to increase productivity and finally economic growth.

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CIVIL SOCIETY MOVEMENT 2011-12: EFFORTS TOWARDS A CORRUPTION-FREE INDIA**Mousumi Kundu**

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ABSTRACT

The issue of corruption is a matter of worry both for governments and for the masses. Today after 68 years of independence political and bureaucratic corruption still occupy very vital place and major problems in India. Although there are various governmental institutions or wings are exist in India to tackle corruption and still the like various studies by national or international institutions show that the issues regarding corruption in India have become prominent in recent years. So there is a need for a mechanism which will be an independent, speedy and cheaper means of delivering justice by redressing the grievances of the people. This is the main reason why today we are so much worried about the implication of the Lokpal Bill and the formation of the institution of Lokpal. Because the Lokpal gives strength to the common citizens so that they can raise their voice against corruption without any fear.

Regarding on this core issue in 2011-12 an anti-corruption civil society movement was started in New Delhi, against the central government which have attracted attention of the whole world. Although the Lokpal bill was passed in our parliament in 2013 and the Lokpal Act came into force from 16th January 2014 but the movement did not gained full success because the government did not accept the civil society proposed entire 'Jan Lokpal' bill. But we could not ignore its impact on our country's contemporary political scenario. We try to examine the nature of the popular movement and also focused the entire Lokpal bill, Jan Lokpal bill and its effectiveness to deter corruption.

Keywords: Corruption, Lokpal, Jan Lokpal Bill

INTRODUCTION

Today, after 68 years of independence, political and bureaucratic corruption still occupy very vital place and major problems in India. In the year of 2005, a study conducted by Transparency International in India found that more than 45% of Indians had first hand experience of paying bribes or influence padding to get jobs done in public offices successfully. In 2010, India was ranked 87th out of 178 countries in Transparency International's corruption perception index. Criminalization also is a very serious problem in contemporary Indian politics. In July 2008, the Washington Post reported that nearly one-fourth of the 540 members of the Indian parliament, face criminal charges including human trafficking, rape, and even murder. India tops the list for black money than the rest of the world combined.^[1] Thus, the problem of corruption in India is not at all a 'corrupt' one. In this perspective, anti corruption movement in our country naturally demands attention, and viewed as attempts to do away with a perennial problem in our society and polity, students of social science in general, and political science in particular, should try to analyse and understand such movements in order to comprehend the nature of democratic forces in vogue to fight the ills of politics.

The 2011-12 Indian anti-corruption movement was a series of demonstrations and protests all over India wished for established strong legislation and enforcement against alleged widespread political corruption. The movement gained more popularity from 5th April 2011, when anti-corruption activist Anna Hazare began a hunger strike at the Jantar Mantar in New Delhi. The chief legislative aim of the movement was to deter corruption from India through introduction the Jan-Lokpal bill. Another aim spearheaded by Ramdev was the repatriation of black money from various foreign banks.

THE CONCEPT OF LOKPAL OR OMBUDSMAN

The word 'Lokpal' means the "protector of the people". In India, the Ombudsman is known as the Lokpal or Lokayuta. The concept of a constitutional ombudsman was first proposed by the then central Lay minister Ashoke Kumar Sen in Parliament in the early 1960s. The term "Lokpal" and "Lokayuta" were coined by Dr. L.M. Singhvi as the Indian model of Ombudsman for redressal of public grievances. The office of the Lokpal is the Indian version of the office of an Ombudsman who is appointed to inquire into complaints made by citizens against public officials. The Lokpal is a forum where the citizen can send a complaint against a public official, which would then be inquired into and the citizen would be provided some redressal. Lokpal is an officer who investigates complaints of citizens of unfair treatment meted out to them by Government Departments and suggests remedy there of, if he finds that a complaint is justified.^[2]

ORIGIN OF LOKPAL MOVEMENT IN INDIA

After India attained independence, M.K. Gandhi's call to his colleagues in the freedom struggle to convert their association into Lok Sevak Sangh and engage in social constructive work was followed by a few of its true colleagues. One of them was Shri Shambhu Dutta Sharma who had

refused to serve under the British and joined Gandhi in India's struggle for independence. They later formed a Lok Sevak Sangh as a sister organization of the Servants of People Society (founded by Lala Lajpat Rai and inaugurated by M.K. Gandhi in 1921) and undertook the constructive social work during which they came face to face with pervasive corruption which they found as the greatest impediment and hindrance to any developmental work. They identified political corruption as the mother of all corruption and just as in the case of a staircase we have to begin the clean up from top, it decisively undertook the initiative to eliminate corruption, criminality and abuse of authority from Indian politics, which they termed it as political reform work that they undertook as a critical constituent of civil society in association with many fraternal NGOs.^[3]

While the country had been grappling with the problem of corruption at different levels including at the level of Parliament, there emerged globally, and especially in the Scandinavian countries, the concept of Ombudsman to tackle corruption and/or to redress public grievances. A proposal in this regard was first initiated in the Lok Sabha on April 3, 1963 by the Late Dr. Singhvi, MP. While replying to it, the then Law Minister observed that though the institution seemed full of possibilities, since it involved a matter of policy, it was for the Prime Minister to decide in that regard. Dr. L.M. Singhvi then personally communicated this idea to the then Prime Minister, Pandit Jawahar Lal Nehru who in turn, with some initial hesitation, acknowledged that it was a valuable idea which could be incorporated in our institutional framework. On 3rd November, 1963, Hon'ble Prime Minister made a statement in respect of the possibilities of this institution and said that the system of Ombudsman had an overall authority to deal with the charges of corruption, even against the Prime Minister, and commanded the respect and confidence of all. Resolutions in this behalf in April, 1964 and April, 1965 were again brought in the Lower House and on both occasions, during the course of discussions, the House witnessed near unanimous agreement about the viability, utility and desirability of such an institution. However, in his resolution, Dr. L.M. Singhvi did not elaborate upon the function/powers of the institution, but instead asked for the appointment of a Committee of Members of Parliament who would consider all the complex factors relating to this institution and would come forward with an acceptable and consensual solution.

EFFORTS TOWARDS LOKPAL BILL IN INDIA

The Lokpal Bill was presented for the first time Mr. Shanti Bhushan during the fourth Lok Sabha in 1968 and it was passed in 1969 at Lok Sabha. But when it was pending at Rajya Sabha the Lok Sabha was dissolved and the bill could not be pass at that time. After that when Sri Ashoke Kumar Sen was the law minister, the bill was also introduced several times in the Lok Sabha, such as in 1971, 1977 and 1985. Later it was presented at Lok Sabha in 1989, 1996, 1998, 2001, 2005, and in 2008 but they were never passed. Each time when the bill was introduced in the Parliament, it was referred to the committees for its improvement and recommendations such as a Joint Committee of Parliament, Departmental Standing Committee of the Home Ministry etc. But unfortunately before the government could take decisions again the House was dissolved. In 2002 the report of the National Commission to review the working of the Constitution suggested that the government should form the institution of Lokpal at the center and Lokayuktas in the state level to remove corruption and redress citizens grievance. But it was also mentioned in the report that the Prime Minister should be kept out of the purview of the authority. In 2004, the UPA Government's National Common Minimum Programme promised that the Lokpal bill would be enacted. The Report of the Second Administrative Reforms Commission (formed in 2005) also recommended for the implication of Lok pal Bill and establishment of the institution of Lok pal as soon as possible. The Second ARC also recommended for the amendment of the Constitution to provide for a Rastriya Lokayuta. It also recommended that it be made obligatory for all states to set up lokayutas and that their structure, power and functions to be governed by common principles. In January 2011 the government formed a group of ministers under the chairpersonship of Sri Pranab Mukherjee to suggest measures to tackle corruption including examination of the proposal of Lokpal.

THE ROLE OF 'LOK SEVAK SANGH' & 'INDIA AGAINST CORRUPTION' TOWARDS THE LOK PAL MOVEMENT

The long-standing crusade against corruption on Gandhian lines by the Gandhian Seva and Satyagraha Brigade (GSSB) and its predecessor, Lok Sevak Sangh, since its first letter to the Prime Minister of India, Shri P.V. Narasimha Rao in 1994 and in a more organized form from 1999 to the present Union Government has been primarily on the following three demands or remedial measures for elimination of corruption, criminality and

abuse of authority from Indian politics to ensure ethical governance: (i) appointment of strong and effective Lokpal, (ii) debarring of criminals and corrupt from contesting elections, and (iii) forfeiture of illegally acquired property. More than a decade long struggle by the Gandhian Seva & Satyagraha Brigade and its predecessor, Lok Sevak Sangh, for the above three demands met with partial success when the 2nd Administrative Reforms Commission (ARC) appointed by the Congress-led UPA(I) Government accepted all the three demands in 2007 and incorporated them in its 4th Report titled, 'Ethics in Governance' (II ARC Report: 2005). With the passage of time, Lok Sevak Sangh founded the —Gandhian Seva & Satyagraha Brigade (GSSB) in 2008 to undertake the Satyagraha programme for the cause of national interest, including their political reform work, carried out by the Lok Sevak Sangh. Their recommendations were subsequently accepted by the Government of India in 2008 in its 'Action Taken Report', as a result of Gandhian Seva & Satyagraha Brigade's persistent and sustained struggle on Gandhian lines. Further, in pursuance of their 'Do or Die' mission to eliminate corruption and criminality from Indian politics, it demanded the Union Government to take further action on having accepted the 3 recommendations of the 2nd ARC by enacting necessary legislations and give a reasonable time frame for the same by 23rd December 2010, or else it would be left with no alternative but to resume their month long Satyagraha in the Gandhian way from 1st January 2011, as per their commitment made to fellow countrymen, who have extended their moral support to their campaign for clean politics, culminating in Fast unto-Death, the last weapon in the Gandhian armoury, if by 27th January 2011 there is no response that the Lokpal legislation is introduced in the Budget session of Parliament.^[4]

The Gandhian Seva & Satyagraha Brigade went on a month long relay fast at Jantar Mantar in New Delhi from 1st January 2011, and on getting no response from the Government on their demands, 5 of their Satyagrahis, of the age group of 85 years and above, including Shri Shambhu Dutta, the oldest of them all at 94 years old, went on Fast-unto-Death from the forenoon of 30th January 2011, the Martyrdom Anniversary of M.K. Gandhi, after more than a decade long struggle against corruption.

When they were on fast-unto-death, many eminent people and social activists visited them to show solidarity to their crusade. Later, a group called 'India Against Corruption' (IAC), comprising of Swami Agnivesh, Prashant Bhushan, Kiran Bedi, Arvind Kejriwal, and others pleaded before Shri Shambhu Dutta and other Satyagrahis to end their Fast-unto-Death and give the struggle and responsibility to them. The freedom fighter, on behalf of other Satyagrahis and the Gandhian Satyagraha Brigade, agreed to below upon them the baton of the Gandhian struggle that he had led for more than 15 years and postponed the fast for three months it was expected that by that time the IAC will be able to bring to fruition their first and one of their three demands for elimination of corruption and criminality from Indian politics.^[5]

According to various civil society activists, the 2010 Lokpal Bill drafted by the Indian Government was not so much effective on tackling corruption. All these activists came together under the banner of 'India Against Corruption' to draft a citizen's version of the Lokpal Bill which later came to be known as Jan Lokpal Bill. However, there were some differences between the government Lokpal Bill and the Jan- Lokpal Bill which is mentioned below:

- (1) According to the Jan Lokpal Bill the Prime Minister can be investigated with permission of seven members of the Lokpal Bench. But under the Government's Lokpal Bill the PM can be investigated only after his retirement from the post.
- (2) As per the Jan Lokpal Bill, Judiciary is not immuned from investigation; but according to the Government Bill, the Judiciary can be brought into question "Judicial Accountability Bill".
- (3) The Jan Lokpal Bill includes the members of Parliament within its purview of interrogation, but The Government bill excludes the MPs from its jurisdiction.
- (4) The NGO's work are exempted from the Jan Lokpal's purview. But in the Government Lokpal Bill NGO's can be investigated within the scope of Lokpal.

LOKPAL MOVEMENT UNDER THE LEADERSHIP OF ANNA HAZARE

In 2010 following major corruption scandals in India the central Government drafted a Lokpal Bill. But according to the 'India Against Corruption' group the Bill was not so much effective on tackling corruption. It did not cover the Prime Minister, Members of Parliament, and Cabinet Ministers. In 2011, within its purview the mostly middle-class organisers of IAC became determined to launch a campaign to mobilise the masses in support of a demand that they hoped would help to bring about a corruption-free India.

Their proposal was for the creation of a Lokpal (ombudsman) who would have powers to arrest and charge government officials accused of corruption.

They approached Ramdev, a populist yogi with millions of supporters among the middle-classes of small-town India, to be the figurehead for this campaign. His connections to the right-wing Sangh Pariwar threatened to damage the credibility of what was nominally an apolitical movement. He was soon replaced by Anna Hazare a veteran social reformer with a history of undertaking fasts in support of his causes. Hazare, too, brought a large support base with him, described by Meera Nanda as being largely "from urban middle-classes and idealistic youth". The urban sophistication of Hazare, compared to Ramdev's rusticity, attracted high-profile support for the campaign from Bollywood stars, the internet-savvy, and mainstream English-language news media. He, too, struggled to disassociate himself from Hindutva symbolism: hence, support from non-Hindus was less forthcoming.^[6]

The central issue of the movement was for passing a stronger Anti-Corruption Lokpal Bill in the Indian Parliament to effectively deter corruption, redress grievances of citizens, and protect Whistle-blowers. The movement gained a great popularity and mass support when the Gandhian social activist Anna Hazare started hunger strike in New Delhi at Jantar Mantar from 5th April, 2011. As a part of this movement, Justice N. Santosh Hegde (former Supreme Court Judge and present Lokayukta of Karnataka), Prashant Bhushan (Supreme Court Lawyer), and Arvind Kejriwal (RTI activist) along with the members of India Against Corruption Movement drafted an alternative bill, named as the 'Jan Lokpal Bill' with more stringent provisions and more independent power to the Lokpal and Lokayuktas. Hazare began the fast to press for the demand to form a joint committee of the representatives of the government and the civil Society members or the 'India Against Corruption Members' to draft the 'Jan Lokpal Bill'.

Some salient features of the Lokpal movement can be identified which are as follows:-(i) non- violence, (ii) satyagraha (iii) human strikes and fast- unto- death, (iv) civil resistance and disobedience, (v) demonstrations, (vi) jail varo, (vii) online activism, and (viii) candlelight vigil.

Anna Hazare initiated an anti- corruption movement at the Jantar Mantar in New Delhi. He requested the former Prime Minister Manmohan Singh to form a joint committee along with the civil society actors and the governmental representatives to draft an Anti- Corruption Bill which will give more power and independence to the Lokpal and Lokayuktas. But the Prime Minister rejected his requested. So, Anna started an indefinite fast against the governmental decision and stated "I will fast until Jan Lokpal Bill is passed."

PROTEST AT RAMLILA MAIDAN

Ramdev led a second major protest at the Ramlila Maidan, New Delhi, on 4 June 2011. He intended to highlight the need for legislation to repatriate black money deposited abroad. He demanded that untaxed money invested abroad should be declared to be the wealth of the nation and, further, that the act of recovering the money alleged to have been obtained illegally in foreign banks should be declared a crime against the state. It was estimated that around \$350 billion to \$1.4 trillion worth of black money was stashed away in foreign banks.^[7]

Four senior Union Ministers – Pranab Mukherjee, Kapil Sibal, Pawan Kumar Bansal and Subodh Kant Sahay – other union ministers and the Chairman of the Central Board of Direct Taxes, Sudhir Chandra, met Ramdev to discuss his concerns in the early days of June.

POLICE ACTION AGAINST THE AGITATION

On 5 June, police raided the Maidan, detaining Ramdev and removing his supporters after firing tear gas shells and lathicharging. Around seven hundred people were hospitalised, four of whom were reported to be in critical condition. Finance Minister Pranab Mukherjee called the police action "unfortunate" but added that the government had to do that as Ramdev had no permission to hold the protest. It was alleged that the action was not a spontaneous decision but had been planned for several days. The police said Ramdev had been informed shortly beforehand that permission to continue his agitation had been cancelled. By that time, over 5000 police officers had been prepared for action. There was an allegation that CCTV footage of the raid was missing.

AUGUST PROTEST AND HAZARE'S ARREST

The first meeting of the Joint Drafting Committee was held on 16th April, 2011. During the meeting of the committee on 30th May 2011, the government opposed to inclusion the Prime Minister, Higher Judiciary and acts of the MPs under the purview of Lokpal in the draft Bill. Team Anna were decided to boycott the meeting of the committee scheduled to be held on 6th June 2011.

On 18th July, 2011 when the union cabinet approved the draft of Lokpal Bill, which kept the Prime Minister, judiciary and lower bureaucracy out of the reach of the proposed Lokpal. Hazare rejected the government version of the bill by describing it as "cruel" and wrote a letter to the Prime Minister. He stated in the letter "Why are you sending the wrong draft? We have faith in parliament. But fast send the right draft, our

agitation is against government , not parliament.the government had overlooked many points. How will it fight corruption by excluding government employees, CBI and Prime Minister from the Lokpal's purview? We were told that both the drafts would be sent to the Cabinet. But only the government's draft was sent to the Cabinet. This is a deceitful government. They are lying. How will they run the country? Now I have no trust in this government. If it is really serious about fighting Corruption, why is it not bringing government employees and CBI under Lokpal?"

On the same day Anna declared that he has finally decided to go on an indefinite fast from 16th August at Jantar Mantar. He also said that he had already informed the government and Delhi Police about his decision and he was ready to get arrested.

HAZARE'S RELEASE

After protests all over India, the Delhi Police decided to release Hazare and his colleagues from Tihar Jail. But Anna refused to leave the Jail until, the government agreed to give him unconditional permission to hold protests at Jai Prakash Narayan Park . At last, when Delhi Police assured him to give permission to fast for 15 days at Ramlila Maidan., he agreed to leave the jail. After three days on 19 August Hazare left the Jail and his supporters welcomed him with spontaneous roar as he headed towards Ramlila Maidan to start his hunger strike. On 27th August 2011 a Parliamentary debate was held on the issue of the Jan Lokpal Bill. Hazare demanded that the three provisions of the Jan Lokpal Bill –(a) Citizen Charter (b) Lower Bureaucracy to be under Lokpal through an appropriate mechanism and (c) establishment of Lokayuktas in the States , should be taken into account. Both House of the Parliament agreed to the principles. At the time of breaking his fast, Hazare said he was suspending his fast for the time being, and will end it only after the strong Lokpal Bill is passed by the Indian Parliament. Hazare started another fast for the same cause on 27 December 2011. It was held at the Bandra Kurla Complex, in Mumbai rather than in Delhi because of the cold climate in the latter city. IAC members asked him to end it because of his poor health but he refused. Hazare had been suffering from cold and mild fever for few days previously. Public participation was very low in comparison to The August protest. The IAC expected 50,000 people, but only 4,000–5,000 people participated.^[8]

END OF THE MOVEMENT AND ENACTMENT OF THE GOVERNMENT LOKPAL BILL

On 22 December 2011 the Lokpal Bill re-introduced in the Lok Sabha and passed on 27 December 2011. The bill introduced in the Rajya Sabha on 21 May 2012 and referred to the select committee. At last on 17th December 2013 the Bill was passed in the Rajya Sabha. And the Lokpal Act came into force on 16th January, 2014.

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**STUDY OF SOLVING THE UNEMPLOYMENT PROBLEM BY ORNAMENTAL FISHERY TRADE:
AN OVERVIEW OF WEST BENGAL**

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ABSTRACT

This title framing on "Solving the unemployment problem by ornamental fishery trade brings peace in our family in the new prospective" has been taken, because different problems can be solved by this subject.

Earning livelihood, taking responsibility of the family and properly maintaining the family is very difficult in this time to the poor people.

The way of earning a normal income has been found out and even there is a possibility of being a remarkable job in future. And the ingredients to give pleasure to the family have been hidden in it.

It is a suitable job for the developing and under-developing countries like us. It has a far-spreading result which is able to strengthen the Economical, Political, and Social bound in our society.

As the concept is very ideal for this country, because most people are unemployed, below poverty, some of them are addicted, some family members are involved in quarreling every day, lead an unhappy life and they have little social respect comparatively.

As it has been got honored as social business, so the business can be started in the level of basic, advanced and corporate. In an international field it has spread out and it is able to bring foreign money. The economical development, socialization and understanding have been increased among persons, families and society. To involvement in different constructive works in society has been increased. In some fields they have taken a role of leadership. Overall they have turned into an icon.

Keywords: Solving Unemployment Problem, Ornamental Fishery Trade, Family Relation & Philosophy, Peace in family, Overview of West Bengal

INTRODUCTION

To pet the colored fishes was my hobby from my childhood. Continuously I am engaging myself to hobby, observing by natural breeding and cross breeding make my eagerness grow to cultivate new fishes. In this way collection of fishes and success of breeding has helped me to come from hobby to ornamental fish farming and from cultivation to this research field. I begin to write down my experiences with my simple interest. But I cannot be pleased to my limited knowledge of this subject. So I have gone to different colored fish breeders and dealers from whom I have come to know about fish breeding process in scientific way. Besides, aquatic plant experts have also helped me. Moreover many books on this subject have helped me to fulfill my objective work. My friend circle and many well wishers have encouraged me to present this subject as researchable work.

In the year 1984 when I was student of class III, then the situation of my family was below poverty level. I would get 10 paisa for Tiffin. Collecting those I would buy colored fishes like Molly, platy, Swordtail etc. with 50 paisa per piece. From that day gradually development is started.

In the year 1990 after passing School Final Examination, my direct fight was started with want of family. From 1996 Earning, taking responsibility of family and social demand of family members have gradually been fulfilled from culture of colored fishes. My works have been published in different papers. It has also encouraged the other youth by showing the way of earning by my training and publishing some books on it I have got honor at home and abroad. Even different Print Media, Wave and Tele Media have published my works.

Now I am family man. Their education, health, socialization have been taking care for this field which will help the next generation to go forward.

I have shown that this work will encourage and influence others. So I have presented my research paper. I also hope that this subject will be important not only in social science, but to the unemployed people, interested persons, cultivators of Aquarium plants, students, Teachers, Traders and to Researchers also.

INDIAN SCENARIO**On which situation this subject is standing on**

The Indian civilization is not today, it began from Vedic period. If we look back, we can see that according to Matsya Puranas the 'Fish' appeared and was mythological introduced in our religion as Abtar of God Sri Bishnu. There we follow the Fish has been known to the people as enemy, friend, holistic, favor, and savior. So from the pre-historic age all the people have accepted the Fish in society from different views. So for this reason a mixed concept has been seen in Bharatbhumi (Indus civilization).

Particularly in this time there has been seen a systematic co-relating matter in spite of different languages, opinions, dresses, foods etc. As a result in Indian thought it is seen to give a special respect to all the matters, even a reflection of an equal distribution is seen. In this sphere not only concentrate on the value of land life, but the same priority has been given to underwater life.

Taking the fish as food has been started from the pre-historical time. The many decades have passed away, at the time of Sumerian, Babylonian, Assyrian and Missourian period, the fish was used not only as food, but it was taken as great pleasure, blessing, savior module. In the middle age the same concept is flowing. After passing long time this concept has been reached to the modern civilization and this fish has been remarked as a social, economical and environmental balance to be maintained.

Among the mile stones during this long term historical journey of time line different long gaps have been seen.

At present study this 'Fish' has been introduced by another name also, as 'Ornamental Fish' which will take a role of helping hand filling up the long gaps.

Now the unemployment problem has been grown up as a great social problem in India and as a result more other problems have been raised which is bringing an unexpected awful message to the Sovereignty, democratic, socialist, secular country like India, though India has reached to the developing country from underdeveloped country, yet in the sphere of the population, birth and death rate, increasing of life span, education, health, socio-economy, socio-status etc. an unparallel parametric situation has been seen. Though before it applying different types of methods a way of getting way of solving process has been found out and applying those more or less implement has been got in some spheres.

Here a way of normal income can be got by the Ornamental Fish farming and in this social system this is very helpful new perspective.

Though there is differentiation in our environment of India the seasonal change is wonderful gift of our Indian nature of wild life. Here there is widely desert, likewise there is also oasis. Again there is table land too on the high mountain. Beside there are many rivers, canals, watery lands, estuaries, streams, lakes etc. spreading over the plains.

"Where there is Water, there is Fish". Though this mission is going forward towards fulfillment in India, yet there have been seen different gaps in it, such as there are fishes of different types, shapes, colors, sizes, fins in seas, rivers, canals, drains, ponds, lakes, water reservoirs, etc. among whose a large amount of fishes are at the mouth of destruction being neglected and careless, because besides traditional food fish lovers in Bengal, a little of other communities have taken fish as food. As a result a little number of people has selected some number of fishes in their plate and planning to cultivate them they have commercialized the field.

Generally it is said that it is a destructive game to demolish wonderful differentiation of nature surrounding the traditional food fishes of whole environment. Not only the environment is destroyed, but the total social management is going to ruin.

In the sphere of Ornamental Fishery Trade it has been seen a unique endeavor in present India to make them live smoothly, reproduction, development, to save the endanger aquatic species and to return back in natural world, which is neglected, unknown, unrespectable to the eyes of common people or fishermen and other communities. Even now they have been playing in our drawing room with special respect, besides good looking scenario has been seen by income with these ornamental fishes in the country like India, to set up a peaceful family relation and by earning of foreign currency and with it a powerful economical back ground has been developed.

Particularly, an Ornamental Fish Marketing field has been built up surrounding the places of Howrah, Kolkata, Hooghly, 24 Parganas of West Bengal, where a popular market (Hat) has been going on during previous 100 years, yet no any research work is seen here till now regarding this field, which could be future implementation scope for the future generation.

There has been seen a huge gaps in the sphere of ornamental fishery knowledge, training, technology, skill development and also in research in India.

Here some people of below poverty level, refugees, and landless persons started this business in Bengal surrounding Howrah, Dasnagar etc. places. They have gradually prospered in business. Now the newcomers of different communities have started to come in this business. Even the people from primary to higher educated young are showing their little interest in this business.

According to Indian environment and socio situation, it has been seen that this business can be started in three types of levels, e.g. basic level, advance level and corporate level which depend on endeavors, economic conditions, and infrastructure of men.

It has been seen in many sphere that the fisherman families of West Bengal, who earn their livelihood by catching fishes do not get expected evaluation economically, socially, politically. Most families suffer from economical drawback. There is a lack of infrastructure of food, wear, shed among them. As a result they are always facing with socio inequity, quarrelling, many difficulties and social respect. It is not matched with rapidly changeable social system.

In India, it is lightly indicated that the different problems are shoot down most easily by aquarium fish farming and trading.

Here one side priority has been given on particular fish catching, eating and marketing. For this a gap has been seen here. It is seemed by observing the aquarium fish units of different places that it solves the different kind of problems and increases the flow of development.

It is seen here that the ornamental fish trade was an off-bit job, but recent year it has been seen by study that it can move to a remarkable job, because many people have involved with this trade and many of them are spending their lives smoothly by this livelihood. Many organizations e.g. Government, NGO and self organizations are motivating them, even they have taken responsibility of plans, projects, subsidies, training, up-gradation etc. Besides, Government has taken some rules and regulations about it which will develop this field more, but different fish organizations and individual people of India are not conscious about it. Even a cloud of fear has covered them. Here the gap which is seen that there is a lack of understanding among Government, Ngo and common traders.

A monopoly economy policy is seen to hold this ornamental fish business in India, because there is no printed price tag on the most products. There is also no evidential record from where these are coming, how it is being sold and how much the end users are satisfied. So at present the business belong to an unorganized position, but it is necessary to move it quickly in organize sector for current situation of Indian Socio economy. But it is not only time factor matter, there are other factors also behind to move it from unorganized sector to organized sector. A lengthy gap has also been seen here.

Though the Ornamental fish trade shows the light of hope here and there haphazardly, there are lack of publicity, training, and program, project about it among the Government and non-government and self interest in India. Days have come to work with endeavor to the social media to work consciously with special priority with this sound able matter. A large number of Indians have taken fishes easily not only as a food, but for other reason also. So it is a great opportunity for our society. It is necessary to plan a better country by human resource, which will create a field of freedom in the society.

LITERATURE REVIEW

Before our Epics Mahabharat and Ramayana another unwritten literature Purankatha is noted. Besides it four Vedas have been known which the core of knowledge is. Here social environment, philosophy, political, economy, health, activities, birth-death, freedom etc. all the matters are mentioned and discussed. How it is applicable – all have been discussed. Even ethics, rules, civics, etc are consciously flourished. 5000 years of this tradition have been passed away, yet its importance is not faded, moreover gradually it is being got important day after day.

It is seen that this Matsya Purana which is the core and ancient among the 18 Puranas where Lord Vishnu appeared in this aquatic world being the symbol of Fish. ('Brihat O Adi Matsya Puran', written by Sri Monmaharshi Krishna Dwipayana Vedbyas, translated by Poet Bhaktadas, 2014).

Now-a-days this fish is so widely spread out that it is not understood without giving deeply importance - as purity, good luck, food, economic development, beautification, pleasure, wonderful eye-catching, saving environment and many others.

Fishes are very important and fruitful.

Following the time-chart we see that the life in all the countless forms that it in today begins in the sea four thousand million years ago. The earlier fossil evidence we have seen that it is very simple organism consisting of thread-like chains of cells, dating back about 3 thousand million years. Ichthyologist has given us fossil evidence covering much of the early geological history of the development of the fishes is insufficient. Some comes from the Cambrian period of about five hundred million years ago- with fossil remains of invertebrate mollusks, the immensely prolific trilobites, and the clam like brachiopods, but more importantly it comes from the Devonian period. During this period, between 360 and 410 million years ago, the placoderms (plate-skinned fishes) were by far the most abundant.

First Jawed fishes. Jawless Fishes spread into lakes and rivers. Rapid growth in Coral Reefs is seen Silurian Period of 410-440 millions ago. After that age of fishes Jawless and Jawed Fishes exist simultaneously, ancestor of amphibians and ammonites appeared. This time is called Devonian period 360-410 million years ago. (Peter W. Scott. Dorling Kindersley, 1994.

At present the fish culture is very popular particularly in Bengal, Behar, Orrisa. The infrastructure is ready. In other States also the work on aqua pisciculture has been going on in India. (Fish Culture in India, Indian Council of Agricultural Research, New Delhi, Editor- M.G. Kamath by K.H. Alikunhi, Research Officer, Pond Culture, Central Inland Fisheries Research substation Cuttack Pages-3)

The total area of India is 32,67,500 square Kilometer. Its land area is 15,200 Km in length. As the coastal area is less broken, so it's lengthy is only 5,700km. The position of India is 7th for this area in the world. Its position is 2nd for its population than China. (From Wikipedia, the free encyclopedia, geography of India. September, 2017.)

70% of the total rain fall in India is for the appearance of south-west monsoon wind blowing in summer, but it is not routine wise, it also changes for different causes. So giving priority to the irrigation System of India it has been trying to develop the fishery and agriculture. At present 21% of agricultural land is being taken under irrigation process. The volume of water in rivers in India is almost, 1,67,251 crore square meter, among which 66,600 crore square meter water is useful for farming. Still now it is not possible to use the total water. Till 2000 year 23 thousand crore square meter water has been used.

This is known from an editorial column of a Monthly Magazine 'Aqua culture, Asia' volume-viii, no.3, July to September, 2003 that -Talk aimed at reforming global trade in agricultural products collapse on 14th September in Cancun, Mexico as expected one of the main striking points was the issue of agricultural subsidies and tariffs. As discussed in this column previously, these are mainly imposed by developed nation to protect their domestic industries from foreign competition which are mainly developing nations.

A key difference in Cancun over previous talks was that developing nations banded together much more strongly than they have in the past to lobby for agricultural reform and to oppose four new proposals about foreign investment and competition added to the agenda primarily by the US and European interest.

The collapse of talks in Cancun is a blow to the prospect of developing a global trade treaty by the end of 2004, set at a meeting 2 years ago in Doha. Many advocacy groups celebrate the collapse as a victory for developing countries. Greater solidarity among proponents of agricultural reform is a welcome development but the collapse of the Cancun WTO talk is in no way beneficial to developing countries.

Global trade is not bad. The economic and social benefits are well documented. The real problem is that the global trading system as it exists today is not fair. It is heavily biased towards rich countries which continue to prop up inefficient agricultural sector with heavy subsidies (Forcing there consumer to pay more tax for the privilege of buying more expensive products) Why finding of imported products with quotas and tariffs.

The outcome of the failed negotiation at Cancun is that this status quo has been preserved, and so the global trading system will continue to favor reach nation. The collapse of the Cancun talks is a lost opportunity for both developed and developing countries; it is not a will for any one. We need agricultural reform, let hope that the navigations are more successfully next time.

Aqua culture, Asia is an autonomous publication that gives people in developing countries a voice. The views and opinion expressed herein are those of the contributors and do not represent the policies or position of NACA. NACA is an intergovernmental organization that promotes rural development through sustainable aqua cultural seeks to improve rural income, increase food production and foreign exchange earnings and to diversify farm production. The ultimate beneficiaries of NACA activities are farmers and rural communities.

In India the central Government has brought some rules, regulation and Acts on Ornamental Fish Trading. The Gazette of India extraordinary part-11, Section-3, Sub-section-1 published by Authority No. 395, New Delhi, Thursday, May-23, 2017/ JYAISTHA 2, 1939.

At present Government has taken some Rules, Regulations and Acts regarding Ornamental Fish Farming, Trading, Hobby and Research. For this most Ornamental Fish Community are not satisfied in this step. They are making a group and tried to move against the rules. Most members of the Community have wanted that the Government be quite flexible about this rules, regulations and acts. They think that many common people of the State like West Bengal are involved in this business. Most of them are poor and below poverty level, some of them are economically quite healthy, but they are unconscious about society environmental situation. The very little percentage of fish traders is generally traders. To find out those persons is very difficult in such new small scale industry.

However, it has been seen that the policy of Government and the movement of the Organization are justified for the society's development and implements. But both of voice has to give priority to each other with soft acceptance of new perspective.

PeTA India. Animals are not ours. To Eat, Were, Experiment on, Used for Entertainment, or Abusing any other Way.

India Passes New Rules to protect animals.

The Indian Fisheries Act-1897 [Act No.-4 of 1897]

To follow the rules and regulations we see a fear and frustration among the ornamental fish farmers, traders and hobbyists. As a result this business cannot run properly in this time, even a small business which has come in a light after long time journey and it has a good prosperous and sound health in future. In such situation it has been seen the possibility of dropping out of this industry to these traders. They are thoughtful about this matter. To organize these unorganized sectors a tendency has been seen among them. So they have called all and invited to gather under an umbrella.

A venue of the meeting of such organization is quoted here.

Colored fish traders have been invited to take membership of WBOFA and to protest against these rules. WEST BENGAL ORNAMENTAL FISH ASSOCIATION(WBOFA)

Meeting Venue: Swamiji Sporting Club, 44/1/1, Santragachhi, PS. Shibpur (Natun Rasta) Howrah- 711104 on Monday 05.06.2017. at 3p.m.

Aquarium Fish in troubled waters.

The Telegraph. Monday, June 19, 2017. Soumitra Das. RULE CLOUD ON LIVELIHOOD OF 200,000

A pond is in Howrah where ornamental fishes are bred. They have been doing so for years without any harm to the fish.

Cement fish tank in Howrah under the shed of netting. Meeting of the West Bengal Fish Association was held in Howrah to protest the new rules. A school of Cichlids Inside and Aquarium and Picture by Sanjoy Chattopadhyay, June 18, it is not the protector of Gaumata alone; it extends its safety net to cover aquarium fish as well.

In a fit of kindness towards our finned friends, the center is about to impose such stringent rules on the trade of breeding selling ornamental fish that grass roots "Fish Farmers" and traders all over the country will soon go hungry to bed.

Bengal is responsible for about 80% India's production of ornamental fish and many people entirely depend on it for their daily meals have neither the means, nor the technical expertise to follow these "lopsided" rules.

The livelihood of about 200,000 people- mostly self employed and with little capital to speak of –is threatened following the May 27 notification of the Ministry of environment, forest and climate change in the Gazette of India: extraordinary, which will enable the center to impose these "impossible" rules.

The rules have been tentatively titled the prevention of cruelty to animals (aquarium and fish tank animal shop) Rules 2017, and they were published by the center in exercise of the powers conferred by sub-section (1) and (2) of section 38 of the prevention of cruelty 2 animal's act, 1960 (59 of 1960).

Ironically, most Government Institute and the State Fisheries department and other Stakeholders and in the dark about the online notification. Not even Benfish, a Government Organization that runs a project for ornamental fish breeding, has no knowledge on the order.

The Marine Product Development Authority of India, which functions under the commerce ministry, has been paying subsidies to ornamental fish farmer for many years. It is not aware of the notification, too.

Deepak Nopany, a leading Calcutta-based exporter of ornamental fish, says: “The ramifications are huge. We collect fish from far-flung places. These rules are not feasible. The bulk of people involved are young. It will be a catastrophe. I am entirely dependent on these suppliers.”

The notification came like a bolt from the blue. The ornamental fish trade is part of the unorganized sector, but soon after they discovered it on line, the breeders and sellers hurriedly formed the West Bengal Ornamental Fish Association (WBOFA), which is yet to be registered.

Spearheading the movement against this notification is Indranil Banerjee, who is acting as a spokesperson for WBOFA. “The rule same to have been formulated by somebody who is totally out of touch,” Banerjee says.

He explained why the rules will be impossible for them to follow and not for financial reasons alone.

Rule: Veterinary and Infrastructure facilities – every aquarium shall (a) have a fisheries veterinarian or a fisheries expert employed full time for the purpose of overseeing the health care of all the fish tank animals in its collection; (b) have appropriate facilities for treatment room.

WBOFA speak: How is it possible for someone who earns a meager living breeding ornamental fish to hire a veterinarian or a fisheries expert employed “full time”.

Rule: No aquarium shall be allowed in temporary stalls in fair or markets or exhibitions in which permanent facilities are lacking.

WBOFA speak: what about the Gallif Street market where 500-700 stalls sell such fish every Sunday? These small-time traders belong to a registered body, the Baghbazar Sakher Haat Byabasayee Samity.

Rule: Every Aquarium shall take adequate care to locate and design all Pucca buildings, including the visitor facility, in such a manner that the fish tank animal display area is not masked and the cleanliness and the hygiene of the aquarium is not affected.

Fish tanks or aquarium are not placed in the following location namely: (i) in direct sunlight or near radiators; (ii) in a place where there is always light, or where it is always dark; (iii) in a place where rain water can enter the tank,

The master plan referred to in sub-rules (1) And (2) shall inter alia include all-round development in aquarium for a period of ten years and which shall be revised every 5 years along with detail lay out plan prepared on the basis of them adopted by the aquarium indicating fish tank animal, display animal, visitor facilities, support infrastructure for fish tank animal upkeep and health care building for administration and maintenance unit.

WBOFA speak: won't these rules shut down thousand of makeshift shops and hatcheries? Some fishes cannot breed without sunlight. Without rainwater, some others cannot get 'eggbound'. Without sunlight the pigmentation of Goldfish and other species like Barb and Tetra will not become richer.

Rule: Every aquarium, as a save- guard against access to unregulated visitor and fish tank animals being subject to provocation and pilferage, shall design appropriate barrier along the fish tank and shall have on display appropriate signage discouraging visitor approaching the fish tank at close proximity or from touching the fish tank.

WBOFA speak: how can this rule be implemented when most shops hardly have any space to speak of? The question of a barrier does not arise when there is hardly any shop space.

Rule: Maintenance of records and inventory space-(1) every aquarium shall maintain a record of the acquisition, deaths and disposal of each species of fish in its collection in the manner and in the format determined by the State Animal Welfare Board.

WBOFA speak: Is it possible for traders without any infrastructure whatsoever to maintain such elaborate record? And even if they do so, how can this be presented to the board, about whose existence no one in award of.

Rule: No aquarium of fish shop shall display or shell-(a) bowls for keeping fish tank animal; or (b) fish tank with a capacity less than 13 gallons or 60 liters of water for keeping fish tank animals.

WBOFA speak: The minimum size of an aquarium has been fixed at 60 liters. But the most popular ones hold only 50 liter of water. Fish bowls that hold 10-12 liter have been banned. But small fish like Fighter thrive and even breed in bawls. And most children love this.

Rule; Every aquarium and fish shop shall ensure that the quality of the water in the fish tank is maintained at all times and is within the permitted range of salinity, Ph, hardness and temperature specified show as to meet the health and welfare needs of the fish tank animals.

WBOFA speak: This is absolutely not necessary in the case of fresh water fish. Siphoning is good enough for maintaining balance.

Rules: It is prohibited to keep or sell the following species namely.....(a least of the species and group banned, along with their common and scientific name, follow).

WBOFA speak: 95% of popular marine fishes are banded. Some examples: 46 varieties of butterfly fish; 16 types of angel fish; 3 types of File and Trigger fish; Four types of Damsel fish; Four types of Clown Fish; Two types of Bat fish; 5 types of Eels (Eels are being exported to foreign countries as edible fish); 8 types of Wrasses, Blennies, Dragonets, Gobies and parafish; 4 types of Anthias, Groupers and Grunts; 6 types of Tang; 9 types of Lionfish, Stonefish and Pipefish; 4 types of Boxfish, Razorfish and Mantis Shrimp; All Octopus species (Octopus is also an edible item) and Jellyfish.

WBOFA speak: We have nothing against the ban on Cetaceans (A whale, Dolphin or Porpoise), Penguins, Otters and Manatees. These are banned items according to the wild life protection Act, 1972. But why ban the sale of most marine fish?

Repeated attempts last week by Metro to contact Ravi S. Prasad, joint Secretary, Ministry of environment, forest and climate change, who has signed the notification and others in the Ministry in Delhi, elicited no response.

WBOFA members meet at Santragachi on June 5th to start a movement against the notification. Jayanta Mandal, 46, who is among the more prosperous of breeders, says what started as a hobby became a profession.

A group of young men work under Mandal. Their own tiny hatcheries in their house as well. "We live around 3a.m to collect daphnia and plankton to feed fish. It is a strenuous job and we have to keep an eye on the tanks 24x7," says Mandal, who has won several awards. "We never got any training. We learn on the job."

Sourav Ghosal, a young importer says the rules are not 'commercially viable.'

Debasis Ghosh, a small trader, sums it up; "There is no questions of cruelty. We treat the fish like babies. Unless we keep them healthy and alive they won't sell."

The clinching argument against the notification comes from Sunirmal Das, secretary, WBOFA: "If the Government is so concerned about cruelty to fish why does it not ban the manner in which life table fish is often battered to death before cleaning?"

CONCLUSION OF LITERATURE REVIEW

It is clearly understood from literature review that there are different types of problems, possibilities, present situation and future scopes in ornamental fishery field. It has been seen that many people are involved with this business. Many people have no monetary sound. Even this business stands on still now on an unorganized sector. The time is very necessary here to bring this long time business in an organized sector, even education, expertise and awareness are most necessary.

Now time has come to the organizations of ornamental fishermen communities to be conscious more and it is also necessary to apply the governmental policy in systematic way and equally. Even it is necessary to take it with softening respect among Government, government-undertaken Org, non-government organizations and self organizations. To keep special respect on the rebuilding development policy systems an applied is very necessary for forth coming decades. .

More people will be benefitted by earning livelihood by this business and helpless, poor men too can make the family happily and smiling. These people will take the responsibility of leadership and will be dignified personality in the society.

This business will take the position from the local to international market. Importance will be increased economically; a large amount of the foreign currency will be gotten, the economical structure will be strengthening in our country, and the social systems of the country will run normally with pleasure.

RESEARCH QUESTIONS

How will be the unemployment problem solved by Ornamental fishery trade and how will the families get the happiness? Such pattern of research question has been followed here. e.g. The name, age, address, contact number, relation among family members, possibilities and difficulties of business, even their individual views about past, present and future of this business has been presented here as a question. Some questions have also been kept here free and others are bounded.

How is the implement percentage of two years business?

Is research and training facilities upgraded?

From where do the resources come?

From where have you got inspiration?

How types of problems do you face in your business and which method do you apply for solving the problems?

OBJECTIVES

To solve unemployment problem by peaceful co-existence is main object and for this the subject **Ornamental Fishery Trade** has been chosen here. Especially importance has been given on different types of beautiful multi-colored fin fishes and on good-looking Aquatic plants which are set up into an Aquarium. It has been informed that the cultivation of Aquatic plants has an international market. How such unknown common matter can widely spread in India and how it is possible to strengthen the economical structure of our country within a short period. I want to show this here. It has also been known that economically many backward families have got their socio-economical respect and many families have been established in society and many are hopeful they can also be economically established. They believe in this theory “**Small Capital, Short Space, Little Time, Normal Income.**”

It has been seen that aquatic plants and ornamental fishes are co-related and they maintain an environmental balance.

- Solving the unemployment problem
- Ornamental fishery farming is necessary for socio-economic development.
- How can happiness bring to our families?

APPROACH

Case Study. Positivistic approach.

METHODOLOGY

Empirical research based on surveys and interviews with testable hypothesis. Mixed methods and action research.

CONCLUSION

Ornamental fish farming trade is in West Bengal i.e in India. It is very important to know whether it is technically innovative or not.

In India there are many people whose conditions are very weak for different difficulties, especially for their economic, knowledge and for social respect. As a result lack of peace and soft understanding is shown in such kind of people and their families. In society among such situation a bad side and sign is shown in the socio scenario.

How this problem and problem solving process is presented and how far it is spread out – it is also an important matter. Besides, how is the nature of innovation and what is their achievement?

It is very significant question and till now India does not get any more entrance, expand acceptance in international field of ornamental fishery trade. So this trade will have to travel alone far away. When the thinking and knowledge of many men will get more importance, then this trade will get entrance in open field.

This trade belongs to an unorganized sector. This can be organized. It is an off-bit job which can be bringing to the main stream of social business; It has huge possibilities to make it in an international market leaving the regional field.

The helpless and poor people can take part in economical development shortly, they can also set up an environment of peace and happiness among the own families, can get self respect in society, they have entrance and empowerment, can give leadership and will be distinguished personality by this trade in the developed country like India.

A clear visibility and transparency about this trade is necessary in this time to the people of ornamental fishery community and interested people, though the consciousness of the people, their influence and contribution is necessary too more. By using the social media its publicity will be increased too much and will prepare a plan, project and implementation with taking the all people in all stages of the society.

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A STUDY OF THE EFFECTIVENESS OF CONCEPT ATTAINMENT MODEL OVER CONVENTIONAL TEACHING METHOD FOR TEACHING GEOMETRY IN RELATION TO ACHIEVEMENT AND INTEREST**Pijus Kanti Ray¹ and Prof. Parvinder Hanspal²**Research Scholar¹ and Director², MATS University, Raipur, C. G.**ABSTRACT**

Models of teaching is a strategic planning for the teacher to create a better environment for the pupil by which teacher got the better outcome from his teaching as well as built a diverse environment. Geometry is one of the most important branches of mathematics with full of the combination of reasoning and concept. By using inductive reasoning and systematic thinking, the concept attainment model (CAM) forming concept through the use of examples and non-examples. The aim of this experimental study is to find out the effect of CAM in geometry teaching at class VIII. In the present study a sample of 120 students taken from different government school of Purulia district, West Bengal. The individual class is categorized with proper strata by testing their previous knowledge in geometry to form two homogeneous group for given two type of treatment. A standardized questionnaire with reliability coefficient (Cronbach's alpha) - 0.836, is constructed by the researcher for measure the achievement and interest of the students. Twenty lesson plan deliver by the researcher (10 of the lesson transcript based on of CAM and 10 of the Conventional method) at four schools at the same period time. The statistics used for analysis this pre-test post-test study is mean, S.D, and t-value for comparing two methods of teaching.

Keywords: Teaching of geometry, Middle School Students, the Conventional method of Teaching, Concept Attainment Model.

I. INTRODUCTION

Geometry is a wonderful area of mathematics where a student enhancing his power of reasoning, logic, and analysis. It is full of interesting problems and surprising theorems. It is open to many different approaches to solving a problem more logically than numeric calculation. In modern times, geometric concepts have been vividly extended (Jones¹, 2002). Remembering this fact the teachers should have to special care about imparting geometry lesson.

Geometry teaching at upper primary class is a very difficult and complicated task. For the betterment of teaching-learning process teachers are taking many necessary steps like designing the lesson with proper pattern and planning, designing educational activities and environment. So teacher and educator gave a superior position at geometry teaching and planned for construct a special design at imparting lesson at mathematics classroom.

Many researches revealed that geometry concepts in mathematics perceived difficult to learn (Fabiya², 2017). There are many factors responsible for students' difficulty in learning geometry which are inadequate proof by students, poor background knowledge, low reasoning skill in geometry, lack of geometric language comprehension, poor visualizing abilities, lack of competency in teachers' method of teaching, non-availability of instructional materials (Mason³, 2002; Noraini⁴, 2006; Aysen⁵, 2012).

Many educationists suggest their opinion regarding mathematics teaching by using the model in class to enhance the level of classroom teaching. Model of teaching guides in designing an instruction to facilitate student's achievement in the various objectives. Teaching model is just like an instructional design. Its describe the process of specifying and constructing particular environmental situations which enhance the interaction for a specific change in students behavior (Joyce and Weil⁶, 1972).

II. CONCEPTUAL FRAMEWORK**Concept Attainment Model**

The term Concept Attainment Model is historically linked with the work of Jerome S. Bruner and his associates. This Model is intended to teach specific concepts by comparing and assimilating examples having contained the concept with examples and examples of not contain the concept. It is called categorizing which is construct from Bruner's work on the cognitive activity. Bruner's opinioned this categorizing helps to diminish the complexity of the environment and which is necessary for concept learning. It is an approach to teaching concepts in which the teacher provides examples and non-examples of the concept and students determine the concept from the examples quoted (Eggen⁷, 1979).

III. LITERATURE REVIEW

Kalani⁸ (2009) found in his study of the effectiveness of Concept attainment model over conventional teaching method for teaching science in relation to achievement and retention. The researchers suggest the achievement of students who were taught by concept attainment model was better than the conventional method. In concept formation at science teaching the concept attainment model was more effective than conventional method when the scores on attainment and retention were compared. Kumar and Mathur⁹ (2013) Conducted a research on the effect of Concept attainment model on an acquisition of physics concept in class IX students. The researcher found the difference on the achievement in relation to understanding of physics concepts while taught through concept attainment model and traditional method and concluded that there was a better impact while teaching through concept attainment model than the traditional method. Shrivastava and Upadhyay¹⁰ (2016) experiment a study to found the effect of Concept attainment model on 11 to 14 year old students in mathematical achievement as a function of treatment and gender and their interaction. For the purpose, the investigator selected 508 male and female of 11 to 14 year old students randomly. All students of the sample were divided into experimental group and control group. First the investigator administrates pre-test of mathematics which is based on their previous knowledge on students of both the groups after that investigator applied 30days treatment to both the group i.e. experimental group was taught by Concept Attainment Model and Control group was taught by Traditional Method. After treatment, the post-test administered by the investigator on both the group and gain scores were obtained. Data were analyzed by two-way analysis of variance. The result revealed that there was a significant difference found in mathematical achievement for groups at 0.01 level of significance. The researcher concluded that there was a significant effect of concept attainment model on the mathematical achievement of 11 to 14 year old student.

IV. RATIONALE OF THE STUDY

There were many researches conducted on concept attainment model and most of the researcher revealed that student's achievement improves when taught through concept attainment model. Geometry is a crucial field of mathematics. It provides ground for the development of mathematical thinking, from concrete visualization to abstract reasoning. This scanty research inspired the researcher endeavor to try out one of the teaching model from information processing family i.e. Concept Attainment Model in the actual classroom situation to determine effectiveness for teaching concepts of geometry.

V. HYPOTHESIS

⁰H₁ - There will be no significant difference between the effectiveness of Concept Attainment Model and Conventional Method on students' Achievement in geometry in standard VIII students.

⁰H₂ - There will be no significant difference between the effectiveness of Concept Attainment Model and Conventional Method on students' Interest in geometry in standard VIII students.

VI. METHOD OF THE STUDY

The present study based on the experimental method needs to prepare the layout of the method of the following steps in taking proper samples, collecting data, adopting the suitable technique to arrive at desired results and verification of the hypotheses.

VII. SAMPLE

In the present study a sample of 120 students taken from different government school of Purulia district, West Bengal, out of total population through stratified random sampling technique.

Sample school and number of students selected for experimental and control groups

Group	School 1	School 2	School 3	School 4	Total
experimental groups	13	14	18	15	60
control groups	13	14	18	15	60
Total	26	28	36	30	120

VIII. TOOLS AND STATISTICS

Geometry Interest Inventory, a standardized questionnaire is constructed by the researcher for measure the interest of the students in geometry is used in this study. The questionnaire consists of 36 items with 25 positive and 11 negative items. The reliability coefficient of this questionnaire is 0.836 when used the Cronbach's alpha reliability analysis.

Descriptive statistics of Mean, Standard Deviations were used to compare the experimental groups and control group and inferential statistics 't'- test was applied to compare the post-test scores of achievement in geometry and Geometry Interest Inventory score of experimental and control group.

IX. EXPERIMENTAL PROCEDURE

Before starting the experiment the researcher organized an achievement test of Geometrical concept based on previous knowledge was administered to all the students of each school. The scores collected from the answer sheets comprised the pre-test scores. Based on that score two uniform strength group is constructed according to their obtained marks. The one group is called experimental group and another is called control group. The experimental group was taught with the help of the lesson transcripts based on Concept Attainment Model and control group is exposed through the conventional method of teaching. Two of these groups were taught the same topic with two different ways of instruction by the investigator himself with equal time for each period of each group. The post-test was administered to all the groups simultaneously with prior information on the specific topic taught by the researcher earlier. There was a complete supervision by the class teacher and the researcher. All the answer sheets were collected and scored.

X. RESULTS AND DISCUSSION

H_1 - There will be no significant difference between the effectiveness of Concept Attainment Model and Conventional Method on students' Achievement in geometry in standard VIII students.

Table-1: Group-wise N, M, SD and t-value of students achievement in geometry

Group	Descriptive Statistics			t-test for equality of Means		
	N	Mean	Std. Deviation	t-Value	df	Sig (2-tailed)
Experimental Group (teaching through Concept attainment model)	60	34.4	7.639	3.232	59	0.002
Control Group (teaching through Conventional method)	60	31.10	16.839			

Table-1 shows that in case of comparing the experimental group and control group the calculated $t_{(59)}$ - value is 3.232 and p - value is 0.002 ($p < 0.05$). Here t - value is significant at 0.05 level and H_1 rejected. It indicates that mean scores of experimental group and control group differ significantly. In this context, the null hypothesis, namely "There will be no significant difference between the effectiveness of Concept Attainment Model and Conventional Method on students' Achievement in geometry in standard VIII students" be rejected. So, it is interpreted that teaching through Concept Attainment Model is significantly different from Conventional Method in relation to students achievements in geometry.

H_2 - There will be no significant difference between the effectiveness of Concept Attainment Model and Conventional Method on students' Interest in Geometry in standard VIII students.

Table-2: Group-wise N, M, SD and t-value of students interest in geometry

Group	Descriptive Statistics			t-test for equality of Means		
	N	Mean	Std. Deviation	t-Value	df	Sig(2-tailed)
Experimental Group (teaching through Concept attainment model)	60	153.17	13.434	4.125	59	0.000
Control Group (teaching through Conventional method)	60	142.62	13.269			

Table-2 shows that in case of comparing the experimental group and control the calculated $t_{(59)}$ - value is 4.125 and p - value is 0.000 ($p < 0.05$). Here t - value is significant at 0.05 level and H_2 rejected. It indicates that mean scores of experimental group and control group differ significantly. In this context, the null hypothesis, namely "There will be no significant difference between the effectiveness of Concept Attainment Model and Conventional Method on students' Interest in geometry in standard VIII students." be rejected. So, it is interpreted that teaching through Concept Attainment Model is significantly different from Conventional Method in relation to student's interest in geometry.

XI. CONCLUSIONS

On the basis of the results drawn and from the interpretation of hypothesis with the class-VIII students of different schools in Purulia district, West Bengal the following conclusions have been drawn-

The students taught through Concept Attainment Model were found to better effect on students achievement and interest in geometry liking as for those who were taught through Conventional method.

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PENSION PORTFOLIO SPECTRUM: A CRITICAL ANALYSIS OF BENEFIT Vs CONTRIBUTION PLANS

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ABSTRACT

The paper discusses the role of pension funds in creating value and its redistribution with reference to Defined Contribution Plans (DCP). In India, there are umpteen number of pension portfolios available with varying returns, risks and refinement with respect to distribution of incentives derived therein. Interestingly, none of these plans under defined contribution match in returns with respect to Defined Benefit Plans (DBP). Several studies have examined varying levels of returns on the basis of market risks, indexation methods and equity in returns. The reviews done so far suggest that no comprehensive study has been done on matching returns under DCPs with that of DBS. Apart from actuarial methods, it is critically essential to examine parameters of demographics, psychographics and promotional parameters to make pension funds more popular for formal and informal labourers across industries in India. Actuarial methods have been able to demonstrate optimal returns for pension investment to the organisations rather than the pension investors. Large number of small investors could derive benefit in a scenario of matching returns with value of money over time period. The paper has projected inadequacy of approaches of all the pension portfolio schemes in India.

Keywords and phrases: Defined benefit plans, Defined contribution plans, Actuarial methods, Inadequacy of pension schemes, Portfolio Spectrums, Promotional parameters, Demographics and Psychographics.

I. INTRODUCTION

The concept of welfare state in India laid the foundation for the Defined Benefit Pension system aiming at protecting people against old age poverty and longevity risk, to provide consumption smoothing and insurance coverage. Now Defined Contribution plans are replacing benefit plans and are operating with multiple objectives at different levels of risk based on people and time. The DC system defines the amount of contribution one has to make but does not ensure the accumulated amount will meet the pension amount desired. Pension systems in developing countries are discretionary in nature, which makes the system inefficient. In order to make the system universal, effective and sustainable it should incorporate adequate adjustments to minimise market imperfections and distortions in terms of lack of transparency in disclosure norms, variation in management charges, inadequate wage and price indexation, differences in tax treatment etc. Suitable contribution and benefits adjustments are required for optimum risk sharing and policy revisions in both individual and collective pension accounts (Barr 2010) and Rudolph (2013). Effective and competitive model of framing an efficient pension system cannot materialise given asymmetry in the system. Governments have utmost responsibility of defining long-term investment strategies to achieve overall performance with less uncertainty at the same time evaluate the effectiveness of tax financed pension. Asset allocation strategy should not only depend on age but parameters such as contribution rates, density of contributions, benefits from other social insurance schemes, changes in life time earnings, risk preferences of people, the respective correlation among these parameters and asset returns (Heinz P. Rudolph et al (2010)). OECD comments that "Retirement-income systems are diverse and often involve a number of different programmes. Classifying pension systems and different retirement income schemes is consequentially difficult." Countries differ in terms of pension assets as a percentage of GDP as well as in asset allocation. Pension fund assets are valued at market prices but there is disparity in reporting investment returns, some countries report returns gross of fees and other use net returns method. Due to widespread disparity in reporting and regulatory frameworks comparison of investment performances across countries, pose a serious challenge (Pablo Antolin and Waldo Tapia (2010)).

II. THE INDIAN PENSION SYSTEM

Indian pension system is very complex with different schemes by government, public and private organisations. India has a three-tier system of pensions segregated between defined benefit and contribution plans. India's pension system is still in the nascent stage. Presence of deep financial markets, strong economic growth and rising income levels allow the government to redirect and reform pension policy. Various reports have confirmed that there is a substantial demand for private pensions and India's private pension market could achieve aggregate savings as high as \$300 billion by 2019-2020. Improved longevity, focus on health care, enhanced income levels has contributed to around 64% of population in the age group of 15-59 years. According to World Bank Report and RBI data, average gross savings of people is 30% of GDP, and there is a gradual shift in household savings from traditional bank deposits to financial assets, insurance and pension products. Formal retirement provisions cover less than 12% of India's 450 million active workforce. Out of 397 million estimated work force in India, only around 28 million have access to formal protection.

Recent measures by government such as Pradhan Mantri Jan Dhan Yojana, Atal pension Yojana, the National pension scheme, Pradhan Mantri Vaya Vandana Yojana reflects increased efforts and transparency and possible scenario of more people coming under the pension and old age cover. The National Pension System is gaining popularity and acceptance by people but still needs better coverage, minimum support level to the poor, aged individuals and unorganised work force in India.

Despite achievements and reforms there are various limitations in the system which Government has to address. There are umpteen number of pension portfolios with varying returns, risks etc. However, none of these under Defined contribution plans matches in returns with respect to Defined Benefit Plans. There is a definite need for appropriation of risk among participants, proper treatment of intermediation costs, and optimum portfolio management of funds, a progressive tax system, examining parameters of demographics, psychographics and promotional parameters along with well-developed actuarial methods in order to help large number of small investors derive the benefit of matching returns with value of money over time. We can benchmark pension models from UK and Australia. Instead of acting as a pension provider, government should aim at a holistic approach to design a new pension system under its supervision but managed by insurance, mutual fund and assigned pension fund regulators.

Previous literature has raised several concerns over the existing regulatory framework of pension systems in India. Goswami (2013), Sinha (2008) and others opine that there is a need for reorganising pension institutional framework for enhancing the effectiveness of pension schemes in India. Sanyal (2013), Stelton (2011) claims that as an institutional framework pension system acts as a backbone of social welfare of people in any country and therefore it should reach majority of people in its ambit. There is a need for bringing about financial literacy among masses. However, universal pension or social security system is effective only if it captures cost considerations and reaches the needy or targeted population (Namibia, Mauritius etc.). They also opine that a collective system over individual accounts provide the benefits of economies of scale in terms of low cost, effective portfolio choice, sharing of risk as well as better principal-agent relationship. Government has a role in auctioning, selecting and supervising the pension fund managers. Pension reform should take into view changing demographic, social and economic scenarios within which it operates and should have extended coverage, cost effectiveness, and better administrative capacity. Well-developed capital markets and an effective retirement savings arrangement or framework is need for an effective risk and return paradigm.

In the present scenario, there exists disparity in reporting investment returns in India. India has a multi regulatory and supervisory framework, which necessitates a suitable revised model. The regulatory body in addition to ensuring financial viability should also ensure effective administration, value for money, claims and disputes settlement mechanism, wide range pension providers to bring in cost optimisation, single charge/fees or commission by providers, annual reporting of value created in real or current prices etc. This leads to transparency and facilitates comparison for optimum decision-making. The framework can also include minimum standard clause for stakeholder pensions, concept of trusteeship where organisations or employers make arrangements for building up of retirement benefits independent of the government, annual reporting by pension providers to reflect real value of contribution etc. (S P Subhedar-The Pension Regulatory Environment in India- A suitable model).

III. OBJECTIVES OF THE STUDY

The objective of the study is to make a comparative analysis of existing pension schemes under DBP & DCPs in India.

III DATA ANALYSIS

For organised sector we have EPF and PPF. Historical returns of EPF are 8% - 12% (8.65% 2016-17); PPF 12%, NPS - 9% - 13%; EPF and PPF are under EEE pattern of tax rules while NPS is under EET pattern.

For all citizens and also workforce in informal sectors we have NPS, Atal pension Yojana, PMVVY etc. National pension scheme is administered by PFRDA and is managed by 7 pension fund managers. NPS is offered in different variants under Tier I and Tier II. The plans are designed keeping in view the risk taking capacity of investors and is also based on life cycle investing concept. Investors are offered default options or auto choice or they can choose the investment avenue of their contribution.

The performance details of various schemes under NPS is as follows:

1. For ultra-safe investors the portfolio is distributed as 60% Government bonds, 40% corporate bonds. Historical returns range from 4% to 10.3% from 6 months to 5 years. The top performing fund manager is ICICI prudential pension fund. On an average gilt funds have obtained 9.75% returns annualised while

corporate debt funds have given out 11% in the past five years. The average yield to maturity of corporate debt funds is higher at 8.25% which is higher than the PPF rate but lower than that of EPF.

2. For conservative investors with a portfolio of 50% in Government bonds, 30% corporate bonds and 20% equities, the average returns ranges from 2.33% to 9.71% over 6 months to 5 years. But for investors below 35 years of age it is advisable to enhance the equity portion of investments for superior returns.
3. Balanced investment i.e. 33.3% in government bonds, corporate bonds and equities have obtained returns ranging from 1.27% to 9.47% on 6 months to 5 years investment horizon. The maximum allowable investment in equity under NPS is 50%. These portfolios have given returns of 9.74% on a 3 year average. For investments under auto choice or default choice investment philosophy is based on life cycle investing or 100 minus age investment.
4. For aggressive portfolio investors with 50% in equities, 30% in corporate bonds and 20% in government bonds the average returns have ranged from -0.09% 6 months to 9.07% for 5 years.

IV. FINDINGS AND RECOMMENDATIONS

- India has umpteen number of pension portfolios available for investors to choose. Previous survey results indicate that most of the investors are conservative in nature, rate of return is the most important factor influencing investment decision and government institutions are preferred for buying pension plans.
- Plans vary with respect to market risks, returns, indexation methods and equity in returns. There is wide disparity in pension returns between Defined benefit and Defined contribution schemes. Historical returns of EPF are 8% - 12%; PPF 12%, NPS - 9% - 13%; EPF and PPF are under EEE pattern of tax rules while NPS is under EET pattern. In India, pension investors can choose between active choice funds or auto choice funds.
- With increasing awareness towards retirement planning, there exists a huge potential market with many service providers with varied portfolios offered. Disparity in returns can be to some extent reduced by portfolio diversification principles with uncorrelated plans or investment securities. There is a need for different approach for meeting systematic and unsystematic risk. Historical data from the index returns, 10 years bond yields, REIT, T-bill returns etc. shows that real returns are below the base risk free rate of return. Use of appropriate discount rate and stress testing of pension portfolio under different scenarios is required to avoid unrealistic assumptions. Apart from actuarial methods, it is essential to examine demographic, psychographic and promotional parameters to make pension funds more popular.
- PFRDA regulates investment policy of funds and restricts fund management fees. This has made distribution of pension products less lucrative. Insurance agencies offer pension annuitisation along with insurance products. They have to be competitive in terms of charges and regulatory requirements. DB funds are witnessing huge unfunded liability and hence there is a shift to contributory or self-funded pension plans. Actuaries also have to assume their role from being just reactive to a proactive appointed actuary who can provide computational information as well as look into compliance requirements.
- Introduction of minimum standard clause can lead to reduced information asymmetry specifically with reference to disclosure or returns- nominal and real returns, annuity providing charges, fees, commissions etc., also protect investor's interest, and provide fair returns to subscribers. Well-developed pension systems such as in UK, Australia and Denmark have mandated disclosure of annual statement showing the likely projected value of the individual's fund at the time of retirement and the value of pensions at current prices. Limitation of non-availability of information to form accurate estimation of variables and values leads to faulty assumptions in actuarial valuations, which should be taken care.
- Regulations should cover both pension promise as well as pension funding. Minimum statutory solvency or funding requirement should be made explicit mainly with DB plans. There is a need for promoting financial literacy, education and awareness programs with regard to self-contributory pension and social security plans at consumer level and to trustees, policy makers, annuity providers.
- As majority of pension and retirement plans operate under strict investment norms, the rate of return might not be optimum. Hence a need for better asset management.
- There are various proposals as to widening the role of EPFO, defining the role of insurance companies in providing insurance/annuitisation as well as pension fund management. Insurance companies should focus on critical success factors such as investment management, building distribution network, need for capital, and an effective asset liability management.

V. CONCLUSION

Economic theory of pensions states various assumptions underlying pension fund design: multiplicity of objectives and different levels of risk based on people and time (Barr 2010). Long-term sustainability depends on efficient factoring of market imperfections and distortions. Suitable adjustment of contribution and benefits for optimum risk sharing is necessary. Policy makers have the responsibility to bring in efficiency and equity in the system given inefficiencies in deriving optimum return policy whether in the form of individual pension accounts or collective accounts (Barr 2010), Rudolph (2013). Research reports have also evaluated role of governments in implementation of measures such as auto enrolment, default option pension plans, separation of administrative and managerial roles and tax incentives in enhancing greater reach of pension planning to people along with designing of an investment portfolio in pension funds. Academic as well as policy research so far have focused on structural reforms in the pension system, impact on sustainability of pension system due to changes in demographics, funding ratio, funding the unfunded liability, evaluating pension effectiveness in providing old age income security etc. There exist a gap in research on indexation of pension payment either to prices or wages so as to protect pensioners against erosion in purchasing power in old age (World Bank report responding to 2008 crises and Dorfman et al. 2009). The main objective of any pension fund system should be to protect people against risk of decline in the standard of living by suitably indexing pension funds either on wage or on price or other indicators as suggested in few literature. The challenge is how to make contributory plans promise people pension rights at a certain proportion of wage at the time of retirement.

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ANNEXURE

Fund	Age/eligibility	Sum assured	Tax benefit	Merit	Demerit
Atal pension Yojana	All citizens 18-40 years Contribution depends on pension needed after 60 years Government contributes 50% of monthly contribution or Rs. 1000 WIL	Rs. 1000- 5000	Exempt 80c 80ccd		Not inflation protected
Pradhan Mantri Vaya Vandana Yojana	Senior citizens aged 60 and above Assured returns for senior citizens	Around Rs. 7.5 lakh to be contributed to get a pension of Rs. 5000 p.m.	80 c tax benefit	8% returns 8.3% effectively pa for 10 years Loan up to 75% after 3 policy years Premature exit allowed	Poor liquidity Not inflation protected
NPS	All citizens including unorganised workers, NRIs	18-60 years Minimum contribution rs. 6000 per year	80ccd	Tax benefit	Compulsory annuity

DESIGN OF E-GOVERNMENT FRAMEWORK FOR ACCEPTANCE OF EDUCATION CARD IN INDIAN EDUCATION SYSTEM

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ABSTRACT

Education institutes provide a framework for adopting Information Technology blended management solutions. This study explores the possible factors for acceptance of Education Card in Indian Education System. Maximum of the IT control tools today are specially designed with the business sector in mind. The motivation is to enable IT activities in addition the resources to meet their actual business needs. However there are researches which try to implement a number of tools in educational institutions too. But, there is a lack of research with regards to develop an IT management framework precisely designed for the educational institutes. This research tries to bridge that gap by developing an IT management framework for Indian Education System, which as a result will help reducing the paper usage ratio and would enable an appropriate usage of E – Credential system. The respondents of the research were all faculties of schools and universities. The researcher used the quantitative type of research specifically the closed ended questionnaire.

Keywords: Education Card, Indian Education System, Centralized Education System (CES), E – Credentials, Information Technology (IT)

1. INTRODUCTION

According to the progressive technological improvement in the area of Information Technology (IT), the society may draw a conclusion that new managerial techniques blended with the Information Technology (IT) are getting introduced now-a-days to resolve or to ease down the regular back breaking jobs and further providing speed and accuracy at maximum as an added benefit. Undoubtedly every individual knowingly or unknowingly at present is a part of this Information Technology blended managerial techniques.

Even in this modern technological period the student admission method in schools and universities are still a manual, labor-intensive as well as time taking process in India. Some of the institutions which provide higher education have acknowledged the online admissions method, but then again a student is required to submit his or her previous education credentials and testimonials in a photocopy (Xerox) format in addition they have to show the original credentials and testimonials for confirming the genuineness to complete the admission process, as a result the charges for photocopying plus the huge requirement of the paper for photocopying and risk that the original credentials and testimonials may get damaged or lost in the course of confirming the genuineness are some vital issues respectively.

Currently India is having a large student population nearly 315 million (*At 315 million, India has the most students in world - Times of India, 2014*) and most of the education system in India are yet to be computerized, which sets Indian education system in an absolute state to motivate the Education Card practice. At the present time, school and university campuses positively do not have any possibilities of stopping the state-of-the-art revolutions occurring all around them (*Rastogi and Das, 2002*).

2. EDUCATION STATISTICS

The education statistics presents the current number of schools and enrolments along with the number of universities and colleges currently present in India. Apart from that the different percentage of enrolment in different levels of the higher education stages have also been provided with the help of secondary data collect from the government websites and reports published till date.

2.1. Number of Acknowledged Schools and Enrolment in India

The number of acknowledged schools and the overall enrolment in India has experienced an inspiring growth over the years. The figures has increased from approximately 2,30,700 schools and 2,38,00,000 enrolments in 1950–51 to nearly 14,25,600 schools and 25,48,00,000 enrolments in 2013–14, as per a recent MHRD report (*Educational Statistics at a Glance – 2014*). It can be determine that around six (6) fold growths in the number of schools and eleven (11) fold growths in the number of enrolment has happened in the India in over last six (6) decades.

2.2. Number of Higher Education Institutions and Enrolment in India

Higher education in India has also experienced an inspiring growth over the years. The number of higher educational institutions has grown up from 27 universities and 578 colleges in 1950–51 to nearly 757

universities and 38,056 colleges in 2014–15 as per recent MHRD reports (*Educational Statistics at a Glance – 2014* and *All India Survey on Higher Education 2014-15*). It can be determined that around twenty eight (28) fold growths in the number of universities and sixty six (66) fold growths in the number of colleges has happened in the India over last six (6) decades.

2.3. Significant Facts & Figures

The yearly average admission of students is near about 301.5 lakhs taking in account the enrolment under Open and Distance Learning System (ODLS). The maximum share of student enrolment (79.2%) is at under graduate level, followed by post graduate (11.4%), Diploma (7.3%), and all other levels are forming merely 2.1% (ASHE, 2015).

After having the above-mentioned figures, now if we take an example of admission procedure at under graduate level in various higher education institutes then it can be understood that a Higher Secondary (12th Standard) passed out student at the time of applying for the under graduate (UG) level admission in a single college has to submit two (2) Admit Cards (10th & 12th), two (2) Mark Sheets (10th & 12th), two (2) Pass Certificates (10th & 12th), one (1) Certificate of Migration and one (1) Transfer Certificate a total of eight (8) photocopies (Xerox) of the credentials and testimonials.

Hence, as the data was mentioned in the 1st paragraph of this current section, if 79.2% of 301.5 lakhs enrolling students submit a total of eight (8) photocopies (Xerox) each then the total number of papers used in photocopy (Xerox) is nearly 191.03 lakhs.

Total Enrollment X UG Enrollment % = Total no. of UG Enrolling Students				
30150000	X	79.2 %	=	23878800 Students
Total UG Enrolling Students X No. Photocopy Submitted by Each = Total no. of Paper Used				
23878800	X	8	=	191030400 Papers

Figure 1: Paper Usage Estimation

Source: Calculated Figures

An average single tree can produce around 80,500 sheets of paper (*How Much Information*, 2003) and therefore it requires approximately 2373 trees to fulfill the yearly need of paper for Indian students (UG enrolling only) and that also applying to only one college. Paper industrialization is the third (3rd) most energy demanding industry, spending nearly 12% of all energy in the industrial sector (*The Facts – Paper Consumption and Its Impact*). In this digital age, the worldwide ecological footprint is enormous. Nearly 4 billion trees worldwide are cut down every year for paper manufacturing and that signify nearly 35% of all harvested trees. World consumption of paper has grown up 400% in the past 40 years (*Martin and Colby*, 2011).

The paper manufacturing is the fourth (4th) major emitter of greenhouse gases in the industrial sector. The most current danger to the world is not the plastic bags, it's the annually left over, discarded tons of paper tossed out by office printers and photocopy (Xerox) machines, which is throw away within hours.

3. LITERATURE REVIEW

The literature review had been conducted over a period of time, but not a single literature directly related with the proposed Education Card has been found. Therefore, various studies and research papers which are related to the proposed concept or idea has been taken in account and most of them have used Smart Card as the device in place of an Education Card to accomplish the concept or idea. As the Smart Cards got familiar with the world different studies had been conducted on the implementation and application of Smart Cards, most of which have been concentrated on the areas like privacy, security and data storage on Smart Cards (*Gupta*, 2008; *Crotch-Harvey*, 1997). *Al-Alawi and Al-Amer* (2006) had studied the acceptance and consciousness of the people to substitute their current cards with the new National Smart Card in Bahrain. The study has also found out the measures adopted by the government to form alertness between the public about the practice and features of the Smart Card under the national Smart Card program. *Arami et al.* (2004) had conducted a study on the students of Vienna University of Economics and Business Administration in Austria, to define the level of approval of Smart Card technology. *Chopra* (2010) had explored a new technological dimension of the Smart Card known as RFID Smart Card security and practices in the perspective of privacy. The study was comprised of several kinds of outbreaks which include snooping, duplicating and skimming which in turn specified the

lack of security which leads to defilement of confidentiality. *Clemente (2014)* had studied different Information Technology management models and has proposed a conceptual framework model for the MadinatZayed and Ruwais Colleges in Abu Dhabi, UAE. The proposed model has provided some helpful results to prove that the particular model was needed and will overcome most of the problems present in those colleges like management issues. *Dhar (2004)* had explored a different dimension of Smart Card and had stated that the prospect for Smart Card rest on the introduction of multi-application cards as well as changing the simple mentality that the Smart Cards are merely a device for making financial transaction only. *Lee et al. (2003)* had determined the level of acceptance of Smart Card technology by the students of Nanyang Technological University in Singapore plus a further study of students in Murdoch University in Australia was also conducted to realize the willingness of adoption of the Smart Card technology. *Mirza and Alghathbar (2009)* had conducted a study on 20 different universities across the four regions of the world namely Australian Continent, North America, Western Europe and South East Asia to discover the different applications that are presently begin used by these universities and have determined a total of 34 different applications out which 2 universities are using *STORING ACADEMIC INFORMATION* application through Smart Card. *Mohammadi (2009)* had studied the Smart Card application and acceptance model to estimate the users' approval of Smart Card technology amongst the students of universities in Iran. *Zahedi (2006)* had studied in the direction of the Smart Card technology acceptance amongst the students of TarbiatModares University in Iran.

A study by the printer industrialist Xerox had found that – *“Office staffs throw away 45% of everything they print within a day, equivalent to more than a trillion pages every year. The most popular 'one-time use' examples are daily assignments, drafts and emails.”*

Paul Smith, a laboratory manager at Xerox's research center in Toronto, Canada, said –*“Some people use what they've printed only for a minute. A cover page on a network printer job only survives may be 30 seconds: you just recognize your job and then you recycle it (Smith, 2007).”*

4. RESEARCH OBJECTIVE

In spite of the above-mentioned research or study areas (subject wise and / or topographical wise) are definitely undeniable, valued as well as helpful. However the proposed study will be focusing on a different subject matter and is initiated for different topographical area too. Hence, the objective is as follows:

- ❖ To analyze the perception of officials (only faculty in this study) regarding the practice of Education Card in the Indian education system.

The proposed study will be reasonably targeting in understanding the vision, observations and opinions of the Indian education system's faculties only and will try to propose a framework for the same too.

5. SAMPLING

The questionnaire was distributed among 100 faculties from which 94 was found appropriate to be used for the study. Only the state of West Bengal was covered for the purpose of sampling. Stratified random sampling was used for the process. The sampling frame was divided in two broad strata university and school.

6. DATA ANALYSIS METHODOLOGY

The data collected from the survey was subjected to data cleaning for identifying the missing values, sample characteristics and to check whether it fulfills the expectations of normality. After that, the descriptive analysis was used to analysis the respondents' demography. Factor analysis was also used to decrease the number of variables which do not quantify the constructs in this study as supposed by the respondents. In this case, the component factor analysis with Varimax rotation was conducted on all the variables to extract the factors from the scales of each construct. It had been made sure that all the items had met the satisfactory limit level. Therefore, in this study, all the items below **0.50** were not retained and only those having factor loading of above or equal to **0.50** was retained. The validity of the instrument was determined by content and construct validity. The construct validity will be determined by factor analysis in which the Kaiser- Meyer (KMO) index of sampling adequacy and Bartlett's test of sphericity was equally determined. All variables with KMO above **0.60** were considered as valid for this proposed study.

6.1. Empirics

The demographic values of the respondent were presented with 4 attributes i.e. Gender, Age, Category and Education Level in Table – 1, Table – 2, Table – 3 and Table – 4 respectively. Gender-wise, 55.3% of the respondents were Male and remaining 44.7% were Female. According to the Age Group, merely 5.3% of the respondents were in 21 – 23 Year of Age Group and the remaining 94.7% of the respondents were in Above 23 Year Age Group and forming the highest portion of the respondents. Category-wise, 14.9% of the respondents

were in General category, 18.1% belonged to SC category, 19.1% came under ST category, OBC category had 22.3% and the highest portion of the respondents which was 25.5% were in Minority category. On the other hand, Education-wise 46.8% of the respondents were Graduated and formed the highest portion among the respondents, followed by 35.1% Post Graduated, only 5.3% of the respondents were PhD holders and remaining 12.8% had completed some Other education levels.

Table-1: What is your Gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	52	55.3	55.3	55.3
	Female	42	44.7	44.7	100.0
	Total	94	100.0	100.0	

Table-2: What is your Age Group? (in Years)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21 – 23	5	5.3	5.3	5.3
	Above 23	89	94.7	94.7	100.0
	Total	94	100.0	100.0	

Table-3: What is your Category?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	General	14	14.9	14.9	14.9
	SC	17	18.1	18.1	33.0
	ST	18	19.1	19.1	52.1
	OBC	21	22.3	22.3	74.5
	Minority	24	25.5	25.5	100.0
	Total	94	100.0	100.0	

Table-4: What is your recent Education Level?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Graduation	44	46.8	46.8	46.8
	Post Graduation	33	35.1	35.1	81.9
	PhD	5	5.3	5.3	87.2
	Other	12	12.8	12.8	100.0
	Total	94	100.0	100.0	

Further detailed explanation about the demographic values had been described with the help of cross-tabulation tables i.e. Gender – Age Group, Gender – Category and Gender – Education Level in Table 5, Table – 6 and Table – 7 respectively.

The total number of Male was 52 out of which only 2 Male were in the Age Group of 21 – 23 and the remaining 50 Male were in Above 23 Age Group. Among those 52 Male respondents in total, 8 Male belonged to General category, 11 Male belonged to SC category, ST category had only 6 Male, OBC category had 13 Male and Minority category had the highest number of Male respondents a total of 14. Then again, out of total 52 Male respondents the highest number of Male which was 29 were Graduated followed by the Post Graduated 15 Male, only 3 Male were PhD holder and remaining 5 Male had some Other education levels.

On the other hand, total number of Female was 42 out of which only 3 Female were in the Age Group of 21 – 23 and the remaining 39 Female were in Above 23 Age Group. Among those 42 Female respondents in total, 6 Female belonged to each General and SC categories, ST category had the highest number of Female a total of 12, OBC category had 8 Female and Minority category had 10 Female. Then again, out of total 42 Female respondents 15 Female were Graduated, a highest number of Female which was 18 were Post Graduated, only 2 Female were PhD holder and remaining 7 Female had some other education levels.\

Table-5: What is your Gender? * What is your Age Group? (in Years) Crosstabulation

Count				
		What is your Age Group? (in Years)		Total
		21 – 23	Above 23	
What is your Gender?	Male	2	50	52
	Female	3	39	42
Total		5	89	94

Table-6: What is your Gender? * What is your Category? Crosstabulation

Count							
		What is your Category?					Total
		General	SC	ST	OBC	Minority	
What is your Gender?	Male	8	11	6	13	14	52
	Female	6	6	12	8	10	42
Total		14	17	18	21	24	94

Table-7: What is your Gender? * What is your recent Education Level? Crosstabulation

Table 7: What is your Gender? What is your Recent Education Level? Cross-tabulation						
		Count				Total
		What is your recent Education Level?				
		Graduation	Post Graduation	PhD	Other	
What is your Gender?	Male	29	15	3	5	52
	Female	15	18	2	7	42
Total		44	33	5	12	94

6.2. FACTOR ANALYSIS RESULTS

The raw data was analyzed using SPSS 20.0 and Factor Analysis was done to identify the core factors which would assist in formulating the strategic framework for acceptance of Education Card in Indian Education System. This technique which is also known as Principal Component Analysis (PCA) was considered because the main objective of PCA is to decrease the dimensionality by extracting the least number of components which would account for maximum variation in the original multivariate data in addition to summarize the data with slight loss of information. Therefore, the initial 7 variables were reduced to 2 principal components through Varimax rotation.

6.2.1. Reliability Statistics

According to Table – 8 the Reliability Statistics which is Cronbach's Alpha was found to be .798 which was fairly high and therefore the reliability or the internal consistency of the dataset was effective and can be consider being acceptable. Hence, Factor Analysis can be done over the dataset.

Table-8: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.798	.796	7

6.2.2. KMO and Bartlett's Test

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy is the measure of sampling adequacy, and it varies between 0 and 1. The value closer to 1 is suggested as good while on other hand the value of 0.6 is the suggested as minimum. Normally $0 < KMO < 1$ and when $KMO > 0.5$, the sample is adequate. The Bartlett's Test of Sphericity is the test for null hypothesis which is to test whether the correlation matrix has an identity matrix or not. Considering 95% level of Significance, $\alpha = 0.05$.

Table-9: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.764
Bartlett's Test of Sphericity	Approx. Chi-Square	427.969
	Df	21
	Sig.	.000

According to Table – 9 $KMO = 0.764$ which indicates that the sample is adequate and Factor Analysis can be done. The p-value (Sig.) of $.000 < 0.05$, therefore the Factor Analysis is valid. The approximate Chi-square is 427.969 with 21 degrees of freedom (Df), which is significant at 0.05 Level of Significance. Hence this test values had provided provision for validity of the factor analysis of the data set as well as indicates that, Factor Analysis is applicable.

6.2.3. Communalities

The Communalities table displays how much of the variance in the variables has been accounted for by the extracted factors, i.e. the communality value which should be greater than 0.5 is to be considered for further analysis or else those variables which had value less than 0.5 should be removed from further steps factor analysis.

Table-10: Communalities

	Initial	Extraction
Accuracy of the card	1.000	.885
Availability of the card	1.000	.755
Easiness in using & understanding the card	1.000	.742
Manageability of the card	1.000	.835
Reduced card delivering cost	1.000	.651
Reliability of the card	1.000	.891
Simplified issuance of card	1.000	.777
Extraction Method: Principal Component Analysis.		

According to Table – 10 the communalities of all the variables was higher than 0.65 which depicts that more than 65% of the variations in all the variables were clarified by the factors.

6.2.4. Total Variance Explained

The initial total components are the total numbers of the variables used in the Factor Analysis. But, not all the 7 was taken. In this study, only the factors which had Eigen-Value of more than 1 was consider as significant, because Eigen-Value greater than 1 specifies that principal components account for more variance than accounted by one of the original variables in standardized data. This is commonly used as a cutoff point for which principal components are to be retained (*G. F. (n.d.). Principal Component Analysis*) and hence, only 2 factors (latent variables) was extracted by merging the appropriate variables. The Eigen-Values are the variances of the factors. The 1st Factor was accounted for the maximum variance and had the highest Eigen-Values. The 2nd Factor was accounted for as much of the left over variance as it can. In this study first 2 factors explained 79.06% of variance. The Varimax rotation tries to maximize the variance of each of the factor.

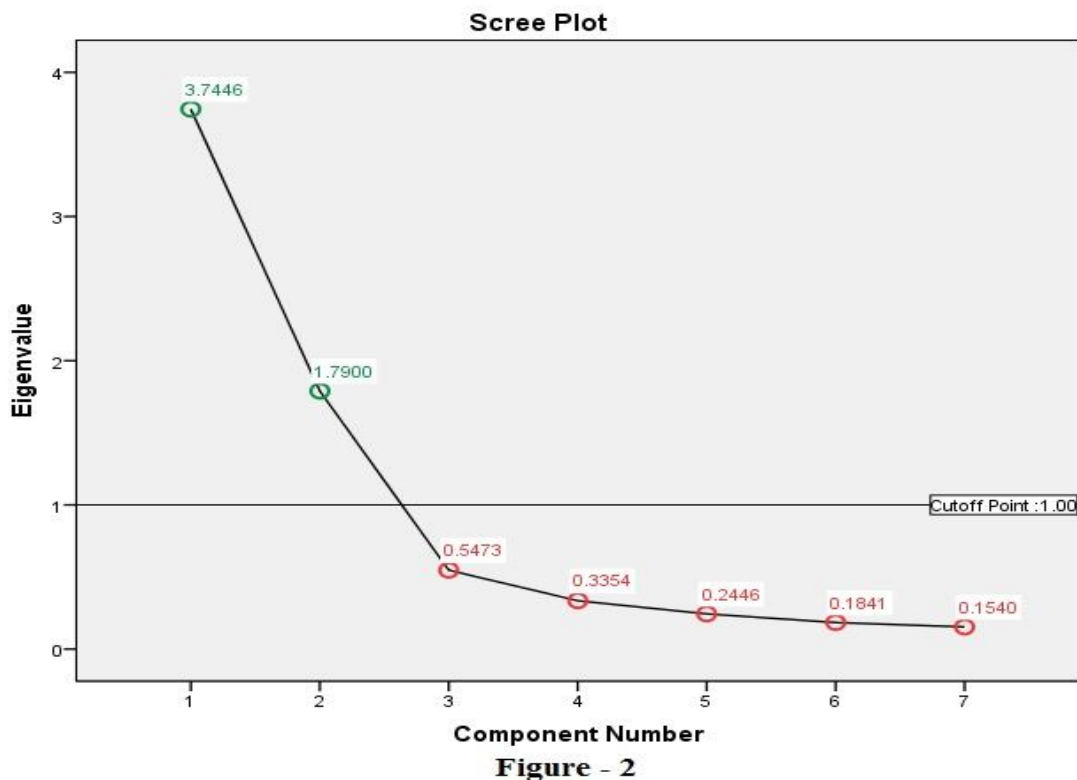
Table – 11: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.745	53.495	53.495	3.745	53.495	53.495	3.744	53.488	53.488
2	1.790	25.572	79.066	1.790	25.572	79.066	1.790	25.578	79.066
3	.547	7.818	86.884						
4	.335	4.792	91.676						
5	.245	3.494	95.170						
6	.184	2.630	97.800						
7	.154	2.200	100.000						
Extraction Method: Principal Component Analysis.									

From Table – 11 it can be described that the 1st Factor which was consider to summarize 5 variables was able to explain 53.48% of variance and the 2nd Factor which was consider to summarize the remaining 2 variables was able to explain 25.57% of variance. As a whole the 2 Factors were able to explain nearly 80% of the total variance.

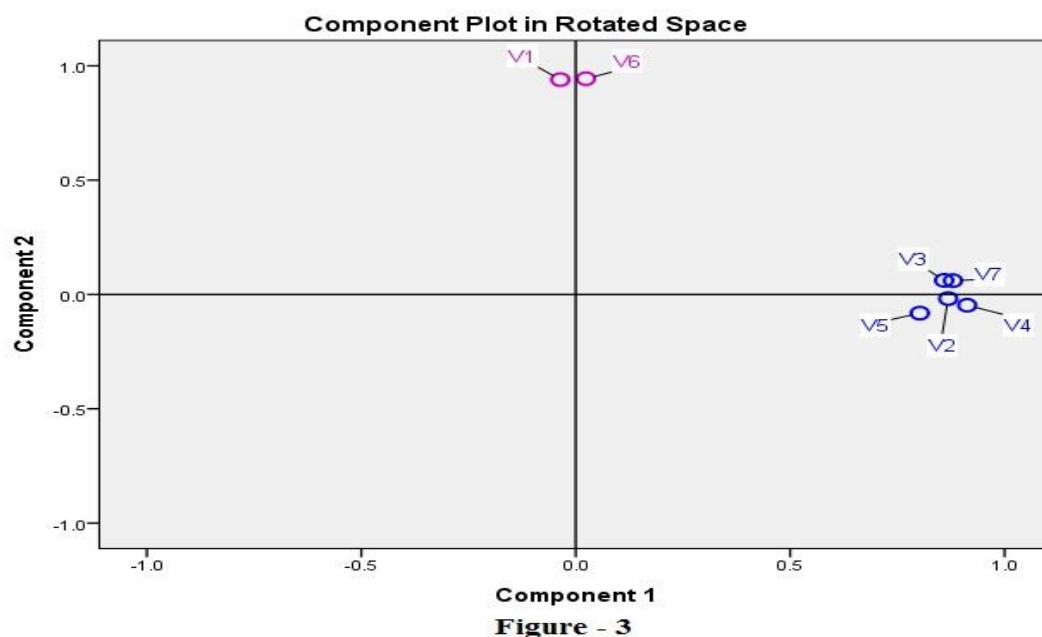
6.2.5. Scree Plot

As it can be visualized from the Figure – 2 only 2 Factors were having Eigen-Value of more than 1 (MARKED IN GREEN) to be specific one Factor had value of 3.74 and another Factor had value of 1.79. Rest of the Factors (MARKED IN RED) had a value of less than 0.55 and thus got rejected to be considered as Factors.



6.2.6. Component Plot in Rotated Space

As it can be envisaged from the Figure - 3 only 2 clusters were formed in the Component Plot in Rotated Space figure for establishing 2 Factors, 1st Factor had highest loading on 'Availability of the card' (V2), 'Easiness in using & understanding the card' (V3), 'Manageability of the card' (V4), 'Reduced card delivering cost' (V5), and 'Simplified issuance of card' (V7) (MARKED IN BLUE). The 2nd Factor had highest loading on 'Accuracy of the card' (V1) and 'Reliability of the card' (V6) (MARKED IN VIOLET).



6.2.7. Rotated Component Matrix

The Rotated Component Matrix signifies the rotated factor loadings, which are the associations between the variables and the factors. The factor column denotes the rotated factors which had been extracted out of the total factor. These are the main factors, which had been used as the final factor after data reduction. According to the combination of the factors, both the groups of factors were named which helps in signifying the grouped factor and represent the factors.

Table-12: Rotated Component Matrix^a

	Component	
	1	2
Accuracy of the card	-.036	.940
Availability of the card	.868	-.018
Easiness in using & understanding the card	.859	.062
Manageability of the card	.913	-.047
Reduced card delivering cost	.802	-.082
Reliability of the card	.024	.944
Simplified issuance of card	.879	.060
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		

According to Table – 12 the abovementioned matrix provides the correlation of the variables with each of the extracted factors. Generally, each of the variables is extremely loaded in one factor whereas less loaded towards the other factors. To recognize the variables, incorporated in each factor, the variable with the maximum value in each row was chosen to be part of the particular factors. Hence, after rotation, 1st Factor had accounted for 53.488% of the variance and 2nd Factor had accounted 25.578% of the variance. Altogether the 2 Factors collectively were able to explain 79.066% of the variance.

6.2.8. Name of the 2 Main Factors

The variables which had been taken in account to construct the main Factors have been named as below: -

Table-13: Name of the 2 main Factors

Factor	Variables Involved	Name of the Factors (Latent Variable)
1	<ul style="list-style-type: none"> • Availability of the card • Easiness in using & understanding the card • Manageability of the card • Reduced card delivering cost • Simplified issuance of card 	User Friendliness
2	<ul style="list-style-type: none"> • Accuracy of the card • Reliability of the card 	Authenticity

7. PROPOSED FRAMEWORK

From the above analysis 2 Factors were derived from 7 variables and Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy test as well as Bartlett's Test of Sphericity is also significant which confirm that the Exploratory Factor Analysis (EFA) is fruitful and thus a new framework can be modeled out of the perception of academics in our existing education system using Education Card as the Key Success Factor (KSF).

The Education Card will be having each and every single education record for the students and therefore can be used solely to justify all the credentials and testimonials of a particular student. The Education Card will be hosted to the students of standard 10th (Class 10) at the time of examination registration, and subsequently the card will be regularly updated by the authorized body when any particular student achieves any new credential, and the electronic credentials (**E-credential**) will be available to the students and the official all the time. As a consequence, the possibilities of producing fake credentials and testimonials will be reduced too and the students will not be required to carry their original credentials and testimonials for verification procedure.

Permitting to the proposed model, the paper usage ratio will drop down in an enormous rate, and apart from this the students will get a financial benefit also because in place of photocopying eight (8) credentials and testimonials on an average now they have to photocopy a single Education Card which have each credentials and testimonials documented and verified. The Education Card will have a unique identification (ID) number printed on the card itself; with this ID number the records can be obtainable of a particular student by the authorized body/organization. Hence, approximately a total of 88% (8 : 1) papers used now-a-days for photocopying process by the students can be hold back.

By meanof the proposed framework many of the managerial issues like student registration process, credential management can be resolved. Moreover, the different Indian Education Systems can be transformed into a single Centralized Education System (CES) through the introduction of Education Card along with protecting the environment at the same time.

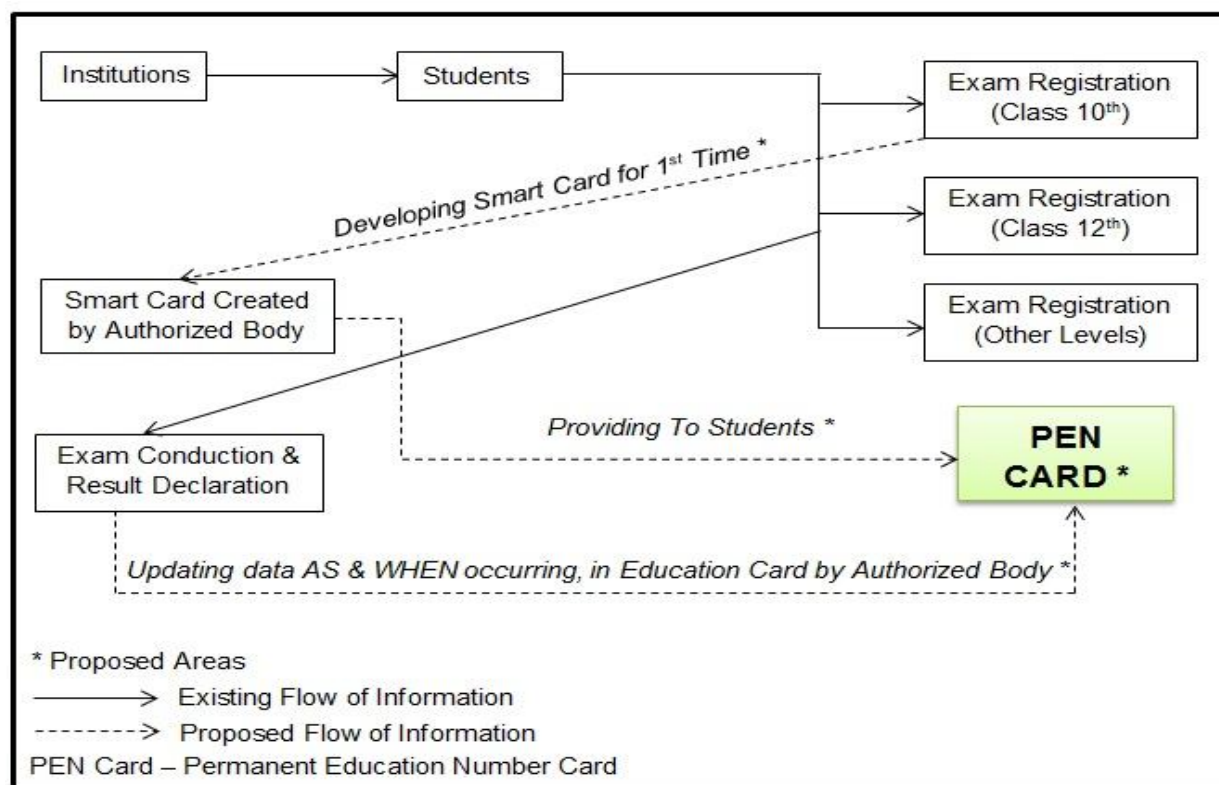


Figure – 4: Proposed Framework

8. CONCLUSION

The research study leads us to two major dimensions of the academic's perception of different educational institute in West Bengal. The dimensions are classified as 'User Friendliness', which had accounted for 53.488% of the variance and 2nd Factor had accounted 25.578% of the variance. Altogether the 2 Factors collectively were able to explain 79.066% of the variance.

Thus the supposed preferences of faculty members are the flexible to use the card in terms of its design, cost, usability and the security features, so that it cannot be manipulated or misused.

Effective designing and proper implementation and monitoring of the card can create difference in the framework of education industry. Thus, the study has proposed a framework for implementation of Education Card. Moreover, it can reduce wastage of papers which is a major concern for the environmentalists today. It can also streamline administrative works and ensure proper deadlines for various events relevant to education arena. It can also take care of the mishandling and misinterpretation of data thus leading to minimization of information distortion.

9. LIMITATIONS & FUTURE SCOPE

The study was conducted only covering the state of West Bengal. Sample size used is also quite less due to time constraint. In future, continuation of this research work can be made by increasing the sample size and covering a greater area or even by changing the sample units. Even studies can be made in different states and the result can be compared to check any variability in terms of academic's perception; also the Exploratory Factors needs to be confirmed using Confirmatory Factor Analysis (CFA) and the path analysis to be done using SEM to make the model more authenticated.

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PREFERRED LEADERSHIP STYLE AMONG THE MALE AND FEMALE PARAMEDICAL PERSONNEL

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ABSTRACT

Paramedical personnel are the pillars of the present health care industry. They work under the supervision of the medical professionals and help them in patient care. The paramedical individuals can be male or female. However the attitude of a paramedic towards the patient care can vary depending upon their sexes. The female paramedic can show a leadership behavior different from a male paramedic. In our study we have identified the specific leadership behavior of a paramedical person depending upon their sexes. In the conclusion of this study it has been demonstrated that the male paramedical individuals prefer a business like leadership style, whereas a female paramedical individuals however prefers more a democratic style of leadership behavior. In the total business like behavior is more proffered among the paramedics.

Keywords: paramedical personnel, health care industry, democratic style, leadership style, business like style.

INTRODUCTION

The concept of this research comes from the concept of the leadership style on athletes by the coach in track and field. A coach can become successful by helping the athlete to improve their skill and by sequentially improving their psychological, physical and technical parameters. According to Chelladurai (1978), the appropriate coaching behavior depends upon the characteristics of an athlete and upon the situation. The particular type of leadership behavior which will lead to the improvement of the athlete's performance depends upon the athlete's receptive behavior. The previous study on sports leadership (Fiedler, 2002), Chelladurai (1988) has demonstrated three different types of coaching behavior, first of which is actual leader behavior, second is required leader behavior and the last one is the preferred leadership behavior. Smith, Kendall and Hulin (1969), has demonstrated that the coaches' behavior should be such that the experience of the athlete can become enjoyable and satisfactory. However, this type of leadership concept in athletics has changed after few years and revealed a new research area of leadership among business organizations and health care industries.

In health care industries, professionals with different expertise come together to materialize a common objective of the organization. When different professionals work together, they represent different cultures and different expertise. So the leadership of this team should be such that, these diversity should be bridged together and a collaborative work can be done towards a common goal (Leathard, 2003). Surgeons are the pillars of the health care industry. The impact of leadership was not well understood previously, but on a 2015 publication by YY Hu, et. al., have demonstrated a concrete framework for evaluating surgeon's leadership on its team performance. In this paper it has been found how surgeon's leadership ability can affect the surgical team's performance. Within the team of a surgeon there are many paramedical individuals, including nurses. Leadership behavior has been studied in different professionals including nurses (Furnham 2005, Mrayyan & Khasawneh 2008). Leadership within nurses are found to be intimately related with quality of care that they provide, hospital cost, job satisfaction and retention (Kleinman 2004, Trofino 2000, Lobo 2010). Over all there are only two studies which were conducted on the nurses of the china. A study conducted by Lu et al. (2002) emphasized on the consideration of the cultural background of the nurses for effective leadership. There are many studies have been conducted on the perspective of the psychological strain of the nurses caused by nursing leadership. In a publication by SF Su, et. al., 2009 found that in Chinese culture an autocratic leadership style was followed by the nurse managers in a hospital setup. Authoritarianism and obedience was found to be the most important part of the Chinese hospital setup.

The hierarchical leadership was demonstrated to manage doctors and nurses depending upon the social status. However this type of leadership was found to increase the stress among the nurses of that hospital. According to Huber (2006), in his study he strongly believed that doctors should play the role of leader in a hospital setup. The studies have validated that nurses are dominated by doctors and administrators in hospitals (Farrell 2001, Trossman 2003, Sieloff 2004, Su et al. 2009, Sellgren et al. 2006). However a study conducted in Canada by Ganann et al.'s (2010) showed that nurse leadership are helping the nurses to work more efficiently. Lobo (2010) demonstrated the leadership style however affects the nurse retention (Su, 2011). In another study it was reported that critical care nurses prefer a leadership style where the manager delegates his authority and maintain a low profile. However in our work we will emphasize on a different types of paramedical personnel and their leadership style in general. In our study we are concentrating in the five different leadership styles-

Authoritarian, Democratic, Laissez-faire, Business like and Benevolent (Yavirach, 2012).

Autocratic leadership style depends upon the boss. In this leadership style the leader is the authority and carries all responsibilities. In this leadership, the decisions are made by the leader without taking any consultation of the subordinates. They directly communicate their decisions to the subordinates and expect prompt implementation. Autocratic leadership style does not give any flexibility to their subordinates (Liu, 2003).

Democratic leadership style, involves their subordinates in making decisions. Unlike autocratic, this leadership style depends upon the subordinates' contributions. The democratic leaders are responsible for everything, though they delegate authority to their subordinates. In this style of leadership communication is active upward and downward. This leadership can provide better solutions of the managerial problems (Kantharia, 2012).

Laissez-faire or nice guy style means completely depending upon their subordinates. In this style, manager totally depends upon their subordinates except the determination of the policies and programs. Subordinates perform everything and the manager usually helps to maintain contacts with outer environment and allocation of resources. This type of style develops subordinates as an independent personality. However, managerial contribution is almost nothing. This style can lead in to a chaos in an organization. Hence this style is usually not very commonly used in a business organization (Melero, 2004).

Training or business like style is characterized by clear authority of the leader with a strong emphasis on performance. The leader takes personal interest in the subordinates only in so far as it may aid their performance potential. He tries to maintain a distance from the subordinates and tries to remain objective. The leader often approaches the business as a science. He gathers information and formulates decisions based upon calculation. The team is usually provided with the best equipment and up-to-date techniques (Liu, 2003, Kantharia, 2012).

Benevolent or supportive style is characterized by a coach who relies upon his own ideas yet is generally approachable and encourages interpersonal communication between himself and team members. He respects subordinates as individuals and uses personal contact as the means for rewarding them for group cohesion and group performance. He is supportive, open and interested in individual problems but maintains a distance between himself and the athletes (Liu, 2003, Kantharia, 2012, Melero, 2004).

As can be seen, each leadership style has advantages and disadvantages. Not all leaders will fall exclusively into any one style, nor do all leaders fall into only five styles mentioned above, these are only the most predominant leadership styles. The effective leadership depends upon the situation and maturity of the subordinates. There is neither ideal leader nor one who is completely effective. Success depends on the number of elements such as talent technique, circumstances and the make-up of the team (Liu, 2003, Kantharia, 2012, Melero, 2004).

LITERATURE REVIEW

The focus of leadership research has shifted to its relationship with gender or on its equality and inequality of male and female leadership (Davidson and Burke, 1994, 2000). Blackmore (1999), a feminist has produced considerable impact on the studies of leadership. However the impact of gender on educational leadership has considerable effect (Hall, 1997). Several studies are conducted to estimate the difference of leadership among the male and female principals in the educational industry (Grobman and Hines, 1956; Gross and Trask, 1976; Hemphil, Griffiths and Frederiksen, 1962; Morsink, 1970; Shakeshaft, 1987; Van Meir, 1973). From these researches it is understandable why women occupy relatively fewer administrative positions in school despite of having large number of women occupying teaching positions (Fay, 1988). From the researches it is demonstrated that males are more aggressive, independent, self-sufficient, forceful and dominant in contrast to women who are more kind, helpful, understanding, warm, sympathetic and aware of other's feelings (Ashmore, Del, Boca and Wohlers, 1986; Deaux and Lewis, 1984; Eagly and Steffen. 1984). However these two orientations are termed as masculine/feminine, instrumental/expressive and agentic/communal. Eagly and Johnson demonstrated that women usually prefer the democratic style more and men usually prefer the autocratic style more than the others. It has been demonstrated in English education the head teachers and managers are male on the other hand primary school teachers and secondary teachers are women (DfEE, 1997). The sexual discriminations are usually faced by the woman who wants to be a manager in the educational industry (Hall, 1993, 1997; Coleman, 1994). However the Singaporean and English female principals usually follow the participative management style (Morriss et al., 1999). There are several publications which study the female managers in educational sector and found that in 1990s there was a savior barrier of sexism which takes part in the appointment of the female principals (Adler, Laney and Packer, 1993; Ouston, 1993; Ozga, 1993; Coleman, 2000).

A study was conducted on the female managers of America, Japan and Taiwan. The results showed that gender difference and social problems are less likely to happen for American female managers. American female managers are efficient enough so that they can be independent, risk taking, decision maker and they can separate their private issues from their work, so there was lower rate of harassment in the work place for these managers. Whereas, for Japanese female managers there are more problems due to gender differences in the male dominated society. They are afraid of risk taking and making independent decisions. On the other hand Taiwan female managers face a moderate amount of problems in the work place due to gender differences. They usually focus on a harmonious relationship with the subordinate and usually adopt transformational or transactional leadership style (Wu, 2000). Another study revealed that though there was no significant difference in the leadership style of male and female managers but female managers usually maintain a good relationship with the subordinates and they are less task oriented than a male manager (Chapman, 1975; Aldoory, 2009; Thomas et al., 1985). Similarly in a publication it was stated that though women managers delegate less than a male manager but there is no significant difference between the other aspects of leadership (Oshagbemi et al., 2003). However the conflict management styles of male and female managers were also studied. It has been found that although there was no significant difference in the conflict management style among the experienced managers, the women rated themselves as more obliging, compromising and integrating than a male manager. According to the perception of the subordinate the dominating attribute was negatively related and obliging was more positively related with the female managers than the males (Korabik, 1993). However the studies have supported the relationship of leadership style with decision style and gender role (Park, 1996; Burke et al., 2001). A study also supported the evidence that though there is no significant difference in the transformational leadership style of male and female managers, there is a significant difference in the emotional intelligence of the male and female managers (Mandell et al., 2003). However in contrary a publication in Germany stated that female leaders show transformational leadership more than the males and they are more effective and produces more satisfaction among the subordinates than their male counterpart (Rohmann et al., 2009). Another study was conducted on North West of England, Yorkshire, and North Wales, where the female managers of micro and small businesses tend to adopt the transformational leadership style which is more inclined towards the development of trust, faith and respect within the organization (Bamiatzi et al., 2015). In a study it has been found that there is a negative relationship of authoritarian style of leadership and performances of the subordinate for female leaders and on the other hand the positive relationship of benevolent leadership style and subordinate's performance in case of male leaders (Wang et al., 2013). However it has been suggested in different publications that the female managers should not adopt the leadership style of a male but they should develop their own style (Kelly et al., 1991)

There are several studies which were conducted on the followers also where it has been found that the female followers or the subordinates perceive their good bosses differently than their male counterparts (Singh et al., 2012). The subordinates or the followers usually prefer high quality relationship with their supervisors; however the gender may affect the expectations of a follower from his/her leader (Collins, et al., 2014). There was a study which was conducted on the different combinations of female and male managers with their female and male subordinates. It has been demonstrated that female managers-female subordinates have more optimism rather than the male managers- male subordinates, who gives rise to frustrations. Similarly female managers with male subordinates produce less frustration. So it can be concluded that only the difference between the genders of the managers does not effect on the leadership but also the gender of the subordinate have impact on the leadership style (Kennedy et al., 2005; Cuadrado et al., 2012).

METHODOLOGY

1. Sampling

The study was conducted on 200 paramedical personnel residing in Kolkata. Among them 100 individuals are working in hospitals and 100 from clinical setups. 100 individuals are male and 100 female. 50 individuals are optometrists, 50 radiologists, 50 pathologists and 50 physiotherapists.

2. Data Collection & proposed tools for interpretation

The instrument used for this study is a modified version of the Leadership behavior Description questionnaire based on Kirby's and Neil's questionnaire. A total of 15 items will be used. Item selection will be done through a subjective analysis based on the average score obtained by Kirby's and Neil's research results. This questionnaire assessed the subordinate's preference for specific behaviors from their leader on a five point scale. Each question starts with the phrase, "The paramedics should...." and the response will be always, often, occasionally, Seldom and never. The reliability of the question was already assessed in the pilot study.

3. Data Analysis & Techniques to be applied

An item analysis will be performed on each of the 14 items on the questionnaire. This will be done for the entire sample. The item analysis will provide with an indication of the percentage of people within the sample who selected each response for every item on the questionnaire. Each response will be given a value; always-5 points, often-4 points, occasionally-3 points, seldom-2 points and never-1 point. Then the responses from all the subjects for each item will be added so that a total number of points can be assigned to each item. Based on these results, a hierarchy of items (specific behaviors from the paramedics) will be tabulated. This will be done for all the subjects as well in case of clinicians and paramedics practicing in the hospitals. Having identified 3 leadership styles and their representative items, the scores on all the items under a given style were summed to indicate the preferences, for that particular style. This was done for all subjects only then for clinicians and for subjects working in hospitals.

RESULTS

The table 1 has listed all the questions of leadership style. The questions include authoritarian, democratic, business like, benevolent and laissez-faire style. The column of all subjects includes the ranking of the questionnaire's items and the relevant marks which it achieved within the total subjects including the male and female paramedical individuals. Similarly the column of male subjects includes the ranking of the questions and relevant marks. The column of female subjects also follows the same.

The data in the male subjects demonstrated maximum point in the question "The paramedics should find time to listen", however in the female subjects showed only 380 points and 5th position in the same question. The 1st rank was found in the question "The paramedics should make new patients", among the female subjects. On the other hand the only 108 points was obtained in the question ". The paramedics should look for special advantages", which is an laissez-faire style question and ranked last in the male subjects, and also 104 points was obtained and ranked last by the female subjects in the same question. From these results it can be demonstrated that male paramedics prefer business like style more than democratic style of questions on the other hand which is preferred by the female subjects.

Table-1: hierarchy of the specific behavior of male and female paramedical individuals

Questions	All subjects (1000 max)		Male (500 max)		Female (500 max)	
	Rank	Points	Rank	Points	Rank	Points
1. The paramedics should express appreciation when a patients does well. (democratic style)	5	790	7	316	3	474
2. The paramedics should find time to listen to the patients.(business like style)	1	865	1	485	5	380
3. The paramedics should rule with an iron hand. (authoritarian style)	11	434	12	211	11	223
4. The paramedics should make new patients make adjustments. (democratic style).	6	779	9	293	1	486
5. The paramedics should insist that everything is done his way. (authoritarian style)	12	422	11	216	12	206
6. The paramedics should look for special advantages for the patients. (laissez-faire style)	15	212	15	108	15	104
7. The paramedics should encourage the patients to express their ideas and opinions. (benevolent style)	3	827	4	415	4	412
8. The paramedics should ask for the opinion of the patients on decision making.(business like style)	2	839	3	479	7	360
9. The paramedics should follow the guidance of the patients. .(democratic style)	7	777	8	297	2	480
10. The paramedics should make the patients fell at ease when talking to them.(laissez-faire style)	14	248	14	127	14	121
11. The paramedics should see to it that every patient is working to his capacity. .(business	4	820	2	480	9	340

like style)						
12. The paramedics should figure ahead what should be done. (authoritarian style)	10	453	10	224	10	229
13. The paramedics should explain his actions. (benevolent style)	8	764	6	385	6	379
14. The paramedics should make sure his part in the team is understood by all members. (benevolent style)	9	745	5	391	8	354
15. The paramedics should encourage close and informal relationship with the patient. (laisser-faire style)	13	298	13	142	13	156

Table 2 contains the item analysis for preferred leadership style. All subjects in total expressed maximum 51% of “always” in the question “The paramedics should ask for the opinion”, which is an business like style question. The data in the table shows that total paramedical individuals feel that they should take opinions of the patient on decision making, they should watch out that every patient is working to their maximum potential and they should listen to the patients.

Table-2: The percentage of total paramedical individuals who indicate the same response.

Questions	always	often	occasionally	seldom	never
1. The paramedics should express appreciation when a patients does well. (democratic style)	46%	16%	29%	5%	4%
2. The paramedics should find time to listen to the patients.(business like style)	55%	22.5%	22.5%	0%	0%
3. The paramedics should rule with an iron hand. (authoritarian style)	3%	9%	14%	50%	24%
4. The paramedics should make new patients make adjustments. (democratic style).	47%	14.5%	24%	10%	4.5%
5. The paramedics should insist that everything is done his way. (authoritarian style)	0%	6.5%	16%	59.5%	18%
6. 6. The paramedics should look for special advantages for the patients. (laisser-faire style)	0%	0%	3%	12%	85%
7. The paramedics should encourage the patients to express their ideas and opinions. (benevolent style)	20%	73.5%	6.5%	0%	0%
8. The paramedics should ask for the opinion of the patients on decision making.(business like style)	51%	20%	26.5%	2.5%	0%
9. The paramedics should follow the guidance of the patients. .(democratic style)	46%	12.5%	28.5%	10%	3%
10. The paramedics should make the patients fell at ease when talking to them.(laisser-faire style)	0%	0%	2%	20%	78%
11. The paramedics should see to it that every patient is working to his capacity. .(business like style)	47.5%	20%	27.5%	5%	0%
12. The paramedics should figure ahead what 5% should be done. (authoritarian style)		9.5%	14%	50%	21.5 %
13. The paramedics should explain his actions. (benevolent style)	7.5%	71%	17.5%	4%	0%
14. The paramedics should make sure his part in the team is understood by all members. (benevolent style)	12%	63.5%	12.5%	9%	3%
15. The paramedics should encourage close and informal relationship with the patient. (laisser-faire style)	0%	4%	11.5%	14%	70.5%

The table 3 demonstrates the percentage of the answer given by the male paramedical individuals. The maximum 85% individuals have answered always in the question “The paramedics should find time to listen

.....”, which is a business like style question. From the table it is clear that male paramedical individuals insist to listen the opinions of the patients.

Table-3: The percentage of male paramedical individuals who indicate the same response

Questions	always	often	occasionally	seldom	never
1. The paramedics should express appreciation when a patients does well. (democratic style)	10%	22%	50%	10%	8%
2. The paramedics should find time to listen to the patients.(business like style)	85%	15%	0%	0%	0%
3. The paramedics should rule with an iron hand. (authoritarian style)	0%	8%	17%	53%	22%
4. The paramedics should make new patients make adjustments. (democratic style).	7%	17%	47%	20%	9%
5. The paramedics should insist that everything is done his way. (authoritarian style)	0%	6%	21%	56%	17%
6. The paramedics should look for special advantages for the patients. (laisser-faire style)	0%	0%	4%	13%	83%
7. The paramedics should encourage the patients to express their ideas and opinions. (benevolent style)	20%	75%	5%	0%	0%
8. The paramedics should ask for the opinion of the patients on decision making.(business like style)	82%	15%	3%	0%	0%
9. The paramedics should follow the guidance of the patients. .(democratic style)	7%	15%	52%	20%	6%
10. The paramedics should make the patients fell at ease when talking to them.(laisser-faire style)	0%	0%	4%	19%	77%
11. The paramedics should see to it that every patient is working to his capacity. .(business like style)	80%	20%	0%	0%	0%
12. The paramedics should figure ahead what should be done. (authoritarian style)	3%	10%	17%	48%	22%
13. The paramedics should explain his actions. (benevolent style)	10%	70%	15%	5%	0%
14. The paramedics should make sure his part in the team is understood by all members. (benevolent style)	17%	65%	10%	8%	0%
15. The paramedics should encourage close and informal relationship with the patient. (laisser-faire style)	0%	2%	10%	16%	72%

This table 4 shows the percentage of female individuals answered always/ often/ occasionally/ seldom or never in each question. The total 100 individuals were tested and the answers are tabulated. The maximum 87% of individuals answered always in the question “The paramedics should make new patients”, which is a democratic style question. As can be seen the female paramedics help the new patients make adjustments.

Table-4: the percentage of female paramedical individuals who indicate the same response.

Questions	always	often	occasionally	seldom	never
1.The paramedics should express appreciation when a patients does well. (democratic style)	82%	10%	8%	0%	0%
2.The paramedics should find time to listen to the patients.(business like style)	25%	30%	45%	0%	0%
3. The paramedics should rule with an iron hand. (authoritarian style)	6%	10%	11%	47%	26%
4. The paramedics should make new patients make adjustments. (democratic style).	87%	12%	1%	0%	0%
5. The paramedics should insist that everything is done his way. (authoritarian style)	0%	7%	11%	63%	19%
6. The paramedics should look for special advantages for the patients. (laisser-faire style)	0%	0%	2%	11%	87%
7. The paramedics should encourage the patients to express their ideas and opinions. (benevolent style)	20%	72%	8%	0%	0%

8.The paramedics should ask for the opinion of the patients on decision making.(business like style)	20%	25%	50%	5%	0%
9. The paramedics should follow the guidance of the patients. .(democratic style)	85%	10%	5%	0%	0%
10.The paramedics should make the patients fell at ease when talking to them.(laisser-faire style)	0%	0%	0%	21%	79%
11. The paramedics should see to it that every 15% patient is working to his capacity. .(business like style)		20%	55%	10%	0%
12. The paramedics should figure ahead what should be done. (authoritarian style)	7%	9%	11%	52%	21%
13. The paramedics should explain his actions. (benevolent style)	5%	72%	20%	3%	0%
14. The paramedics should make sure his part in the team is understood by all members. (benevolent style)	7%	62%	15%	10%	6%
15. The paramedics should encourage close and informal relationship with the patient. (laisser-faire style)	0%	6%	13%	12%	69%

The hierarchy of the leadership style which was preferred by the total, male and female paramedical individuals is tabulated in the table 5. The number of points for each style was calculated by adding the scores of the three different questions for each style. The business like style has obtained the maximum point in the total of all subjects which shows the most preferred leadership style in paramedical personnel. The democratic style has obtained the second maximum point which shows that few paramedics also prefer this style as well.

The male subjects demonstrated maximum point in the business like style of leadership. This means they are not rigid and dominating in their work. However, the female subjects demonstrated maximum point in the democratic style of leadership that indicates that these paramedics are more considerate and less dominating in nature. Laisser-faire is however the list preferred style among the paramedics and the male female subjects as well.

Table-5: hierarchy of leadership styles of total and male female individuals based on a summation of the scores of 3 test items for each factor

Leadership style	All subjects (3000 max)	Male (1500 max)	Female (1500 max)
1)Authoritarian style	1,309	651	658
2)Democratic style	2,346	906	1,440
3)Business like style	2,524	1,444	1,080
4)Benevolent style	2,336	1,191	1,145
5)Laisser-faire style	758	377	381

Table-6: The mean data of the each style of leadership.

Leadership style	Mean of the responses by male	Mean of the responses by female paramedics
1)Authoritarian style	2.170	2.193
2)Democratic style	3.020	4.800
3)Business like style	4.813	3.600
4)Benevolent style	3.970	3.816
5)Laisser-faire style	1.256	1.270

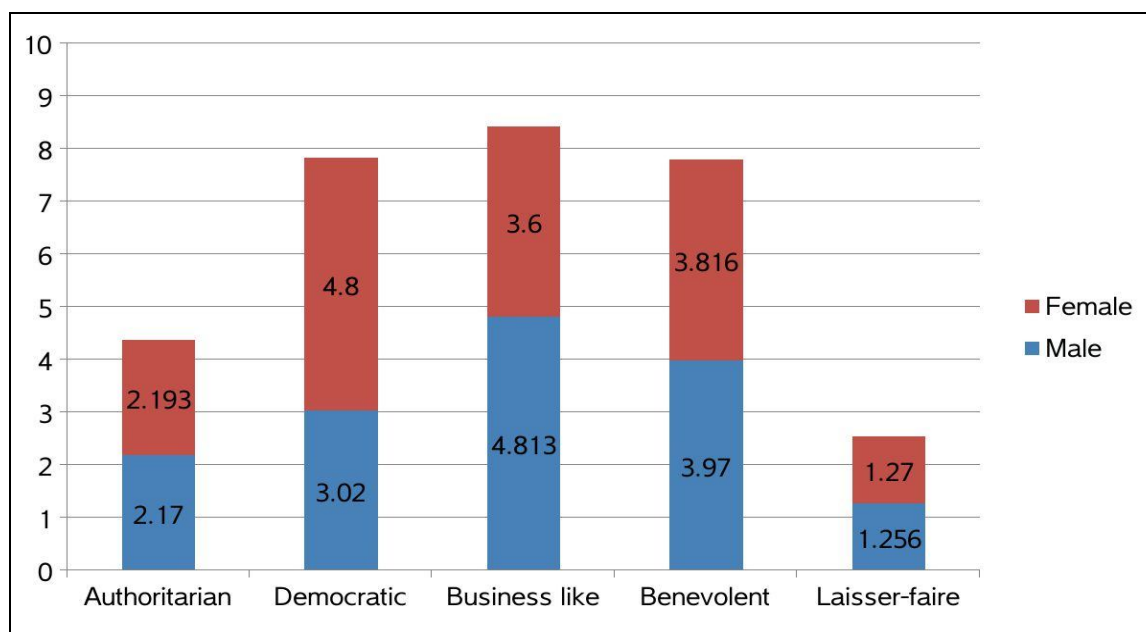
Table 6 is demonstrating the mean values of the responses of each leadership style. The male paramedics show the business like style of leadership and have a mean value of 4.813. Whereas female paramedics showed democratic style of leadership more than the others and have a mean value of 4.8. On the other hand the laissez-faire style has got the minimum mean value of 1.256 and 1.27 by the male and female paramedical individuals

respectively.

DISCUSSION

Figure 1 is demonstrating the highest preference of business like style among the paramedical personnel in total. However, the male paramedics have more preference of business like leadership style and the female paramedics have more preference of democratic style of leadership.

Figure-1: Hierarchy of leadership styles of male and female paramedical individuals based on the mean of the scores of 3 test items for each factor



In conclusion it can be stated that the male and female paramedics have different preferences of leadership style depending upon their nature. Male paramedical personnel are more professional in their work and shows business like leadership style but female paramedics prefers more of the democratic style of leadership due to their soft nature.

CONCLUSION

When we are studying the male and female paramedical personnel we find that the total paramedics prefer business like leadership style. In this style paramedical individuals hear the patient's opinions which help them to take decisions and they look after every patient whether they are recovering at their best. However the male paramedical personnel demonstrate the preference of the same leadership style. On the other hand the female paramedical individuals demonstrate the democratic style of leadership. In this style the female paramedics appreciate the patient when they recover well enough, they help the new patient adjust in the new environment and they also follow the guidance of the patient. The main cause of these differences in the leadership style of the paramedical personnel may be due to the nature of the male and female paramedics. The male paramedical individuals are more professional in nature than the females. The female paramedics work and treat patients in a more personal manner.

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**GLOBALIZATION A REASON OF PSYCHOLOGICAL STRESS ON COLLEGE GOING YOUTH-
AN OVERVIEW**

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INTRODUCTION

Development is perhaps one of the most fiercely debated concepts in contemporary social science. The concept is often equated with 'modernisation', 'industrialisation', 'social change', 'progress', and 'growth' and like these other terms is invariably seen as something desirable and positive for society in general, and for the community in particular. The increasing social, economic and cultural interconnection between communities has made mobility – social, individual, and that of goods and ideas – very easy. The implications of such a massive transformation in human relations can be seen at various levels: individual, local, national, regional and supra-regional. The changes associated with these processes are key to understanding the responses of individuals and governments. The additional impact of multinational corporations and economic rationalizations on individuals, cultures and the functioning of the body politic have to be understood in the context of globalization. The phenomenon of globalization is witnessed in different parts of the world in different aspects of life and civilization. The advent of Globalization and technological advancement has made life faster and more complicated, especially among the youth of today. This study will try to signify the different aspects of changing behaviour due to psychological stress among college students.

GLOBALISATION

Globalisation has been described as a process in which traditional boundaries separating individuals and societies gradually recede. It has been also referred to as 'crossing borders. Globalisation is more than increased global interconnectedness where advancement in communication resources have resulted in increased movement of ideas despite being aware of variation in social, cultural and economic changes. Globalisation has enabled us to travel from one culture to another through various media such as television, the internet, cinema and books. The increase in cross-cultural communication as a result of globalisation has resulted into possible acculturation with formation of new global culture which is an interesting phenomenon as that means that some cultures are likely to become more homogenized and others become more strident in order to protect external influences.

In economic terms globalisation can be defined as a global process in which prices, products, wages, rates of interest and profits will become similar. The economy is becoming exempt from political control because of free trade rules and free movement of capital. Powerful groups are now influencing the world through their economy driven ideas despite being aware of their acceptability globally. It is also leading to increased socioeconomic difference because of migration towards the economically stronger parts of the world.

GLOBALISATION: THE PAST AND PRESENT

All life involves change. Indeed, our society as well as the subgroups within it is constantly changing. This change per se need not cause difficulty. In fact, we as a society are now used to this change, in addition systems keep changing especially as policies and resources change and many factors influence this change. But though change is a constant thing throughout history and lives of man, cultural change in the past ordinarily took place at a relatively leisurely pace. Unlike in the past new technological innovations sweep through society within a short time, leading, in turn to ideas for further innovations. This can be seen in the recent increase in availability of new technologies such as iPhone and iPad. The late 19th and the late 20th century shared more than simply globalization and convergence. Globalization also seems to have had the same impact on income distribution: in the late 19th century, inequality rose in rich countries and fell in poor countries; according to Adrian Wood, the same has been true of the late 20th century.

INEQUALITY AND MENTAL HEALTH

In Organisation for Economic Co-operation and Development (OECD) countries, consensus has emerged that globalization, including not only increased trade but international migration and capital flows, has contributed modestly to increased inequality by increasing wage differentials between skilled and unskilled workers. Observers have identified trends in the way that income is distributed within societies; the gap between average earnings for a college graduates and non-college graduates was 38% in 1979 while by 2000 the figure was 78% (*The Economist*, 2000a). The OECD report *Income Distribution in OECD Countries* identifies important patterns of wealth distribution. Between the mid-1980s and 1990s, the

richest 30% increased their market share in all the OECD countries, while the poorest 30% reduced their income share in all countries except the USA. The overall trend within wealthy countries has leaned therefore towards a widening of income distribution between the rich and the poor. There is no doubt that new economic practices have increased inequality by increasing the spread of wages between skilled and non-skilled workers.

In economic terms, the profound change in the social and psychological dimensions of work accompanying patterns of globalization has been articulated in terms of the growth of an informal sector of employment, defined by low earnings, the absence of contracts, unstable working conditions, poor access to social services, low rates of union affiliation and growing levels of irregular and quasi-legal labour.

The capacity for global communication associated with globalization, including the Internet, has created new pressures and expectations in societies, particularly those outside the West, in relation to wealth, identity and other factors. What is more, anecdotal evidence also suggests that the progressive individualization of young people is altering traditional methods of social support and monitoring of those who might go on to develop distress. Changes in modes of social support have similarly been implicated in increasing rates of mental disorders (Brown and Harris, 1978). The concept of social capital, roughly defined as 'networks of people deriving benefit from common interaction with each other' (World Bank, 2001), describes the diminution of social cohesion within the local community as being linked to adverse mental health outcomes (McKenzie et al., 2002). Boydell et al. (2001) have used a related concept, anomie, to explain increased rates of schizophrenia among migrant groups. They argue that the progressively more global scale in which political and legislative decisions are made is creating a growing sense of disenfranchisement. Mahadevia (2002) similarly illustrates the way in which economic practices might bring about the reduction of social capital, as the role of the state changes from being welfare-oriented to profit-oriented.

PSYCHOLOGICAL IMPACT OF GLOBALISATION ON MENTAL HEALTH

Without mental health, there is no health. Many public health factors, such as violence, substance abuse and obesity, are behavioral. Mental health is on par with physical health in determining the person's quality of life, productivity and mortality rates; yet, there is a perplexing disconnection between behavioral health and primary care. In addition, people's psychosocial well-being is greatly affected by poverty and unemployment, which we know are barriers to creating social development. If it's not addressed, risk of trauma is heightened from conflict, war and terrorism. There has been increasing recognition within the United Nations system of the negative social and economic impact of impaired mental health and mental illness. The secretary general's report to the 48th General Assembly made recommendations based on research findings that served as a basis for courses of action for governments to consider. For example, it was recommended governments implement national strategies for dealing with severe dysfunctional conditions such as post-traumatic stress.

A lot of psychological research, in and of itself, is focused on avoiding conflict. When we consider what leads to wars, psychology is at the forefront – be it obedience to authority or simple passivity. Another well-supported theory is that of circumstance. This idea holds that war is less the result of malevolent dictators or the actions of inhumane ethnic or religious zealots, but rather disproportionate and unfair socio-economic circumstances, a generally dangerous or unsafe environment, and real or perceived risk of physical harm or loss to one's self, family, property or community.

History has shown us that as the population swelled and communities began to form, wars became more frequent and more intense.

How Globalization Is A Reason Of Psychological Stress On College Going Youth

By the above mentioned facts we have understood, directly or indirectly that Globalisation is one of the reasons that brings inequality and as a result disturbs mental health in all spheres. Especially the phenomena are high among college youth and students of today.

College students are at a critical period where they will enter adulthood. They are expected to be the elites in the society. Thus, they should enhance their stress management abilities so as to live a healthy life after entering the society.

Adolescence is a stage of human development that occurs between childhood and adulthood. Due to fast physical changes and mental development at this stage, students may experience incompatibility of their mental development with their physical changes or with the social environment and then suffer from problems arising from inadequate adaptations. These problems may further cause psychological troubles and even induce deviant behaviors. Adolescence is a dangerous period of time where young people experience self organization and role

confusion. For them, stress mainly comes from academic tests, interpersonal relations, relationship problems, life changes, and career exploration. Such stress may usually cause psychological, physical and behavioral problems.

According to **Hans Selye**, "Stress is the nonspecific response of the body to any demand, whether it is caused by, or results in, pleasant or unpleasant conditions." These demands are called stressors and are the stimuli that lead to stressful external events resulting in a number of responses. Common stressors for students in college include:

- critical adjustments to college life
- academic requirements
- demands of studies (e.g., assignment deadlines and increasing workload)
- pressure on interpersonal relationships
- unsatisfactory housing arrangements
- lack of a support system
- ineffective coping skills
- extended commute time
- greater levels of independence

Further, Dr. Sian Beilock, psychologist, points out that her research indicates that stressful academic situations impact the performance of students. If stress is not managed properly, it can prevent students from successfully achieving their academic goals.

While students want to perform well in their studies, in their quest to achieve these goals, they could experience situations and events that cause stress. Students are expected to balance their school work with other things such as extracurricular activities and even jobs.

If students are unable to manage and complete their work in the set time, this could cause them greater stress and feelings of being overwhelmed. They could also be trying to please others and living up to their expectations, leading to greater stress.

The American Institute of Stress points out that "stress can have wide ranging effects on emotion, mood, and behavior." Stress affects both students' physical and mental functioning, and eight ways are discussed in this hub. These negative symptoms could affect the quality of students' academic performance.

College Life Stress Poll:

MAJOR CAUSES OF STRESS FOR COLLEGE STUDENTS

- academic requirements
- finance difficulties
- peer pressure
- interpersonal pressure
- pressure of studies
- extracurricular activities
- bullying
- lack of support system
- extended commute time
- greater level of independence

Stress Affects Your Academic Performance

Physical Symptoms

High levels of stress could lead to physical symptoms that could have a negative effect on student performance. These signs and symptoms include:

- frequent headaches
- tremors, trembling of lips

- neck and back pains
- nervous habits, e.g., fidgeting
- rapid or mumbled speech
- upset stomach
- elevated blood pressure
- chest pains

When you experience these symptoms, you might not feel the motivation you once had to do your best on academic tasks such as preparing for tests or completing assignments.

The basic data analysis shows that out of the selected samples 61.5% were males and the remaining 38.5% were females. The demographic information on gender, course and year of study, accommodation, etc. was collected and it was found that 88% of the participants resided in their own house during the course of study. The remaining were residing in the hostel.

SURVEY DATA ANALYSIS

According to the analysis of the collected data the major causes of stress are : academic factors, social factors, family factors, emotional factors, and financial factors.

(1) ACADEMIC FACTORS

85.71% out of female students responded that the major reason for the cause of stress as academic problems. Whereas, in case of males the percentage is 78.04 and they are pursuing third year degree courses. Stress from high expectations of teachers (67%), parents (83%) and self (52%) is usually an agony for students studying in colleges.

(2) SOCIAL FACTORS

Formation of stress is also associated with social environment. Stress arises not only in a complicated and competitive environment but also in monotonous and stimulus-less one. It is obvious that only a small group of males (26.73%) and female (11.5%) consider social factors as a source of stress. The findings also suggest that social stress was not a concern for most of the participants especially the females.

(3) FAMILY FACTORS

Statistical analysis showed that among the stressors in family factor, “lack of support from parents” (68%) is considered as the strongest. 52% of males consider it as the only reason for stress.

(4) EMOTIONAL FACTORS

The most important emotional stressors include : not feeling confident about oneself, feeling lonely, anxious and having no one to turn to and understand.

Emotional stress is a major source of stress among students. Managing their romantic relationship can also be included and a great number of students (132 numbers, 66%) mention this as a major cause of emotional stress.

(5) FINANCIAL FACTORS

The most important financial stressors were not getting financial support from family for pursuing studies, parents control the money spent, insufficient money for paying personal mobile and internet expenses.

Only 23.5% of the males and 32% of females were having a sound financial background as their families were able to support them for pursuing their studies.

CONCLUSION

As discussed earlier in this research paper, the detrimental effects of stress on health and academic performance, college administrators should consider incorporating stress management training in orientation activities. A better approach may be the use of a stress management workshop, specifically geared to the stressors encountered by college students. Certainly, stress in the college setting cannot be eliminated but we can and should do a better job preparing students to manage it.

Globalisation and advancement of technology , bridging gap and developing nations should be accepted in a positive manner, a strong balance in the society should be introduced to make our youth, students of tomorrow more realistic and successful.

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WOMEN ENTREPRENEURSHIP IN THE RURAL INFORMAL SECTOR- A CASE STUDY

Rupa Basu

ABSTRACT

This study investigated the reason behind the rural women entering into entrepreneurship and the challenges faced by them. The term women entrepreneurship mean an act of business ownership and business creation that empowers women economically increases their economic strength as well as position in society.

The main objective of the study has been to understand the socio economic back-ground of women entrepreneurs and their problems and reasons in running their enterprises efficiently and profitably.

The present research study has been conducted to study the problems of women entrepreneurs with special reference to some selected places in selected businesses of sonarpur with the respondent size of 50 involving women from business like pithy shops, hotels, vegetable selling and beauty parlors.

The findings revealed that lack of family support, non-co-operation of male counterparts, weak bargaining position, psychological barriers, lack of experience, lack of knowledge, lack of society support, harassment difficulties in getting loans to set up a business, lack of awareness about credit facilities for women, lack of infrastructure facilities strict regulations and policies, attracting customers ,lack of marketing skills and unfavorable market behaviors were the major problems faced by the women entrepreneurs.

Most importantly the policies and programs related to the development of women entrepreneurship should be implemented honestly.

Keywords: women, entrepreneurs, barriers, rural areas, motivation, finance education, government, rural informal sector

INTRODUCTION

Informal sector constitutes an important part of indian economy. In 1972 the term informal sector was first used by the international labor organization (ILO) to denote a wide range of small and unregistered economic activities. The informal sector may be defined as these establishment that employ less than 10 persons with or without use of power. The informal sector consists of all activities that full outside the formal net registered taxed licensed. Statistically documented and approximately zoned business enterprises. ILO defines informal sector as enterprises with a small scale of operation, family ownership. Labor intensive units, adoptive technology and operating in unregulated and competitive markets. The national commission on enterprises in unorganized sector (NCEUS) defines the informal sector consists of all unincorporated private enterprises owned by individuals or households engaged in the sales and production of goods and services operated on a proprietary or partnership basis with less than ten total workers. Around 86% of employees were working in the informal sector as of 2004-2005 in india (NCEUS 2008) women entrepreneurship.

Women entrepreneurship may be defined as” women achieving economic independency and generates employment opportunities to others by running an enterprise”. In the past fifty years, society shifted their perspectives of women being primarily child bearers and caregivers to include primary breadwinners or co-contributors to the family income.

Women entrepreneurs in MSEs are the engine of growth and plays important role in poverty reduction in developing countries.

OBJECTIVES OF THE STUDY

The objectives of the study are

1. to ascertain the status of women entrepreneurs
2. to investigate the problems and challenges faced by women entrepreneurs
3. to identify the reasons for women for involving themselves in entrepreneurial activities.
4. to study the socio economic background

REVIEW OF LITERATURE

Ghosh,gupta and dhar (1998) studied the women and entrepreneurship in india in a research project undertaken by the centre for management development in Trivandrum titled management skills for rural enterprises. A field investigation the project involved motivating, training and assisting man and women towards developing independent business ventures. This study focused on the experiences of women who started micro-enterprises

based on the quantitative analysis of the data obtained from questions administered to 73 women who invested, in small scale industries an attempt was made to develop a profile of women entrepreneurs and draw out some implications.

According to the results of the study societal and cultural values impinge on women entrepreneurs outside their homes, making it difficult for them to operate in male dominated spheres.

As women they are obliged to make their work and home environments fit to run smoothly and pleasantly.

Nath (2000) examined the effect of social, organizational and personal partialities on the development of professional women in India. The data was collected from Indian women entrepreneurs with the help of structured questionnaire and in depth interview. It was found that the environment in India is conducive for women managers to reach the top. However better culture and environment has to be developed for women entrepreneurs in India.

As Indians most of the women are very serious about family obligations but they do not equally focus on career obligations says Shruti Lathwal (2011) most of women entrepreneurs argued that semi-educated or uneducated class of workers cannot visualize a female boss in their field of work.

According to Rizvi and Gupta (2009) government sponsored development activities have benefited only a small section of women namely the urban middle class. This may be primarily due to their level of education access to information and family support.

Infrastructure is one of the low-hanging fruit for policy makers. The lack of basic amenities affects women more than men, as women are often responsible for a larger share of time-consuming household activities. Better electricity and access to water and sanitation may reduce the burden of women in providing essential household inputs for their families and allow for more time to be directed toward entrepreneurial activities. Travel in India can also be restrictive and unpredictable and women face greater constraints in geographic mobility imposed by safety concerns. Investment in local transport infrastructure may thus directly alleviate a major constraint to female entrepreneurs in accessing markets, reports Ghannikher and O'Connell (2011) stringent labor regulations also stimulate female entrepreneurship several studies link labor regulations in India states to economic performance.

Thomas (2000) analyzed the performance and the complementary strengths of women entrepreneurship dual role as homemakers and entrepreneurs in Ernakulam district in Kerala state. An analytical survey followed by case studies of twelve women entrepreneurs from Ernakulam district in Kerala state was done. Entrepreneurial competencies of these women were identified and finally a SWOT analysis was done. The study found that women entrepreneurs were facing the problems of policy-practice gaps. Lack of professionalism, conservative attitudes and time constraints, hesitancy to improve entrepreneurial knowledge, obedient nature and low risk bearing capacity. However a better entrepreneurial environment, supportive family access to infrastructure and entrepreneurial qualities strengthened women entrepreneurs. Dhamaja (2002) studied the opportunities, performance and problems experienced by women entrepreneurs with reference to India and found that the role of women has changed over the years and they are successful in various decision making roles like advisors, publishers, exporters, producers, artists and so on.

Embran (2003) studied the women entrepreneurship in Kerala and found that women entrepreneurs face plethora of problems not only in launching their units but also in running them with financial problems like shortage of working capital.

RESEARCH METHODOLOGY

In the study, the following research methodology is used

SAMPLE SIZE

Women entrepreneurs in the district of south 24 parganas constituted the size of the study

SAMPLING FROMS

Sample was selected from women entrepreneurs in rural area of Sonarpur, south 24 parganas who were categorized according to educational status. Data was collected from 50 respondents.

SAMPLE AREA

A sample of 50 respondents is selected through non-probability convenient sampling technique from women entrepreneurs in the Sonarpur district of south 24 parganas who are categorized on the basis of their age group, residential status, marital status, income group, educational status, scale of business, nature of business.

SAMPLE UNITS

The women entrepreneurs in rural area of district sonarpur south 24 parganas were taken as the sample unit.

RECOMMONDATIONS

On the basis of the above study such remedies can be well understood as under

- There should be a continuous attempt to inspire, encourage, motivate and co-operate women entrepreneurs
- Establishing various policies to offer easy finance schemes for economically strengthening the position of women
- Forming a co-operative association of women entrepreneurs to mobilize resources and pooling capital funds in order to help the women in the field of industry, trade and commerce
- To extend concessional rates facilities and schemes for women entrepreneurs to prosper in the field of enterprise
- To establish all india forum to discuss the problems, grievances, issues and filing complains against constraints or shortcoming towards the economic progress path

RESEARCH ANALYSIS**AGE OF WOMEN ENTREPRENEURS**

The majority of the respondents fall, namely between the age group of 25-35 years and 35-45 years which shows that majority of the entrepreneurs are from the middle age group.

EDUCATION BACKGROUND

The highest numbers of respondents have discontinued the college (45%) and lowest numbers of respondent are from higher secondary (35%) and less than that (25%). It shows that due to family problems and financial problems the respondents were not able to carry on higher studies and they have chosen to earn for themselves they expressed they would continue their education if they are founded.

YEAR OF ESTABLISHMENT OF THE BUSINESS UNITS

58% of the respondents have established their business between 1995-2000 20% of the respondents have started their units between the period from 2000-2005 and 19% established between 2005 & 2010 & 3% after 2010

TRADITIONAL OR NEW APPROACH

55% of the respondents in pathy shop unit are experienced entrepreneurs. Respondents in tailoring (25%) are using the traditional approach of marketing vegetable unit (15%) and total units (5%) have started newly with new strategies

TYPE OF TRAINING REQUIRED BY THE RESPONDENTS

It is observed 80% of the respondents wanted to undergo provisional training 20% were reluctant for training expressing that they are in the same business from many years.

TYPE OF PRODUCT PRODUCED/SELL BY THE RESPONDENTS

With respect to pathyshops unit majority (60%) of the respondents are selling consumable items and (40%) of the respondents are selling vegetable items. In case of tailoring unit all the respondents are engaged in stitching cloths and also selling the same. In hotel units 40% of the respondents are producing and selling both consumable items and wet flour. In case of vegetable unit and beauty parlor unit all the respondents are selling vegetable and beauty products and beauty treatments service respectively. Most of the respondent in all the categories are producing and selling the goods with respect to their unit alone and in some cases they are selling variety of products.

INVESTMENT OF THE RESPONDENTS

In patty shop units 60% of the respondents have invested in the first slab of less than rs 10,000 and 40% have invested in the category of above rs 20,000 with respect tailoring unit and hotel unit majority of the respondents have invested in the category of above rs 20,000 with respect tailoring unit and hotel unit all the respondents have invested less than rs 10,000. In case of vegetable unit majority of the respondents are invested below rs 10,000. But in beauty parlor unit majority of the respondent have invested above rs 20,000.

MAJOR REASONS FOR WOMEN FOR INVOLVING THEMSELVES IN ENTREPRENEURIAL ACTIVITIES

Most important reasons behind women becoming entrepreneurs are:

The need for additional income is the major reason behind women taking up work with 70% respondent's preference

Women becoming more educated (60%) are increasing awareness of independent in them and also they (62%) prefer to carry on the business as it is their family occupation. But on the other side self identity and social status innovative thinking and government support are not being the reasons behind women involving themselves in entrepreneurial activities

REASONS	PERCENTAGE
SELF IDENTITY AND SOCIAL STATUS	10%
EDUCATION AND QUALIFICATION	50%
SUPPORT OF FAMILY MEMBERS	20%
INNOVATIVE THINKING	5%
EMPLOYMENT GENERATION	46%
FAMILY OCCUPATION	62%
NEED FOR ADDITIONAL INCOME BRIGHT	
FUTURE	40%
INFLUENCE OF SUCCESS STORIES OF FRIENDS	
AND RELATIONS	10%
TO BECOME INDEPENDENT	58%
SUPPORT FROM GOVERNMENT	6%

PROBLEMS FACED BY WOMEN ENTREPRENEURS

The major problems faced by women in this part are family responsibilities lack in self confidence, aggressive competition and social barriers

PROBLEMS FACED BY WOMEN ENTREPRENEURS

PROBLEMS	PERCENTAGE
FAMILY RESPONSIBILITIES	58%
LACK OF EDUCATION	20%
SOCIAL BARRIERS	45%
FINANCE	40%
DIFFICULTY IN PROCUREMENT	
OF RAW MATERIAL	25%
PROBLEM OF FINANCE	38%
LACK OF SELF CONFIDENCE	56%
COMPETITION	54%
LACK OF INFRASTRUCTURAL	
FACILITIES	25%
EXPLOITATION BY MIDDLE MEN	20%
LOW-RISK-BEARING CAPACITY	38%

FUTURE SCOPE OF THE STUDY

The study is limited to the women entrepreneurs in district of sonarpur. Similar research at a larger scale could give result that can be generalized further. Convenient sampling was used in the study. So that each area gets adequate coverage and representative sample can be drawn from the universe. In this study, an earnest attempt has been made to arrive at family objective and representative conclusion by analyzing the available data elegantly and tactfully.

CONCLUSION

Entrepreneurship among women, no doubt improves the wealth of the nation in general and of the family in particular. Women today are more willing to take up activities that were once considered the preserve of men and have proved that they are second to no one with respect to contribution to the growth of the economy. Women entrepreneurship must be molded properly with entrepreneurial traits and skills to meet the changes in trends, challenges global markets and also be competent enough to sustain and strive for excellence in the entrepreneurial arena

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AIR QUALITY DEGRADATION DUE TO UNPRECEDENTED VEHICULAR GROWTH IN KOLKATA- A BROAD OVERVIEW

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INTRODUCTION

With the advent of increasing urbanization in the last few decades the major metro cities in India had observed huge increase in the vehicular population. With an emerging need for private vehicles constrained by a very limited road space, channelizing the traffic flow of Kolkata roads is getting difficult day by day. Long waiting times at few major traffic points and frequent traffic snarls at various crossings had added a new dimension to the misery of daily commuters, which has become a very common daily phenomenon. Instead of launching several awareness campaigns for minimizing fuel consumption at those major traffic points, mass responses are still insignificant. As a consequence ambient air quality in Kolkata is degrading rapidly and the present study intends to focus on major pollutants present such as CO, NO₂, SO₂, PM₁₀, O₃.

LITERATURE REVIEW

While studying the traffic problem in Kolkata following articles / surveys were reviewed:

- Central Pollution Control Board on their report (August, 2010) has elaborately inspected the main constituents on ambient air in case of Kolkata, their overall impact on health issues and had made predictions for future air quality.
- (Citizen's Report Air Quality and Mobility in Kolkata, 2011) has focused on different dimension including air quality, mobility, parking space which are supposed to get affected by rapid urbanization in case of Kolkata, followed up by immense increase in vehicular fleet.
- (National Ambient Air Quality Status & Trends In India-2010) has made detailed study on the overall level of air quality considering all the major constituents and the report consider not only considers India as a whole but also takes into account all states, major cities and towns and side by side focuses on rural and urban context.
- (Singh and Padam) in their article have thrown light on the massive urbanization and consequent immense vehicular growth followed up by policy measures for traffic control, efficient transport management and also stressed on the impacts on environment due to huge level of energy consumption by transport sector.

JUSTIFICATION FOR THE PRESENT STUDY

From the above literature survey it is evident that, many studies were made on traffic pollution, congestion and its adverse impact on society. Several

literature surveys both from developed and developing nations highlighted this aspect. However a typical study, in Kolkata due to traffic outburst in recent years with several prime pollutants was not done. The present study wants to highlight these issues and gives us an indication towards such critical factors.

Here we have considered major pollutants, such as- CO (Carbon Monoxide), NO₂ (Nitrogen Di Oxide), SO₂ (Sulphur Di Oxide), PM₁₀ (Particulate Matter) and O₃ (Ozone) has also been considered as continuous depletion in its layer may pose severe danger to environment.

BRIEF OBJECTIVES OF THE STUDY

Some of the main objectives of this study are being listed below:

- To highlight the sharp increase in the total number of vehicles (particularly 2 wheelers) in India and its impending effects at major traffic points at Kolkata.
- To find probable correlation prevailing between the consistent increase in total number of vehicles and consequent decline in ambient air quality of Kolkata.

Another objective of the study is to highlight the rise in important pollutants like CO, NO₂ and SO₂ in the month of November (empirically found to be the most vulnerable month of the year), that might affect the overall quality of air.

(as % age of total vehicle population)						(Million)
As on 31 st March	Two Wheelers	Cars, Taxis & Jeeps	Buses	Goods vehicle	Other vehicle	Total
1951	8.8	52.0	11.1	26.8	1.3	0.3
1961	13.2	46.6	8.6	25.3	6.3	0.7
1971	30.9	36.6	5.0	18.4	9.1	1.9
1981	48.6	21.5	3.0	10.3	16.6	5.4
1991	66.4	13.8	1.5	6.3	11.9	21.4
2001	70.1	12.8	1.2	5.4	10.5	55.0
2002	70.6	12.9	1.1	5.0	10.4	58.9
2003	70.9	12.8	1.1	5.2	10	67.0
2004	71.4	13.0	1.1	5.2	9.4	72.7
2005	72.1	12.7	1.1	4.9	9.1	81.5
2006	72.2	12.9	1.1	4.9	8.8	89.6
2007	71.5	13.1	1.4	5.3	8.7	96.7
2008	71.5	13.2	1.4	5.3	8.6	105.3
2009	71.7	13.3	1.3	5.3	8.4	115.0
2010	71.7	13.5	1.2	5.0	8.6	127.7
2011	71.8	13.6	1.1	5.0	8.5	141.8
2012	72.4	13.5	1.0	4.8	8.3	159.5
2013	72.7	13.6	1.0	4.7	8.0	176.0
2014	73.1	13.6	1.0	4.6	7.7	190.7
2015	73.5	13.6	1.0	4.4	7.5	210.0

Source: Road Transport Year Book (2013-14 and 2014-15)

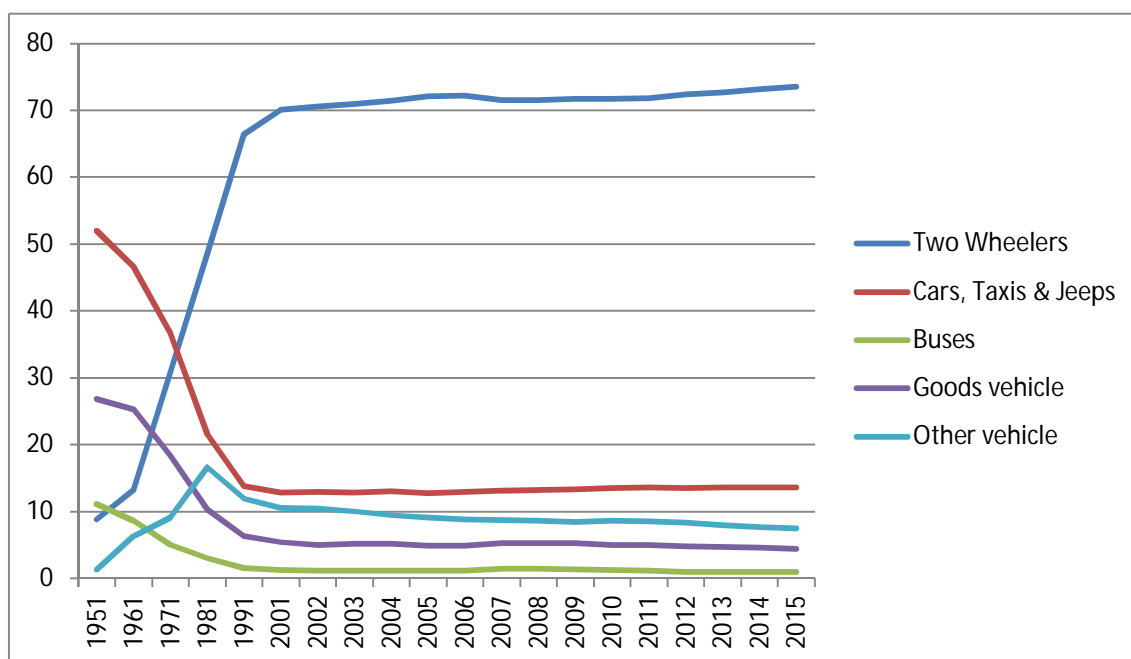


Figure 1: growth of vehicles for last few decades

- Sustained economic development and expanding road network have led to rapidly increasing motorized vehicles in India
- The total number of registered motor vehicles has increased from about 0.3 million in 1951 to 210.0 million in 2015.
- There have been significant variations in the growth rates and hence substantial change in the composition of registered vehicles during the period

- Two-wheelers which constituted 8.8 percent in 1951 have come to dominate the scene on account of relatively faster growth and by 2015 they accounted for 73.5% of the total registered vehicles. Their spectacular growth phase started from 1961 and continued up to 1991. The combined share of vehicles in the categories of cars, jeeps & taxis; goods vehicles; and buses in the total registered vehicles had declined from the 89.9 percent in 1951 to 19 percent in 2015.

Others vehicles including tractors, trailers and three-wheelers has increased from 1.3 percent 1951 to 7.5 percent in 2015. (Road Transport Year Book (2013-14 and 2014-15))

METHODOLOGY

- For the purpose of analysis we used the data set from online portals of Central Pollution Control Board, West Bengal Pollution Control Board and NEERI.
- Board, West Bengal Pollution Control Board and NEERI.
- The data relates to different pollutants and their resultant effect on RSPM and ambient air quality.
- The spots chosen for the sampling were Conclave Kasba, South Kolkata, Automatic stations at Victoria.
- The data monthly data set applied was for the period April 2014 to March 2015 and the daily data set used for analysis were November (1-15) for 2014, 2015, 2016.
- For the monthly data the sample size is 36, while for the daily data it was 130.
- To analyse these data, we also deal with some statistical operations like multiple regression by ANOVA, application of CLRM and effectively use various charts and diagrams in our study.
- Software platforms used for this analysis were MS excel and SPSS.

KOLKATA SCENARIO

Buses constitute around 12% percent of the total number of vehicles public and private but they have to cater to 76% percent of the total city load. Due to lack of convenience, comfort and ease of travel there is an increasing shift towards private ownership of two and four wheelers which further increased traffic congestion, air and sound pollution, energy loss and higher expenditure increased accidents. (Chakrabarty and Gupta 2015).

The satellite downshifts of Howrah, Dumdum, Saltlake, Sonarpur and Diamond Harbour has further augmented the Kolkata traffic load since most of the agricultural produce and daily consumption items reaches Kolkata everyday early morning for onward distribution. Moreover many state and national highways are linked to main Kolkata bus terminus at Dharmatala leading to further traffic congestion and chaos during peak hours.

The Central Pollution Control Board has classified all the following important locations as "critically polluted" --Salt Lake, Moulali, Minto Park, Dunlop Bridge, Behala Chowrasta, Baishnabghata, Cossipore Police Station, B.T. Road, Dalhousie Square, Lal Bazaar Police Headquarter, Kasba-Ruby.

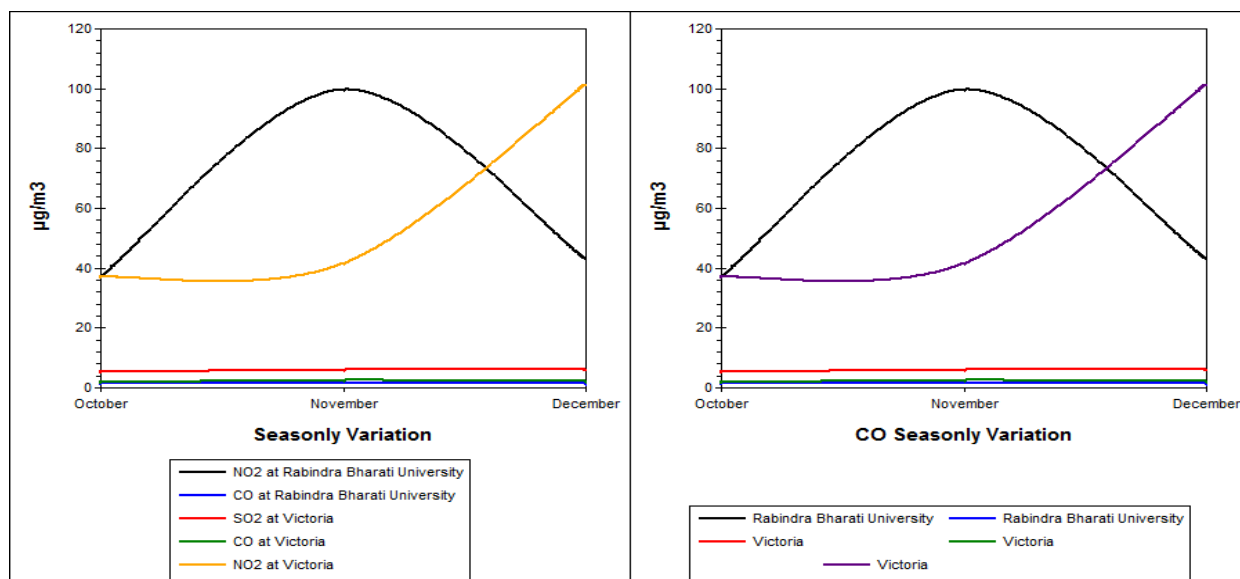


Figure 2: Rabindra Bharati and Victoria: seasonal comparison of air quality for 2016 (Source: Central Pollution Control Board)

Observations from **Figure 2:**

- The above graph shows quarterly (Oct-Dec, the quarter showing high average pollution in Kolkata) variation of 2 types of pollutants NO₂, CO in two automatic stations. Stations, namely- Rabindra Bharati and Victoria, depicting two extreme stretches of North and Central Kolkata. From the first graph it is evident that, NO₂ level at Rabindra Bharati started from a low level in October around 35 µg/m³, it shoot up to an alarming level of more than 100 µg/m³ in the month of November and then it radically dropped at the level where it was initially in the month of December.
- Interestingly CO level in Rabindra Bharati also reflected the same stand. However, NO₂ level at Victoria in the month of October started from a low level of around 35 µg/m³ remained at the same level in November but then steadily increased to an alarmingly high level in the month of December, both the graphs above corroborate to the same trend. However for SO₂ the comparison remained inconclusive since we have received the data only for Victoria area.

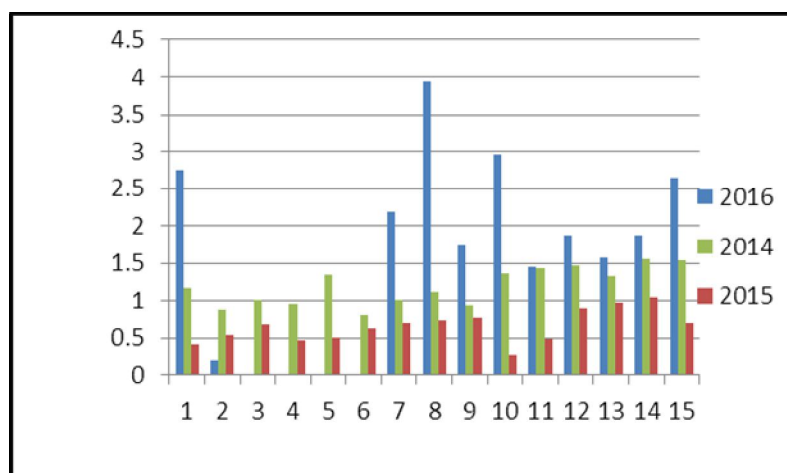


Figure-3: level of CO in air at Victoria Automatic Station in the month of November
Observations from *figure 3*

- The CO level in air for auto station of Victoria Memorial depicts alarming increase in CO in 2016 which is most dangerous pollutant. Moreover starting from a pretty high level at 2014 it decreased almost every day in November 2015. This might be due to some control measures taken by Kolkata Police for old vehicles (15 years and above), which pollutes the atmosphere most.

It is to be taken into account that, Victoria and Chowrangee area of Kolkata is relatively free from auto rickshaw pollution (use of kata teil and 2 stroke engine). However there is a lag on the part of the administration due to which CO increased alarmingly in 2016 for the time period under consideration.

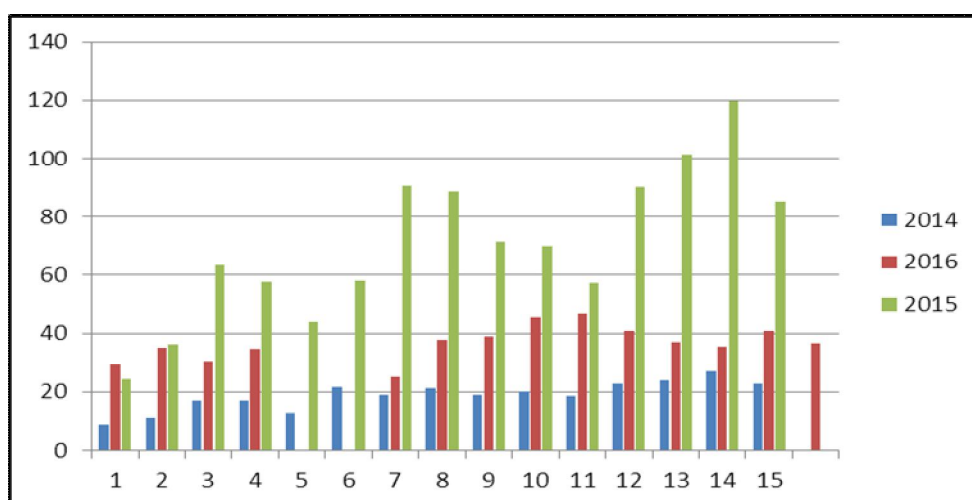


Figure 4: NO₂ level in air at Victoria Auto Station in the month of November

OBSERVATIONS FROM FIGURE-4:

The NO₂ observed in air for auto station of Victoria Memorial shows remarkable improvement and substantial decrease in this pollutant. Starting from a very low level during 2014, no₂ shoot up for all the days in November

2015 at an alarming level. However in 2016, there is substantial decrease almost in all days during the time period under consideration.

FINDINGS

- From the data relating to pollution for Victoria Memorial Automatic Station the West Bengal State Pollution Control Board estimates for the month of November (1st half), reflected that, to major pollutants CO and NO₂ both increased in air.
- Starting from a low average of 1.196746 in 2014 November 1st half), the average shoot up to 0.655667 µg/m³ level at the corresponding period in 2015 and then to 2.250134 µg/m³ level at November 1st half 2016. Vis a vis , the amount of NO₂ also increased from a low average of 18.09751 µg/m³ in November 2014 to 70.52386 µg/m³ level in November 2015 and then again it jumped to the level of 31.53898 µg/m³ during the corresponding period of 2016,
- The correlation co-efficient between CO and NO₂ shows that, it was 0.6641 in 2014 signifying that there is positive and reasonably high correlation between these two pollutants, then in 2015 it was 0.7922 which indicates positive and high correlation between the two pollutants, however for data insufficiency in 2016 for the same period it showed positive but very low degree of correlation, 0.00526.

These results are indicative of the fact that, there is medium to high positive correlation between these two types of pollutants and needless to mention that, the effect of one type of pollutant reinforces the degradation of the air quality by the help of the other one.

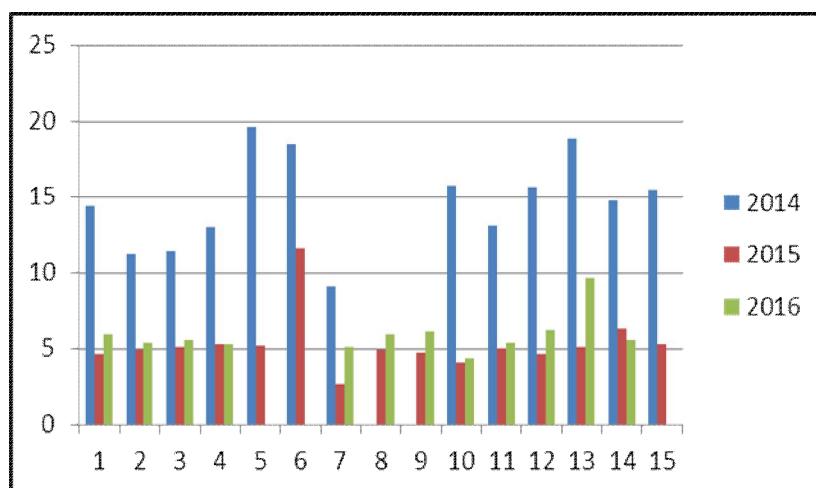


Figure-5: SO2 level in air at the Automatic Station in Victoria in the month of November

For the sake of brevity, detailed calculations of other components of air including PM₁₀, O₃ are not given here.

Table: Air Quality Characteristics in Kolkata yearly trend:

Table: Air Quality Characteristics in Kolkata yearly trend:

Month	RSPM (µg/m ³)	SO2 (µg/m ³)	NO2 (µg/m ³)
Average			
April,2014	127.2	5.9	26.3
May	168.2	4.9	19.2
June	129.4	2.1	16.8
July	130.2	2.0	21.5
August	71.6	0.9	12.7
September	97.0	2.0	16.9
October	102.3	9.8	41.4
November	217.8	27.2	85.0
December	244.9	29.6	75.7
January,2015	214.9	22.0	65.5
February	167.1	20.0	48.3
March	124.7	8.9	48.1

Table 1

Observations From Table-2:

The above table shows the amount of RSPM (Respirable Suspended Particulate Matter) which depends mainly on SO₂ and NO₂ during April 2014 to March 2015. CPCB has conducted this study at Kasba traffic pointed all monthly averages are reflected in the table. The following remarks can be made:-

- November is the most polluted month of the year followed by December & January.
- RSPM concentration was observed high in the month of April, May, June, July and October to March. From August to September comparatively lower values were observed.
- Monthly average values of RSPM ranges between 71.6 $\mu\text{g}/\text{m}^3$ to 244.9 $\mu\text{g}/\text{m}^3$.
- It is observed that values of RSPM shows an increasing trend over the year.
- NO₂ Concentration varies between 12.7 $\mu\text{g}/\text{m}^3$ to 85.0 $\mu\text{g}/\text{m}^3$. In the month of November high value of NO₂ Concentration was observed.
- However SO₂ was observed very low all over the year and it varies from 0.9 to 29.6 $\mu\text{g}/\text{m}^3$.

November is the most polluted month of the year followed by December & January.

Regression Statistics				
Multiple R	0.88594			
R Square	0.78489	<i>Significance F</i>		
Adjusted R Sq	0.7370	0.000992		
Standard Error	27.501			
Observations	12			
ANOVA				
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>
Regression	2	24837.10	12418.55	16.4200
Residual	9	6806.745	756.3050	
Total	11	31643.84		
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	109.1	20.70724	5.272658	0.000512
X1	6.121	2.849406	2.148461	0.060187
X2	-0.718	1.202042	0.598011	0.564575
<i>Lower 95%</i>	<i>Upper 95%</i>		<i>Upper 95.0%</i>	
62.339	156.0		156.0253	
0.3239	12.56		12.56764	
3.4380	2.000		2.000373	

Regression Statistics	
<i>Multiple R</i>	0.885943
<i>R Square</i>	0.784895
<i>Adjusted R Sq</i>	0.737094
<i>Standard Error</i>	27.501
<i>Observations</i>	12

Table 2

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	109.1823	20.7072	5.2726	0.00051
X1	6.1218	2.84940	2.1484	0.06018
X2	-0.7188	1.20204	-0.5980	0.56457

Table 3

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	109.1823	20.7072494	5.272658646	0.000512061
X1	6.121839	2.849406471	2.148461034	0.060187164
X2	-0.71884	1.202042448	-0.5980114	0.564575347

Observations from table 3 and table-4 :

From the regression result where Y is a dependent variable on two pollutants X1 and X2 (both independent variables), we form the regression equation as per CLRM model below:

$$Y = 109.18 + 6.12X_1 - 0.72X_2$$

This shows that, RSPM is positively related to SO₂ (here X₁) but the level of NO₂ (here X₂) is not only negligible for determining RSPM but its effect is negative as well. The value of 0.06 for X₁ shows that it is highly significant while higher P value of X₂ (0.56) shows that, it is less significant. The degrees of freedom are 11 for both the series since total number of observations is 12, in all the cases.

Regression Statistics	
Multiple R	0.8859
R Square	0.7849
Adjusted R Square	0.7370
Standard Error	27.501
Observations	12

Table 4

The R Square statistic is 0.78 indicating the fact, that the two independent variable X₁ and X₂ explain the dependent variable Y with 78% accuracy. Similarly adjusted R square value of 0.73 shows that choice of variables for this regression is highly appropriate.

While considering the correlation between RSPM (here Y) and SO₂ (here X₁) we find high positive correlation of 0.88 and which is significant at 1% level for a two tailed test. Similarly the correlation between X₁ and X₂ is also positive and very high at 0.96 and this result is also significant at 1% level for a two tailed test.

On the other hand, both Y and X₂ also reflect high positive correlation at 0.82, which is significant at 1% level for a two tailed test. Thus we may conclude that, both the pollutants SO₂ and NO₂ are highly correlated and individually they are highly correlated to RSPM which signifies that probably their joint effect have strong positive cumulative effect on dependent variable RSPM (Y).

Now we are using student's t-test, for the daily air quality data found from automatic stations at Victoria Memorial and Rabindra Bharati for the years 2014 and 2015.

HYPOTHESIS-1:

We proceed with **null hypothesis**, that mean value of the pollutant CO is same at traffic points Rabindra Bharati and Victoria for year 2014 and 2015.

Hence $H_0 : \mu_1 \neq \mu_2$ and
consequently

alternative hypothesis: $H_1 : \mu_1 = \mu_2$

The table value at 5% level of significance and for $15-1 = 14$ degrees of freedom for *t test* is 2.15 for two tailed test.

Test results: Comparing levels of CO between Victoria and Rabindra Bharati (2014) & (2015):

Here the value of test statistics are 0.15292 and 0.000000149 respectively both of which are less than the table value indicating the fact that we accept the null hypothesis $H_0 : \mu_1 \neq \mu_2$ and we conclude that pollution level due to CO is significantly different in these two stations both for the years 2014 and 2015.

HYPOTHESIS-2:

We proceed with **null hypothesis**, that mean value of the pollutant NO₂ is same at traffic points Rabindra Bharati and Victoria,

Hence $H_0 : \mu_1 \neq \mu_2$ and
consequently

alternative hypothesis : $H_1 : \mu_1 = \mu_2$

Test results: Comparing level of NO₂ between Victoria and Rabindra Bharati (2014) and (2015): Here the value of test statistic is 0.003690982 and 0.072696001 respectively both of which are less than the table value indicating the fact that we accept the null hypothesis $H_0 : \mu_1 \neq \mu_2$ and we conclude that pollution level due to NO₂ is significantly different in these two stations both for the years 2014 and 2015.

HYPOTHESIS-3:

We proceed with **null hypothesis**, that mean value of the pollutant SO₂ is same at traffic points Rabindra Bharati and Victoria,

Hence $H_0 : \mu_1 \neq \mu_2$ and
consequently

alternative hypothesis : $H_1 : \mu_1 = \mu_2$

Test results: Comparing level of SO₂ between Victoria and Rabindra Bharati (2014) and (2015): Here the value of test statistic is 0.00000605 which is less than the table value indicating the fact that we accept the null hypothesis $H_0 : \mu_1 \neq \mu_2$ and we conclude that pollution level due to SO₂ is significantly different in these two stations both for the years 2014 .

Hypothesis-4:

We proceed with **null hypothesis**, that mean value of the pollutant PM₁₀ is same at traffic points Rabindra Bharati and Victoria,

Hence H_0 is $\mu_1 \neq \mu_2$ and
consequently

alternative hypothesis: $H_1 : \mu_1 = \mu_2$

Test results: Comparing level of PM₁₀ between Victoria and Rabindra Bharati (2014) and (2015): Here the value of test statistic is 0.000730704 , 0.004613869 respectively which is less than the table value indicating the fact that we accept the null hypothesis $H_0 : \mu_1 \neq \mu_2$ and we conclude that pollution level due to PM₁₀ is significantly different in these two stations both for the years 2014 and 2015.

Hypothesis -5:

We proceed with **null hypothesis**, that mean value of the pollutant O₃ is same at traffic points Rabindra Bharati and Victoria,

Hence $H_0 : \mu_1 \neq \mu_2$ and
consequently

alternative hypothesis : $H_1 : \mu_1 = \mu_2$

Test results: Comparing level of O₃ between Victoria and Rabindra Bharati (2014) and (2015): Here the value of test statistic is 0.189000852 , 0.000001726 respectively which is less than the table value indicating the fact that we accept the null hypothesis $H_0 : \mu_1 \neq \mu_2$ and we conclude that pollution level due to O₃ is significantly different in these two stations both for the years 2014 and 2015.

Now for all these the calculated values of test statistics for 2014, 2015 are less than the table value, hence we accept the null hypothesis and conclude that, CO, NO₂ , SO₂, PM₁₀, O₃ related pollution levels are different at Victoria and Rabindra Bharati two station at Kolkata . Hence for the policy makers it is an indicator that, we can effectively implement the measures taken at Rabindra Bharati and implement them for Victoria as well.

Secondly, going against our general perception that whole of Kolkata is extremely polluted, now we can conclude that, the level of pollutants is significantly different in these two places. It is to be noted that, Rabindra Bharati area is having high frequency of auto rickshaws which are at present run by LPG, which is pollution free. On the other hand Victoria area is free from auto rickshaw but here concentration of traffic from north, south, east, west Kolkata is maximum and all types of vehicles are run by either petrol or diesel, which is polluting the air more.

However in most of the cases, the correlation is medium to high indicating the pollutants significantly influence one another (barring one or two stray cases).

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ANNEXURE

Average daily air quality data at Automatic station at Victoria Memorial:

	co	no2	so2	PM10	O3
1	1.05125	96.92625	22.57	213.824167	40.97217
2	1.170417	86.48458	29.06	183.43375	38.70755
3	2.44	113.1992	20.71	233.594583	38.17508
4	18.83833	97.76625	20.16	283.025	56.10582
5	1.52375	87.45167	19.48	296.34625	63.69347
6	1.135417	84.81286	20.84	237.17875	37.60832
7	1.182083	110.2717	25.32	133.55875	30.48453
8	1.122917	82.53083	26.00	74.8129167	37.00072
9	1.015833	72.06333	19.77	62.7120833	44.32295
10	1.134167	84.12667	14.25	125.185833	53.40428
11	10.2825	101.575	20.94	248.4225	78.34283
12	1.546667	149.4929	28.38	292.125417	35.35758
13	1.249583	149.7908	22.04	296.353333	29.31343
14	1.545	156.0667	23.96	310.3775	29.74137
15	1.602083	146.625	35.32	307.4475	24.20273
avg	3.122667	107.9456	23.25358	219.893222	42.49552
s.d	4.930013	28.66564	5.031207	85.1852521	14.63277

co	no2	so2	PM10	O3
0.41	24.24292	4.650833	15.31375	23.22355
0.54	36.03417	4.902083	22.38875	21.81317
0.68	63.565	5.089583	40.11167	26.97532
0.47	57.7525	5.312917	40.23708	35.8141
0.51	43.79458	5.19125	39.735	34.44292
0.63	58.11583	11.67375	57.14458	29.38203
0.70	90.63375	2.619167	97.17875	36.90762
0.73	88.67042	4.922083	127.3492	34.447
0.77	71.55583	4.75875	106.9767	22.10962
0.28	69.865	4.135833	104.4329	25.37628
0.48	57.12417	5.027917	113.8513	25.32238
0.90	90.36708	4.630417	215.5704	29.56088
0.98	101.2363	5.061667	179.5858	32.21587
1.05	119.83	6.320833	200.9429	33.55193
0.69	85.07042	5.3225	143.1754	36.47805
0.655667	70.52386	5.307972	100.2663	29.84138
0.214222	25.78187	1.924642	64.68661	5.400616

co	no2	so2
2.74173913	29.13434783	5.938695652
0.207692308	35.09272727	5.35
	30.61333333	5.573913043
	34.68642857	5.281428571
2.185714286	25.13571429	5.095217391
3.946521739	37.58304348	5.912173913
1.742608696	38.69777778	6.071304348
2.966363636	45.32434783	4.401304348
1.451304348	46.86125	5.336086957
1.873043478	40.90521739	6.224782609
1.57173913	36.90565217	9.670434783
1.872608696	35.56086957	5.565652174
2.641304348	40.78708333	4.97
2.109149072	36.7144456	5.799307215
0.96866572	6.142635591	1.264936061

Average daily air quality data at Automatic station at Rabindra Bharati:

2014					
	co	no2	so2	PM10	O3
1	1.05125	96.92625	22.57	213.824167	40.97217
2	1.170417	86.48458	29.06	183.43375	38.70755

3	2.44	113.1992	20.71	233.594583	38.17508
4	18.83833	97.76625	20.16	283.025	56.10582
5	1.52375	87.45167	19.48	296.34625	63.69347
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12	1.546667	149.4929	28.38	292.125417	35.35758
13	1.249583	149.7908	22.04	296.353333	29.31343
14	1.545	156.0667	23.96	310.3775	29.74137
15	1.602083	146.625	35.32	307.4475	24.20273
avg	3.122667	107.9456	23.25358	219.893222	42.49552
s.d	4.930013	28.66564	5.031207	85.1852521	14.63277

2015				
co	no2	so2	PM10	O3
0.95	35.93125	x	39.7975	37.75042
1.07	48.75542	x	66.05583	34.95905
0.97	61.2425	x	104.5475	51.6019
1.16	78.02545	x	129.5527	54.41777
1.09	67.74045	x	104.8777	49.9114
1.23	78.71542	x	149.5267	51.00328
1.78	98.645	x	194.5788	64.75432
1.56	97.18958	x	204.375	56.21117
1.44	104.8629	x	195.9729	35.98152
1.33	105.7463	x	214.4888	35.84922
1.02	74.10417	x	263.1479	44.23393
1.52	95.25417	x	360.8868	46.08368
1.75	132.1871	x	249.905	41.51688
1.82	140.5217	x	345.1088	42.84887
1.61	125.4313	x	272.4204	47.89015
1.352828	89.62351		193.0162	46.33424
0.307425	30.09361		95.4249	8.564803

“ISSUES FACED BY STUDENT TEACHERS DURING THEIR INTERNSHIP IN RELATION TO CLASSROOM MANAGEMENT AND IMPORTANCE OF MANAGEMENT IN CREATING EFFECTIVE TEACHING-LEARNING ENVIRONMENT”- AN OVERVIEW.

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ABSTRACT

An effective classroom management system is an essential criteria for creating an effective teaching-learning situation. A teacher should know her content, develop suitable teaching strategy and should also understand her learners so the teaching learning environment is favourable for the learners. The purpose of this study was to investigate the challenges faced by the student teachers in classroom management practices during their internship and to examine the different strategies adopted by them to improve classroom management during their internship and create a classroom environment enhancing the pupils' learning. A normative survey type research design was used in the study. The sample comprised of 100 student teachers of in and around Kolkata district. An interview schedule and questionnaire constructed by the researchers were used to collect data. The study revealed that the student teachers faced several challenges in their classroom management during their internship. These challenges included handling overloaded classes, lack of proper infrastructure, pupil indiscipline and lack of teaching learning resources. However in spite of the challenges they faced they learnt to deal with them in a systematic manner to ensure an effective teaching-learning environment.

Keywords: Student teacher, Classroom management, Internship.

ACKNOWLEDGEMENT

The authors are grateful to the student-teachers of Sishu Bikash College of Education and the faculty of the concerned schools for their help and support in course of the study.

INTRODUCTION

Creating situations and opportunities for encouraging learning by each and every student in the class is one of the basic things that a teacher would expect to do. A class constitutes of a group of students in most cases of same age, and a teacher to teach and facilitate students' learning.

Teacher education is a part of our educational system. It involves the preparation of teachers with pedagogical knowledge, skills and attitude to become the future nation builders. The National Policy on Education (2004) highlights the purpose of teacher education to include producing highly efficient classroom teachers for all levels of our educational system. For teachers to teach competently and efficiently, they must be adequately exposed to both the theoretical and practical aspects of teaching.

Internship (previously known as practice teaching) provides the laboratory where a student teacher what he/she had learnt during the academic course. According to National Teacher Institution, teachers practice manual (2005), the general objectives of teachers practice are to enable the student teachers:

- A) Gain general experience-academic, professional, social and physical related to teaching profession.
- B) Acquire a wealth of practical experience from all staff they are likely to be in contact with through active participation in the school assigned responsibilities.
- C) Bring the student teachers into direct contact with significant issues and make them aware of their various functions and responsibilities.
- D) Develop competence in proper lesson preparation, delivery and assessment.

To achieve the above objectives, the students have to go through an approximate 20 weeks internship period in secondary/higher secondary schools and acquire the expected skills which will position him/her as a competent teacher.

In certain cases the objective of teaching practice may not be fully realized due to some challenges faced by the student teachers in the real classroom situation – some of these are classroom management, development of instruction, environmental challenges.

CLASSROOM MANAGEMENT

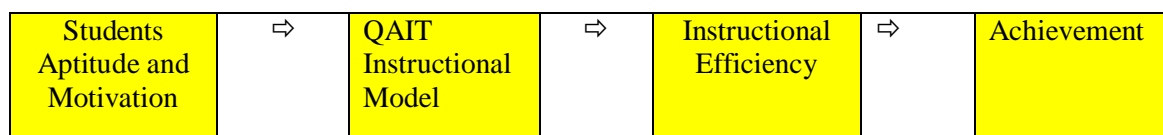
Classroom management is a multi-talented task for a modern teacher who has to control the students, the subject, the teaching methods as well as, various teaching equipments.

An orderly atmosphere is the can only facilitate proper learning. Elliot et al defined classroom management as the use of rules and procedure to maintain order so that learning result. Organising a proper classroom climate can present various behavioural problems .An effective classroom management system is the resultant of good quality of instruction and effective managerial procedures.

QAiT Model (Slavin-1987)

An instructional model proposed by Slavin which gave an alterable form of Carroll's mode which has got the following four components-

- Q-** Quality of instruction (Presentation in an orderly, systematic manner with vivid images and concrete examples).
- A-** Appropriate levels of instruction (lesson should not be too easy or too difficult, using proper reinforces and hooks of attention)
- I-** Incentive (Try to motivate students intrinsically)
- T-** Time (Distinction between allocated time and engaged time should be controlled so that sufficient time is available for learning)



Instructions are all the activities engaged by the teachers with the aim of modifying the learners' behaviour. The instructional materials may include textbooks, pictures, objects, computer and laboratories.

The challenge faced by the student –teachers during their teaching internships is what necessitates the present study.

PURPOSE OF THE STUDY

The present study seeks to

- 1) Find out the classroom management challenges faced by the student –teachers during their teaching internship.
- 2) Find out the environmental challenges faced by the student-teachers during their teaching internship.
- 3) Find out the instruction challenges faced by the student-teachers during their teaching internship.
- 4) To highlight the effective classroom management strategy.

RESEARCH METHODOLOGY

Research Design: A normative survey design was followed.

Area of the study: The study was carried out in ten secondary schools in and around Kolkata district.

Sample: The sample consists of 100 students-teachers on ongoing their teaching internship under WBUTTEPA

STREAM	NO.OF STUDENTS
LANGUAGE	40
SCIENCE	12
SOCIAL SCIENCE	37
MATHEMATICS	11

TOOLS AND TECHNIQUE

A structured interview schedule prepared by the researchers was applied for collecting data. The interview schedule consisted of two sections –section 'A' dealt with personal information while section 'B' dealt with the different challenges faced by them during their teaching internship.

FINDINGS

- **The challenges of classroom management faced by student-teachers during teaching internship were-**
 - i) Lack of proper sitting arrangement of the pupils.
 - ii) Over crowd classroom lacking proper ventilation.
 - iii) Lack of enough space to move around and supervise the entire class.

- iv) Improper partitions between the adjacent classrooms and corridor.
- v) Controlling outside noise making.
- vi) Indifferent attitude of the pupils towards the trainee teachers.
- vii) Controlling pupil's movement in and outside of the class.

• **The environmental challenges faced by student-teachers during teaching internship were-**

- i) Lack of proper accommodation of the student-teachers.
- ii) Non-cooperative attitude of regular teachers towards the student-teachers.
- iii) Non-involvement of student-teachers in co-curricular activities.
- iv) Unhygienic washrooms.
- v) Over burden of extra classes.

• **The instructional challenges faced by the student-teachers during teaching internship were-**

- i) Lack of proper blackboard
- ii) Non availability of text books
- iii) Inability of student-teachers to utilize instructional materials
- iv) Inability of student-teachers to apply learning design properly

Strategies opted by the student-teachers for effective classroom management and achieving the required outcomes-

- 1) Keeping eye contact
- 2) Initiating rotation system in the class
- 3) Distributing question properly in the class
- 4) Using reinforcement
- 5) Prompting slow learners
- 6) Providing the high achievers with challenging tasks
- 7) Motivate & involve the learners in the lesson
- 8) Distributing work sheets
- 9) Applying brain storming activities
- 10) Proper board work, using colour chalk & highlighting the main points
- 11) Use of low-cost-no-cost TLM
- 12) Addressing pupils by their names
- 13) Time to time recapitulation
- 14) Creating a democratic environment

DISCUSSION OF FINDINGS

- The study revealed that most of the student-teachers faced some common problems regarding their proper accommodation, attitude of the regular teachers, lack of improvisation by the teachers.
- Classroom management was another big challenge for the student-teachers. Control of outside noise, movement of the pupils in and outside of the classroom, student indiscipline and irregular attendance of the pupils were some of the major problems that needed to be controlled.

Non-availability of relevant text books, reference books, teaching-learning materials, technological support-were some of the other challenges faced by the student teachers.

Though initially the student-teachers faced challenges while controlling the classroom but in due course of time they learnt to tackle their classes, apply different strategies for effective classroom management and modifying the behaviour of the pupils and achieve the learning goals.

Some of the strategies adopted by them were eye contact with total class, interacting and involving the entire class in the lesson, use of reinforcement and TLM, feedback management, motivate students, activity based learning, creating a democratic behaviours.

CONCLUSION

Teaching internship is the most important part of the Teacher Training Course. It helps future the teacher with necessary practical knowledge and skills which they will apply in their professional field and become effective teachers and build our future generation. But some problems faced by students during their teaching internship hinders the attainment of objectives of the Teacher Training Course. Classroom management is one such challenge. The study revealed the importance of human relationship in the classroom, along with the knowledge of pedagogy and proper teaching skills.

To create a learner friendly humane environment a student-t teacher must keep the following things in mind.

DO'S:

- Be understanding and sensitive to the emotional and academic needs of the students.
- Be always proactive to students' cause.
- Be patient and sympathetic while dealing with problem children in the classroom.
- Give maximum opportunities to the students to participate in all the activities of the school. By working together, the bonds between the teacher and student and among students get strengthened.
- Use pleasant words with firmness while handling indiscipline activities.
- Encourage co-operation and collaboration among students.
- Encourage healthy interaction among students through group activities.
- Ensured whole-hearted engagement of students in group activities.
- Conduct various kinds of projects and co-curricular activities so that every student would find enough of scope to channelize his/her inner talent and desires.

DON'TS:

- Don't use or encourage others to use harsh, disparaging or discouraging words.
- Don't encourage any discriminatory words or practices in the class.
- Don't encourage unhealthy comparisons and competitions among students.
- Don't demean the performance of poor performers in the class rather try to provide them alternative scopes to enhance their performance.

LIMITATION OF THE STUDY

Due to lack of time, Further the student would data was collected from the 4th semester students of Sishu Bikash College of Education. Further the study would have been more comprehensive if it had included the teacher-supervisors and the teachers of the concerned schools.

SUGGESTIONS OF FURTHER STUDY

Further work could be done on the relationship between classroom management and academic achievement of the pupils.

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THE COMPARATIVE STUDY OF NABH ACCREDITED HOSPITALS AND NON- NABH HOSPITALS IN WEST BENGAL FROM THE VIEW POINT OF DOCTORS/ NURSES

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ABSTRACT

In present scenario we are acquainted with the term Total Quality Management (TQM) which is a journey or path towards excellence. The service sector especially hospital has already made its mark in our economy and customer's satisfaction is very crucial in it. The establishment of NABH (National Accreditation Board for Hospitals and Health Care Providers) under the umbrella of the QCI is the journey for excellence in hospitals.

The demand in quality in health care services have been accelerated by the process such as medical tourism, insurance and corporate sectors. As on January 2017 NABH accredited 437 hospitals all over the country. In the State of West Bengal only 12 (twelve) hospitals have been accredited.

The present study was conducted on Doctors/nurses of NABH and General Hospitals in West Bengal and their attitude towards the excellence.

From the study it reveals that two factors namely Hospital Working Atmosphere and Infrastructure of hospitals emerged as most important for Doctors/ nurses satisfaction. And the factors of the satisfaction of Doctors/nurses differ across different types of hospitals, NABH hospitals, non- NABH hospitals (Private hospitals) and Government hospitals.

Keywords: TQM, QCI, NABH, Accreditation

INTRODUCTION

In present scenario we are acquainted with the term Total Quality Management (TQM) which is a journey or path towards excellence. The service sector has already made its mark in our economy and already account for more than 50% of our GDP. Customer's focus is an imperative in this sector which is no doubt, very significant to customer satisfaction.

Keeping this background in view, it is to be emphasized that in the liberalized and most specifically in the post liberalized environment, quality of management of the health organizations is of great and utmost importance. To become quality responsive as well as superior in quality of services Health Organizations must apply a two pronged strategy-

- A) Develop and adapt to new technology and management practices proactively for the benefit of the patients.
- B) Create and passionately sustain a quality culture throughout the organizations involving all employees (from top to bottom) in discharging their responsibilities.

In the context of the fast changing environment, there is an urgent need for quality control in the health sector. Primary team members in the process are the doctors and the patients. Many other team members also exist in this complex system, including Nurse, Lab Assistants, and sweepers etc. technical and maintenance and custodial personnel are team members because they have a direct role to play on the quality of the medical treatment environment. The doctor based on his/her experience and expertise, develops and implements the plan for medical treatment of the patient.

The demand for quality in health care services has been accelerated by the market forces such as medical tourism, insurance and corporate client base expansion and for that there is a growing demand from for quality health care at affordable price (as the lack of quality assurance). The necessity of accreditation is felt from various quarters as the accreditation benefits all stakeholders, helps bench marking, reduces risk and the patients are biggest beneficiary. Accreditation generates a sense of in high quality of care and patient safety. Patient satisfaction is regularly evaluated. The employees attached in an accredited health care organization are satisfied a lot as it provides for continuous learning, good working environment, leadership and above all ownership of clinical processes. Accreditation stimulates continuous improvement in any health care organizations.

The establishment of NABH under the umbrella of the QCI is a bold step towards the journey for excellence in hospitals. The vision of NABH is to be the apex national health care accreditation and quality improvement body, functioning at par with global benchmarks and the mission is to operate accreditation and allied programs

in collaboration with the stake holders focusing on patient safety and quality of health care based upon national/international standards, through process of self and external evaluation. The values of NABH are: Credibility, Responsiveness, Transparency, and Innovation.

NABH provides accreditation to hospitals irrespective of their ownership, legal status, size and degree of independence [1]. The guiding principles for finalization of the standards have been the experience of members as assessors on one end and drivers of quality in their role in their own respective organizations on the other end. Emphasis was laid referring to best practices in various countries with regard to accreditation standards, national and international guidelines on key areas like infection control, patient safety and quality improvement [2]. It is estimated that in India there are more than 15000 hospitals operating in and out of which 30 percent are in public sector. In West Bengal there are 42 new Super Specialty Hospitals, among them 33 already been opened [3]. As on January 2017, NABH accredited 437 hospitals all over the country. In the states of West Bengal only 12(twelve) hospitals had been accredited.

NABH is an institutional member of International Society for Quality in Health Care (ISQua). The board has representations from all stakeholders including government, consumers and health care industry. In healthcare, health outcomes play a crucial role in determining quality.

The accreditation standard is divided into 10 chapters, which have been further divided into 102 standards, and these standards have been further divided into 636 objective elements. Objective elements are measurable components. Objective elements are required to meet the requirements of a particular standard. [2]

As we know NABH standards have 10 chapters out of which five are patient oriented and five are organization oriented. Patient Centered Standards:1. Access, Assessment and Continuity of Care (AAC) 2.Care of Patients (COP)3. Management of Medication (MOM) 4. Patient Right and Education (PRE), 5.Hospital Infection Control (HIC) and Organization Centered Standards:1. Continuous Quality Improvement (CQI), 2. Responsibilities of Management (ROM), 3.Facility Management and Safety (FMS), 4. Human Resource Management (HRM), 5. Information Management System (IMS)

Human Resource Management as a discipline has been existence in decades. One important aspect of improving and maintaining service delivery in hospitals is efficient management of HR function. The idea is that the consumer is the king, rather than the consultant, is the key. Most hospitals intend keeping their staffing levels to the minimum without compromising on their 'quality of care'. Healthcare employees expect their employers to provide infrastructure, HR practices, and support in terms of training and development, which they can link to improved performance especially in relation to patient care and service innovations. Counter-intuitively, effort is maintained towards immediate patient care when employee expectation remains unmet.

LITERATURE REVIEW

The performance and the benefits of the system depend on the experience, expertise, satisfaction level and also the working environment of HRM. Meeting the expectations of the frontline staff can lead to a more effective patient care.

The idea behind the satisfaction mirror is that the consumers will receive higher quality service and be more satisfied when the front line work force themselves are satisfied in their job.

The climate for employee well-being can be measured through worker perception of the following HRM practices; work facilitation, supervision, organizational career facilitation, organizational status, new employee socialization, and overall quality of HRM practices.

To identify the parameters of good quality, SERVQUAL is in use as a concept of quality. It is a profit-maximizing organization and its customer segments are mostly upper middle class to rich, well-educated people. This choice strengthens marketisation and commodification of health care and contributes to the supply-induced demand character of the health economy in India, which facilitates malpractices and irrational and unethical provider behavior. This calls for better regulation of doctors and hospitals.

Gradually the independent private practitioners started their own small maternity homes, small hospitals and this tradition of individually owned small hospitals of doctor-entrepreneur continues till now. The majority of these private hospitals have fewer than 10 beds and an overwhelming majority of the big hospitals have less than 30 beds.

There are different problems with the NABH standards. First, these standards can be achieved only by bigger hospitals; small hospitals cannot adopt ton these. In India, we need to have minimum standards to ensure good quality care, but which can be achieved by smaller hospitals also. Second, NABH is a voluntary, self financed

process and is no substitute for a legally enabled, mandatory process which is applicable to all hospitals and other clinical establishments in India. Third, there is no patient friendly grievance redressal system and no mandatory observance of a Standard Charter of Patient's Rights Anecdotal information

In NABH accredited hospitals, the doctors have a more impersonal relationship with the patients while the nurses provide care and affection. The interaction of the doctors is limited to the diagnosis and discussions related to the treatment and during the treatment. However the nurses and attendants interact with the patients throughout their stay as in-patients. They pay regular visits to the patients and help them with their needs. The pressure for efficiency and effectiveness is particularly pronounced in the hospital sector, which is the most resource-intensive component in the healthcare system. Thus, maintaining dimensions of SERVQUAL is the primary responsibility of the doctors and the nurses. They are entrusted with the task of patient satisfaction and it is their collective responsibility to ensure that patient needs are fulfilled. From the HR Perspective, different HR practices and policies are required for doctors and nurses because they create different components in the service value chain. Therefore while in the case of doctors , policies such as revenue sharing would be of more important, for nurses, training to help them perform dual objectives would be of higher elevation.

A significant development in the healthcare sector has been the concept of primary care. Primary nursing is patient centered rather than task centered and is characterized by each patient having a single, identified, qualified nurse who is responsible for their care during their entire period of hospital stay. The non-medical managers also formulate HR policies keeping the patients in Forefront. Another facet of the medical professional that needs to be understood is that in this field, professional identification, commitment and ethics are stronger than organizational identification, commitment and ethics. The doctors and nurses are answerable to their profession first and their organization later.

DATA AND METHODOLOGY

The primary data were collected on perception of Doctors/nurses of NABH certified hospitals and non- NABH private hospitals and Government hospitals in West Bengal with the help of structured questionnaires (Annexure- 1). Result involves the response of 100 Doctors/nurses in each category (total 300 doctors/nurses) of hospitals on 5-point rating scale of satisfaction that were collected during July 2016 to January 2017. On 5-point rating scale of satisfaction, it is signified to completely dissatisfied (1) to completely satisfied (5). The survey is conducted in and around hospital premises.

ANALYSIS AND FINDINGS

Total 15 variables are considered to study Doctors/ nurses satisfaction related with the quality of the hospitals. The variables are Infrastructure, Work environment, Compensation Package, Team Work, Career growth opportunity, Reward, Employee engagement, Security, Pressure by mgmt, Overall treatment, Documentation of HRP, Documentation of recruiting staff, Grievance handling, Personal recordkeeping, Fire safety process. Factor analysis was used to construct the new factors affecting the quality of the hospital.

Factor analysis was used to construct the factors affecting the Doctors/ nurses satisfaction regarding the quality of the hospital. Satisfaction of Doctors/nurses is important factor for standardization of quality of the NABH certified hospital, non NABH hospitals and Government hospitals in West Bengal.

The value of Kaiser-Meyer-Olkin (KMO) is 0.960 (see table 1) which indicates that the sample size in the study is suitable for factor analysis. The value of chi-square in Bartlett's Test is 8589.460 and statistically significant. Consequently, PCA(principal component analysis) is suitable for analyzing the factors affecting the satisfaction of Doctor/nurses regarding the quality of the hospital

Table-1: KMO and Bartlett's Test

		Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.960
Bartlett's Sphericity	Test	of Approx. Chi-Square	8589.460
		Df	105
		Sig.	.000

Table-2 has shown the results of the PCA . This study has reflected two principal components which have Eigen value greater than 1. Rotation Sums of Squared Loadings show that the first rotated principal component has explained 83.284% of total variation in Doctors/nurses satisfaction regarding the quality of the hospital. The

second rotated principal components have explained 7.309 % of variance of total variation. Two components explain 90.592% of total variation in the satisfaction of Doctors/nurses regarding the quality of the hospital.

Table-2: Result of Principal Component Analysis(PCA)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation sums of square loading.		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.493	83.284	83.284	12.493	83.284	83.284	8.566	57.110	57.110
2	1.096	7.309	90.592	1.096	7.309	90.592	5.022	33.483	90.592
3	.373	2.483	93.076						
4	.179	1.196	94.271						
5	.163	1.084	95.355						
6	.128	.852	96.208						
7	.098	.656	96.864						
8	.086	.576	97.440						
9	.077	.512	97.951						
10	.072	.480	98.431						
11	.058	.387	98.818						
12	.053	.350	99.169						
13	.049	.324	99.493						
14	.043	.286	99.779						
15	.033	.221	100.000						

Extraction Method: Principal Component Analysis.

Table-3: From the table of rotated component matrix it is clear that after factor analysis two factors are identified and whose Eigen value is greater than 1 and the first factor named as Working Atmosphere (the variables in this particular be Infrastructure, Work environment, Compensation Package, Team Work, Career growth opportunity, Reward, Employee engagement, Security, Documentation of HRP, Documentation of recruiting staff, Grievance handling, Fire safety process), has explained 83.284% of total variation in Doctors/nurses satisfaction regarding Hospital Quality. The second factor is named as Hospitals' Infrastructure which affects the hospital quality, (variables in this particular be Pressure by mgmt, Overall treatment, Personal recordkeeping) has explained 7.309%. Two factors namely Hospital Working Atmosphere and Hospitals' Infrastructure explains 90.592% of total variation in the Doctors/ nurses satisfaction in the Hospital quality.

Table-3: Rotated Component Matrix^a

	Component	
	1	2
Infrastructure	.956	.170
Work environment	.876	.395
Compensation Package	.709	.640
Team Work	.683	.659
Career growth opportunity.	.792	.505
Reward	.787	.538
Employee engagement	.758	.566
Security	.867	.395
Pressure by management	.174	.949
Overall treatment	.402	.854
Documentation of HRP	.740	.589
Doc. of recruiting staff	.907	.324
Grievance handling	.825	.370
Personal record keeping	.637	.716
Fire safety process	.833	.490

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

So as a whole two variables such as Hospital Working Atmosphere and Hospitals Infrastructure determined the Doctors/ nurses Satisfaction regarding the hospital quality. But the obvious question comes of the above analysis that these factors vary across the hospitals or not. Target is to judge whether difference is there in case of Doctors' working environment with different types of Hospitals like NABH hospitals, non NABH hospitals and Government hospitals.

HYPOTHESIS 1. Hospital Working Atmosphere varies across the hospital type, NABH, non- NABH and Government. Hospitals.

HYPOTHESIS 2. Hospitals Infrastructure varies across the hospital type, NABH, non- NABH and Government Hospitals.

To test the above hypothesis the study uses ANOVA see Table no. 4

Table no-4: ANOVA Result

	F	Sig.
Hospital Working Atmosphere	197.979	.000
Hospitals Infrastructure	99.066	.000

ANOVA test reveals that there is significant difference in Doctors' Working atmosphere among NABH hospitals, non NABH hospitals and Government hospitals. There is significant difference in Hospital's Infrastructure among the three types of hospitals as (both the cases p-values are lesser than .05.).

Factor 1. Working Atmosphere (the variables in this particular be Infrastructure, Work environment, Compensation Package, Team Work, Career growth opportunity, Reward, Employee engagement, Security, Documentation of HRP, Doc. of recruiting staff, Grievance handling, Fire safety process) and factor 2. Hospitals' Infrastructure which affects the hospital quality(variables in this particular be Pressure by mgmt, Overall treatment, Personal recordkeeping) in the Doctors/ nurses satisfaction in the Hospital quality.

Doctors/ nurses have played a vital role for the inpatients of the hospitals. So the satisfaction of them is crucial for the hospitals. If the management of the hospitals do not look after them, it will hamper the satisfaction of the patients. So directly it affects the reputation of the hospital. In case of NABH Accredited hospitals the satisfaction level of doctors/ nurses are high as because the Working Atmosphere and the Hospitals' Infrastructure is good as per the version of Doctors/ nurses. Management gives importance to them. But for non- NABH hospitals the doctors and nurses are not so satisfied (as per their opinion). In West Bengal, Government gives stress on the patient satisfaction more. The study reveals that the satisfaction of doctors/ nurses differs according to the types of hospitals, NABH, non NABH and Government hospitals.

CONCLUSION

With globalization, Quality Control and TQM of the hospitals create its importance. The following conclusions are drawn from the findings: The hospitals' working atmosphere plays a major role in the success of the organizations. Safe working environment enhances the perception of doctors/nurses and the loyalty of doctors/nurses influences the engagement level of the hospitals. The hospitals' infrastructure enhances the level of performance of them. However it is necessary to pay more attention to the satisfaction of Doctors/nurses by the hospitals.

In case of NABH Accredited hospitals the satisfaction level of doctors/ nurses are high as because the Working Atmosphere and the Hospitals' Infrastructure is good as per the version of Doctors/ nurses. But for non- NABH hospitals the doctors and nurses are not so satisfied (as per their opinion). In West Bengal, Government gives stress on the patient satisfaction more. The study reveals that the satisfaction of doctors/ nurses differs according to the types of hospitals, NABH, non NABH and Government hospitals.

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ANNEXTURE

Questionnaires for doctors/ nurses:

1. What is your satisfaction level with the infrastructure of the hospital?
2. Your opinion about the work environment in your hospital?
3. How attractive is the compensation package?
4. Your satisfaction with the team work.
5. How is the career growth opportunity?
6. How are the reward and recognition procedures in the hospital?
7. How is the Employee Engagement?
8. Do you think you are satisfied with your security in the hospital?
9. What is your assessment of the pressure by the management?
10. Your opinion about the overall medical treatment and healthcare of the Hospital.
11. Are you satisfied with the organization's documented system of Human Resource Planning?
12. Are you satisfied with the documented procedures for recruiting staffs and orienting them to the organization's environment?
13. What is your opinion about the organization's disciplinary grievance handling policies?
14. Are you satisfied with the organization's personal record keeping method for each staff?
15. Are you satisfied with the fire safety process in the hospital?

EMERGING TRENDS IN GOODS AND SERVICE TAX (GST) IN INDIA

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ABSTRACT

This paper presents a detailed approach to analysis of GST implementation that enable to single Tax System to indirect tax regulation to foster the economic growth in India. This study uses the Research based Theory to examine the GSI require for the application of the Central Government has been taking various steps towards the implementation of the country's most ambitious indirect tax reforms of Goods and Services Tax (GST) approach helps in understanding the Tax structure which impact on Indian economics as well as budget deficit. This paper uniquely combines the theories and practical approach for implementation of GST it provides a four-tier GST tax structure and new tax regime. The study conducted on effect of Tax payer in India. A research frame work / model is proposed that can be understand the relationship; between GSTN and Process to collaborate on a single porter. Author has used migration process for the study. This paper examine those on various GST procedure for step by step by guide to existing tax prayer for migration process to use IT strategically. Finally, this paper provide a an approach to arrive at GST structure if implement it should be uniform (single) rate of tax and rate should be very low. This research for investigation consists of several factors relating to implementation of GST in India., This is exploratory study conducted on GST implement in India for revolutionary indirect tax system between Central Excise, Vat , service tax etc. and proposed GST and the growth GDP in Indian economy .

Keywords: Goods and Service Tax (GST), Migration Process (MP), Goods and Service Tax Network (GSTN).

1. INTRODUCTION**Goods & Service Tax (GST)**

GST is a proposed system of indirect tax in India emerging most of existing taxes into single system of taxation. It was introduced as the constitution (one hundred

and first amendment) Act. 2016. The GST is governed by the GST council and is chairman is union Finance Minister of India, Mr. Arun Jaitley. GST is a comprehensive indirect Tax of manufacturing, Sales and consumption of goods and services through India to replace taxes levied by the central and State Government. This method allows GST registered business to claim Tax credit to the value of GST they paid on purchased of goods and service as part of their normal commercial activity. Administrative responsibility would generally rest with single authority. Tax on goods and service export would be considered as zero rated supply and imports would be levied the same tax as domestic goods and service and hearing to the destination principle in addition to the customs duty will be not subsumed in GST. Introduction of goods an service tax (GST) is a significant step in reform of indirect taxation in India. Amalgamating several central and state taxes into a single tax would irrigate cascading or double taxation . Facilitating a common national market. The simplicity of the tax should lead to easier administration and enforcement . Forms the consumer point of view, the biggest advantage would be terms of a reduction in the over all tax burden on goods, which is currently estimated at 25% - 30% free movement of goods from one state to another without stopping a state border for hours for payment of state tax or entry tax and reduction if paper work to a large extent.

GST is expected to be applicable form 1st July 2017 .

HISTORY

The reform process is indirect tax regime of India was stated in 1986 by Viswanath Pratap Singh by introduction modify value adder tax (MODVAT). Goods and Services Tax (GST) will subsume various indirect taxes including Central Excise Duty, Service Tax, Addition Customs duty, Surcharges state level value added tax Ocotrol and other levies which are currently applicable and inter-state transportation of Goods are also likely to be done away with a GST regime.

EFFECT OF GST

The Tax rate under GST may be nominal or Zero rated for the time being. It has been propose to insulate the revenue the state form the impact of GST with expectation that in due course. GST will be levied on petroleum and petroleum product. The Central Government has assured state of compensation for any revenue losses incurred by them from the date of introduction of GST for the period of five years.

LEGISLATION

GST will be governed by 3 Central Laws and 29 State Laws. 4 Central Law listed below received assent from the President on 12th April 2017.

1. Central Goods and Services Tax Act, 2017
2. Integrated Goods and Services Tax Act, 2017
3. Union Territory Goods and Services Act, 2017

The State Government will need to pass SGST (State Goods and Services Act) in their respective state assemblies. An India is a Federal Republic GST would be implemented concurrently by the Central Government A21- number select committee was formed to look into the proposed GST Laws.

CHANGING SECTION

Section 9 is the changing sections for CGST (Central Goods and Services Tax), which gives Power to Central Government to levy tax on intra State taxable supply.

NON APPLICABILITY OF GST

There will not GST on the Sale and Purchase of Securities. That will be continue to be Governed by Security Transaction Tax (STT).

GSTN

Good and Service Tax Network (GSTN) is a non profit organization formed to create a platform for all the concerned parties in shakes holder Government Tax payers to collaborate on a single portal. The portal will be accessible to the Central Government which will track down every transaction on it end. While the tax payer will be having a vast served to return file their taxes and maintain the details. The IT network will be developed by private firm which are being in tie-up with the Central Government and will be having stakes accordingly. The known authorized capital of GSTN is Rs. 10 crores (US dollar 1.5 million) in which Central Government holds 24.5 percent of shares which the State Government hold 24.5% and rest will be Private Banking Firms.

MIGRATION OF THE EXISTING TAX PAYERS TO GST REGIMES.

All the existing Tax payer registered under VAT service Tax and Excise are required to furnish the octories at GST portal for the purpose of migrating themselves into GSI regimes. To being with the tax payers registered under state VAT department need to provide their details and period for furnishing there details or specified enrolment process for other existing tax payers not registered with vat will be started as a later date. As the migration process has peaked up in a various states, the first steps is to enroll within the structure on a specified date assigned to each and every state the business were must enroll themselves within the time period in order to get listed the GST framework. The IT platform created by the Goods and Services Tax Network (GSTN) will be securing all the details filed up and with create unique IDs in the name of every dealer enrolled. This will help the tax department to figure out every business unit and can create a different login mark along with calculation of annual return accumulated on the particulars business unit. The Government announced specified dates for each state to enroll all it designed dealer within it and wanted them to furnish the details within a required specified time period. The dealer will be getting provisional IDs after the enrollment and by the help of which one can login into the GST portal. The enrollment dates are specified by the Govt. for each State separately and administration demanded every state must enroll themselves with the given specified time. The enrollment process was started from 8th November 2016 and end dates as per the schedule is fixed 31st March 2017. States commencing for the enrollment process were Sikkim, Pondicherry on 8th November 2016 while last state to enroll was Delhi which was enrolled from 16th December, 2016.

2. PROBLEMS OF RESEARCH STUDY

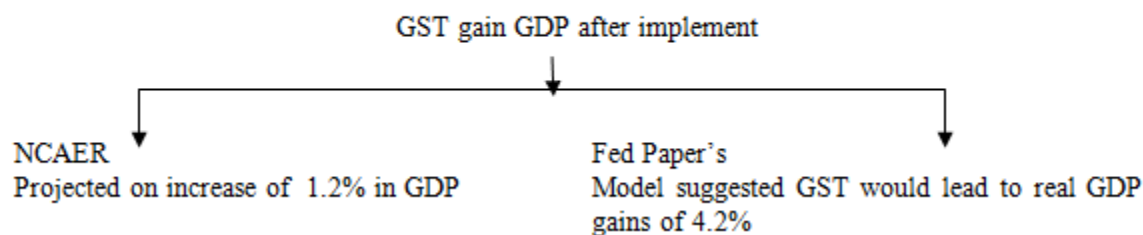
In any welfare state, it is the prime responsibility of the Government to fulfill the increasing developmental needs of the country and its people by way of Public expenditure. India being a developing economy, has been striving to fulfill the obligation of a welfare state with the limited resources. The government's primary sources of revenue are direct and indirect taxes. Central excise duty on the goods manufactured, produced in India and customs duties on imported goods constitute the two major sources of indirect taxes in India. However, revenue receipts from Customs and Excise have been declining due to World Trade Commitment and rationalization of commodity duties. On the other hand service sector has been growing phenomenally all over the world, though if may vary in degree and magnified among the various countries. The growing importance of this sector can be gauged from the ever increasing contribution made by the Service sector to GDP, thereby pushing back the contribution of traditional contributors like agriculture and manufacturing sectors. India is also

not an exception to this changed phenomenon. In 2002 the Service Sector accounted for 49.2% of GDP while agriculture accounted of 25% and industry 25.8% of GDP continued growth in GDP accompanied by high rate of growth in Service Sector premises new and wider avenues of taxation to the Government. In present day context Services are so wide spread and encompass almost all activities like. Management, Banking, Insurance, Hospitality, Administration, Communication, Entertainment, Travel, Wholesale distribution, Retailing, Reservoir and Development Activities, Other Professional Services Sector etc. Service sector is now occupying the centre stage of the economy. So much so that in the contemporary world development of service sector has become synonymous with the advancement of the economy. Economists believe that with the phenomenal development of the service sector, the exclusion of the service sector from indirect taxation leads not only to the loss of considerable potential revenue, but also, creates distortion in allocation of resources, the distortion arises because consumer starts making the choice between the consumption of goods and services. Hence, the government's argument was that substantial revenue should come from their service sector and the tax on goods (excise duty) should be complemented with the tax on services. If the tax on services reduces the degree of intensity of taxation on manufacturing and trade without forcing the Government to compromise on the revenue needs, it will enable better pricing of its products by the manufacturing sector in the Global market. Although the majority of the people in India wait eagerly of the direct Tax reforms it each and every financial budget, it is the indirect taxes which are the major sources of the financial to the centre Exchequer. On an average out of total tax revenue (Central Government and State Government combined) the contribution of the direct taxes to total tax revenue is approximately 26.55 % and the proportion of indirect taxes to total tax is around 74.45% since 1980. Since the indirect taxation in the prime source of tax revenue it must be effectively implemented and reformed from time to time to finance the public expenditure. On such major indirect tax reform would be the implementation of Goods and Services Tax (GST) in India. It is a much awaited indirect tax revolution to foster economic growth in India. Perhaps it is one of the most logical and pragmatic steps that can be taken at. This juncture of economic to rationalize the indirect taxation in India (Iqbal, 2016). The need to implement the GST in India can be traced back to the recommendation of the harmonized tax regime by the Dr. Raja J Chelliah Committee in 1992. GST is an integrated and comprehensive indirect tax on the production / delivery of goods and services and the Sales and purchase of the same. Because of the existence of the fiscal federalism among the Centre and State in India complete elimination of the cascading effect of tax could never be done, say for example The Central Sales Tax is not allowed as Credit from the State level value added Tax as a result of that the cost of products and services goes up fuelling the inflation and also makes our goods a service less competitive in the International Market. Thus need of the hour is to have a single indirect tax system, which will be applicable to goods and services. GST is the answer to these pressing question. In the GST regime a single indirect tax will be prevail, which will be subsume almost all the existing indirect taxes such as Excise Duty, Vat, CST, etc and therefore, irrespective of the manufacture, delivery, Sales and Purchase of goods and services. GST will be charged and the input GST which has already been paid will be allowed as deduction creating an era of no cascading effect of tax. One of the most interesting feature of the GST is that it does not discriminates between goods and services unlike the present indirect Tax Structure were on the manufacture of goods excise is charged while on sale and purchase, VAT or CST is levied. Where as the provision of service only attracts service tax (Bhowmick, 2016). In India context in order to maintain the very essence of the federal structures between the Centre and State the GST will be levied by both the Centre the State which will comprise Central GST, State GST, Integrate GST.

3. REVIEW OF LITERATURE

The present study is Centered on several other studies, some of them have shed light on implementation of GST usefulness of GST etc. comparative study between existing indirect tax and GST. A number of studies have been conducted in India and abroad elaborating conceptualizing discussing and debating the nature of GST its framework, applicability, methodologies implement issues of the economy etc. Some of the notable study on GST are conducted by Chrisholm et al (1990), Ruggeri and bluck (1990), pope (2001), Valadhani (2005), Dickson & white (2008), Vasanthagopal (2011), Garg (2014), Bhowmick (2016). In a different line Ishak et. Al. (2015) studies the perception of the student towards the newly implemented GST in the context of Malayasia which revealed that majority of the student opined that the GST was implemented in their country in a wrong way. However, there is a scanty of literature, which has tried to enquire into the opinion of the tax professionals about the GST to be implemented in India. Since it will be implemented in India in recent time thus it is pertinent to assess the preparedness among the tax professionals about the GST, the perception of the tax professional about the impact of the GST in India and the reasons of non- implementation of GST so for in India.

IFDP MODEL SAYS THAT FPOTGENTIAL GAIN TO GDP



This Fed paper model the GST to boost GDP by 4.2% has been given a research note sees gain of Rs. 6.5 lakh crore, a sum greater than the centre annual borrowing. India's change over to the goods and services tax (GST) has resonated with the FED,. A research paper at the Central Bank recons that the biggest indirect tax reforms since independence could enhance the country **Gross Domestic Products (GDP)** by upto 4.2% or 6.5 lakh Crores. The Fed series of International Financial Discussion Papers (IFDP) says that potential gains that one o the most bullish growth estimates on the reform measure to date- will under pinned by a serge in manufacturing output, something New Delhi has been trying to achieve for a while. An estimated by economics think tank NCAER had earlier projected and increase of 1.2% in GDP after GST is implemented. This paper said that the GST is expected to raise overall Indian Welfare and is projected to be an inclusive policy in that it would welfare improving for all Indian States. The model suggested that the GST would lead to real GDP gains of 4.2% under the baseline assumption, driven by a surge in factory production. Growth is also driven by an increase in both domestic and International trade. The GST is also expected to increase international competitiveness of Indian Firms helping expand external trade by 32% as a first order effect the GST lowers international trade barriers in this analysis which improves internal trade by 29% According to the paper authored by Evavan Leemput and Ellen A Wiencek and Published on March27, 2017. To be sure, the authors sounded a note of caution on placing goods in the higher tiers of taxation. The authors also find that the distribution of goods across tax rate matter for the growth outlook. As more good move to upper tier the real GDP and manufacturing output gains would be dampened, said the Paper. The rise in internal and external trade is expected to be carried by a sure in manufacturing production of 14%, said the paper. IFPD notes are article in which Fed Board economist offer their own views and present analysis on a range of topics in economic and finance. In the just concluded Budged sessions, Indian law makers passed the crucial GST legislation paving the deck of state assemblies to take up the relevant bills.

4. OBJECTIVES OF THE STUDY

The Current Study is undertaken the following objectives :

1. To evaluation the implementation of GST on India Economy.
2. To identify the reasons of non-implementation of GST in India .
3. To steps yet to be taken for implementation of GST in India to finalized a consumer friendly Regime making.
4. To study all problems associated with governance in case of implementation of GST.
5. To study the impressions if professional tax consultant about the effect on implementation of GST in India.
6. To study the further improvement of GDP in Indian economy if implementation of GST.
7. To study the Research frame work / models for further development of GST implementation by GST council..
8. To study the computers to assist tax prayers in migration process and others contribution for smooth implementation of GST.

5. APPLICATION FOR THE TEST OF HYPOTHESIS RELATING TO IMPLEMENTATION OF GST IN INDIA.

Hypothesis will be applicable for the use of t-test.

H_0 (Null hypothesis –

- There is no significant different of revenues has been collected or GDP has been measure by the Government relating to indirect taxes (i.e. existing excise tax VAT s, service tax etc.) and revenue yet to be collected or GDP yet to be measure. If GST implemented.

H₁ (alternative hypothesis)

- There is significant different of revenues has been collected or GDP has been measure by the Government relating to indirect taxes (i.e. existing excise tax VATs, service tax etc.) and revenue yet to be collected or GDP yet to be measure. If GST implemented.

6. DATA AND PROPOSED RESEARCH METHODOLOGY

The present study is predominantly analytical in a nature. For the purpose of the study or secondary data was collected from the various agencies in India for the purpose of this study the tax professional such as CAs, CMs and Tax lawyers practicing comments are very essential for carry out research work on GST in India. Using a sampling technique of data collected from various agencies relating to GST in India. For the purpose of this study there was an attempt to determine the GST literacy (GST awareness program) among the tax professional for the purpose of this several factors have been considered about awareness of GST including in the questionnaire which was collected from the frequently asked questions present on the official website of the Ministry of Finance, government of India. The study has been designed on the basis of the following factors.

- i) Perception about of GST
- ii) Impact of GST in the Indian's economy
- iii) Reason of non-implement of the GST
- iv) Steps yet to be taken for implement of the GST
- v) Finalized a consume friendly tax regime making.

The secondary data collected has been analysis by using simple statistical technique frequency distributions chart measure of Central tendency measure of Central Dispersion, t-testing to active the objective of study.

COLLECTION NATURE AND ANALYSIS

The date for the study will be derived from the secondary sources. The secondary sources including internet, ICAI contribution for smooth implement of GST.

- a) Study of Delhi Government
- b) ICAI has knowledge partner at programme on GST.
- c) Live webcast (www.idtc.icai.org)
- d) New publication on GST.
- e) Articles, Magazine, Newspaper, Journal etc
- f) News publication on GST.

For the presentation of analysis of data software like MS-Excel, SPSS and E-view will be used.

7. CENTRAL GOVERNMENTS STEPS TOWARDS THE IMPLEMENTATION OF GST.

The Central Government has been taking various steps towards our implementation of the country's most ambitions indirect tax reform of Good and Services Tax (GST) which is expected to roll out from 1st July 2017. The GST Council chaired by various Finance Minister Sri Arun Jaitley is meeting regularly to clear upon various cases related to GST implementation in India.

Few outcomes of the regular GST outings are as follows:

1) APPROVAL OF DRAFTS GST LAWS

At the 1st GST Council meeting held on 3rd and 4th March, 2017, at Delhi the Council approach the draft CGST Bill IGST Bill & compensation to States Law and vetted by the Law vior. Further GST Council at its 12 p.m. meeting held on 16th March 2017 approved the draft state goods and service Tax (SGST) Bill and Union Territory Goods and Services Tax (UTGST) Bill which clear bill way for the Central Government / State Government to take up these Bills to be Parliament / legislative assembly for passage. Also there are 9 drafts Rules to be read with the GST Law of which the GST Council has already approved Registration, Payment, Reforms, Returns and Invoice Rules. Therefore other rules viz composition, valuation Input Tax credit and out and Transition Rules will be taken up for approved in the next GST Council Meeting Schedule on 31st March 2017.

2) DUAL CONTROL & ASSESSMENT

On the dual control it has been decided that

- a) First Option

Assessee	Turn over upto	Assess by
90%	Rs. 1.50 crore	state
10%	Rs. 1.5 crore	Centre

b) Second Option

Assessee	Turn over Above	Assess by
50%	Rs. 1.50 crore	state
50%	Rs. 1.5 crore	Centre

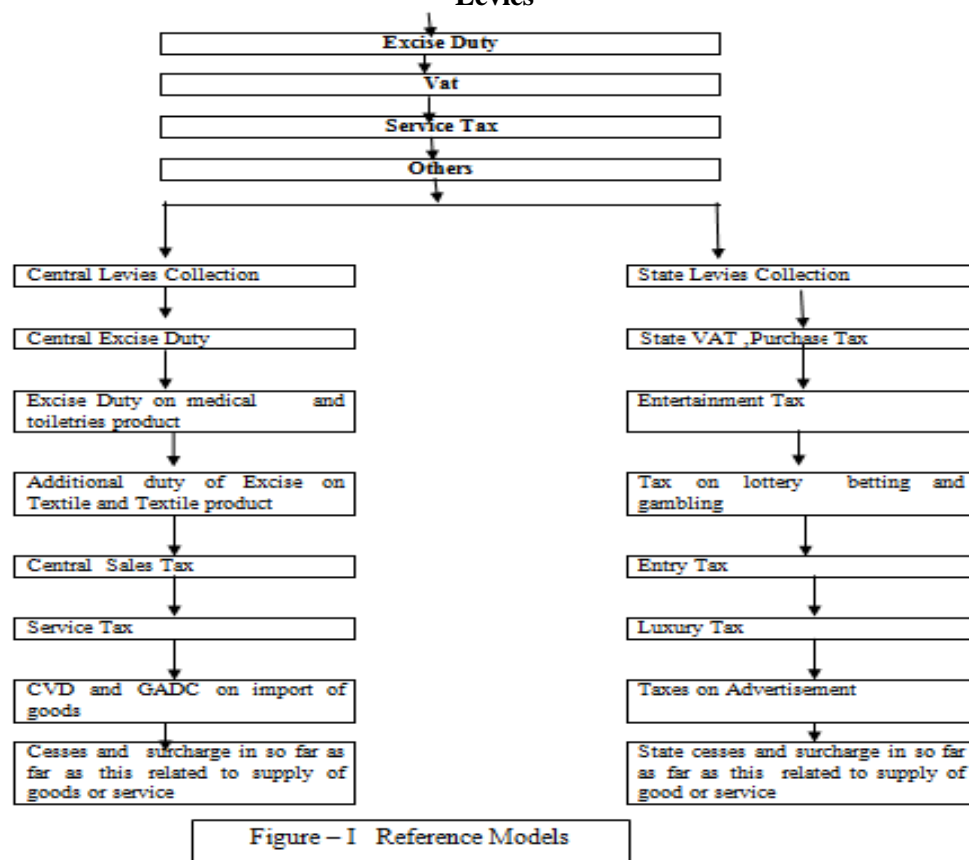
3) THRESHOLD EXEMPTION LIMIT.

GST council decided that the basic threshold exemption limit may be up hold at Rs. 10 lacs for special category state and Rs. 20 lacs for all other state.

4) Research Framework

Indirect tax structure has been imposed various way i.e. Central excise tax, VAT, service Tax the following model has been present by levies imposed by Central and states in figure 1 reference models. The GST council change over into a single system of Taxation (GS) through CGST and SGST At present modified model for research framework.

GST seeks to replace central tax including central excise service tax and cesses along with states taxes including VAT, Purchase Tax and entertainment tax (i.e. fig. 1 reference model) by a single levy that creating a certify unify National Market. Fig. 2 modify model. Moreover industry will be for scramblers input tax credit that should also drive down price as tax embedding through imposition of tax on tax inflate the final price of product.

Research Frame Work**Indirect Tax Structure (Existing Tax Structure) Collection under different heading of Centre and State Levies**

(Base on reference of above Existing Tax structure of Centre Govt. & State Govt.)
Reference Model prepared by Author

By slashing cost and boosting efficiency, GST will result in GDP growth getting a 1.2% point lift, according to experts the final should be based on effective tax rate to lower tax burden on consumer, the study observed. Study say most consumer product excise duty is applied on MRP less abatement of 30-35%. So if MRP is 100

effective Excise duty work out to 8-9%. When added a standard VAT of around 13% is effective work out to 21-22%. One would hope that most of those product which include most FMCG and consumer durables would be subject to 18%, GST and not 28%. It most it would be increase the tax burden on consumer and intended benefit of GST in term of lower price and increased manufacturing would be difficulties realize.

Research Frame Work indirect tax structure consolidated and converted into single system tax of GST under two areas centre GST (CGST) and state GST (SGST)

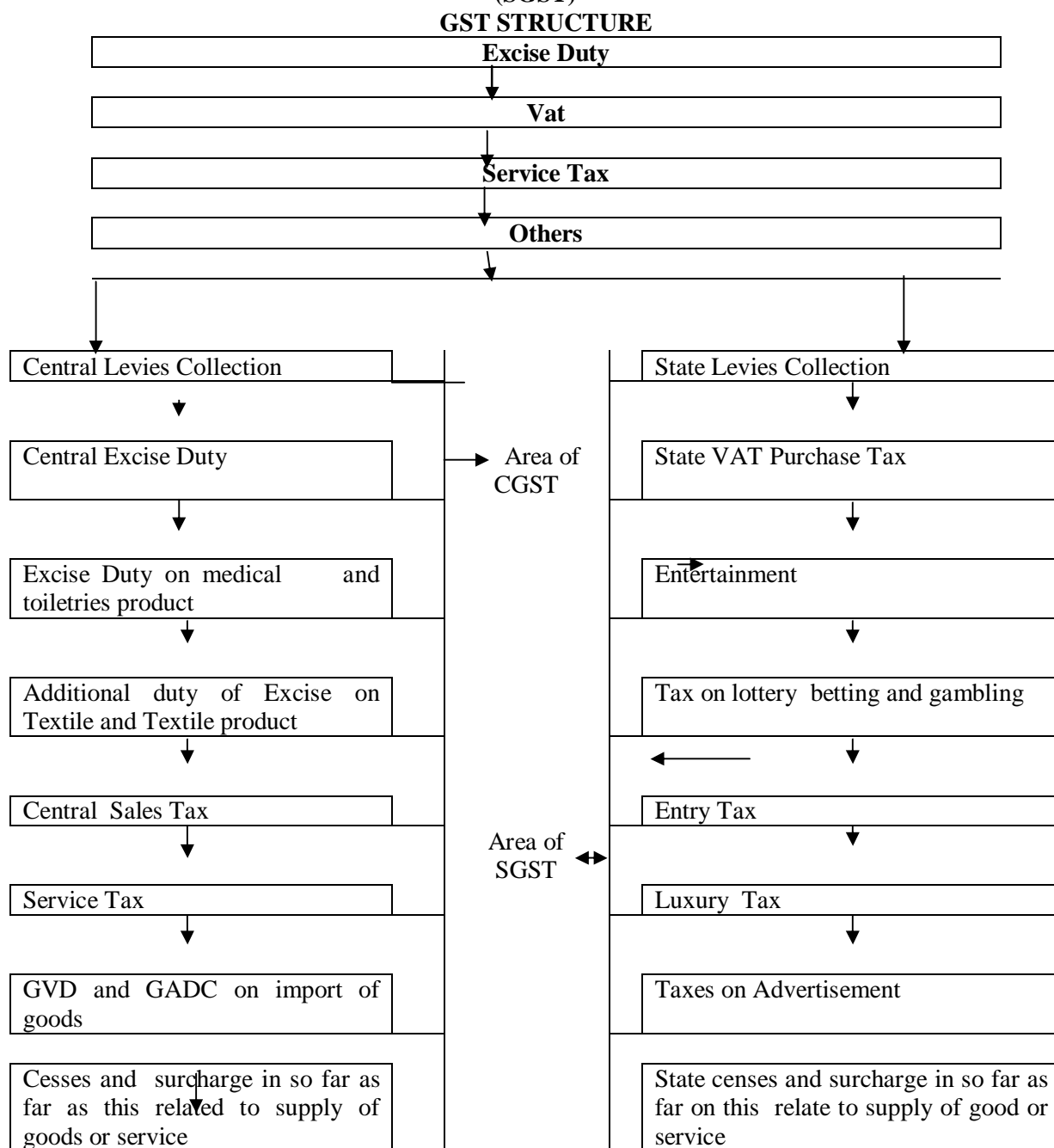


Figure – 2 Modify Model (A consolidated and converted into single system tax of GST)
(After Developed the reference Model) (Modify model prepared by Author)

5. RESEARCH MODEL

Research models present the various tax structure of the Figure 3 and 4 as below:

a) For-tier GST Tax structure Research Model.

Moving swiftly on the road to formulizing the biggest reform of the indirect tax regime. GST Council decided a four-tier GST Tax structure by 5%, 12%, 18% and 28% with zero rate for essential items and the highest for luxury and re-merit goods (figure 3 research model) which are also expected to attract an additional cess. Figure 4 research model. GST Council on 16h March 2017 has also approved the higher Tax rate of 20% under

the CGST Bill and SGST Bill. Meaning thereby that the peak rate of GST could be raised up to 40% in aggregate in future. Another rate of zero percent is decided to cover the essential items including food, which presently constitute roughly half of the consumer inflation (bracket). A number of goods such as cosmetic, saving cream, shampoo, Tooth paste, soap, plastic paint and some consumer durable could become cheaper under the proposed GST reasons as most like to be subject the medium slab on 18% rather than the higher one of 28%. Indian is likely to reply on the effective tax rate currently applicable on a commodity to get a fix on the GST slab. Allowing most goods to make it to the lower bracket. For instance, if an item comes within the 12% excise slab but the effective rate is 8% due to abatement, then the latter will be considered for GST fitment. Going by this formulation about 70% of all goods could fall on the 18% bracket. Luxury Car, Tobacco, Pan Masala and aerated drinks would also be lived with additional cess on top of the highest tax rate. The interest of the common man has been duly taken care of which is evident on finalization of 5% tax rate on common use items as against 6% proposed earlier. However, no clarity has been proposed by GST Council regarding the expected GST rate for jewelry. The Government is keen to avoid price shocks following the switchover to GST and the fitment exercise will be guided by this principle. The GST legislation contains anti-profiteering provisions to ensure that industry passes on tax benefit to consumer by lowering price where applicable.

Research Model Four-tier GST Structure Model

Item	Rate of Tax	Remarks
Essential item including food	0%	
Common use of Item	5%	Proposed 6% in earlier
Items under excise slab	12%	Effective rate if 8%
A number of goods such as cosmetics, Saving Cream, Shampoo, Toothpaste, soap, plastic paint and some consumer durable goods	18%	
Other luxury items	28%	Additional cess.
Highest cost luxury and de-merit goods aggregating rate (20% for CGST & 20% for SGST)	40%	Additional cess.
Jewelry items	No	No cleared rate provided by GST Council

Figure 3 : Research model

[Research model prepared by author.]

NEW TAX REGIME MODEL	
Maximum cess imposed by GST Council	Maximum Cess
Luxury cess station wagon and racing car	15%
Aerated drinks water	15%
Pan Masala	135%
Tobacco and Cigarettes'	290% or 4170 / 1000 sticks or a combination
Coal and lignite	400/- / Ton
All other suppliers	15%

Figure-4: Research Model – (Addition) – Maximum cess imposed on GST by GST Council)

Above Model prepared by Author

NEW TAX REGIME

The study based on research model figure 4. The excise the following Levy on GST. GST Council on 16th March 2017 agreed on fixing ceiling on Cess (fig 4 – Research Model) that would be imposed under the new tax regime to fund compensation to States for any revenue loss with luxury car soft drinks and mineral water facing upto 15% levy on top of the 28% GST rate. The council has opted to levy cess on five category of products which shown at figure 4. To create a fund with corpus of around Rs. 50,000/- crore for meeting a potential liability. The council has however kept the option of adding more item to be list later. While the exact cess would be decided by the GST Council when the rate are finalized. The State and The Centre had given themselves head room for the levy. The council will decide the exact levy. This means at this stage it would be difficult to assess which products would become expensive or cheap. The cess would be applicable for five

years, the period for which the centre has committed to compensate the states for potential revenue losses. This period can be extended by the GST Council. At the same time all other cesses would be subsumed in to GST.

8. ANALYSIS AND FINDING OF THE RESEARCH STUDY ON GST

The factors have been considered on the basis of the evolution of Tax Professionals / consultants. Study in the purpose in Total areas of Kolkata.

1. PERCEPTION ABOUT GST

Evaluate the perception of the Tax Professional / Consultants studies this purpose.

- a) GST system is not as good as VAT / CST system.
- b) There is no difference between VAT / CST system and GST
- c) The revenue share of State Government will be reduced due to implementation of GST.
- d) Business community wants GST to be implemented as soon as possible.
- e) It is very difficult to implement GST in India
- f) GST if implemented should have a 'Uniform' (single) rate of tax
- g) GST rate should be low.

The majority tax professional believe the following commence of this study.

- a) Lack of awareness about GST system
- b) Most of business house want GST to be implemented as soon as possible but it would be tedious task..
- c) GST rate should be a uniform and rational one (not very low)
- d) Government has adequate funds to finance the public expenditure.
- e) No comment has made regarding the state Government loose the revenue due to implementation of GST In India.

2. IMPACT OF GST

Evaluate the impact of the GST by the tax professional / Consultant.

- a) GST implementation will boost the shares / stock market.
- b) GST will have positive effect the economic growth of India.
- c) GST will help to reduce leakage black money problem in India.
- d) GST will increase the inflation rate.
- e) FII & FDI will be increase in GST implemented in India.

Majority of Tax professional no comment about possible implementation of the GST in Indian Economy. Majority respondent remain neutral whether the GST will increase the inflationary situation in our country and whether the GST system is concrete, enough to reduce the tax leakage and creation of black money in economy. Most of the tax professional strongly agreed on the point. That if GST implemented in India will have significant positive impact on foreign fund flow in the form of FDI and FII which in turn will have notable favourable implication toward the Indian stock markets. Over all assessment most of the tax professional believed that introduction and effective implementation of GST will possible better performance in economic growth and development in India.

3. REASONS OF NON IMPLEMENTATION OF GST IN INDIA

Evaluate the reason of non implementation of GST in India, of Tax Professional / Consultant.

- a) Different State Government are reluctant to implement GST in the fear of Loss of share of Tax revenue.
- b) GST is not implemented because it is definitely a complex system.
- c) Central Government failed to convince the opposition party and state to pass the GST bill.
- d) Big Business house in India do not want GST to be implemented in India.

The majority of tax professional / consultant agreed it not a very complex system due to migration process and portal available and GST implementation due to fail proper steps due to failure of the earlier and present

government to convince the political party more specifically the political unwillingness of the party sitting at the opposition. Another prime reasons accepted by Tax professional / consultants that the different state Government are not satisfied about the share of tax revenue and they believe the fiscal federalism will be affected to implementation of GST in India but GST Council has arranged the compensation fund for the same. The tax consultant recommended the range as follows

- 1 – 9% or 10- 20% or 16 0 20% or above 20%.

9. CONCLUSION

The introduction of GST in the country will be bring about benefits to all the shake holder. The study revealed that GST is a better indirect taxation system as per research model which has provided by the GST Council for four-tier tax station and new tax regime which will is no way going to affect the revenue share of the States most of the business house want and strongly urged GST to be implemented as soon as possible and it may be multiple benefits to our economy by positively affecting the economic growth, share market, international market etc. But in most of the reason identified that fell to implementation of GST is difficult in India due to the political unwillingness. It is very true that citizen of our country would be getting benefit of lower and price of all goods and service and finally Indian goods and service would be most competitive in the international market which will contribution to the growth of Indian economy. GST regime will be definitely help in providing a common national market in India. GST is not new concept in the World. In 1954 France, for the very first time, introduce GST in their economy and since them 160 countries of the world have GST. India (Venkat , 2016). It is a great lacuna on the part of the country that till to date we have not been able to implemented GST in our country. The mechanism of GST will overcome all those problems as there will be uniform structure all the India in the new tax regime which will also help India to improve its rank in the international level.

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SENSORY BRANDING – CUSTOMERS SUBCONSCIOUS TRIGGER

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ABSTRACT

Purpose – This study aims at how sensory branding has an impact on customer's inclination towards specific products and how consumer perceptions of abstract notions about the product have changed over time.

Design/methodology/approach –The study is built on primary and secondary data sources, including personal interviews which were administered to the customers.

Findings – The findings proclaim that it is not a tangible thing that can affect a shopper's experience but it those traits such as smell, sight, sound, taste, touch which is present in all the customers to establish emotional connections between consumers and their products.

Research limitations/implications – This research is concerned with small group of customers. This research might be tested in other context taking longitudinal research settings.

Practical implications –This research provide opportunities for the marketing managers to identify the psychological linkages in differentiating distinguishing its product in the customers mind. It aims to seduce the consumer by using senses to influence feelings and behavior that are strongly linked to customer's memories and emotions.

Originality/value – The paper contributes the identification of sensory touch points that helps the managers to understand the shoppers to rethink the new ways of improving marketing tools.

Keywords: Sensory Branding, Preconceived notion, Multi-sensory brand.

INTRODUCTION

Marketing is redesigning itself as a discipline in existing society and drawing on to the conceptual events of the past in order to create a renewed focus on customers with human senses and brands as images. People often don't say what they mean. Consumers every time behaves in a different manner practically, which is very different from the theoretical concepts and thus it affect their purchasing behaviour. Thus the main focus of the marketer has been shifted from targeting the audience to retaining the consumers. The concept of sensory marketing is not very new but nowadays companies knowingly or unknowingly manipulate the sensory attributes of the consumers through their product. Marketer takes advantage of the human mind and tries to fool consumers. But it is not easy to do so, because consumers are much aware about what they are spending on. Most of the consumers use the products based on feelings, mental image and emotions that products make on them. Branding is a process of creating a unique image or name or logo or symbol or combination of any of these for a specific product in consumer's mind which differentiates it from competitor's products. It is the perceived emotional image of a company and is effective way for communication between two the buyers and sellers. Branding is a bit complicated but it represents the corporate image. Thus sensory branding is solution to such problems as it is a combination of neuroscience with brand management and marketing. Human senses experiences and emotions of consumers are emerging as important paradigm and an alternative main phenomenon (Achrol and Kotler, 2010). It collaborates with the brain human neurophysiology and psychology cognitive sense. Sensory branding is phenomenon where marketers aims to create the competence of the products with their design and packaging and then to valorize them in a commercial sense to make them attractive. Brands are struggling to compete in today's crowded marketplace; tactical use of sensory information can provide a critical advantage to the companies. Sensory marketing strategy appeal to multiple senses, efforts is multiplied creating powerful brands with lasting consumers connections. Sensory branding has been one of the most important marketing tools used by the top companies like Apple, Starbucks, SpiceJet airline etc. Sensory experience of the brands helps to create brand loyalty and increase sales revenues of the companies. Such phenomenon helps the companies to differentiate their brands from other competitors. According to Marc Gobe, author of the book "Emotional Branding" said that every brand should contain subliminal codes that trigger the perception of positive elements to human mind which leads to positive buying behaviour. To promote a lasting touching tie linking attitude from the consumers end the brand should use sensory branding I

for a rationale plan and operation of interface between the senses. According to Lindstrom by using all the five senses “a total sensory experience would at least double, if not triple the consumer’s ability to memorize the brand”. Sensory branding has a great impact on many companies as we have cited the examples earlier the airline industry also engage themselves into such doings such that all the five sensory branding features get mixed with characteristics of the consumers.

SpiceJet airlines have introduced its new brand look and slogan, ‘Red. Hot Spicy’. The new slogan has being designed to touch upon the sight of the consumers. The first thing the founder of SpiceJet Ajay Singh who has faced downswings mentioned in one of his interview that a near bankrupt SpiceJet ceased operations till 1600 hours. The company has faced a near-death experience. Now it has recovered themselves from such tough times and ensures registered profits for all four ensuing quarters with cumulative profits of ₹ 356 core. Share prices have surged 178 per cent to ₹67.40 since September 1, 2015. "Spice Jet has no debt today," says Ajay Singh who is now once again its chairman. Once again taking over in charge of the airline again was to get the basics of the airline right – ensure that flights are taking off and interfaces like websites, counters at airport are working. They have developed a Spice Jet Mobile App which allows the customers to book tickets, get real-time flight status, manage their bookings (change, cancel, refund), and add optional products such as meals, and advance seat selection, and access exclusive offers and privileges, all from a simple user-friendly interface. The new-look logo reproduces today’s mobile-based world through a 3D “app icon” brand icon that modernizes the long standing SpiceJet “digital dots” logo and integrates it with the mobile app icon look. The red swatch on the layouts projects the bold and spicy avatar of the brand, and the models used in the new campaign remain SpiceJet’s own crew and staff, who indelibly link the new image and brand to the airline it stands for.

Sensory features of consumers such as tasting, hearing, smelling, touching and seeing a product plays an important role in consumers understanding. These senses are image of consumer’s daily lives and by using them we satisfy our needs and desires. Following such senses are discussed below how it has an effect in creating sensory branding:

➤ SIGHT IN SENSORY BRANDING

Sight is the strongest sense used in marketing. It is considered to be the most impactful senses of all Marketing senses. Most of the commercial and shopping communication is done through this sense. The factors such as logos, colors package design and attractive shape/size is designed in such a way to create a desired impact about the product in consumers mind as stated by Hulten et.al.(2012).

➤ SMELL IN SENSORY BRANDING

The sense of smell involves 45% of the communication with brand (Kotler and Lindstrom,2005). As the sense of smell are very close to consumers emotions and has a great influence on consumer behaviour. Smell and odour has an impact on perception of product quality and environment. Increasing attention by using the odour allows the seller to look in the competitive environment.

➤ HEARING IN SENSORY BRANDING

The sound has been the significant tool for catering to the unconscious needs of the customers. Sound creates an impact in the consumers mind both positively and negatively. Hearing share in related to brand building is 41% (Kotler and Lindstrom, 2005).

➤ TOUCHING IN SENSORY BRANDING

Touch is one of the largest sensory organ of the body which has a physical contact with the skin creates an imprint in consumers mind. Touching is such a feature that only creates an impact for tangible products. Touching sense associated with brand building is only 25% share (Kotler and Lindstrom,2005) . Weight shape material specific quality experience can enhance the consumers loyalty. As consumers cannot judge only by seeing the product it can judge the best by touching it.

➤ TASTE IN SENSORY BRANDING

The sense of taste is highly effective but it is hard to introduce. In the market where there is fierce competition among the marketers of the food products a good taste can influence the consumers in effective way. As stated by (Kotler and Lindstrom,2005) the flavours associated with brand building has 31% share. It is difficult for the restaurants owners to and marketing experts to capture the market without triggering to this need of the consumers

OBJECTIVES

1. To analyze the impact of sensory branding on customers with respect to SpiceJet airline in India.
2. To highlight the most effective factors of sensory branding which affect the customer behaviour.

LITERATURE REVIEW

Ellen and Bone (1998) has stated that customers spend less time in a noisy environment rather it liked to spend more time in an environment where there is slow and rhythmic music. Customers always want an employee friendly environment where the appearance and attire of employees is pleasant .Store employees can also influence the original decision and views of the customers. Aggleton & Waskett (1999) states that to trigger the need of the customer the brands has to get connected to the customers and smell is one of the most powerful for creating association with the brand and evoking memories. Researches have shown that that ambience has a positive effect on store and product evaluation. Lindstrom,M.(2005) in his study has stated that there is a correlation between the number of senses the brands appears to and the price. Trade Dress is a term that was introduced by him which explains how brands get united with the sound taste, shape and smell of a product. The more senses the brand can appeal to the better is the brand in attracting the customers. Hulten^{et.al}, (2009) focuses on advertisements color design lighting logo packaging and other stimuli that will enhance the features of the products and differentiate the product from other competitors and enhance brand loyalty. Globe,M.(2010) explains that emotional branding perceives as an central element within marketing practices that helps brand to build strong emotional relationship with the customers and intended to capture strong brand resonation. Further he wanted to find out the influence of emotional branding on customer engagement on final purchase decision. Perk & Childers(2010) states that individuals have different varieties of motivation to touch upon those can be product attributes that support touch and well situation attributes that support touch over the product. Elangovan & Padma(2017) believed that there is a stiff completion among the different brand houses in terms of price advertisements offer value etc. Retaining in such a competitive market is difficult. It is more expensive to bring new customers so marketers use different tactics to retain old customers. The paper focuses on how to present multi-sensory marketing techniques in order to reach the customers mind taking the help of restaurants as example.

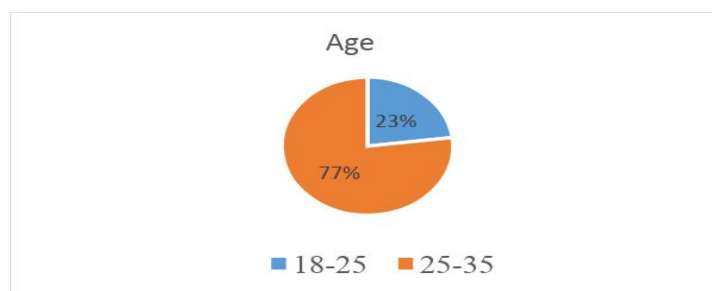
RESEARCH METHODOLOGY

This research tries to find out the impact of sensory branding among the consumers. The research is based both on primary and secondary data. Primary data was collected through structured questionnaire from 156 respondents through convenience sampling catering to the area of Kolkata only. The respondents were requested to fill the research instrument on voluntary basis. For secondary data journals articles and books were referred.

ANALYSIS

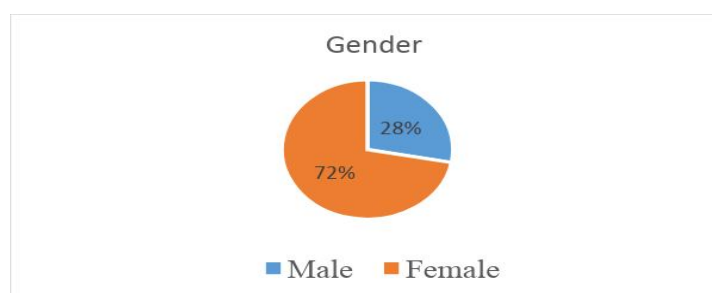
This part provides empirical findings that I have gathered data for my study through questionnaires. The analysis after reviewing the questionnaire is explained below:

❖ Age



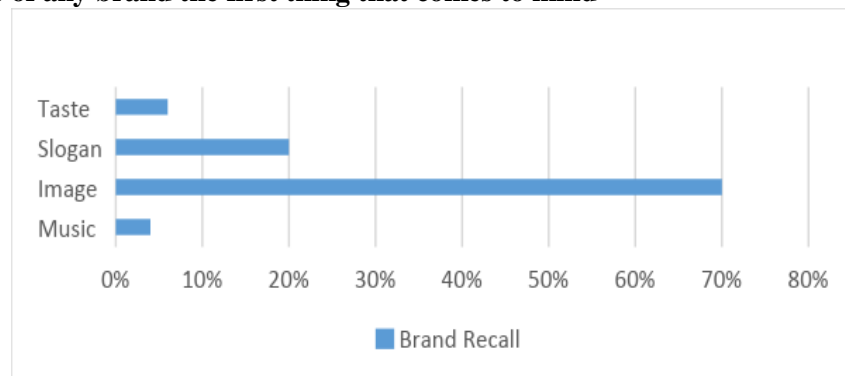
The above chart depicts that 77% of the respondents belong to the age group of 25-35 years and 23% of them fit in to the age of 18-25 years.

❖ Gender



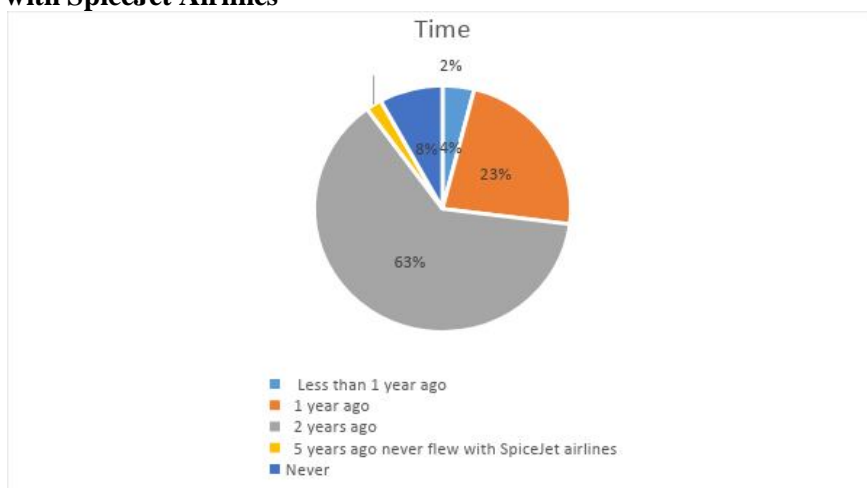
The above diagram depicts that 72% of the respondents are female whereas only 28% are male.

❖ Given a name of any brand the first thing that comes to mind



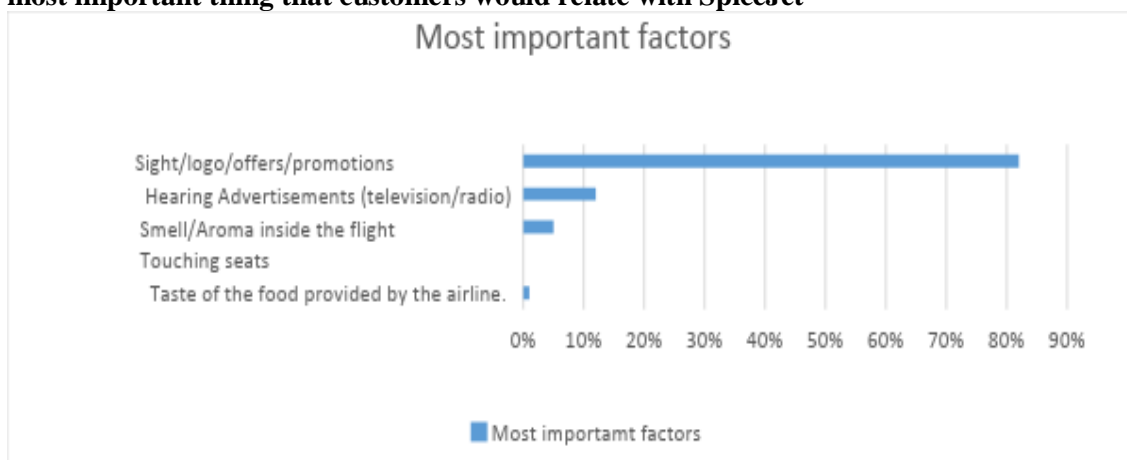
The chart depicts that if any brand name is told to consumers the first thing that comes to their mind is the Image of the brand as 70% respondents believe so, followed by 20% people who believes the slogan is the most impactful factor whereas few people think they remember few brand because of its good taste but only 4% remember the music of the brand.

❖ Last time flew with SpiceJet Airlines



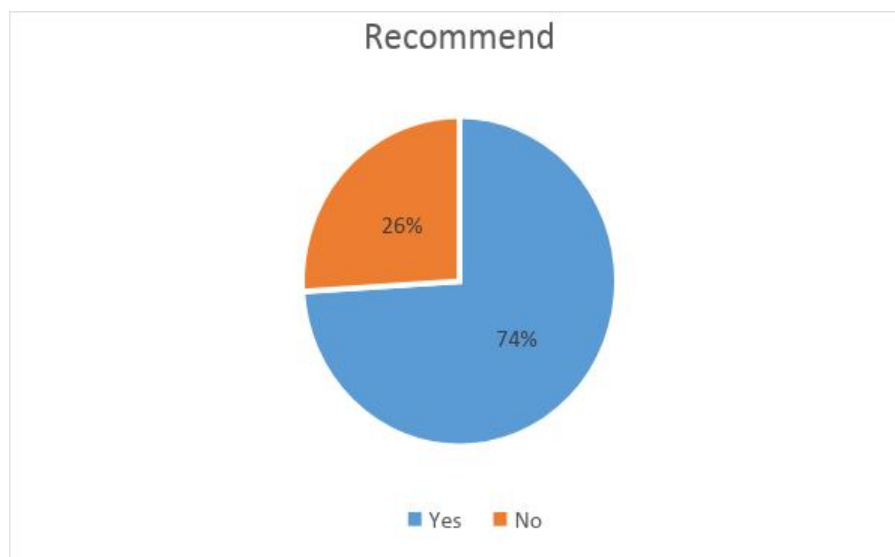
From the respondents feedback we can conclude that 63% boarded SpiceJet 2 years ago, 23% just one year ago on the other hand 2% respondents flew 5 years ago and 8% never took SpiceJet.

❖ The most important thing that customers would relate with SpiceJet



The above diagrams depicts that consumers can relate to SpiceJet with many things but the most important of them is *Sight* sense i.e. the logo/offers/promotions, followed by *Hearing* sense i.e. the advertisements in radio and television only 1% consumers would relate to SpiceJet in respect of the taste of the food but none of them could relate with the touching sense i.e. the seats.

❖ Recommend SpiceJet airlines to friends



The charts explains that 74% consumers feel attached to SpiceJet and would recommend their friends whereas 26% of them do not feel attached to SpiceJet and would not like to recommend to its peers.

(All data in percentage)

Questions	5	4	3	2	1
(a)I feel attracted to this brand because of its logo	83	13	2	2	0
(b)I feel attracted to this brand because of its taste(food provided in the flights)	0	27	7	44	22
(c)I feel attracted to this brand because of its smell/aroma inside the flight while travelling	4	44	12	12	18
(d)I feel attracted to this brand because of its touch(accessories provided by the airline)	0	1	2	94	3

As we know consumers feel attracted to the brand not only but its promotion but for its specific features or senses which marker tries to look upon. We have reviewed the consumers responses such that-

LOGO

83% of the consumers strongly agrees to fact upon they get attracted to SpiceJet because of its logo followed by 13% of the people agreed upon the same thing but on the other hand 2% of them do not get attracted towards the brand because of its logo.

TASTE

Respondents travelling on SpiceJet hardly jet attracted to the brand because of its food as 44% disagrees upon the attraction with SpiceJet because of food followed by 22% who strongly disagrees on the same on the positive side 27% of respondents feels attracted because of taste of food and 7% remained neutral.

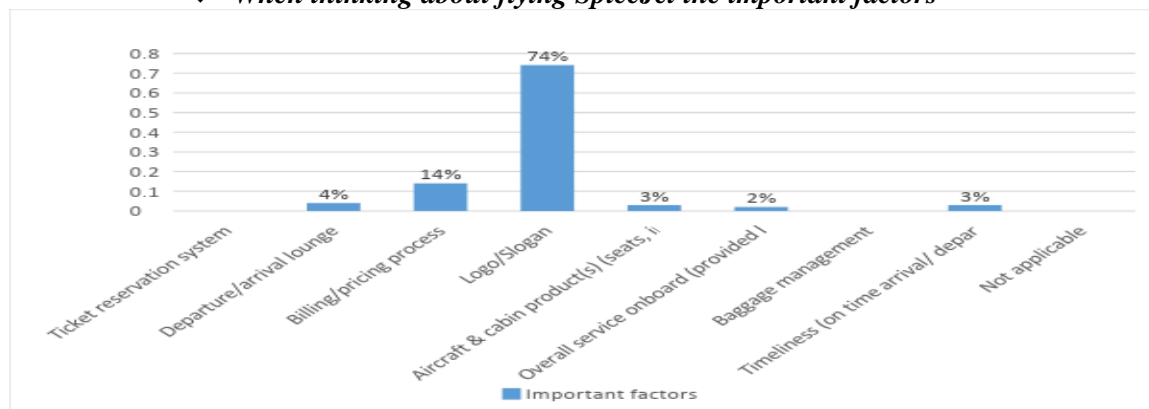
SMELL/AROMA

Smell or aroma is one of the most important touch points for the respondents 44% agrees to the fact they get attracted to Spice Jet because of its smell and aroma and 14% strongly agrees to it but 12% and 18% are on the negative side on them smell and aroma doesn't attract them whereas 12% again had no response towards it.

TOUCH

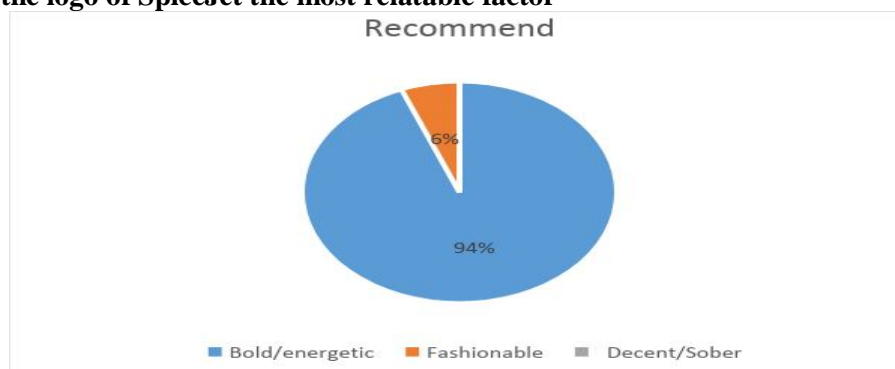
Most of the respondents i.e. 94% of them do not feel attracted to the brand because of touch 3% feels the same only 1% customers feel attracted to spice jet because of its touch i.e the seats accessories provided by SpiceJet.

❖ *When thinking about flying SpiceJet the important factors*



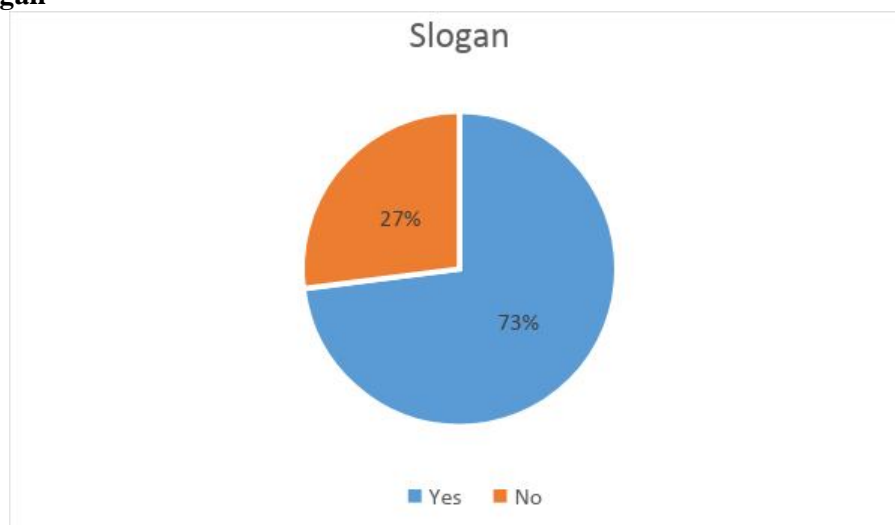
The above charts depicts that there are lots of things when SpiceJet comes into their mind but specifically 74% respondents chose logo is the most important things followed by 14% things the pricing /billing process of SpiceJet, where 4% departure and arrival lounge 3% feels the aircraft cabin product as important thing and timeliness maintained by SpiceJet for their arrival and departure last only 2% believe overall service onboard.

❖ *Looking at the logo of SpiceJet the most relatable factor*



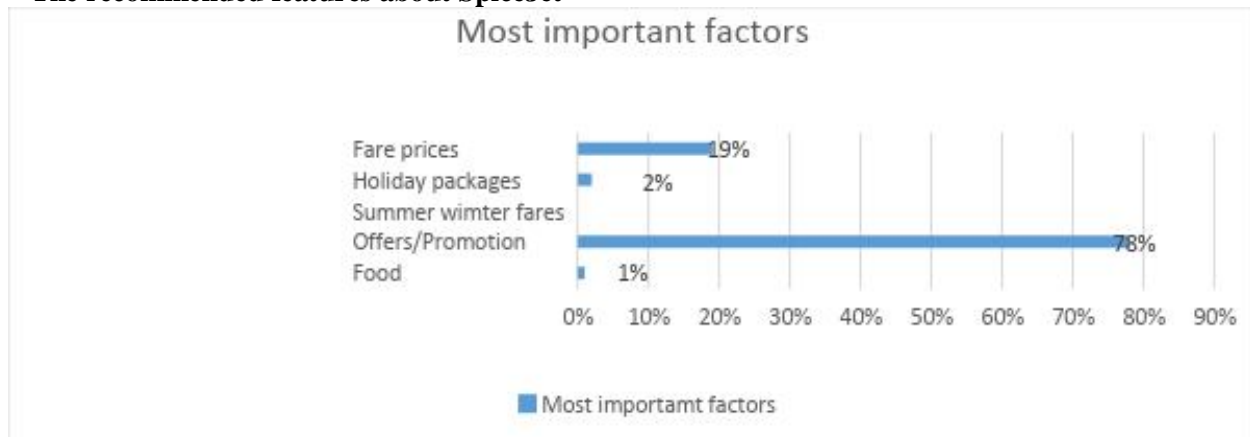
We already know SpiceJet logo has an great impact as 94% of the customers feels SpiceJet logo looks bold/energetic as it has combination of red and orange which attracts audience attention.Followed by 6% feels it's fashionable where no one thinks its decent/sober.

❖ *Popular slogan*



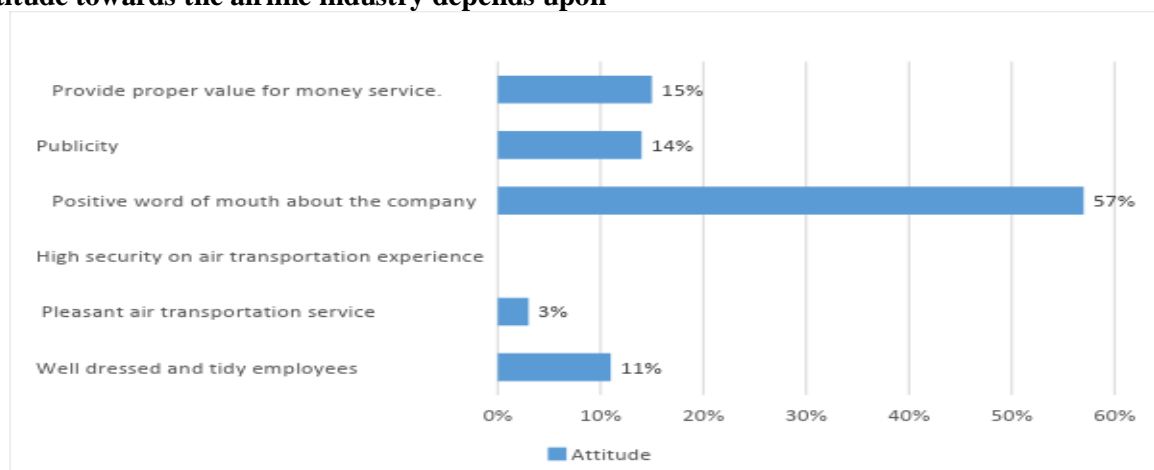
The chart depicts 93% of the respondents do recognize SpiceJet just by its logo even if the name is not mentioned as it is so catchy and easy to remember but 7% believes that they would not remember SpiceJet by its logo.

❖ The recommended features about SpiceJet



The chart depicts when it comes to recommendation we already know a number of people would recommend SpiceJet to its peer members. As 78% of the respondents would refer because of offers/promotions, 20% would recommend for fare prices bit 2% might recommend the holiday package as well.

❖ Attitude towards the airline industry depends upon



The attitude of the respondents get affected involving a lot of factors. 57% of the customers believe that attitude of the will have an impact from the positive word of mouth about the company, 15% will positive attitude as SpiceJet provide proper value for money and service , 14% thinks that publicity will affect their attitude towards the company as 11% has a positive attitude when it comes to well dressed and tidy employees but very less 3% has positive attitude towards the airline because of please transportation service.

FINDINGS

This paper draws the attention between the relationships of the brand with the customers how sensorial strategy plays most influential role in convincing the customers mind. As we know that brand can be identified by its name. But which sensory features play the most important role in customers mind so marketers have to do a well survey on that. As in this paper we have seen all the senses have some impact or the other in customers mind. But noticingly sight is the most impactful senses among all. We can say this because here in the case of SpiceJet airlines most of the consumers get attracted with its colors or logo or slogan which is bold and enthusiastic for consumers. Aroma and taste of the food provided by the company have little impact on the customers, but the color how the logo is made is impactful in catching attention. When it comes to SpiceJet we would see that touch has the least effect in customers mind. Most of the people remember the slogan of SpiceJet which is a very unique feature, as customers can only recall the name, but during the survey we could see that people even remember the slogan very well. It is a well-known fact that offers and promotions are always seemed attractive to the customers, which is same for SpiceJet as well. The findings state that sight act as the most impactful factors when it comes to SpiceJet consumers.

CONCLUSIONS

Sensory branding is not only a breakthrough concept it is important to identify the most pertinent ones and develop an inventory of sensory impression on brands. Nowadays marketers are spending most of their time to make marketing budget but in spite of doing that they should give more time in to reach the minds and hearts of the consumers. It is found that human senses play a crucial role in their purchasing behavior. Sensory branding puts the human brain along with its five senses in the center of marketing and show that the companies and retailers can imprint a positive impact on the five senses of the consumers through different senses such as color, smell, music, taste and texture. Another important issue is that the way seller treats its customer much more time should be spend to find out the need of the customer. Using this senses and their effect on understanding of consumers paves the way for enriching experience of brand, discriminating it from their personality and more interest in created to create loyalty among customers. Customer retention is the most important factor so marketers use senses such as touching, tasting, hearing, smelling and seeing a product plays an important role in our understanding.

SCOPE/LIMITATION

The study is restricted to the area of Kolkata only. The specified time facilitate only a small sample size for the research which may reflect to some extent. The sensory branding having an impact on the consumer's can be studied with a large number of data in future. Additionally some other variables such as environmental factors social factors financial factors and their impact will make the future study more feasible for researchers adding on that it will be more impactful for research finding.

RECOMMENDATION FOR FUTURE RESEARCH

- ❖ Future researchers are advised to collect responses from consumers through qualitative and quantitative research to find out the specific attribute or senses that have the most impact on consumer's decision making process.
- ❖ Marketers of airline industry must employ the fusion of music images aesthetics and texts in communication to urge the psychological responses.
- ❖ The emotional appeal of the consumers is mostly related to the sight senses so marketers must trigger on to the other senses to reach out to more consumers.

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APPENDICES

Name:

Email ID:

Age :

Age Group	18 - 25 Years	25 - 35 Years

Sex: Male Female

1. Given a name of any brand, what is the first thing that comes to your mind?
 - Music of that brand
 - Image
 - Slogan
 - Taste
2. When was the last time you flew with SpiceJet Airlines?
 - Less than 1 year ago
 - 1 year ago
 - 2 years ago
 - 5 years ago never flew with SpiceJet airlines
3. As a consumer what is utmost important thing that you would relate with SpiceJet?
 - *Taste* of the food provided by the airline.
 - *Touching* seats
 - *Smell/Aroma* inside the flight
 - *Hearing* Advertisements (television/radio)
 - *Sight* logo/offers/promotions
4. I would recommend SpiceJet airlines to my friends
 - Yes
 - No
5. For each of the following statement please tick the box which best describes your opinion. (*Please rate your level of agreement or disagreement by ticking the appropriate box using the following scale*)

5= Strongly agree

4= Agree

3=Undecided

2=Disagree

1= Strongly disagree

Questions	5	4	3	2	1
(a)I feel attracted to this brand because of its logo					
(b)I feel attracted to this brand because of its taste(food provided in the flights)					
(c)I feel attracted to this brand because of its smell/aroma inside the flight while travelling					
(d)I feel attracted to this brand because of its touch(accessories provided by the airline)					

-
-
6. When thinking about flying SpiceJet, which of the following are important?
Please select all that apply.
 - Ticket reservation system
 - Departure/arrival lounge
 - Billing/pricing process
 - Logo/Slogan
 - Aircraft & cabin product(s) (seats, in-flight entertainment, food/ drink choice, etc.)
 - Overall service onboard (provided by flight attendants)
 - Baggage management
 - Timeliness (on time arrival/ departure)
 - Not applicable
 7. If you look at the logo of SpiceJet how would you relate to that?
 - Bold/energetic
 - Fashionable
 - Decent/Sober
 8. Can you recognize SpiceJet by its slogan?
 - Yes
 - No
 9. What you recommend to your friends and family about SpiceJet?
 - Food
 - Offers/Promotion
 - Summer winter fares
 - Holiday packages by them
 - Fare prices
 10. My attitude towards the airline industry depends upon:
 - Well dressed and tidy employees
 - Pleasant air transportation service
 - High security on air transportation experience
 - Positive word of mouth about the company
 - Publicity
 - Provide proper value for money service.

MARKETING SUPPLY CHANNEL OF MILK PRODUCTION IN WEST BENGAL - A CASE STUDY OF NADIA & NORTH 24- PARGANAS

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ABSTARCT

The importance of dairying in a country like India hardly needs emphasizing. India has vast resources of livestock, which play an important role in the national economy and also in the socio-economic development of millions of rural households. This study, based on a primary survey consisting of 60 households, deals with the issues relating to the socio-economic status of the population of the villages of Ayeshpur Purbapara and Ayeshpur Paschimpara of Birohi-I block of Nadia district and Fateabad Nazrul palli of Nilgunj-Ichapur of district North 24 Parganas to identify the factors affecting the cost of milk production, to examine the relationship among profitability of milk production, cost and marketing, to identify major marketing channels and routes, to identify key constraints, opportunities and threats of milk product marketing. Data for individual household was obtained by sample surveying with the help of the questionnaire. In my study I surveyed 60 households on a whole. Data was collected on caste, education, occupation, land holdings, family size and the costs and benefits of selling milk, channel of distribution, nature of threats and price exploitation. I adopted the method of purposive sampling for collecting data. Purposive sampling is where the sample is selected on the basis of knowledge of the research problem to allow selection of typical persons for inclusion in the sample. The desired population for this study is very difficult to locate & recruit for the study, so purposive sampling is the best available option. Nadia and North 24 Parganas were chosen because they are one of the top 5 producers of milk in the state. Ayeshpur Paschimpara and Purbapara were chosen because of their proximity to the state run Haringhata dairy farm and Fatehabad Nazrul Palli lies next to a private owned Metro Dairy plant. The households in the survey were picked at random from the villages subject to the condition that they actually have a cow and are milk suppliers at some level. For the purpose of analysis The independent sample t-test, Regression analysis, Cross tabulation, SPSS statistics have been used.

Key Words: Profitability, Marketing channels, Exploitation, Purposive Sampling, Independent sample t-test, Regression Analysis, Cross Tabulation, SPSS Statistics.

INTRODUCTION

The importance of dairying in a country like India hardly needs emphasizing. India has vast resources of livestock, which play an important role in the national economy and also in the socioeconomic development of millions of rural households. India has one of the largest stocks of cattle and buffaloes: more than 50 percent of the world's buffaloes and 20 percent of its cattle. The Indian dairy sector contributes a large share of the agricultural gross domestic product (GDP). Although the contribution of agriculture and allied sectors to the national GDP has declined during the past few decades, the contribution of the livestock sector has increased from less than 5 percent in the early 1980s to over 6 percent in the late 1990s. Milk and milk products constitute a major share of the value of output from the livestock sector; their share increased from less than 50 percent in 1950-51 to about 65 percent in the late 1990s.

India is currently the largest producer of milk in the world, overwhelmingly thanks to the output of millions of smallholder farms. During the past three decades, milk production in the country has increased from about 22 million tons in 1970-71 to 84 million tons in 2001-02 (GOI, 2003). The per capita availability of milk, which had decreased during the pre-OF period, not only kept pace with the growing population but increased from 107 grams in 1970 to 220 grams in 2000-01.

The Indian dairy industry is poised for dramatic growth in the coming decades. The population growth, urbanization, income growth, high income elasticity of demand, and changes in food habits that fueled the increase in milk consumption are expected to continue well into the new millennium, creating a veritable Livestock Revolution. As these events unfold, not all the changes are good, and they have major implications for poverty alleviation, environmental sustainability, public health, and ethical concerns about the treatment of animals as sentient beings. The rapid increase in demand for dairy products in developing countries has led to the growth of milk-production activities in peri-urban areas, which are essentially detached from their supporting land base. The demand for milk and dairy products is increasingly being met in urban and peri-urban areas by industrial dairy farms, which often generate large amounts of waste.

Traditionally, milk production in India has been closely integrated with crop production. However, environmental problems escalate with the scale and intensity of operations, ranging from the least worrisome in

traditional systems to highly threatening in large-scale farms. The pollution problem in rural areas is internalized, as the small amount of manure produced is used as fuel or organic fertilizer to improve the soil for crop and fodder cultivation. In the commercial production system, a large amount of waste is generated, which needs to be treated before its disposal or use. Doing so requires not only careful planning but also large capital investments to create the infrastructure for waste treatment and its economic disposal. The establishment of large commercial dairy farms in urban areas may create some social problems. The growth stimulus coming from the strong demand for livestock products is not transmitted to the rural areas, where it could encourage rural development, more equitable distribution of income, and poverty alleviation. Small producers find it difficult to compete with large commercial units due to policy distortions. Milk production in rural areas generates supplementary income and employment opportunities, which are adversely affected by the growth of commercial dairy farms. The Directorate of Dairy Development, under the aegis of Animal Resources Development Department, Govt. of West Bengal was primarily engaged in ensuring the availability of wholesome liquid milk to the people of West Bengal in various ways – enforcing the applicable statutory norms from time to time, regulating the flow of milk to sweet-meat shops, recombining of Skimmed Milk Powder and Butter Oil to meet the liquid milk demand etc.

The Urban Milk Supply Schemes in the Public Sector came up with two broad objectives

- i) to provide marketing facilities to the rural producers of milk for disposing of their marketable surplus and
- ii) to supply pasteurized milk to the urban population at a reasonable price.

With these broad objectives a dairy plant was installed at Haringhata and the same started functioning in June, 1950. A scheme for the construction of milk colonies for colonisation of cattle was also introduced in the year 1954 and the first set of milk colonies was ready for occupation by cattle in the year 1957. The second dairy plant was set up at Belgachia, Calcutta, in the year 1962. A net work of Chilling Stations has also been gradually built up since 1952.

When the first dairy plant was set up at Haringhata in 1950-'51, it started with the production of 1.5 thousand litres bottled milk per day, whereas with the network of two dairy plants, seven milk colony units and 19 Milk Collection-cum-Chilling stations named as "Greater Calcutta Milk Supply Scheme" the production had gradually gone upto 210 thousand litres per day by 1980s. Besides the production of liquid milk, the GCMSS used to produce ghee as and when the surplus butter fat was available. GCMSS used to procure raw milk from the districts of 24-Parganas, Nadia, Murshidabad, Burdwan and Hooghly. The Govt. cattle farms at Kalyani-Haringhata complex contributed a substantial portion of this milk supply.

A portion of the processed milk of Haringhata Dairy was also being sold to the consumers of Ranaghat & Krishnagar townships through the unemployed youth as a measure of providing them with partial employment.

The greatest achievement of the G.C.M.S.S. in its commendable role to check the selling price of milk of the metropolitan city to the maximum relief to the consumers particularly to the people belonging to the low-income group. Had there been no machinery in the Public Sector to supply milk to a vast number of consumers, the price of milk in the open market would have been further increased and the sufferings of the common people aggravated.

OBJECTIVE OF THE STUDY

This study, based on a primary survey consisting of 60 households, deals with the issues relating to the socio-economic status of the population of the villages of Ayeshpur Purbapara and Ayeshpur Paschimpara of Birohi-I block of Nadia district and Fateabad Nazrul palli of Nilgunj-Ichapur of district North 24 Parganas.

- To identify the factors affecting the cost of milk production.
- To examine the relationship among profitability of milk production, cost and marketing.
- To identify major marketing channels and routes.
- To identify key constraints, opportunities and threats of milk product marketing.

LITERATURE REVIEW

This chapter records the findings of the research studies conducted previously on the dairy production and marketing in various parts of India.

Islam. S., Goswami. A. and Mazumdar. D. (2008) have analysed Tehatta-II block of Nadia district in West Bengal. There were 17 blocks in the Nadia district of which Tehatta-II block was selected purposely. The block consisted of 7 gram panchayats and 2 gram panchayats namely Palsunda-I and Barnia were selected randomly.

Fifty dairy farmers were selected from each gram panchayats based on judgement sampling. The study area was more or less homogenous with respect to animal husbandry practices, socio-cultural conditions, facilities for service and critical inputs. Most of the dairy farmers in study areas were unorganized in milk production. Relevant information from the individual milk producers (dairy farmers) has been collected through personal interrogation method with the help of a structured interview schedule prepared for the study. The study revealed that crossbred cows were more economical and gave higher yield than the indigenous cows and inclusion of a few crossbred cows can increase the income of a dairy entrepreneur and provide gainful and round the year employment. Family labour work was carried out in the milk pocket areas of eight districts of Marathwada region. About 59 percent of the dairy farmers belong to general (unreserved) category, 25 percent were backward class and only 8 percent each of SC and ST. The landless dairymen equally contributed with dairymen having (large) land; 13 landless dairymen reported comparable lactation yield as the number of milch animals increased, the herd lactation performance decreased. The animals maintained by joint family were not properly cared for while they were cared for properly by singly family.

Chauhan. A.K., Raj Vir Singh and Raina. B.B. (2006) examined the economics of manufacturing of different dairy products, viz. ghee, full-cream milk, standardized milk, toned milk, double-toned milk, skimmed milk and ice-cream (processing only) have been reported. The study has been conducted in an ISO-9002 dairy plant situated in the north-eastern part of Haryana. It has been observed that all the products, except the double-toned milk are being produced above the recommended breakeven level. A comparison of unit manufacturing cost with unit price received by the plant for different products has revealed that ice-cream manufacturing has been the most profitable proposition among different dairy products, and standardized milk has provided the maximum profit margin among the milk pouches manufactured during the study period, 2000-01. The double-toned milk has revealed a loss. Therefore, the study has suggested that the quantity of doubletoned milk production should be raised at least equal to the recommended break-even level to avoid losses, if there is a market demand for this product or the resources of this product could be shifted to some other profitable products.

Prashant Khare Sharma and Singh (2003) of their opinion, Milk collection was higher in healthy season (from September to February) and lower in unhealthy season (from March to August). In spite of more production in the month of July and August, the producer members of the society were not in position to transport their product due to lack of all weather roads. As the distance of the milk producer's co-operative society increases from the dairy plant, the volume of milk collection decreases, the milk collection was higher in those societies, which are well connected to the dairy plant. The variable cost was the main component of cost of milk production and the maximum cost incurred in the purchase of feed and fodder and in labour management. Low price of milk was the most important problems in the collection of milk, followed by lack of cold storage, delay in payment, inadequate water for animals, lack of all weather roads, small quantity of marketable surplus of milk, improper treatment, lack of cross breed animals and uncertainty of electricity. Hence, efforts should be made to solve all these constraints.

Pawar and Sawant (1995) examined the marketing efficiency of three channels - private, cooperative and government - in Western Maharashtra. Their results suggest that private dairies paid somewhat higher prices to the producers and still managed to supply milk to the consumer at competing prices. This was due to higher efficiency in procurement, processing, transportation and distribution.

METHODOLOGY

A study on the general socio-economic conditions and the cost-benefit analysis of non co-operative small scale milk producers was conducted by me in three villages namely Ayeshpur Purbapara and Ayeshpur Paschimpara of Nadia district and Fatehabad Nazrul Palli of North 24 Parganas. Data for individual household was obtained by sample surveying with the help of the questionnaires. In my study I surveyed 60 households on a whole. Data was collected on caste, education, occupation, land holdings, family size and the costs and benefits of selling milk, channel of distribution, nature of threats and price exploitation.

SAMPLING SURVEY DESIGN

Here, I adopted the method of purposive sampling for collecting data. Purposive sampling is where the sample is selected on the basis of knowledge of the research problem to allow selection of typical persons for inclusion in the sample. The desired population for this study is very difficult to locate & recruit for the study, so purposive sampling is the best available option. Nadia and North 24 Parganas were chosen because they are one of the top 5 producers of milk in the state. Ayeshpur Paschimpara and Purbapara were chosen because of their proximity to the state run Haringhata dairy farm and Fatehabad Nazrul Palli lies next to a private owned Metro Dairy plant.

The households in the survey were picked at random from the villages subject to the condition that they actually have a cow and are milk suppliers at some level.

TOOLS AND TECHNIQUES

For the purpose of analysis, some indices have been constructed. It is discussed below:

- The independent sample t-test compares the mean scores of two groups on a given variable.
- Regression analysis includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables.
- Cross tabulation is the process of creating a contingency table from the multivariate frequency distribution of statistical variables. Heavily used in survey research, cross-tabulations can be produced by a range of statistical packages, including some that are specialized for the task. Survey weights often need to be incorporated. Non-weighted tables can be easily produced by some spread-sheets and other business intelligence tools where they are commonly known as pivot tables.
- We calculate interim year's population by using the formula : $P_t = P_0(1+r)^t$
Where, P_t =population at time 't', P_0 =initial population, r = growth rate, t = time.
- SPSS statistics is a software package used for statistical analysis. It is now officially named "IBM SPSS Statistics". Companion products in the same family are used for survey authoring and deployment (IBM SPSS Data), data mining(IBM SPSS Modeler), text analytics, and collaboration and deployment.

ANALYSIS OF MILK PRODUCTION IN WEST BENGAL

Before analyzing the data obtained from our primary data survey, we give brief overview of the position of West Bengal in the context of India and the position of the districts we have chosen, Nadia and North 24 Parganas, in context of West Bengal.

All India production of milk in 2012-13 was 132431 thousand tonnes, of which West Bengal contributed 4859 thousand tonnes, or 3.67%, far below that of states like Gujarat, Punjab, Andhra Pradesh, and Tamilnadu.

In the context of West Bengal, the contribution of different districts to the total production is showed in the form of the following pie chart. Of the districts Burdwan (13%) contributes the most, followed by Murshidabad (12%), Hooghly (11%), North 24 Parganas (10%) and Nadia (8%).

Figure: PRODUCTION SHARE OF DIFFERENT DISTRICTS OF WEST BENGAL

PER CAPITA AVAILABILITY OF MILK

In my study, I have considered the 3 villages in the districts of North 24-Pargana and Nadia. So, I put particular emphasis on the performance of these two districts over time. The following table shows the historic performance of the two districts since 2007.

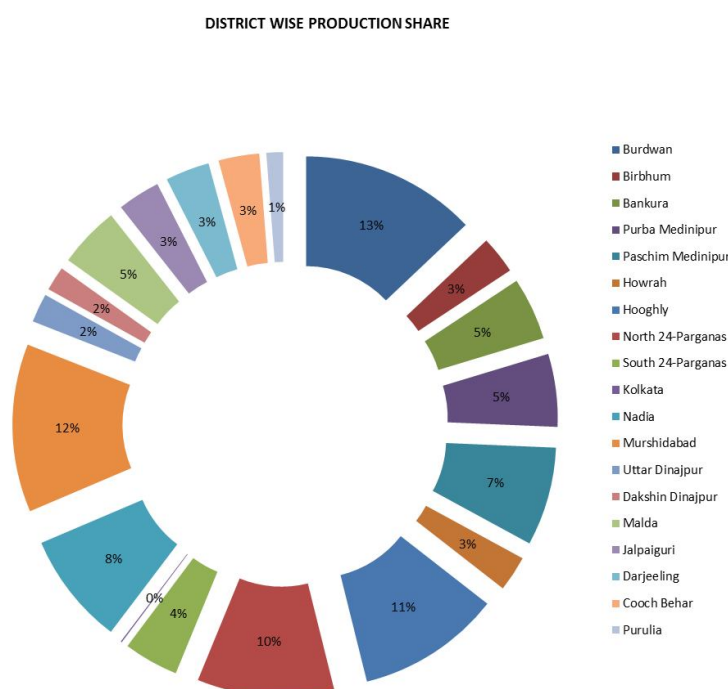
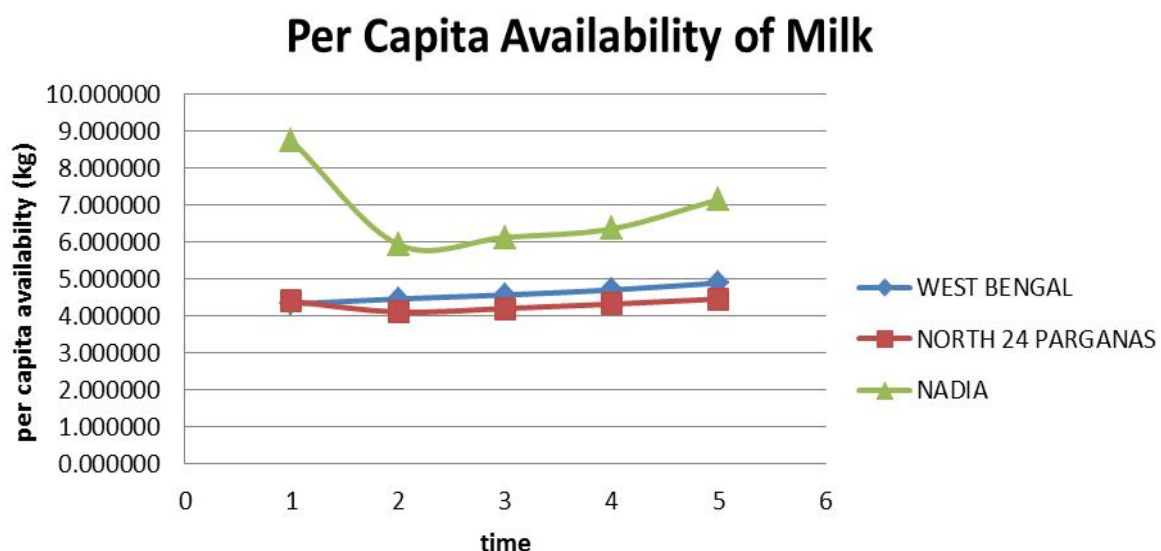


Table-1: MILK PRODUCTION OF NORTH 24-PARGANA & NADIA

MILK PRODUCTION (THOUSAND TONNES)	2007-08	2008-09	2009-10	2010-11
WEST BENGAL	4077	4175	4300	4472
NADIA	307	317	329	370
NORTH 24 PARGANAS	414	424	436	450

I see that the production of both the 2 districts have risen with time since 2007 till 2011. Their contribution to the total produce of West Bengal has remained fairly unchanged, with Nadia contributing about 8% and North 24 Parganas 10% of the total production of milk in West Bengal. If I consider the per capita availability of milk i.e. dividing the production by the population of each district, I can see that Nadia lies much higher than the average for West Bengal, as shown in the following figure.

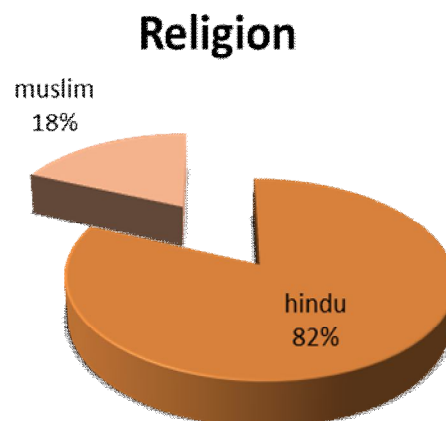
**Figure: PER CAPITA AVAILABILITY OF MILK**

All the data used in this secondary data analysis is sourced from the “Economic Review: 2010-11” published by the Government of West Bengal.

PRIMARY DATA ANALYSIS

• SOCIO-ECONOMIC DEMOGRAPHIC STRUCTURE

Religion Distribution This FIGURE explains that Hinduism is the prominent religion in my total survey area.

**Figure: RELIGION DISTRIBUTION**

Out of the total population of my study, I found that 82% of the total households belongs to Hinduism & the rest 18% of the total households belongs to Muslim community. No other communities are found apart from Hinduism and Muslim.

CASTE DISTRIBUTION

This FIGURE explains that general caste is the prominent caste in our total survey area.

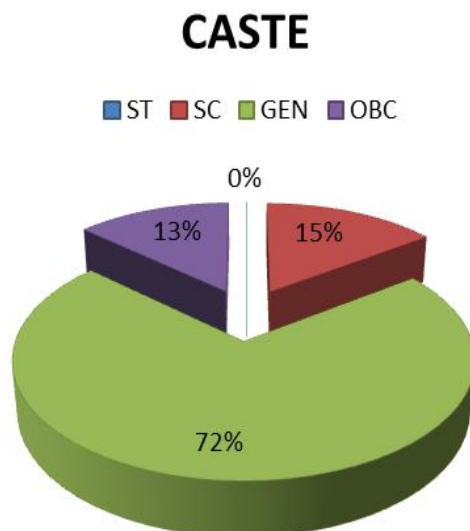


Figure: CASTE DISTRIBUTION

Out of the total population, I found that 72% of the people belong to general caste, 15% belongs to schedule caste, 13% belongs to OBC (other backward class). No schedule tribe households are found in my study.

EDUCATION

This FIGURE explains the distribution of education in the total survey area.

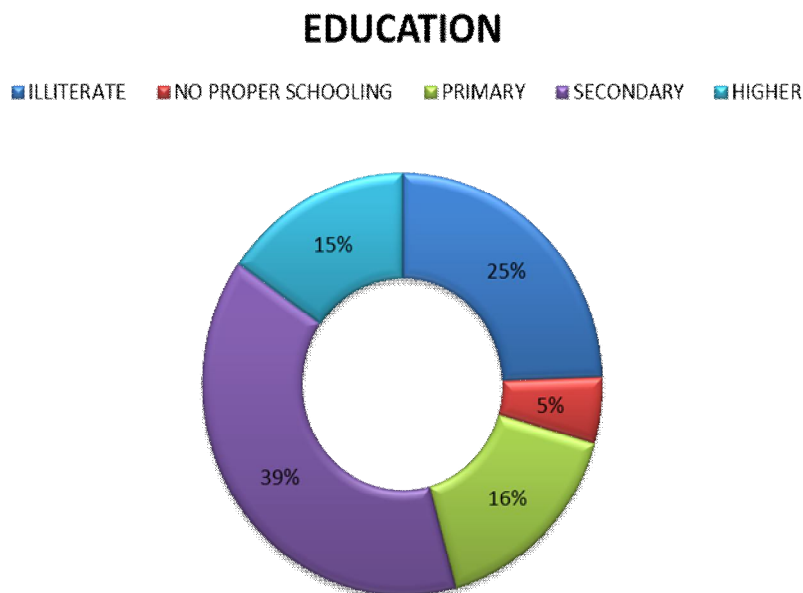


Figure: EDUCATIONAL DISTRIBUTION

Out of the total population, 25% are illiterate, 5% can sign their names but have no proper schooling, 16% having education up to primary level, 39% having education up to secondary level & 15% having higher education.

Housing Status

This FIGURE explains the distribution of housing status in the total survey area.

HOUSING STATUS

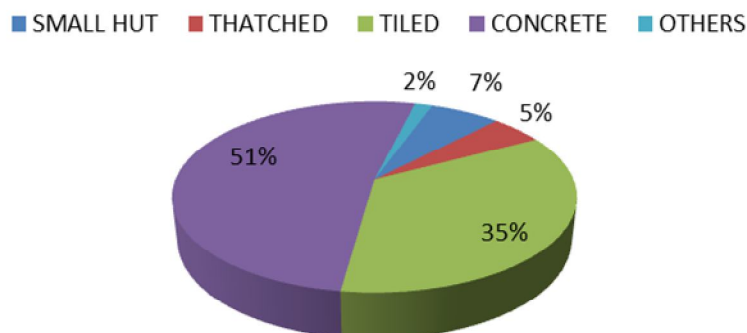
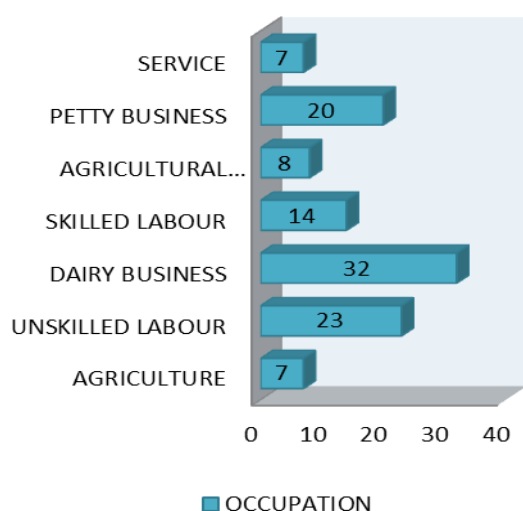


Figure: HOUSING STATUS

Out of the total population, 51% lives in concrete houses, 35% lives in tiled houses, 5% lives in thatched houses, 7% lives in small hut, no other housing status are found under our study. Here, Housing Status of a family can be taken as a proxy of standard of living.

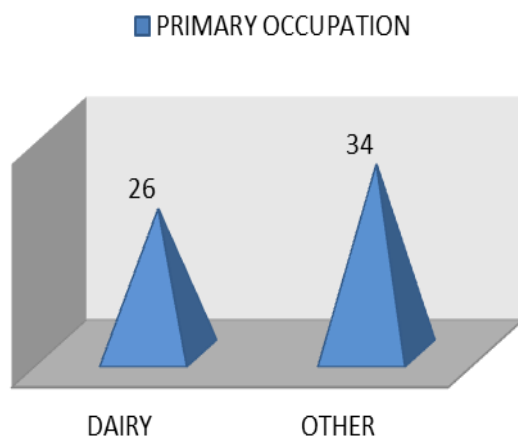
OCCUPATION



From our sample survey, another indicator of demography of the area is occupation & distribution of sources of occupation appeared as service sector includes both govt. & private service, petty business includes small shops & tea-stall; unskilled labour includes daily worker, people employed in MNREGA & housemaids. Agriculture involves who had their own land for cultivation & Agricultural labour includes who helped in farming of other's land.

Figure 6: OCCUPATIONAL DISTRBTION

PRIMARY OCCUPATION



Again, from primary data I can infer that the source of primary occupation is such as, 43% engaged in dairy business as their primary source of occupation & rest 57% engaged in other occupations.

Figure: PRIMARY OCCUPATION

• COST-BENEFIT ANALYSIS

In this section, we concentrate on the analyzing the income earned and costs incurred from the dairy business. To make the data more consistent, we have excluded those observations whose selling prices of milk exceed Rs 40, i.e. the data associated with buffaloes.

• SUMMARY STATISTICS

In the following table, descriptive statistics of monthly income earned from milk and manure per cow, total expenditure per cow and selling price of milk is given. Descriptive statistics mean the central tendency, dispersion, skewness and kurtosis of the total income earned from dairy, expenditure on it and the selling price of milk.

Table-5: SUMMARY STATISTICS

SELLING PRICE OF MILK (RS./LIT.)		COST PER CATTLE		INCOME PER CATTLE	
Mean	21.93518519	Mean	1994.488708	Mean	2776.255122
Median	21.5	Median	1585.625	Median	1702.5
Mode	20	Mode	764.1111111	Mode	600
Standard Deviation	2.7335206	Standard Deviation	2009.221936	Standard Deviation	3539.506506
Kurtosis	2.002368621	Kurtosis	14.15317733	Kurtosis	17.89234133
Skewness	1.572405867	Skewness	3.335332616	Skewness	3.669041814
Range	12	Range	12290.625	Range	22200
Minimum	18	Minimum	76.04166667	Minimum	300
Maximum	30	Maximum	12366.66667	Maximum	22500

Here I observe that the mean selling price is 21.94 and the standard deviation is 2.73, which implies that the selling price varies but not much. The median value is 21.5 i.e. most of the prices are concentrated around this figure. Skewness and Kurtosis give the idea about the frequency of the curve. Here the price curve is platykurtic i.e. flatter, and positively skewed. Again, I consider cost per cattle. Here the mean is 1994.50 but the standard deviation is 2009.22, which implies that the cost per cattle varies widely. Also the median is 1585.63, indicating that most figures are concentrated around this observation. Skewness and kurtosis is 3.35 and 14.15, denoting appositively skewed leptokurtic cost curve. Again, mean value of income per cow is Rs 2776.26 but the standard deviation is very high, Rs 3539.51. So I can say that the income of people is highly dispersed. This is corroborated by the fact that the maximum and minimum values, which are 22500 and 330 respectively, differ hugely. Skewness and kurtosis values indicate a positively skewed leptokurtic cost curve.

• INCOME SHARE

Here, we illustrate the income share of the income earned from selling milk, selling manure and selling animals on a per month basis. The following figure demonstrates that:

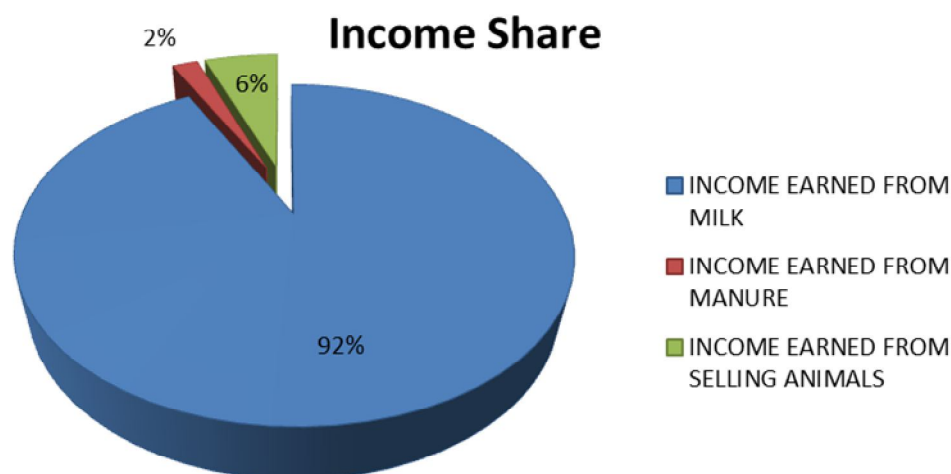


Figure: INCOME SHARE

In the above figure I see that out of total income earned from dairy and milk supplying, a majority of it is earned from selling milk, precisely 92%. Of the rest, income earned from selling manure contributes 2% and income earned from selling animals contributes 6% of the total income. It is to be noted here that all the incomes are taken on a per month basis.

• COST ANALYSIS

I now turn to the expenditures of dairy farming. From the primary survey conducted on the three villages, I found that the principle costs of producing milk include the cost of purchasing the animal and constructing a shed to house it, which can be considered as fixed cost, and the variable costs of dairy that include the fodder cost of feeding the cow, breeding and veterinary costs and cost of repairing the shed. I have ignored the costs due to death of cattle as the data is consistent and transportation costs as in most cases the said cost was zero. The following pie chart shows the distribution of cost incurred in dairy farming:

COST ANALYSIS

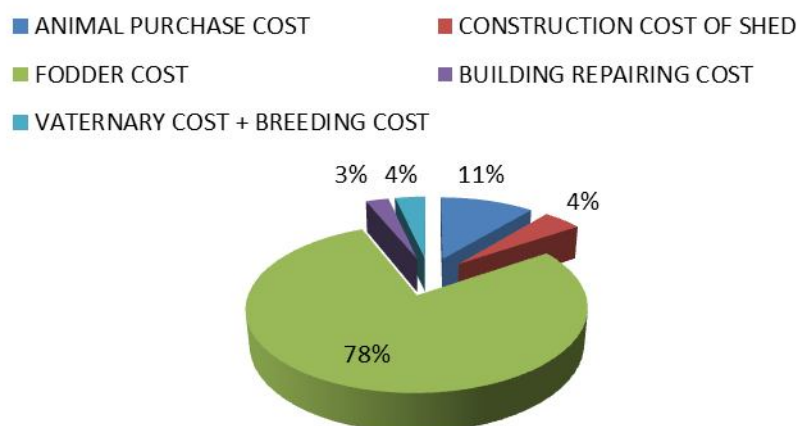


Figure: COST ANALYSIS

As I can see from the chart, almost 80% of the expenditure is on fodder cost, followed by animal purchase cost at 11% and construction cost of shed at 4%. It should be noted that all the costs are taken on a per month basis. The average productive lifespan of a cow is taken to be 10 years, so I divide costs of purchasing animals and the shed construction cost by 10 and then again by 12 to obtain the per month expenditure. The rest include building repairing cost which constitutes 3% and miscellaneous costs, which includes breeding and veterinary costs that constitutes 4% of the total expenditure.

• PROFIT ANALYSIS

After observing the income share and cost distributions, I now turn our attentions to the behavior of profit earned from dairy business. For this purpose, I construct a descriptive statistic table of profit per cattle, which is shown below. Here, I consider profit on per cattle basis because since the number of cattle varies widely between households, ranging from 1 to 13, income earned from them will also vary widely. To make the result comparable, I take profit per cattle.

Table-6: DESCRIPTIVE STATISTICS OF PROFIT

PROFIT PER CATTLE	
Mean	-14.60973122
Standard Error	259.7786166
Median	-44.58333333
Standard Deviation	1908.97517
Sample Variance	3644186.2
Kurtosis	7.779904521
Skewness	1.44235262
Range	13324.54545
Minimum	-4611.666667
Maximum	8712.878788

I can see from the table above that mean profit per cattle is negative, -14.61. Therefore I can safely say that small scale non co-operative dairy business is not a profitable one, at least in my sample. But the standard deviation is very high, 1908.98, which implies that income earned from dairy varies highly.

However, here median is also negative, -44.58, which means that most of the profit values are negative. Since no value occurs twice in our sample I cannot calculate the mode of the distribution. From the values of skewness and kurtosis, I can safely conclude that the curve is leptokurtic, i.e. highly peaked, and positively skewed. Thus, as per the definition of positive skewness, I can conclude that the mean of this sample lies above the median.

• BIVARIATE AND MULTIVARIATE RELATIONSHIPS

So far I have dealt with a single variable at a time and analyzed the distribution of that variable. I now move onto analyzing the relationship between variables.

1. ASSOCIATION BETWEEN MARKETABLE SURPLUS AND NUMBER OF CHILDREN

Of the total quantity of milk produced, the household in most cases doesn't market the entire amount. A part of it is consumed by the household itself and some of it is donated to relatives. Marketable surplus refers to the amount of milk left for marketing after household consumption and donating to relatives. Here I have calculated the marketable surplus as the ratio of quantity of milk left for marketing to the total quantity of milk produced. The following line diagram depicts the relation between marketable surplus and number of children in the household who consume milk.

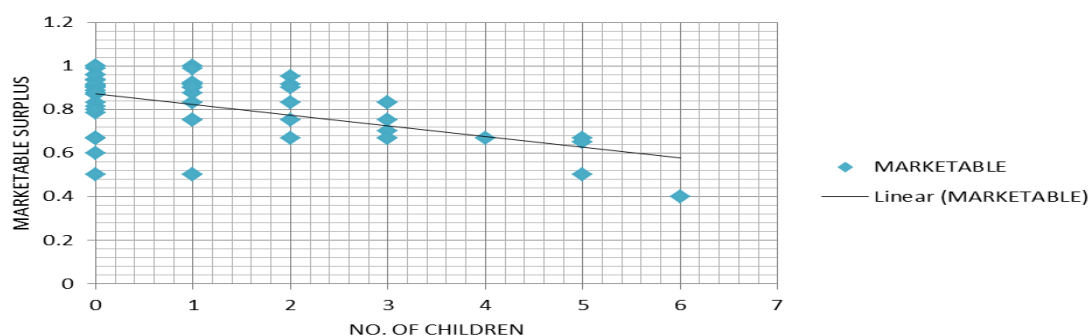


Figure: RELATIONSHIP BETWEEN MARKETABLE SURPLUS AND NO. OF CHILDREN

As economic logic would suggest, with the increase in number of children in the household who consume milk, the marketable surplus falls. We see that the Pearsonian correlation coefficient between them is -0.49. So it is safe to say that there exists a negative relation between marketable surplus and number of children in each household who consume milk.

2. ASSOCIATION BETWEEN MARKETING CHANNEL AND PRICE

The primary objective of my primary survey was to analyze to what extent selling price of milk per liter was influenced by marketing channel. In my survey I have found that there exist four kinds of marketing channels viz. selling to middleman, sweetshops, households and MNCs like Thacker Dairy. Selling price of milk ranges from Rs 18 to Rs 45. In order to check the association between selling price and marketing channel, I recode the prices into 3 categories using IBM SPSS Statistics 21, namely low (Rs18-21), medium (Rs 22-25) and high (Rs 26-45). Then I crosstabulate them as shown in the following table:

Table-7: ASSOCIATION BETWEEN PRICE AND MARKETING CHANNEL
PRICE * CHANNEL Crosstabulation

			CHANNEL				Total
			Middleman	Sweetshop	Household	MNC	
PRICE	Low	Count	25	2	0	0	27
		% within PRICE	92.6%	7.4%	0.0%	0.0%	100.0%
	Medium	Count	17	2	1	1	21
		% within PRICE	81.0%	9.5%	4.8%	4.8%	100.0%
	High	Count	6	6	0	0	12
		% within PRICE	50.0%	50.0%	0.0%	0.0%	100.0%
	Total	Count	48	10	1	1	60
		% within PRICE	80.0%	16.7%	1.7%	1.7%	100.0%

Out of my sample of 60 households 80% sell their milk to middlemen, 16.7% to sweetshops and only a meager 1.7% each to Household and MNCs. I see that when price offered is low, middlemen constitute a large percentage of the buyers (92.6%). As the price increases, the percentage of people selling to middlemen falls. For medium and higher price, more and more people sell to sweetshops. Only one individual sells to MNCs at the price of Rs 25 per liter.

As the table below shows, I can conclude from this cross-tabulation that there exists a statistically significant association between selling price and marketing channel.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.634 ^a	6	.016
Likelihood Ratio	13.972	6	.030
Linear-by-Linear Association	5.222	1	.022
N of Valid Cases	60		

a. 9 cells (75.0%) have expected count less than 5. The minimum expected count is .20.

3. FACTORS INFLUENCING MILK PRODUCTION

Now I turn to regression analysis. Regression analysis is a statistical process for estimating the relationships among variables when there exists any causal relation between them. Here I regress per cattle production of milk on veterinary cost and whether the primary occupation is dairy business or not. The economic logic behind this is higher veterinary costs would imply the livestock is well taken care of and the primary producers of milk would enjoy some sort of scale advantage over those who are engaged in other professions primarily. The results obtained are as follows:

Table-8: REGRESSION RESULTS

Table 3: REGRESSION RESULTS

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.680273893					
R Square	0.46277257					
Adjusted R Square	0.443922485					
Standard Error	60.49085053					
Observations	60					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	2	179665.0769	89832.54	24.55015792	2.039E-08	
Residual	57	208571.1509	3659.143			
Total	59	388236.2278				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	69.11747884	10.3917353	6.651197	1.2104E-08	48.308388	89.92657
PRIMARY OCCUPATION:DAIRY	47.93762323	15.8935381	3.016171	0.003819786	16.111362	79.763884
VETERINARY COST PER UNIT	0.058864227	0.010010337	5.880344	2.25688E-07	0.0388189	0.0789096

Here I try to estimate the influence of veterinary cost and primary occupation being dairy business on production of milk per cattle. The adjusted R square here is 0.44, which implies that the variations in the independent variables explain only 44% of the total variation in the dependent variable. This fact is corroborated by the ANOVA table which shows that the unexplained variation is more than the explained variation. Hence the model is not a very good fit one. The coefficients of both veterinary cost and primary occupation is positive which means that with an increase in veterinary cost production of milk per cattle increases and if the primary occupation is dairy, it has a positive effect on the dependent variable. Both the coefficients are significant at 5% level of significance as can be seen from observing the p values. I do not include other costs like animal purchase cost, fodder cost and labour cost etc. and other factors like education and number of adults because the coefficients are statistically insignificant and hence have no influence on per unit production.

4. RELATIONSHIP BETWEEN AVERAGE COST AND OUTPUT

I now consider the relationship between average cost and output. We know that cost is a function of output. So I am trying to calculate this as a proxy of cost function. So I regress average cost on output. The results obtained are as follows

Table-9: REGRESSION RESULTS

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.349413374
R Square	0.122089706
Adjusted R Square	0.106953321
Standard Error	21.22018253
Observations	60

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	3632.077687	3632.077687	8.065975505	0.006210758
Residual	58	26117.17649	450.2961464		
Total	59	29749.25418			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	33.53653964	3.307391768	10.13987516	1.85043E-14	26.91607577	40.15700352
MILK PRODUCTION (lit/month)	-0.01409068	0.004961392	2.840066109	0.006210758	0.024021984	0.004159376

I try to estimate the influence of output on average cost. Here, the adjusted R square is 0.11, which implies that the variation in output explains only 11% of the variation in cost. From the ANOVA table I see that the residual sum of squares is very high compared to the total sum of squares. Thus the regression equation is not at all a good fit model. The coefficient of milk production is statistically significant as can be seen by observing the p values.

5. PRICE EXPLOITATION AND MARKETING CHANNELS

In my primary survey, I came across several instances of exploitation by the middleman and other agents and marketing channels. Principally exploitation was found to be on the basis of price; either in form of low price paid, or delayed payment or both. The following pie chart shows the distribution of these different types of exploitation in our primary survey.

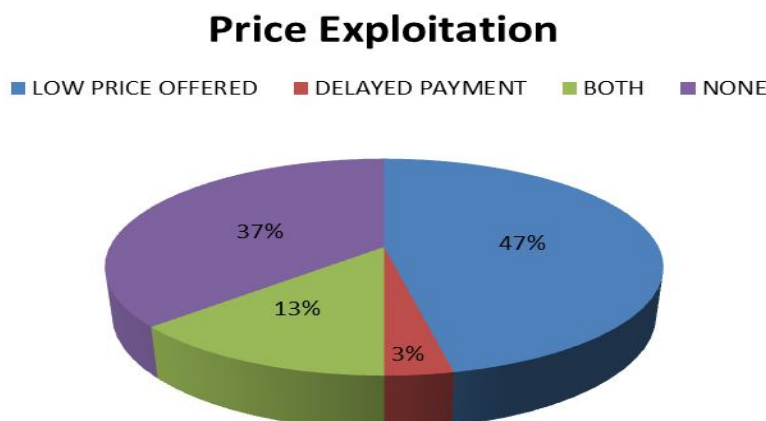


Figure: PRICE EXPLOITATION BY AGENTS

Out of total population, 47% believed they were paid low prices, 3% faced delayed payment and 3% faced both kinds of exploitation. Only 37% said that they weren't being exploited. It is to be noted here that we didn't consider prices of milk supplied associated with buffaloes.

I now run a regression on selling prices taking dummies for price exploitations using IBM SPSS Statistics 21.
The results obtained are as follows:

Table-10: REGRESSION RESULTS

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.566 ^a	.320	.279	2.3207

a. Predictors: (Constant), both low price offered and delayed payment, delayed payment, low price offered

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	126.750	3	42.250	7.845	.000 ^b
Residual	269.273	50	5.385		
Total	396.023	53			

a. Dependent Variable: price

b. Predictors: (Constant), both low price offered and delayed payment, delayed payment, low price offered

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	23.868	.532		.000
	low price offered	-3.276	.695	-.605	.000
	delayed payment	-.368	1.725	-.026	.832
	both low price offered and delayed payment	-2.535	1.087	-.294	.024

a. Dependent Variable: price

I see from the above results that the adjusted R square, which is a measure of overall model fit, is 0.279 which means that the total variation in prices is explained only partially by the price exploitations. There must be some other factors associated that can fully explain the price variation.

The coefficients of low price offered and both low prices offered and delayed payment are significant at 5 % level of significance. The constant denotes the conditional mean price when there is no exploitation, Rs 23.87. The coefficient of low price offered is -3.28, which denotes that if low price is offered the conditional mean of prices will be Rs 20.59. Similarly for both low prices offered and delayed payment, the conditional mean price will fall by 2.54.

6. THREATS

From my primary data survey, I found that small scale non co-operative milk producers face several threats, principle among them being depletion of grazing fields, threat to cattle breeding due to urbanization, or both. The following diagram shows the distribution of threats faced by the dairy farmers in our sample survey.

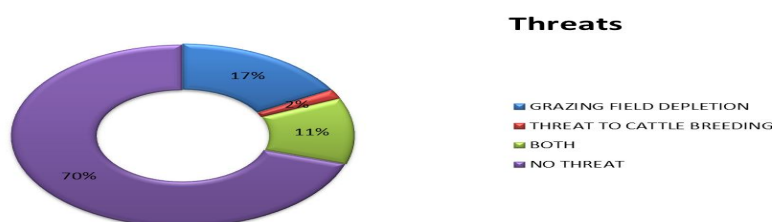


Figure: DISTRIBUTION OF THREATS FACED

Of the total milk producers surveyed, 70 % believed they faced no kinds of threat. Of the remaining, 17% believed they faced the depletion of grazing fields, 2% believed they faced threat to cattle breeding and only 2% believed they faced both kinds of threats. So I can say that livestock and dairy farming is not extremely threatened by urbanization.

CONCLUSION

I've concluded that the two main disadvantages Of Dairy farming (that may also be reasons for farmers converting to Livestock or other forms of farming) are Time and Finance. Dairy activities have traditionally been integral to India's rural. The country is the world's largest producer of dairy products and also their largest consumer. Almost its entire produce is consumed in the domestic market and the country is neither an importer nor an exporter, except in a marginal sense. Despite being the world's largest producer, the dairy sector is by and large in the primitive stage of development and modernization. Though India may boast of a 200 million cattle population, the average output of an Indian cow is only one seventh of its American counterpart. Indian breeds of cows are considered inferior in terms of productivity. Moreover, the sector is plagued with various other impediments like shortage of fodder, its poor quality, dismal transportation facilities and a poorly developed cold chain infrastructure. As a result, the supply side lacks in elasticity that is expected of it. On the demand side, the situation is buoyant. With the sustained growth of the Indian economy and a consequent rise in the purchasing power during the last two decades, more and more people today are able to afford milk and various other dairy products. This trend is expected to continue with the sector experiencing a robust growth in demand in the short and medium run. If the impediments in the way of growth and development are left unaddressed, India is likely to face a serious supply - demand mismatch and it may gradually turn into a substantial importer of milk and milk products. Fortunately, the government and other stakeholders seem to be alive to the situation and efforts to increase milk production have been intensified. Transformations in the sector are being induced by factors like newfound interest on the part of the organized sector, new markets, easy credit facilities, dairy friendly policies by the government, etc. Dairy farming is now evolving from just an agrarian way of life to a professionally managed industry – the Indian dairy industry. With these positive signals, there is hope that the sector may eventually march towards another white revolution.

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**ECONOMIC DISCRIMINATION OF TRANSGENDER; ADDRESSING UNEMPLOYMENT
PROBLEM OF WEST BENGAL**

Sayanti Chattopadhyay

ABSTRACT

This paper studies the economic discrimination of Transgender in India and failure of nation state to utilize this marginalized group as productive human resource. There is a pervasive pattern of discrimination against Transgender in Indian society which could be the result of the sanction of heteronormativity or acceptance of man woman binary. 14 in depth interviews were conducted to collect data among Transgender between the age group of 23-35 who had education or vocational training, equipped to join the mainstream economic force. All participants were born males but expressed traits identified by female identity. The participants were recruited using snowball sampling.

The findings revealed the discrimination faced by Transgender as productive human resource, and failure to be a part of mainstream economic force. Detailed exploration confirmed that discrimination is industry specific, as it is not so much applicable in creative and entertainment industries, but strongly exists in formal sectors. This articulates questions about the social and economic climate of the post colonial present.

Keywords: Transgender, discrimination, employment, skills, marginalization

INTRODUCTION

From the birth until death, social norms dictate who we are and what roles we are expected to perform based on our genitals- that is male or female. Gender identity is one of the most important aspect of societal existence based on societal prescription of values, norms, and beliefs. Indian society, like many other societies, strictly adheres to the heteronormative structure that limits people as male or female. Binary gender arrangements are enforced on the people from the very childhood when individuals engage in activities that conforms to the gender stereotypes of the culture and society. Though gender normativity is expected in Indian society, the transgender or "Hijra" (Male born adhering to female traits) challenge the concept of identity. "Transgender" is an umbrella term for individuals whose biological identity does not reflect the societal gender norms followed by the culture. For example, an individual may be born biologically male or female but self identify as belonging to the opposite gender , thus challenging binary and conception of social construction of gender. These identities place transgender individuals in constant conflict with social norm and institution. As a result, the society constantly discriminates transgender from a socio economic point of view.

The purpose of this research study is to provide accounts of experiences in the arena of employment of female identified transgender individuals that is male to female (commonly known as Hijra in Indian context). These individuals are recognized male at birth but identifies to a different gender eventually. Drawing on in depth interview the research shows how this group of individuals are discriminated from the mainstream economic opportunities which leads to a life of poverty, unhappiness and frustration.

LITERATURE REVIEW

Lakshminarayan Tripathi (2015) in her Autobiography " Me Hijra Me Lakshmi " compares the economic scenario of New York with Indian Culture during her visit to the USA. She says, " Transgender people are to be found in virtually every coveted profession in New York, be it medicine, law or IT. Contrast that with India. We abuse Hijras when they 'harrass' us on the streets, without realizing that the things they can do in order to survive can be counted on the fingers of one hand / begging , singing, dancing and sex work. Can a hijra in India ever aspire to be a Doctor, engineer, teacher, journalist, or business manager? The answer is a resounding – NO." (page 110). Though I can partially contradict the above literature by arguing that very recently, the Indian Government has allowed hijras to write Indian administrative Service Exam(IAS), though discrimination persists for hijras in the process of education-in college and universities which enables them to achieve high standard education.

Revathi(2005) in her autobiography Truth about Me worked for an NGO that worked for Transgender. This is one sector that accepts people out of gender binary and other social stereotypes. In this autobiography, we get a clear picture of the life of hijras who are forced to do sex work to feed themselves. In one instance some hijras tells Revathi;

" You have got a job and a salary that goes with it. You are brave. But us? We don't have jobs, we have to do sex work to feed ourselves"(page 247). Later, when Revathi was living with a partner, and having a

conversation to resign from her job at the NGOR, we come across dialogues like “ I should resign because you won’t find it easy to get a job” [Male partner to Revathi, page 270]

CASE STUDY 1: RAMESH THAKUR, AGE 24, UNDERWENT SURGERY AT 22, PROSTITUTE BY PROFESSION.

Ramesh is 24 and comes from a middle class family. As a child he always identified himself with the women in the family. During adolescence, he desired to have a body of a woman and act like a woman. He wanted to wear female clothes, jewellery and the red bindi that his mother wore on her forehead. One day he met a local hijra and was keen to talk to her. They became friends and later he decided to undergo castration after saving considerable amount of money. Ramesh had a computer networking degree and earned a decent amount every month. At 22 he underwent castration and became a happy person; now he could dress up and behave like a woman. His mind and body was not in constant friction with each other anymore. But as a result he was thrown out by his family. He moved to Kolkata with help with a transgender friend and joined the Hijra community.

For the first few days, Ramesh went to ceremonies and weddings to dance like traditional Hijras. But he is an introvert person and did not have dancing skills. He failed to perform in front of a marriage crowd or childbirth ceremonies. People stopped calling her on such occasions. But he needed money to survive- “ those were hard days” says Ramesh, “I didn’t know what to eat the next day”. The community was helping me financially, but they can’t do this for long” After 2 months of struggle, he had no way but became a prostitute catering to the need of the homosexual men. When enquired whether he is comfortable in his new profession, he says – “ I hate it. You are a woman too, would you like to sleep to strangers? But what can I do? I need money to survive.” Ramesh failed to incorporate his computer networking skills in his new established identity. Nobody will offer him a job in the organized Indian sector if he appears in women clothes and breast implants.

CASE STUDY 2: SWARUP PAUL, 41, NOT CASTRATED, INSURANCE AGENT BY PROFESSION

Swarup is an insurance agent in Kolkata. He conforms to the societal expectations of masculine identity but feels frustrated because his heart pines to be a woman. But he fears that he would lose his job if he undergoes surgery or “comes out” in the society. He earns enough money as an insurance agent to support himself and his family. He thinks nobody would buy insurances from him if he dresses up like a woman and goes to office. Neither can he become a traditional hijra dancing and singing around. “ I am a middle class man, living in the society, I can’t give up my job and completely change my life”. Thus, Swarup’s life circles around his masked identity and would continue to do so.

FINDINGS AND RECOMMENDATIONS

In India, individuals must negotiate their gender identity within the confines of gender binary. As per societal expectations, gender identity should reflect the societal gender norms associated with biological sex assigned at birth. As a result Transgender people face dilemmas in daily life in the way they express themselves. This study not only contributes to our understanding of gender construction within the discipline of sociology but also illustrates how gender binary arrangements contribute to the social inequality issues faced by the transgender population around mainstream economy.

Transgender discrimination is very common in employability of transgender individuals that prevents initiatives of government to become successful. The huffington post published a news in 2017 about the failed initiative of the Government to recruit transgender in Kochi Metro-“ The Kochi Metro case is a typical example of an ostensibly noble intention frustrated by the bitter reality of public prejudice. Three years ago, India's judiciary recognised the third gender as a valid identity that deserved all the constitutional privileges enjoyed by the other two genders. Last year a bill was tabled in Parliament to formalize the rights and safeguards of transgender people. Although it is yet to become a law and there are several problems with its framework, it is no doubt a step in the right direction, at least for what it seeks to achieve: equal rights for all citizens, irrespective of their gender. Society, however, is guided by its own rules, or rather misrules, whose roots are too deep and visceral to be hacked off overnight by one fell sweep of legal goodwill.” The excerpt is almost a glimpse of pan Indian picture. Similar kind of experience was shared by Manabi Bandopadhyay, the first transgender college principal of West Bengal who was forced to resign from her job due to non cooperation and discrimination of the authorities in 2016.

Some participants in this study had to negotiate their gender identities within their work environments based on whether or not people knew about their gender identity. Some individuals refused to ‘come out’ in the workplace as they feared that they would lose their job. The findings of this study illustrate the need for changes on both the macro level and the micro level of social organization. Changes can be made on the macro level by enacting the Employment Non-Discrimination Act (ENDA) to protect transgender people in the workplace.

Until there is a law in place to protect transpeople in the workplace, discrimination directed at those who deviate from gender norms will likely continue. The issue is not a matter of allocating “special” rights to transgender people but rather one of allocating rights that are enjoyed by the society as a whole: the right to be employed in an environment free from harassment, fear, and discrimination.

Systematic strategies should be employed to reduce discrimination and violence towards transgender people. Awareness campaigns should be conducted for employees to promote a gender neutral workplace. Gender neutral restrooms should be established. Laws should be gender sensitive and people centered as per the Universal Declaration of Human Rights in the UN Charters. Laws like Article 377 should be abolished that criminalizes any kind of deviance.

CONCLUSION

This paper studies the plight of transgender in India and the failure of nation state to utilize this marginalized group as productive human resource. Though the Indian Constitution guarantees right to equality of work irrespective of gender, in reality it only talks about the men women binary. Social gender identity is the strongest discriminatory factor in the workplace. The transgender identity is stigmatized and unacceptable not only by the society but also in regard to political rights and basic fundamental rights. Mobilisation of human resource (be it skilled or unskilled labor) in corporate sector ,organized sector as well as disorganized sector is dependent on fixed gender identities, shaped by culture. Transgender identities which does not conform to the fixed notion of heteronormativity fails to naturalize themselves in the nation state historiography. In spite of acquiring professional skills, the only way of livelihood for majority of transgender population is becoming a Hijra (traditional singer and dancer in festivals and occasions) or a masked sex worker. This hijra identity is often forced on them as there are no other means of economic platform. The discrimination faced by transgender as productive human beings, as effective human resource of the country articulates questions about the gender politics of the post colonial present.

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**IMPACT OF EMPLOYEE TRAINING AND DEVELOPMENT ON EMPLOYEE PRODUCTIVITY
WITH SPECIAL REFERENCE TO INDIAN OIL COMPANY LTD - KOLKATA**

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ABSTRACT

The underlying glee of the constant development of the personnel development of IOCL can be recognised through every media commencing from Deccan Chronicle, Economic Times to television, websites, and other mediums. An organisations key asset is its man power and its development. Continuous upliftment and infusion of more technical knowledge are the two vibrant factors that affects the workforce in today's world and made them capable to face the various constraints. This paper articulates the different aspects of training and development of Indian Oil Pvt.Ltd, of Dhakuria branch Kolkata and its impact on employees by considering feedback of 45 samples from different departments including management trainees, executives, staffs and managers. Human capital differentiates a great organization from a good one. Organizations investing in effective training and development for human resource tend to achieve both short and long term benefits. This study focuses few important reviews on literature on the significance of training and development on employee yield. Employees tends to become absolute, and therefore making the need to familiarize to the unceasing learning and apprising of the skill and knowledge, due to the organizational, technological and social dynamics. Hence, the organization to achieve optimal yields from their investment, it is vital to effectively manage training and development programs. However, the most vital asset of every organization under stiff and dynamic competition is its human capital. Training and development is a device that support human capital in reconnoitring their dexterity. Therefore training and development is vital to the productivity of organization's workforce.

Keywords: Employee-Training, Personnel Development, Employee Productivity, Technological Changes.

INTRODUCTION& CONCEPT

The most significant change in the last few years has been tying up training initiatives with strategic planning in India. The focus is also given on e-learning which has ensured consistent delivery of training programs across geographically dispersed workforce with a considerably reduced cost (Schuler 1990). "Human Resource Management" (Gilmore 2016) explained the fact about training and development for developing human resources. It was structured to explore the ways in which training and development activities are typically structured, enacted and evaluated using the model of the systematic training cycle, offering a critique of its continued application. The advent and tumour of human resource management have emphasised the organisational assets that is its manpower. Organisation personnel are treated as the key asset, where focus is given on their upliftment to cope with modern dynamism. Hence their training and development facets are modelled and remodelled every time to improve productivity. In this way a link is established between investments in effective training and longer term organisational survival for more upgraded national economy (Wilson 2005; Wang & Swanson 2008). As works in today's dynamic organisational environment have become more complex, the importance of employee education has increased.

Box 1. An example can be sited as follows:

Aeroplanes don't cause airline accidents, its people who did it (source: "Fundamentals of Human Resource Management" DeCenzo & Robbins: 1993). Nearly 3/4th of crashes and other misfortunes results from pilot or other air traffic controller errors or inadequate maintenance. So this incident indicate that there should be sound training practices in airline industry. Maintenance or human errors can be reduced by better employee training.

This paper emphasizes the areas in which IOCL-Kolkata must focus for by analysing and revamping its current training and development strategies.

Hence to revamp, a new framework of training and development is to be depicted where employee is the key factor.

Indian Oil Corporation Ltd is India's largest commercial enterprise. Moreover Indian Oil stands tall amidst top 50 PSUs in India. Building human competence and motivated workforce through training has been identified as one of the areas of greatest strength in Indian Oil. A pool of sound experienced and talented experts train the personnel of Indian Oil in different divisions like Refining, Marketing, Transportation, Research & Development and overall Management. All the faculties are experts in their respective fields with great deal of academic excellence and long years of hands-on experience in the field. Indian Oil maintains a series of 19

training hubs spread across the country with Indian Oil Institute of Petroleum Management (IIPM)(source: <https://www.iocl.com/Services/TrainingDevelopmentConsultancy.aspx>) located near New Delhi as the nodal centre, which continuously modernises the knowledge and talent of all its employees. The training centres are located at its refineries, Divisional Head Offices & regional offices of Marketing and Pipelines Divisions. Training may also be requested at any of Indian Oil's training centres for selected courses conducted at the refineries. Both on-the job and off-the-job training facilities are designed for creating a healthy training architecture. Other types of training conducted at IOCL are Women Development Training, Hindi Training, Probationary Officer's Training, Induction Training and Officer's Trainees Training.

TRAINING PROGRAM FRAMEWORK

The program framework is the logistical shell of the training program. Often, inexperienced training managers jump to “deciding on content” before the framework has been decided.

TRAINING BUDGET FOR LAST 5 YEARS OF IOCL	
YEAR	AMOUNT(Rs.)
2012-13	29,19,719
2013-14	34,35,887
2014-15	51,62,803
2015-16	57,10,578
2016-17	87,23,266

(Source: <https://www.iocl.com/services/Training.aspx>)

⇒ EVALUATION OF TRAINING

Measuring the effectiveness of training programs, however, consumes valuable time and resources – time and resources that are already in short supply. Donald Kirkpatrick's four-level evaluation model remains as the most well-known and used model today. Kirkpatrick developed his model in the late 1950s and the model has since been adapted and modified by a number of writers. The basic structure of

⇒ Kirkpatrick's four-level model is shown below.

Level 4 – Results

What are the organizational benefits resulted from the training?

Level 3 – Behavior

To what extent did participants change their behavior back in the workplace as a result of the training?

Level 2 – Learning

To what extent did participants improve knowledge and skills and change attitudes as a result of the training?

Level 1 – Reaction.

EVALUATION OF TRAINING PROGRAMME

The specification of values forms the basis for evaluation. The basis of evaluation and the mode of collection of information necessary for evaluation should be determined at the planning stage. The process of training evaluation has been defined as “any attempt to obtain information on the effects of training performance and to assess the value or training in the light of that information.” Evaluation leads to controlling and correcting the training programmes. **Hamblin** suggested five levels at which evaluation of training can take place, viz. reactions, learning, job behavior, organization and ultimate value.

How the program is evaluated and which training metrics will be measured is the next step in the development process. An annual review of the training program is another important part of the program design as it will ensure that the content remains fresh and relevant. A carefully planned training program will meet learning objectives and provide evidence through training metrics that the program is meeting the needs of the organization and the participants. The organisation has full-fledged Corporate Training Department, to augment the learning and development requirements of its officers. The company conducts its training program by training needs analysis. By application of the most vibrant aspect Systematic Training Cycle (STC) emerged in 1960, a four stage process, the company will engage organisational as their Training and Development work lacked a strategic focus (**Boydell 1976**).



Systematic Training Cycle (STC)

Q&A. What is the Training duration in IOCL?

Box 2. The case of an existing IOCL employee

Although the details have been altered for purposes of confidentiality and illustration, this case demonstrates typical training duration of IOCL A grade employees.

For a fresher (A grade Officer) the IOCL provides a training tenure of about 30-45 days which depends on the division one is assigned. Common Corporate Induction Module (CCIM), primary training module for 2 weeks is steered after which departments are being segregated like refinery, marketing, pipeline or business development (source: <https://www.quora.com/What-is-the-training-duration-in-iocl>). The process followed with Individual Departmental Training, to be held across different zones across India for duration of about 2 to 3 weeks. After this session final reallocations are made.

Q&A. What process do you follow for more employee development?

Box 3. The case of an existing IOCL employee

Although the details have been altered for purposes of confidentiality and illustration, this case demonstrates typical training duration of IOCL A grade employees.

Three basic steps are followed for measuring the training effectiveness of the employees



The training and development cycle also includes pre-training and post training session (source: www.wiley.com/college/Decenzo). Beside Kirkpatrick's model of Reaction, Learning, Behaviour and Result IOCL follows another renowned Learning Theory Kolb's Model of Learning Style of individuals is very important. An experiential learning has been viewed by Kolb as 4 stage cycle as Concrete Experiences (Feeling), Reflective Observation (Watching), Abstract Conceptualization (Thinking) and Active Experimentation (Doing) (source: "Human Resource Management"-A South Asian Perspective (Griffin, 2016).

PURPOSE/OBJECTIVE OF THE STUDY

- ✓ To identify the training needs for employee productivity
- ✓ To analyze the training and development methods of IOCL – Kolkata
- ✓ To study the theoretical framework of training and development of IOCL–Kolkata

LITERATURE REVIEW

Malhotra & Dubey (2017) pointed out that Outbound Training being an innovative training concept in recent market trends bridges the gap between the industry requirements and academics. The paper identifies the study of the prerequisite factors essential for a successful OBT operation, which may lead to attainment of training objectives.

Srimannarayana (2017) attempt to explore training evaluation practices in India due to increasing demand of training in all parts of the world.

Davar & Parti (2013) says that the present meta-analysis indicates that the training provided to employees does have a significant effect on productivity and it affects productivity across the board.

Stromme (2013) had indicate that Training plays an important role in protecting workers from various hazards. So effective safety and health training is needed for the employees (including contract workers) to identify the hazards & precaution against them. With the advancement of Oil and Gas industry the need for workers also rising & as a result new workers are hired for whom necessary preparation and training needs should be provided so that these workers are educated on the safe work practices associated with drilling and servicing a well. At the same time, experienced oil and gas workers should not be overlooked.

Khan, Khan & Khan (2011) brings out that Training and Development, On the Job Training, Training Design and Delivery style are four attributes the focus is to understand the positive effect of these training attributes on Organizational performance by creating a sound environment of training.

Kumar & Ramachandran (2011) emphasises on the training and development program given by the Oil-Mills in Coimbatore District by adopting Tippetts table. It also highlights the impetus of the training and development programme to improve the morale of the workers and productivity of oil mills at Coimbatore.

Truitt (2011) suggested that it is mandatory on training and development professionals to design, implement, and evaluate the effectiveness of their programs in reducing disputes in workplace performance. It also reconnoiters the relationships between training experiences and attitudes and attitudes about perceived job proficiency.

Kirwan & Birchall (2006) pointed out that a model solely “describes a sequence of influence on outcome occurring in a single learning experience and does not demonstrate any feedback loops”.

Design/Methodology/Approach

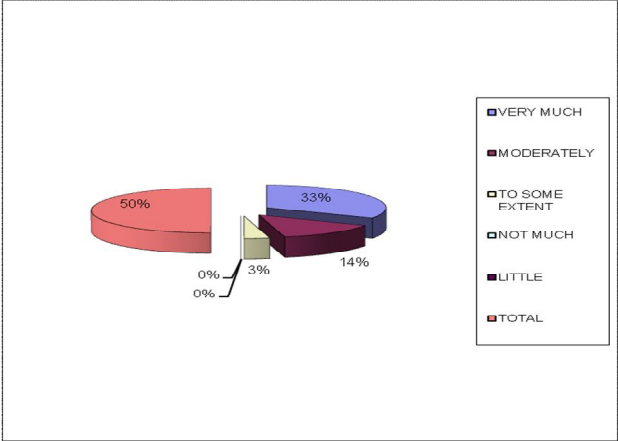
The research methodology adopted in this paper is a descriptive research technique taking 45 sample of IOCL Kolkata. The sampling technique used in the survey is non-probabilistic judgmental sampling using a structured questionnaire, interviews and observation methods to collect data from different executives' and trainees. Secondary Data has collected from various books, journals, articles and company websites.

DATA FINDINGS & ANALYSIS

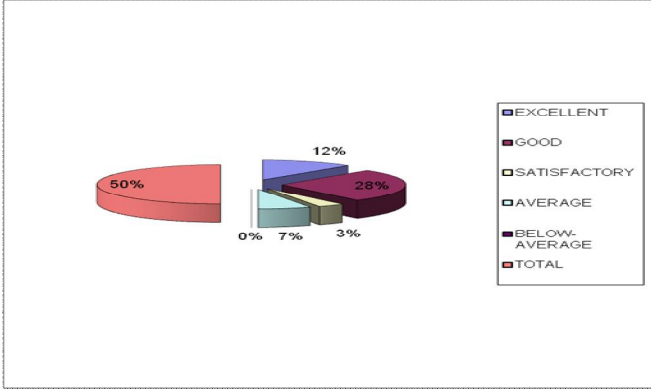
The main finding of this paper is that though the HR department of IOCL-Kolkata is in continuous effort for the upliftment of company personnel but still it has to dig out some more opportunities to make it a highly concentrated one in terms of resource and efficiency.

Analysis of this study will be done on the basis of various charts & diagrams. At first data will be collected through questionnaire & interview and then presented the data on the literature. This analysis will give a clear idea regarding the current situation of all the workmen and facilitate the organization to take corrective measures in solving the problems of the organization. *In this literature questionnaire is a vital part.* Therefore, the questionnaire was very useful & timesaving in the initial stage, although considerable care should be taken in the construction and eventual interpretation. Moreover the surveys will be followed-up by shorter quantitative informal interviews based on the initial findings.

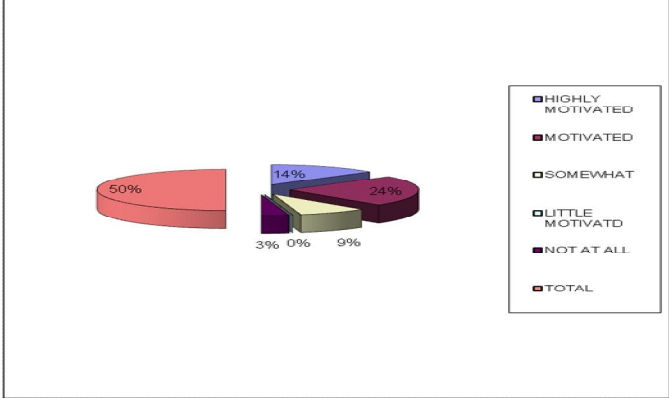
How effective is the training in real life situation?



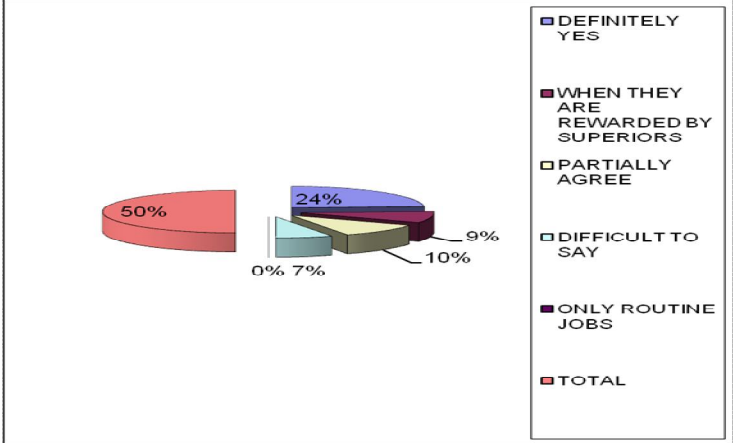
How will you rate the quantity of training imparted keeping in view the post-training & current job situation?



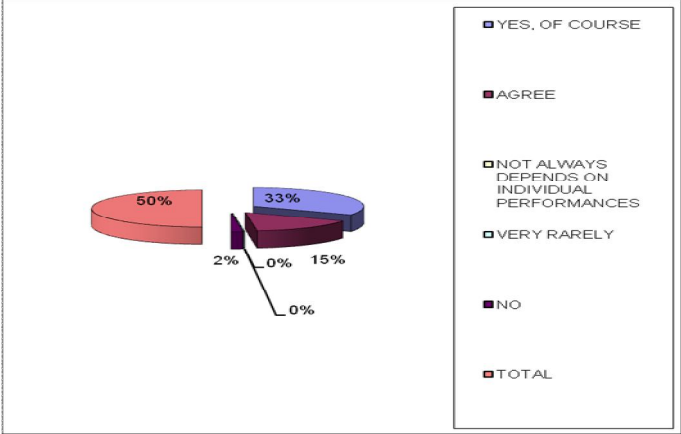
Has the training imparted given you sufficient motivation to stay in IOCL and to improve yourself?



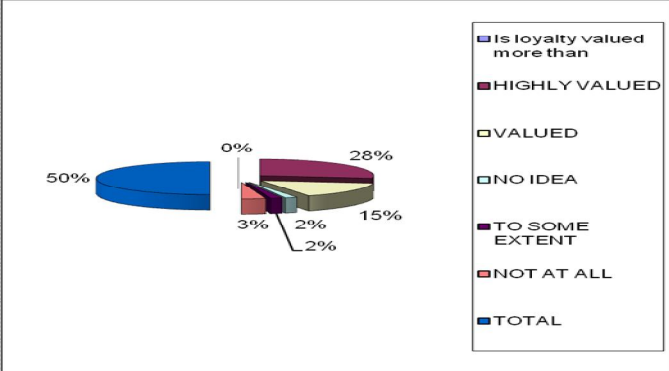
Has in-house training of employees in their company enthused them to perform their jobs?



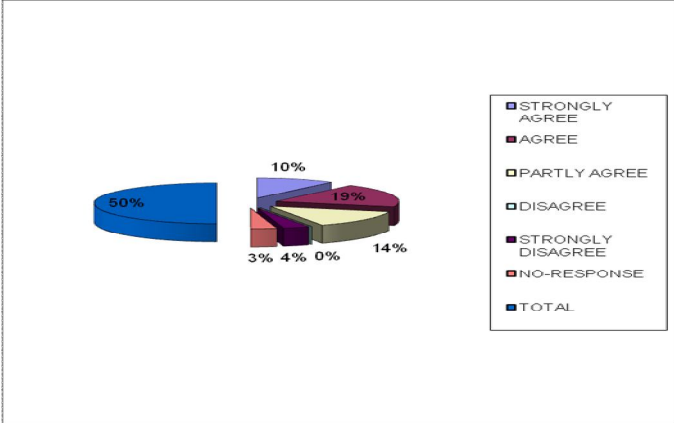
Training Programmes have taught you to take your job seriously and to perform.



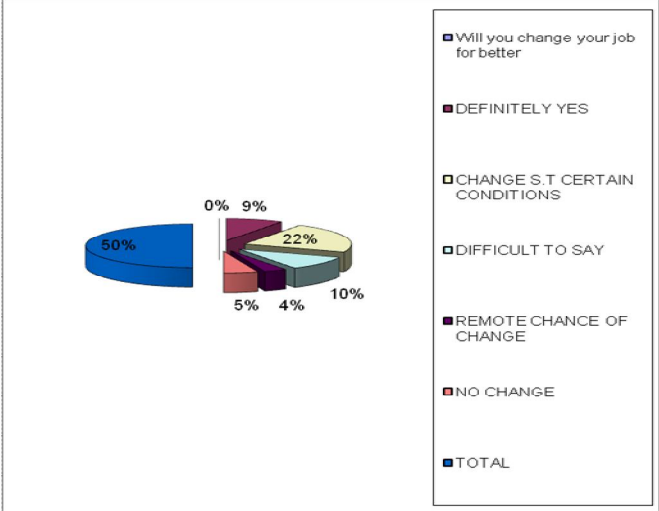
Is loyalty valued more than anything else in your company?



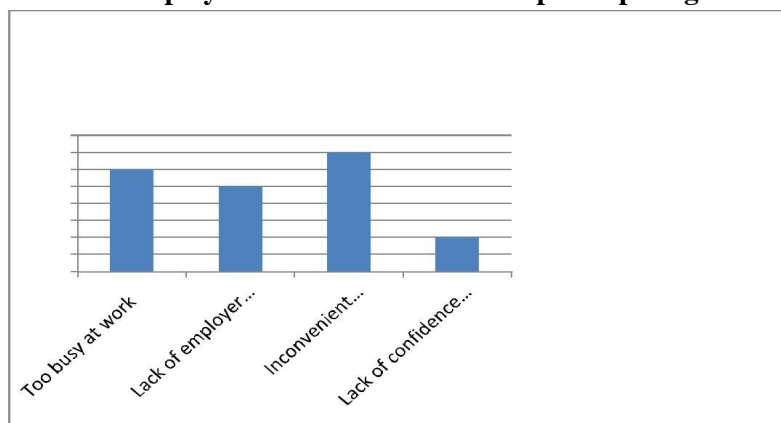
Do you agree with the statement that the employees are highly satisfied with the pay packets?



Will you change your job for better emoluments?



What are some of the barriers employees face when it comes to participating in our training program?



According to this chart we can see that 30% of the employees are too busy at their work, 25% employees face the lack of their supervisor's support, 35% employees having inconvenient time/location and 10% employees having lack of confidence in own abilities while participating in training program. I may conclude that most of the employees face difficulties participating in training program because of the inconvenient time/location.

EMPLOYEE'S PERCEPTION REGARDING TRAINING IMPARTED

- 66% of the employees feel that training is very much effective in real life situation while 28% feel that it is moderately effective. The rest 6% only feel that its effectiveness to some extent.
- Regarding the quality of training imparted, 24% of the employees rate it as excellent and 55% rate it as good. Only 7% think that it is satisfactory if the respondents rate the quality of training as average.
- About 76% of the employees opine that training imparted has made them either highly motivated or motivated to stay in IOCL and to improve themselves. Only 1/15th of the employees do not think that they are motivated by the training imparted.
- About 7% of the respondents are not infused by the training imparted to accomplish their higher performance levels. The rest 89% think otherwise.
- Nearly 50% of the employees fully agree that the training imparted has infused them to undertake their jobs seriously. 38% either partially agree or opine that are infused when they are rewarded. The rest 14% respondents would not say anything.
- Majority of the respondents (66%) believe that top management think that people are extremely important resource. About 1/5th of the respondents think that only some of the top management hold this view only 7% partially agree that the top management holds such view. Nearly all the employees (97%) think that training programmes taught them to perform their job well.

Distribution of respondents according to their responses on issues focusing people's orientation: Nearly 5/6th (86%) of the employees' subscribe to the view that in their company loyalty is valued more than anything else. Only 7% of the employees do not subscribe to the view.

Distribution of employees participating in the survey according to their opinions on job satisfaction: Only 7% of the employees have strongly disagreed with the statement that they are highly satisfied with the pay packets. 59% of the employees have either strongly agreed or agreed with such statements.

Distribution of respondents according to issue relating to innovation: About 14% of the employees do not agree that employees in IOCL find creative and innovative ways of working without being constrained by precedents. About 24% employees have strongly agreed with the statement that employees in IOCL find creative and innovative ways of working without being constrained by precedents while 1/3rd of the employees agreed with the statement and 28% partly agreed.

Distribution of employees on the basis of their opinion regarding facilities offered by IOCL for work to meet the corporate objectives. : Majority of the employees (48%) feel that the organizational inputs fully meet the corporate objectives while 31% feel that the inputs partly inputs. 1/6th (nearly 17%) have no idea on the subject.

Opinions on the issue related to customer satisfaction are presented: 41% of the employees have said that the customer satisfaction index has been developed & measured in IOCL. 28% opine that CSI is measured

occasionally. 21% have no idea that CSI has been developed and measured. 7% has informed that a method of measuring CSI has been developed but it is not measured.

After detail analysis considering feedbacks from both the companies a training evaluation structure (exhibit 1 & 2) is designed which is done before training, during training and after training.

Exhibit 1

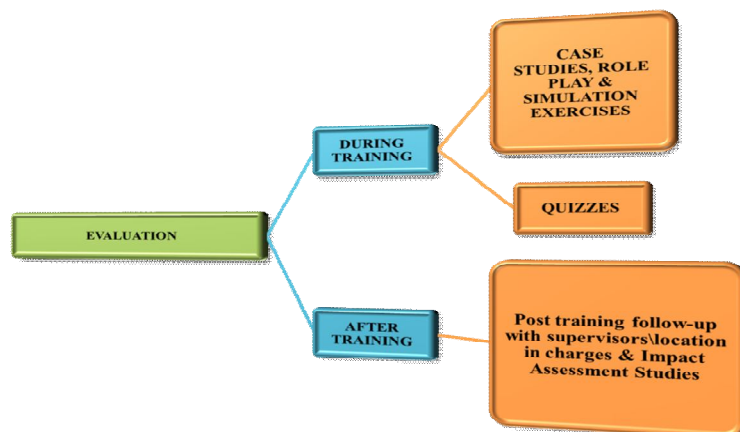
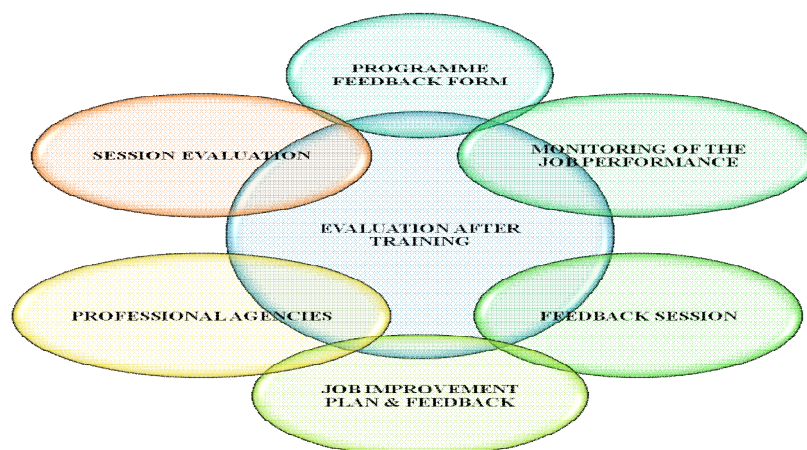


Exhibit 2



RESEARCH LIMITATIONS / IMPLICATIONS

- This study covers only one branch of IOCL - Kolkata only
- Time constraint

CONCLUSION

Training is an important part of an organization. This research project paper was undertaken with an objective to find out training needs and measurements of training effectiveness of all the employees of different nodal points. This study will help the management of Indian Oil Corporation Ltd to identify the causes behind the non-involvement of the cent percent of employee in the training program and also the reason behind the dissatisfaction of the employees. Similarly, this study will also enable management to understand the basic need of employees as well as the organization in order to improve the current scenario and also provide tools for measuring effectiveness of training programme. Opinions expressed by the employees reveal that the training at IOCL is by and large effective, motivating and conducive to achieving results. Most of the employees opined that the quality of training imparted at IOCL is good, if not excellent. More than majority of the employees (66%) feel that top management considers employees to be extremely important resource. About 60% of the employees are satisfied with their pay packets and 1/3rd of the employees do not want any change of job. It must be borne in mind in this connection that only a small cross-section of the employees at IOCL is brought under study and findings from such a study do not necessarily qualify to be facts. However, since the survey conducted on the basis of face to face interviews with the IOCL employees of the Corporations Eastern Region Regional Office, which is one of the main Metro-Regional Offices of IOCL with a full-fledged and highly effective Training Department, it has been assumed that the survey results reflex the real life

perceptions & opinions of a reasonably dependable cross-section of IOCL employees on the training that they have received.

RECOMMENDATION

After carrying out in-depth studies on the topic it reveals that despite providing opportunity to each employee to undergo respective training program, participation of the employees were found not so satisfactory. Hence it is recommended that effort should be made by the management to find out the reason behind this and motivate the employees in order to improve the situation.

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FACTORS AFFECTING CUSTOMER SATISFACTION IN HOSPITAL SECTOR: A STUDY OF PRIVATE HOSPITALS IN KOLKATA

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ABSTRACT

Patient is a customer of the Hospital whose satisfaction must be the prime area of focus for the hospitals. Hospital services are highly involved services and critical too because life can not be recovered. With the increase in population the demand and supply gap for hospital services is continuously increasing and new private hospitals are coming up to fill the gap making this sector highly competitive. In recent past, the number of private health care services in West Bengal has been growing, and the private sector health care services market has turned out to be highly competitive. Thus it is highly essential to identify the factors which satisfy the customers and strategise policies based on these requirements .

The purpose of this study is (i) To identify the factors affecting customer satisfaction of private hospitals in kolkata and (ii) To suggest managerial implications of the individual factors. A questionnaire was designed and responses were collected from 350 customers i.e patients or patient-party from 5 private hospitals in kolkata. Exploratory Factor Analysis was carried out and five factors namely Reliability, Assurance, Personalised attention, Facilities and Cost were identified. The study shows that the factors Reliability, Assurance, Personalised attention and Cost has strong association with customer satisfaction.

Keywords: Private Hospitals, Customer Satisfaction, Reliability, Assurance, Personalised attention, Cost, EFA.

INTRODUCTION

Customer satisfaction is an area of prime concern for all organisations. Patient is a customer of the Hospital hence his satisfaction needs to be the area of focus for the hospitals. The satisfaction of patient is depended on the service performance which has been performed by the hospital. Hospital services are highly involved services and critical too because life can not be recovered. With the increase in population the demand and supply gap for hospital services is continuously increasing and new private hospitals are coming up to fill the gap making this sector highly competitive. In recent past, the number of private health care services in West Bengal has been growing, and the private sector health care services market has turned out to be highly competitive. To sustain in this dynamic environment where customer preferences are changing frequently due to easy accessibility and availability of information, the service providers must be proactive to the changing pattern of customer likes and dislikes. Especially in hospital sector where the zone of tolerance is very narrow it becomes indispensable for the service providers to understand the customer preferences and formulate strategies to address the gap if any. In the present age of liberalisation and privatisation of the service sector, the organisations have to identify their core competence and gain sustainable competitive advantage for effective service delivery and adequate service positioning. Service Quality is most important as it can create differentiation between hospitals because hospitals provide similar services of different quality. In order to survive in this competitive environment the hospitals need to understand the changing preferences of patients, improve service quality to increase patient satisfaction and loyalty to ensure sustained growth in the long run. Thus it is highly essential to identify the factors which satisfy the customers and strategise policies based on these requirements.

LITERATURE REVIEW

Several studies have been conducted to measure patients satisfaction regarding hospital services.

Blizzard (2005) in a study with a randomly selected national sample of 1,010 adults in the Gallup Poll Panel of households, aged 18 and older, established that the consumers don't have access to the resources they need to make informed decisions about healthcare facilities based on the criteria they would most like to use. There remains a strong, unsatisfied demand for understandable information on quality of care and incidence of medical errors. Endang Ruswanti (2017), there is no direct impact of dimensions of service quality, except assurance on patient satisfaction. Zarei et al. (2012) noted that SERVQUAL is a valid, reliable, and flexible instrument to monitor and measure the quality of the services in private hospitals of Iran. It is highly important creating a strong relationship between patients and the hospital practitioners/personnel and the need for hospital staff to be responsive, credible, and empathetic when dealing with patients. Aliman & Mohamad (2015) in his study in Malaysia indicated that service quality dimensions positively affected the intention behaviors. All service factors had positive relationships with patients' satisfaction. However, only three dimensions of service

quality (tangibles, assurance and empathy) showed significant relationships with intention. In addition, tangibles, reliability and assurance had significant relationship with satisfaction. Assurance dimension was considered very important in influencing both satisfaction and behavioral intentions of the patients. Satisfaction had strong positive effects on intention behavior. In short, both service quality dimensions and patients' satisfaction were positively related to behavioral intentions. Thus, strong managerial orientations should be introduced in the private hospitals in order to deliver a high quality service, to increase patient satisfaction, and consequently encourage intentions to revisit and recommend to others. Laith Alrubaiee, patient perception of healthcare quality has a strong and positive impact on the patient satisfaction and trust, patient satisfaction has also significant impact on patient trust. (Torcson, 2005), patient's satisfaction or dissatisfaction is a judgment on the quality of hospital care. Zineldin (2006), patientsatisfaction is an important health outcome and measure. Merkel (1984), no significant relationship between patient satisfaction and doctors perception of patient satisfaction. R.G.Singh (2012), Consumers consider quality service as a stipulation to their satisfaction. Shah & Singh (2011) in their study with 3 big Multi Specialty hospitals in Manipur revealed that the proportion of patients willing to seek a particular hospital (medical provider) is significantly different across the attributes for treatment. Availability of specialists doctors and surgeons and infrastructure consideration of the hospitals are the dominant reason for the choice of the hospitals by the patients. Patients have different reasons and preferences in choosing a hospital. The findings of the present study are important for hospital administrators. Pandit (2015) identified the level of service quality in some randomly selected hospitals in Kolkata, West Bengal, India. Consumers' perceptions and expectations towards various parameters of service quality can differ and the degree of discrepancy between perception and expectation helps in analyzing service quality. Population for the study consisted of patients and visitors of few hospitals in Kolkata. Categorization of Hospitals in Kolkata is : (A) Private Super-Speciality Hospitals, (B) Government Medical Colleges as well as Hospitals, (C) Private General Hospitals.. There was a significant difference in three categories for empathy. No significant difference was found in other dimensions. On the whole the industry did not match the expectations of customers.

OBJECTIVES OF THE STUDY

- (i) To identify the factors affecting customer satisfaction of private hospitals in kolkata
- (ii) To suggest managerial implications of the individual factors.

METHODOLOGY

The main idea of this study is to identify the factors affecting customer(patient) satisfaction and then find out the correlation between each of these factors and customer satisfaction. In order to collect primary data a two part structured questionnaire has been designed based on content analysis, literature survey and pilot study. Part 1 is for the demographic study and consists of questions regarding the respondents' demographic profile, such as gender, age, educational qualification, annual income, marital status, profession and area of residence. Part 2 consisted of 25 questions related to customer satisfaction in hospital sector. A separate question is included to seek customer opinion on their overall satisfaction of the services of the hospital. All the questions of part 2 of the questionnaire used likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Using this questionnaire primary data was collected from 350 customers(patient or patient party) using convenience sampling(convenience sampling method was followed as other methods were less feasible in a hospital context) from five multi-speciality hospitals namely Appollo, R.N.Tagore, AMRI, MEDICA and Peerless hospitals in kolkata. Out of the 350 questionnaires 341 were usable questionnaires which were used for data analysis. Based on the discussions above, following hypotheses were tested:

- H1: Reliability (Factor 1) is positively related to customer satisfaction(CS),
- H2: Personalised Attention(Factor 2) is positively related to customer satisfaction(CS),
- H3: Assurance (Factor 3) is positively related to customer satisfaction(CS),
- H4: Facilities (Factor 4) is positively related to customer satisfaction(CS),
- H5: Cost (Factor 5) is positively related to customer satisfaction(CS)

DATA ANALYSIS

The raw data was analyzed using SPSS 19.0 version and factor analysis was performed for data reduction and factor extraction out of the 25 variables under study. Applying principal component analysis variables with factor loadings of 0.40 or higher were clubbed together to form separate factors as recommended by Hair et al. (2006). For further analysis we considered only those factors whose eigen-values is more than one, as significant (Guttman-Kaiser rule). Correlation was studied between customer satisfaction(CS) and the five

factors extracted by factor analysis as discussed above to find out the degree of association of each of these factors with customer satisfaction(CS).

EMPIRICS

The demographics of the respondents are shown in table 1 given below.

Table-1: Demographic Profile

Parameter	Frequency	Percentage
Gender		
Male	192	56.4
Female	149	43.6
Age		
Below 30 yrs.	55	16
30-40 yrs.	61	18
40-50 yrs.	68	20
50-60 yrs.	85	25
Above 60 yrs.	72	21
Educational Qualification		
Secondary	34.1	10
Higher Secondary	68.2	20
Graduation	146.63	43
Post Graduation	92.07	27
Annual Income		
Below 1lakh	68	20
1-3 lakhs	82	24
3-6 lakhs	89	26
Above 6 lakhs	102	30
Marital Status		
Married	150	44
Unmarried	191	56
Profession		
Service	83	24.2
Self-employed	90	26.4
Student	35	10.3
Retired	65	19.1
Housewife	68	20
Area of Residence		
Urban	280	82
Rural	61	18

As can be seen from the above table 1, about 56.4% of the respondents were male and only 43.6% were female. About 54% of the respondents are below 50 years, whereas 46% of the respondents are above 50 years. Surprisingly younger people are falling sick more than the older people. About 10% are upto Secondary 20% of the respondents were HS followed by 43% Graduates and Post graduates (27%). According to the level of annual family income, 24% of the respondents falls under the income bracket of Rs 1 lakh – 3 lakhs, 20% of the total respondents falls under the income group of less than 1 lakh whereas only 26% are between 3 – 6 lakhs and 30% are above 6 lakhs. 44% of the respondents are unmarried and 56% are married. 26.4% are self employed, 24.2% are service holders, 10.3% are students, 19.1% are retired and 20% housewife. About 82% are from urban area and 18% are from rural area.

FINDINGS

RELIABILITY ANALYSIS

Reliability analysis was undertaken to check the internal consistency of the instrument constructed With multi-item scales. As can be seen from Table 2 below, the case processing summary shows that all 341. Observations are included in the analysis and the value of cronbach,s alpha is .940 and number of items is 25. As cronbach,s

alpha is higher than the accepted(.70),we can say that the instrument is reliable to be used with other statistical procedures.

Table-2: Reliability Scale: All Variables Case Processing Summary

		N	%
Cases	Valid	341	100.0
	Excludeda	0	.0
	Total	341	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.940	25

Factor Analysis Table-3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.812
Bartlett's Test of Sphericity	Approx. Chi-Square	11000.553
	df	300
	Sig.	.000

The value of KMO test is 0.812 (higher than 0.6) and the p-value of Bartlett's test .000 which is less than 0.05 Indicates that these data do not produce an identity matrix,hence acceptable for fagtor analysis(Table 3). Mean and Std.Deviation of the variables under study are given in Table 4. The next table 5 displays the Communalities.Communalities means proportion of variance due to common factors and shared by several items . Communalities help estimate the variance that is unique to each variable.

The next is the Total Variance Explained Table 6. As can be seen from the Extracted Sums of Squared Loadings,the first factor accounts for 43.981% of variance,the second factor accounts for 15.956%,the third 12.83%,the fourth 5.837%,and fifth 4.332%. All other remaining factors are not significant.The factors explained about 83% of total variance.

The Scree Plot is shown in Figure 1. It determines the optimal number of components.Those components have been selected whose eigenvalues are greater than 1.

The Rotated Component Matrix is shown in Table 8. As can be seen from the table 9, five factors have been identified. A component or a factor is defined by all the variables that have large factor loadings for the given component. Rotation does not change anything but makes the interpretation easier. From the Rotated Component Matrix it can be seen that Variable V1,V3,V9,V10 ,V12,V15,V19,V24 are substantially loaded on Factor 1 ,while V23,V16,V20,V18,V7 are substantially loaded on Factor 2.Similarly other variables are loading other factors ,which can be seen from the table below.

Factors	Variables	No of items	Cronbach's alpha
F1 Reliability	V1, V3, V9, V10, V12, V15,V19, V24,	8	0.917
F2 Prsonalised Attention	V7,V16, V18, V20, V23	5	0.922
F3 Assurance	V5, V13, V17, V21, V22	5	0.888
F4 Facilities	V4, V6, V8, V14	4	0.829
F5 Cost	V2,V11	2	0.878

Table-4: Descriptive Statistics

	Mean	Std. Deviation	Analysis N
V1	3.2815	.58655	341
V2	3.5865	.65686	341
V3	3.1114	.90710	341

V4	3.6041	.71857	341
V5	3.3490	.68055	341
V6	3.3343	.69850	341
V7	3.7419	.70145	341
V8	3.6569	.70889	341
V9	3.1789	.99423	341
V10	2.8065	.78446	341
V11	3.5748	.69735	341
V12	3.2463	.60222	341
V13	3.8094	.63387	341
V14	3.3402	.62905	341
V15	2.8915	.81707	341
V16	3.6364	.61575	341
V17	3.6012	.97281	341
V18	3.6510	.64048	341
V19	2.8974	.84958	341
V20	3.6217	.71579	341
V21	3.4399	.68173	341
V22	3.4751	.68393	341
V23	3.6510	.63123	341
V24	3.2287	.59941	341
V25	3.4780	.63497	341

Table-5: Communalities

	Initial	Extraction
V1	1.000	.718
V2	1.000	.837
V3	1.000	.903
V4	1.000	.841
V5	1.000	.863
V6	1.000	.851
V7	1.000	.857
V8	1.000	.865
V9	1.000	.931
V10	1.000	.827
V11	1.000	.857
V12	1.000	.809
V13	1.000	.708
V14	1.000	.835
V15	1.000	.860
V16	1.000	.791
V17	1.000	.866
V18	1.000	.816
V19	1.000	.850
V20	1.000	.736
V21	1.000	.743
V22	1.000	.865
V23	1.000	.877
V24	1.000	.796
V25	1.000	.837

Table-6: Total Variance Explained

Component	Initial Igenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.995	43.981	43.981	10.995	43.981	43.981
2	3.989	15.956	59.937	3.989	15.956	59.937
3	3.211	12.843	72.780	3.211	12.843	72.780
4	1.459	5.837	78.618	1.459	5.837	78.618
5	1.083	4.332	82.950	1.083	4.332	82.950
6	.647	2.590	85.540			
7	.551	2.204	87.744			
8	.454	1.818	89.562			
9	.366	1.465	91.026			
10	.337	1.349	92.375			
11	.316	1.264	93.639			
12	.270	1.080	94.719			
13	.214	.858	95.577			
14	.196	.785	96.362			
15	.170	.679	97.041			
16	.133	.533	97.574			
17	.121	.483	98.057			
18	.096	.384	98.441			
19	.093	.372	98.813			
20	.079	.315	99.128			
21	.057	.230	99.358			
22	.053	.212	99.570			
23	.044	.176	99.746			
24	.043	.172	99.918			
25	.020	.082	100.000			

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	5.630	22.520	22.520
2	4.578	18.312	40.833
3	4.459	17.835	58.667
4	3.920	15.681	74.348
5	2.151	8.602	82.950
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25			

Extraction Method: Principal Component Analysis.

Table-7: Component Transformation Matrix

Component	1	2	3	4	5
1	.623	.470	.478	.339	.221
2	-.108	.282	-.536	.740	-.271
3	-.559	.696	.310	-.214	-.248
4	.103	-.346	.448	.179	-.798
5	-.527	-.309	.433	.510	.423

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

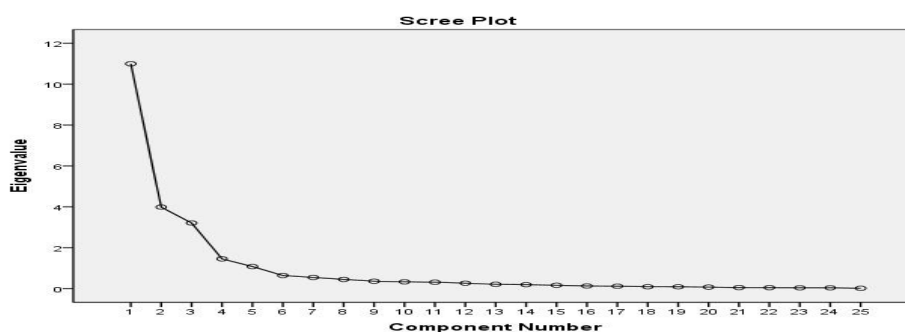
Table-8: Rotated Component Matrix^a

	Component				
	1	2	3	4	5
V15	.814	.022	.289	.077	.329
V19	.802	.065	.332	.084	.292
V10	.801	.057	.414	-.085	.059
V1	.787	.237	.018	.200	-.038
V12	.741	.307	.147	.379	-.010
V24	.642	.298	.273	.469	-.005
V3	.628	.031	-.336	.626	.045
V9	.621	.127	.588	-.142	.403
V23	.150	.894	.169	.142	.080
V16	.142	.841	.227	.077	-.073
V20	.142	.831	.124	.092	.026
V18	.135	.820	.290	.203	-.007
V7	.146	.676	.079	.451	.412
V17	.089	.231	.820	-.324	.169
V5	.298	.363	.787	-.148	-.031
V21	.302	.246	.735	.047	.220
V22	.442	.324	.725	.056	.189
V13	-.058	.490	.562	.361	-.133
V8	.139	.298	-.094	.865	-.013
V4	.077	.265	-.160	.858	.050
V14	.335	-.170	.551	.605	-.153
V6	.581	.146	.064	.597	.362
V2	.403	.153	.394	.182	.680
V25	.021	.343	.127	.492	-.679
V11	.441	.213	.404	.246	.627

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 13 iterations.

b. Figure 1



CORRELATION STUDY

Table-9: Correlations

	CS	F1
CS		
Pearson Correlation	1	.799**
Sig. (2-tailed)		.000
N	341	341
F1		
Pearson Correlation	.799**	1
Sig. (2-tailed)	.000	
N	341	341

Correlation is significant at the 0.01 level (2-tailed).

CORRELATIONS

	CS	F2
CS		
Pearson Correlation	1	.680**
Sig. (2-tailed)		.000
N	341	341
F2		
Pearson Correlation	.680**	1
Sig. (2-tailed)	.000	
N	341	341

Correlation is significant at the 0.01 level (2-tailed).

CORRELATIONS

	CS	F3
CS		
Pearson Correlation	1	.734**
Sig. (2-tailed)		.000
N	341	341
F3		
Pearson Correlation	.734**	1
Sig. (2-tailed)	.000	
N	341	341

Correlation is significant at the 0.01 level (2-tailed).

CORRELATIONS

	CS	F4
CS		
Pearson Correlation	1	.565**
Sig. (2-tailed)		.000
N	341	341
F4		
Pearson Correlation	.565**	1
Sig. (2-tailed)	.000	
N	341	341

Correlation is significant at the 0.01 level (2-tailed).

CORRELATIONS

	CS	F5
CS		
Pearson Correlation	1	.762**
Sig. (2-tailed)		.000
N	341	341
F5		
Pearson Correlation	.762**	1
Sig. (2-tailed)	.000	
N	341	341

Correlation is significant at the 0.01 level (2-tailed).

It can be seen from Table 10 above, all the Factors have positive correlation with CS(Customer Satisfaction) as the correlation coefficients are 0.799, 0.680, 0.734, 0.565, 0.762 and are statistically significant as the p-value is less than 0.05. Hence hypotheses H1, H2, H3, H4, H5 are supported.

CONCLUSION

The findings show that all the five factors which have been derived from the original 25 scale response items have strong correlation with customer satisfaction. The Factor 1 (reliability) has the strongest correlation whereas the Factor 4 (facility) has the lowest level of correlation with customer satisfaction. The reliability factor indicates the firm's ability to perform the promised services dependably and accurately. Particularly their promises about service outcomes and core service attributes. Which means the customers or the patients value treatment and the cure and performance on the core services more compared to other factors. The reason behind this may be because in case of hospital services it's very difficult to recover from service failures because service failures might mean loss of life.

This study has indicated Factor 5 (Cost) as the second most important factor. In spite of a figure of around 60% people having annual income of more than 3 lakhs cost is still a major concern and medical care in these kind of select multispeciality hospitals are expensive and beyond the reach of the common man. Another important finding is that the Factor 3 (assurance) factor which indicates the competency, courtesy and credibility of the service provider is no more a differentiating or competitive factor which it used to be earlier. This might have happened mainly because most of these hospitals have been able to publicise the level of competency of the doctors and their technical knowledge and credibility to the customers in general. This study has shown the importance of another Factor 2 (personal attention) which indicates that patients today are preferring personalised care or customised service compared to standard package of services offered. Further studies may reveal that customers may be ready to pay higher prices for customised services.

MANAGERIAL IMPLICATIONS

The study clearly shows that patients today are looking for cure, care, cost transparency, competence and communication. Customers primarily want value for their money, quick attention, start of treatment, successful outcome i.e. cure, feedback or briefing by doctors on the progress of the treatment, transparency of medical expenditures and regular information on expenditures. Now if we look at all these requirements managers of the healthcare sector need to pay attention on the following.

1. Strengthen the core service delivery that is treatment and cure
2. Courtesy and care, creating listening posts, not ignoring patients' views and paying personal attention as far as possible
3. Have competent workforce that is competent doctors, nurses and technicians involved in the core service delivery process.
4. Use latest technology and modern machines to provide assurance to the customer regarding proper treatment and care.
5. Develop systems to make the cost of medical care transparent and assure the customers about no hidden costs. Managers need take care to inform the patients at the beginning of the treatment about the tentative costs of the total treatment.

LIMITATIONS OF THE STUDY

The study is exploratory in nature and the data has been collected from the customers of five select multi-speciality hospitals in Kolkata, hence the findings may not be generalised to all the hospitals.

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ART OF RETAINING EMPLOYEES IN THE IT SECTOR: A STUDY WITH REFERENCE TO WEST BENGAL

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ABSTRACT

Employee Retention is one of the key challenges faced by IT Organizations in India. Retaining the talented employee as high turnover is serious concern for organizations now days. Employees retaining is the most imperative target for the organization because hiring of qualified candidates is essential for organization but their retention is more important than hiring because a huge amount is spending on the orientation and training of the new employees. When employees leave the job, organization lost not only employees, but also lost the customers and clients who were loyal with the employees, knowledge of production. There are many factors that can make the employees to stay long back and perform well. The main aim of this study is to highlight the different factors that affect the retention of employees working in IT companies, West Bengal and also indicate some suggestions and recommendations for employees' retention in IT sector.

Keywords: Employee, Retention, Strategies, IT companies

INTRODUCTION

One of the most critical issues facing organizations today is to retain the employees especially in the Information Technology (IT) sector. Even though more and more IT companies are coming up, the turnover rate is considerably high compared to other industries. Gone are the days when organizations could hire the best talent and expect them to stay on board until retirement. When the organization looks for a replacement there is certain amount of intangible costs in addition to loss in productivity. : The information technology industry is faced with a shrinking pool of skilled employees causing demand to increase for these employees. This places organisations under pressure to devise retention strategies to retain these employees. Retaining employees is very important in any organization. It becomes more pertinent in the Information Technology industry to retain the key performers. Successful organizations recognize the worth of retaining their best employees and continuously look for innovative ways to do so. Employees leave for various reasons which include ambiguous and unchallenging role, poor supervision, inadequate peer support, and limited career growth, lack of recognition, limited control over work, perceived pay in equity and perception of more favourable opportunities in other companies. Employee retention strategies should be taken into account so that an individual stays in an organization for the maximum period of time. The organization is completely at loss when these employees leave. Losing employees means losing knowledge, capital, skills, and experience. Loss of talented employees is loss of productivity and revenue. The Indian IT sector attracts foreign direct investment (FDP) but if employees are not retained by the organizations then it will affect the employment relationship with the foreign countries and it will affect the economic growth of the country.

IT SECTOR IN INDIA

IT Industry in India is viewed as growth engine of Indian economy, contributing in increase of Gross Domestic Product (GDP), urban employment and exports. India's IT Industry contributed major share to GDP. Over last 10 years the IT Industry has grown at an annual rate of 30 percent. According to NASSCOM's (National Association of Software and Services Companies) Indian IT Industry provide direct employment to 2.8 million and indirect employment to 8.9 million workers in 2012 and now IT industry employ 10 million workforce in 2014-2015. As per NASSCOM report published in May, 2017, Industry will remain a major net hirer in FY 2018; There is a continuing gentle deceleration in net hiring growth rate (but with a growing base) as industry focuses on innovation, enhanced efficiencies and lower. Hiring continues across the sector. FY 2017 saw 1,70,000 added; Q4 FY 2017 alone saw gross hiring of over 50,000 by top 5 companies. The total direct employees involved in this sector are 3860000 in the FY2017 and it is expected to reach the figure at 6500000 in the FY2025. The market size of the industry is expected to rise to USD 225 billion by 2020 considering India's competitive position, growing demand for exports, Government policy support, and increasing global footprint. The domestic revenue of the IT industry is estimated at US\$ 38 billion and export revenue is estimated at US\$ 117 billion in FY17.

India is the topmost offshoring destination for IT companies across the world. Having proven its capabilities in delivering both on-shore and off-shore services to global clients, emerging technologies now offer an entire new gamut of opportunities for top IT firms in India. US\$ 150 billion Indian IT industry's export revenue to grow at 7-8% and domestic market revenue is projected to grow at 10-11 per cent in 2017-18.

BACKGROUND OF IT INDUSTRY IN WEST BENGAL

People are an organization's most valuable asset and this is especially true in the service sector like IT industry. Kolkata known as the dead city is finally turning to attract IT companies to set up their shops. The Govt. of West Bengal is playing major role in attracting more and more IT companies. Various initiatives have taken by the government to improve and position Kolkata as an IT hub. Government has allotted vast space for IT set ups at salt-lake, Rajarhat - Newtown area. Tata Consultancy Services (TCS), a leading IT services, sets its new software development campus at Rajarhat in the year 2014-15 which is spread over 40 acres of land and have over 16,500 seats with an investment of approximately Rs1,350 crore. The Rajarhat campus will offer TCS employees a worldclass and holistic work environment with facilities like amphitheatre, auditorium, cafeterias, libraries, temporary accommodation and large green open spaces. The campus will house fitness facilities like tennis courts, basketball court and gymnasium for employees. Infosys and Wipro have both been sitting on their allotted plots in Rajarhat-New Town. for the last nine years. Wipro's first campus, in Salt Lake's Sector V, is an SEZ. It was set up in 2005. Wipro chairman is making visit to Kolkata frequently and has announced to increase wipro's manpower to 7000 in Kolkata where 60% will be working in BPO and 40% on IT sector. As of 2011, the state has 22 formally approved special economic zone (SEZ) Of these, 17 are related to information technology (IT) or IT-enabled services (ITES) Recently Infosys has announced to start construction of a development centre in Kolkata, which will have a capacity to seat around 1,000 people. Cognizant has a large set up here with 2000-3000 people. Key occupiers in Rajarhat are TCS, IBM, Capgemini, Ericsson, Accenture, Cognizant, Genpact and HCL Tech etc with large amount of employment opportunities for IT professionals. Recently TCS has leased about 0.7 million sq ft at Ecospace in Rajarhat. Government has set three software technology park. There are private technology park like Infinity, The Bengal park etc.

SIGNIFICANCE OF THE STUDY

Employee retention is effort by organization to maintain a working environment which supports current staff in remaining with the company. Employee retention refers to the various practices and policies which make an employee stick to organization for a longer period of time. In an organization customer satisfaction, organizational performance in terms of increased sales, satisfied colleagues and reporting staff, effective succession planning etc., is dependent upon the ability to retain the best employees in any organization. Hiring knowledgeable people for the job is essential for an employer. But retention is even more important than hiring. If a person is not satisfied by the job he is doing, he may switch over to some more suitable job. In today's environment it becomes very important for organizations to retain their employees. Retention is not only important just to reduce the turnover costs or the cost incurred by a company to recruit and train. But the need of retaining employees is more important to retain talented employees from getting poached. Motivation and retention of valuable employees leads to the success of business in turbulent environment. The present scenario is quite complex where employers are facing the difficulty of attracting and retaining talent due to availability of more job opportunities.

REVIEW OF LITERATURE

Persis Mathias (2001), states that it is the hard work to engage Indian software talent by the Software industry which is spawning ground for IT professionals. Retention of employees is a major task before HR professional managers. AMR (attract, motivate, retain) is a big concern IT industry. B.K. Punia and Priyanka sharma (2008) highlighted that in current economic scenario the variables like induction programme, scientific job analysis and fair & skill based distribution of work assignments are the key factors in influencing the employees retention intentions in industrial organizations in general and the IT sector in particular study highlighted the influence of age on employees position as significant factors in employee retention. Browell (2003, p. 5) defines employee retention as 'keeping those members of staff that one wants to keep and not losing them from the organisation for whatever reason, especially to the competitors'. Browell (2003) further explains that key employees are those who hold positions that are critical for the success of the organisation, for example, technical positions. These are the types of positions that are seen as a source of competitive advantage. McKeown (2002) expands on Browell's view about employee retention by mentioning that retention should be aimed only at top performing employees, and not those with a lower performance. Milkovich and Newman (2004) have clearly stated that among all types of reward, monetary pay is considered one of the most important and significant factor in retention. Taylor, C. R. (2004) describe in a study that retention is an effort by which an employer make some good policies to retain talented employees for achieve the organization goals and success. Increasing numbers of organization mergers and acquisitions have left employees feeling displeased from the companies that they work and haunted by concerns of overall job security. As a result, employees are now making strategic career moves to guarantee employment that satisfy their need for security. On the other hand, employers have a need to keep their stuff from leaving or going to work for other companies. In fact, companies

that offer employee development programs are finding success with retaining workers (Logan, 2000). Minu Zachariah and Dr. Roopa T.N (2012) indicated that there are personal reasons for leaving the organization; Organizational factors that influence employee to stay back in the current organization, personal factors that influence employees to stay back in the current organization, attitude of employees towards work and work relationship and expectation of IT professional from organization. To retain employees Google provides freedom and flexibility of movement across projects. Google encourage employees spent twenty percent of their time to participate and ideate projects other than primary ones. These promote innovations in product development and foster inter-team communication. The career movement programme has been launched by Infosys named as 'Path Finder' which is an internship programme to help employees to know different career streams available in the organisation and choose according to their aptitude (Roy & Ghosh, 2010). Roshidi Hassan (2014) identified that there are various factors that affect the turnover intentions of employees. These factors include organizational commitment, job stress, job characteristics, promotion opportunities, pay level and rewards, quality of work-life and job satisfaction. Job stress is the most significant factor influencing turnover intentions.

OBJECTIVES

The current study is carried out with the objectives to identify and analyze the various factors those influence the retention of employees and to suggest some of the effective employee retention strategies for the IT Companies.

RESEARCH METHODOLOGY

For conducting the present study, Five companies of IT sector were selected for collection of primary data in Kolkata region, West Bengal. Total 250 respondents from middle level management were selected for the study. A structured questionnaire has been used to collect primary data from selected respondents. Secondary data has been collected from various books and websites and journals. The researcher targeted survey by administering a structured questionnaire for 250. The data was analyzed with the help of SPSS 17. The tool used to analyze the data included Exploratory Factor Analysis. The questionnaire consists of both open ended and closed ended questions. It consists of different parts- Demographic information, Reasons for employee leaving the organization, Job and Organizational factors Convenience sampling method was used to collect the data. The questions are properly framed to abstract the information regarding their retention.

FACTORS OF RETAINING EMPLOYEES

Skill recognition and Effective performance appraisal practices: Recognition is defined as "special notice or attention" and "the act of perceiving clearly." Providing skill recognition of personal job accomplishments is an effective retention strategy for employees at any age (Yazinski, 2009). Studies indicate fulfilling peoples need for acceptance by acknowledging individual work accomplishments prolongs employment of employees (Redington, 2007).

LEARNING & WORKING CLIMATE

Since learning and development opportunities appear crucial for the retention of talented employees (Arnold, 2005; Hytter, 2007; Walker, 2001), an organisation must establish a supportive learning and working climate. In general it refers to the environment wherein employees both learn and work. More specifically, the concept could be described by referring to: guidance and appreciation at work; pressure of work; the amount of empowerment and the responsibility that employees experience; choice in job tasks and development; provision of challenging and meaningful work; and advancement and development opportunities.

JOB FLEXIBILITY

Job flexibility is vital for retaining employees of any age (Boomer Authority, 2009). Researchers describe the importance of employment flexibility such as scheduling variations that better accommodate individual work times, workloads, responsibilities, and locations around family responsibilities (Cunningham, 2002; Pleffer, 2007). Studies show that "flexibility" empowers individuals to facilitate a healthier balance between work and personal obligations, something that appeals to all ages of employees.

TRAINING & DEVELOPMENT

Training is a key retention factor for employees at any age. Statistical evidence indicates job training is a critical factor for personal (behavioral) and professional (technical) development (United States Department of Labor, 2009). A study stated that good Training and development exercises can high up the rate of retention because by the training they achieve their as well organizational goal in time and will be benefited to rewards (Montgomery, J.D. 2006) The availability for all employees having access to training and development

programs is critical in facilitating organizational growth, particularly with performance and technological improvements (Boomer Authority, 2009).

CAREER DEVELOPMENT

The purpose of career planning as part of an employee development program is not only to help employees feel like their employers are investing in them, but also help people manage the many aspects of their lives and deal with the fact that there is not a clear promotion track. Employers can no longer promise job security, but they can help people maintain the skills they need to remain viable in the job market (Moses, 1999).

COST EFFECTIVENESS

The provision of cost-effective "flexibility" options is critical in the retention of all employees despite disparity in age, position, skill/knowledge level, and duration of employment (Eyster, et al., 2008; McIntosh, 2001).

LEADERSHIP

A study on employee retention and engagement stated that good Leaders plays very key role in the success of an organization because their quality motivated and induce the sub-ordinate to do well. And retain for longer periods of time. For example, Leaders and subordinates are so much correlated with each other to discuss their level of engagement (Elicker, J. D., Levy, P. E., & Hall, R. J. 2006).

ORGANIZATIONAL CULTURE

A research conducted on retention of employees stated that culture cannot be static rather it's dynamic which should be reframed and reformed as per the business environment. New ideas, new theories and new believes can be implemented. The organizational culture is vital factor to retain employee so the organization always strive for the betterment of the working culture. New policies and practices can be implemented there. (Vlachos, I.P. 2009).

COMPENSATION STRUCTURE

The most important aspect relating to the retention, the structure for compensation should be revised as per the natures and responsibilities of the jobs and market conditions. Some different retention strategies can be followed by the IT companies

1. Subsidized Food and Transportation: provide transportation facility to all the employees from home to office at subsidized rates or even at zero cost. Lunch is also provided free of cost.
2. Group Medi-claim Insurance Scheme: Personal Accident Insurance Scheme: provides adequate insurance coverage for Hospitalization expenses arising out of injuries sustained in an accident.
3. Arrangement of accommodation: Some of the companies provides shared accommodation for all the out station employees
4. Recreation, Cafeteria, ATM, gym: The recreation facilities include pool tables, chess tables and coffee bars, well equipped gyms.
5. Personal Health Care: some of the IT companies may provide the facility for extensive health check-up or Regular medical check-ups.
6. Performance Incentives: Bonuses and incentives are paid after every quarter if the employee sustains in the organization and he gets extra rewards if his performance exceeds the target assigned to him.
7. Communication: If an organization wants to gain sustainability by improving employee commitment, satisfaction, and retention, it should evaluate how it communicates with its employees. An effective communication can help in resolving various issues of an organization.
8. Autonomy of job: Autonomy and individuality in job makes them to act freely which leads to high involvement and commitment which leads to employee retention.
9. Lack of alternatives and location: Beliefs about the unavailability of jobs outside the organization and the proximity of the workplace relative to one's home.
10. Advancement opportunities: The amount of potential for movement to higher levels within the organization.
11. Fair & equal Treatment with Employees: It's a good piece of strategies for retention which have great influence upon the all level of employees and workers to think about to stay on the present work assignment.

EMPLOYEE RETENTION IN SELECTED IT COMPANIES

Rawat, (2013) identified the main focus of TCS is on individual talent, aptitude and interests. To establish such environment TCS provides cross domain experience i.e. the employee can function across different functional domain, varied industry verticals, services and different technology platform. This helps employee to identify the domain best suited for them as well as gives corporate advantage of talent pool of expertise. Intel corporation conduct seven seminars for all the employees have first year in company focusing on corporate culture, values and business ventures. TCS has put in place a comprehensive academic interface programme (AIP), Paternity leave for adoption of a girl child, a choice of working in over 170 offices across 40 countries in a variety of areas.

Wipro launched a employee retention plan under which employees who have more than two year span in company can pursue their post graduation from VIT vellore, Pune Symbiosis, BITS Pilani. The company earlier launched a Distinguished Member of Technical Staff programme, under which it offered engineers an equal opportunity with business degree graduates to climb up the ranks. Wipro has adapted strategy 'Wings Within' programme where existing employees get a chance to quit their current job role and join a different firm within WIPRO.

Infosys had launched "Pathfinder," which is a career movement programme. As apart of this initiative, 23,000 people have gone through career workshops to understand more about their options. The management says that it is trying to provide employees with internship programs to test waters across different career streams available internally and move around according to their aptitude. (Roy & Ghosh, 2010). While recruiting new employees, Infosys took adequate care to identify the right candidates. On the qualities that Infosys looked for in a candidate, Nilekani said, "We focus on recruiting candidates who display a high degree of 'learnability'.

Accenture introduced a theme 'defining success your way to retain women employees. The programme includes women mentoring programme, Accenture women network, defining success forum, employee resource groups and training and development programmes. Adobe follows a continuous process of appraisal rather than yearly process.

Cognizant's employee development efforts are focused on attracting and retaining talented individuals, building a diverse workforce and offering effective programs to advance successful careers. They are committed to providing attractive compensation, benefits and working conditions. They're also committed to continuous learning, so our employees can stay current with the latest technologies and develop important leadership skills. Our award-winning learning and professional development arm, Cognizant Academy, offers a broad curriculum tailored to the needs of employees at various stages of their careers.

Deloitte provide customized career option for employees on the basis of their career stages while Acuity bear expenses for job related expenses.

RECOMMENDATION

The organization must give proper remuneration with friendly working environment and career development opportunities to the employees in order to retain them for a long period of time. The employees are feeling over burden towards the workload. Thus, the organization should focus on their smooth workload to reduce the stress on the employees. The relationship between employees and management has to improve.

LIMITATIONS

The study is limited to IT companies in West Bengal and by the findings of the study can't be generalized to other organization. The study was carried out in the state of West Bengal thus its findings can't be generalized to other areas due to geographical variation. Some of the respondents are hesitating to give whole hearted opinion or views. Respondent's opinion may change from time to time and the response is respected to variation depending upon the situation and the attitude of the respondents at the time of the survey.

CONCLUDING REMARKS

Providing the situation of growing needs for organizations to retain its best employees in the face of competition, the findings of the study suggest that certain variables are crucial in influencing the employees' decision to either leave or remain in an organization. Such variables include training and Development, recognition of skills/reward for good performance, learning & working climate, organizational culture, a competitive salary package and job security and flexibility. But the importance of other variables should not be avoided or under-estimated when formulating a retention policy. It is observed that organizations should aim at developing effective employee retention policies and practices which increases employee commitment level, loyalty and engagement. Organizational culture and compensation have a significant impact on employee retention. Organization has aim to design integrated approach to employee retention which includes best

retention strategies like conducive organizational culture, adequate competitive pay package, non-monetary motivation and effective employee development programs for attaining competitive advantage in business environment. The organizations should concentrate on Rewards & Recognition strategies in order to put a robust employee retention policy. The organizations has to put a mechanism to consider Employee ideas and suggestions by which innovation and competitive spirit amongst employees be developed. This makes the employees feel belonging ness towards the Organization which will aid in retaining employees. Literature and best practices indicate that if employers treat their employees as valued contributors, the employees will Stay. If employees leave the organization on regular basis, it will hinder the growth of organization in a bad way so it is must to have employee retention for best business achievements.

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INTERNAL MARKETING IN INDIAN BANKS, AN EXPLORATORY STUDY

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ABSTRACT

Marketing and HR are two major functions as far as customer involvement is concerned. Internal marketing is a flux of these two major knowledge domains in management literature. It has been evolved that internal marketing contributes to the success of service industries through its role in developing customer orientation among employees, leading to a consistently high level of customer service quality. Most research on internal marketing has however been conducted in large firms internationally but, research on internal marketing in Indian Banks has been limited despite the significance of the banking sector to the Indian economy as a source of both employment and income.

This paper will discuss the position of internal marketing in the banks in India as of today. Earlier research on the relationship between internal marketing and job satisfaction in different service settings has been analyzed. It has been found that there is need of further studies. Previous empirical work has indicated a positive relationship between internal marketing and employee satisfaction. Employee satisfaction in banking industry could eventually lead to enhanced quality of customer services provided by the banks in India. Case studies on internal marketing of other service industries would be thoroughly studied to emulate similar strategies in the Indian banking service setting. There is a lack of research on internal marketing and its effect on job satisfaction in banking industry setting. Further study in this direction could be of benefit in better understanding of the scope and significance of internal marketing in banks and its eventual implementation for enhanced services.

Keywords: Internal Banking, Indian Banks, customer service, employee engagement

INTRODUCTION

Globalization, rapid advancement of competition and the realization of the utility of organizations behaving as market-oriented firms has made Indian banks globally to redefine their modus operandi and re-align their activities. Banks in developed countries have already successfully adopted the principles of marketing both within the organization and externally so as to improve performance and provide services in conformity with the needs of today's work market. It is important that banks of the developing countries also realize the value of behaving like market-oriented firms and focus their energies on achieving the same so as to be at par.

Over the past decade, internal marketing as a philosophy and as a marketing-tool has gained considerable acceptance in today's organization. Internal marketing seeks to improve service performance by focusing its efforts on the employees of the organization. It is important that banks like other service organizations also adopt internal marketing practices within so as to reap its benefits, one of the most important being that of satisfying the employees of the organization. Employee satisfaction eventually goes a long way in determining the success of an organization. The importance of keeping employees satisfied cannot be ignored because of its relationship with organizational outcomes like turnover [1] [2], stress [3], employee attendance [2] and job involvement [4]. This article seeks to examine as to how internal marketing can be a useful tool in enhancing employee satisfaction in banks just as in any other service organization.

REVIEW OF LITERATURE**INTERNAL MARKETING**

The concept of internal marketing was first derived from the work of Sasser and Arbeit [5] who stated "personnel is the first market of a service company". Berry [6] was the first to give a definition of Internal marketing by defining internal marketing as "viewing employees as internal customers, and jobs as internal products that satisfy the needs and wants of these internal customers while addressing the objectives of the organization".

The development of theory on Internal marketing can be broadly categorized into three phases. This credit of this categorization goes to Rafiq and Ahmed [7], who categorized the three phases as under

- i) Employee Motivation and Satisfaction
- ii) Customer Orientation
- iii) Strategy Implementation and Change Management A brief outline of the phases is given here-under:

Phase-I: Employee motivation and satisfaction

Early proponents of internal marketing consider employee satisfaction and motivation as the objective of internal marketing. Berry [6] was amongst the first belonging to this school of thought. He considered internal marketing as “viewing employees as internal customers, viewing jobs as internal products that satisfy the needs and wants of these internal customers while addressing the objectives of the organization”. Berry and Parasuraman [8] mention that “Internal marketing is attracting, developing, motivating and retaining qualified employees through job-products that satisfy their needs. Internal marketing is the philosophy of treating employees as customers and it is the strategy of shaping job-products to fit human needs”. Bak et al. [9]

state that Internal Marketing is to treat employees as customers and to manage human resources through marketing viewpoints to generate satisfied internal customers. According to Papasolomou [10] there is logic of viewing employees as “internal customers”, a firm which first satisfies the needs of internal customers can successfully deliver the quality desired to satisfy external customers. Longbottom et al., [11] indicate that internal marketing is treating the employee as an internal customer, regarding jobs as products, with the intention to satisfy the employee’s demands through products.

Rafiq and Ahmed [12] identified certain issues with the “employee satisfaction approach of internal marketing”. According to them the “product” being offered to the employee may be completely unwanted by them or may in-fact have negative utility. The employees are forced to accept whatever “product” is offered by the company and have no personal choice in the process. Another major issue is that the cost of having satisfied employees could be considerable taking into account the demands they would make upon the organization and its resources.

A situation can also be created where focusing efforts on satisfying needs of employees would have a negative effect on efforts to satisfy the needs of the customers.

Phase II: Customer orientation

This phase was initiated by Gronroos [13], He stressed that the quality of interaction between customers and employees could be enhanced by having customer-oriented employees. He considered Internal marketing as a means for developing “motivated and customer conscious employees”. Gronroos [14] advocated that “an organization’s internal market of employees can be influenced most effectively and hence motivated to customer-consciousness, market orientation and sales-mindedness by a marketing-like internal approach and by applying marketing-like activities internally”. Johnson and Seymour [15] state internal marketing deals with creating customer-oriented behaviors among employees.

Kotler [16] mentions that internal marketing is about building customer orientation among employees by training and motivating both front-line and support staff to work as a team. Cahill

[17] states “employees should treat each other as customers, so that they can then provide better services to external customers through continuous instillation of customer orientation”. Internal marketing seeks to develop client-consciousness among employees via the application of marketing methods, the aim is to “create an internal environment wherein customer consciousness proliferates among employees” (Caruana and Calleya) [18].

The key difference between the theory of the two phases is that “Gronroos’ customer orientation conceptualization focuses attention on creating customer orientation in employees through a process of influencing, rather than satisfying and motivation employees per se” (Rafiq and Ahmed) [7].

Phase III: Strategy implementation and Change management

Winter [19] was the first to give direction to the third phase of development of internal marketing theory; he recognized the role of internal marketing as a technique for managing employees towards achievement of organizational goals. Winter [19] mentions that the role of IM is that of “aligning, educating and motivating staff towards institutional objectives ... the process by which personnel understand and recognize not only the value of the program but their place in it”. George [20] states that internal marketing is a holistic management process which can be used to integrate the multiple functions. Internal marketing is a planned effort to overcome organizational resistance to change and to align, motivate and integrate employees towards the effective implementation of corporate and functional strategies according to Rafiq and Ahmed [12]. Christopher et al. [21] mention the objective of internal marketing is to improve cross-functional co-ordination and co-operation. The role of Internal Marketing is to integrate the function of marketing and human resources and to view personnel as a resource for the marketing function (Glassman and McAfee) [22]. Piercy [23] states that

internal marketing is a critical tool which can aid in the implementation of strategic change. Roberts-Lombard [24] considers internal marketing as an excellent tool which helps in the implementation of strategic plans.

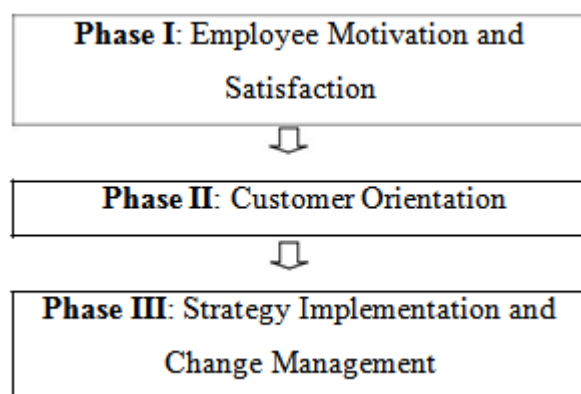


Figure 1: Phases in development of Internal marketing theory

Taking into account the above-mentioned three phases and the concepts related to it (employee motivation and satisfaction, customer orientation and strategy implementation and change management stating), Rafiq and Ahmed [7] propose an all inclusive definition of internal marketing:

“Internal marketing is a planned effort using a marketing-like approach to overcome organizational resistance to change and to align, motivate and inter-functionally co-ordinate and integrate employees towards the effective implementation of corporate and functional strategies in order to deliver customer satisfaction through a process of creating motivated and customer orientated employees”.

Rafiq and Ahmed [7] present a model of internal marketing which was in alignment with all the parameters of their above stated definition on internal marketing:



Figure 2: A model on internal marketing; Source: [7]

2.2 EMPLOYEE SATISFACTION

Employee satisfaction has been widely researched [25]. Employee satisfaction was first presented as a theoretical construct by Hoppock [26] in his book Job satisfaction; he termed employee satisfaction as the subjective reaction or satisfaction of an employee with the physical and psychological aspects of his work environment. Locke's [27] definition is most often cited by scholars, he describes it as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences".

Employee satisfaction is the employees' attitude towards the enterprise, work, his colleagues and the work environment according to Beer [28]. Vroom [29] mentions employee satisfaction as the affective orientations of employees towards their work roles.

It is more likely that satisfied employees will provide better services to their internal and external customers as compared to unsatisfied employees; also the chances of them remaining with the organization for a longer period are greater [30]. Low employee satisfaction has the potential of causing low-quality service performances by the employees [31].

There are greater chances of customer needs being met when employees are satisfied with their jobs [5], [6], [32], [33], [34]. Employee satisfaction is also a pre-requisite to recognition, income, promotion, and the achievement of goals that lead to a feeling of fulfillment [35].

Overall, three conceptual frameworks on the job satisfaction are prominent from the different theories on it [36]; content theory framework, process theory framework and situational theory framework.

Content theory on job satisfaction states that job satisfaction occurs when one's desire for growth and self-actualization are met by the individual's job [27]. Process theory explains job satisfaction by looking at the dynamics of how the job meets one's expectations and values [37]. Situational theory proposes that job satisfaction is a product of the interaction between an employee's personal characteristics and the characteristics of the organization he works in [38], [39].

RELATIONSHIP BETWEEN INTERNAL MARKETING AND JOB SATISFACTION

From the review of literature, it is implicit that employees are the objects of internal marketing. Internal marketing is treating employees as internal customers satisfying their needs [6]. Bak et al. [9] state internal marketing is to treat employees as customers in an effort to generate satisfied internal customers. Berry and Parasuraman [8] define internal marketing as the process of "attracting, developing, motivating, and retaining qualified employees through job-products that satisfy their needs."

Berry's [6] "employees as customers" concept in IM is that just like external customers, internal customers also have a desire to have their needs satisfied. Fulfilling employee needs enhances employee motivation and retention, and as a consequence there is a higher degree of employee satisfaction [40].

Studying the relationship between internal marketing and job satisfaction has been a concern of many researchers [41].

As internal marketing treats employees as customers and their works as products in order to

satisfy internal customer's demands and needs [42], it is reasonable to accept that internal marketing could lead to job satisfaction [43]. Researchers mention that internal marketing upgrades employees' job satisfaction [44], [45], [7], [46], [47].

In an empirical study Tansuhaj, Randall, and McCullough [44] found out that internal marketing enhances employees' job satisfaction. Ahmed et al. [48] investigated the impact of Internal marketing practices on employee satisfaction. The findings revealed a positive relationship between the Internal marketing practices and employee job satisfaction. Hwang and Chi's [49] research on international hotels in Taiwan also support internal marketing's positive impact on employees' job satisfaction. Chang and Chang [50] in their study on hospitals observe that internal marketing has a positive influence on employees' job satisfaction. Gounaris [51] in his study on observes that employee job satisfaction is partially a function of internal-marketing actions like empowerment, participative decision making and informality of communication. Iliopoulos and Priporas [52] also observe a positive effect of internal marketing on job satisfaction in their study on hospital staff. An empirical study on retail stores in India, by Nitalla Rajyalakshmi and Kameswari [41], showed a strong impact of internal marketing factors on job motivation and job satisfaction. Ahmad and Al-Borie [53] studied the impact of internal marketing on job satisfaction in hospitals in Saudi Arabia; his research findings revealed that internal marketing had a positive effect on job satisfaction. Al-Hawary et al. [54] with their study on s in Jordan empirically proved that internal marketing practices were positively correlated with job satisfaction.

INTERNAL MARKETING IN BANKS

Despite internal marketing being researched in other service settings, there does not appear to be much work on internal marketing in the banks. A better understanding of internal marketing and the study of its prevalence in banks would go a long way in ensuring efficient delivery of services to the end consumers i.e. students.

Sihombing and Gustam [42] in their work studied the impact of internal marketing on job satisfaction and organizational commitment in the banking business in India. Siddiqui and Sahaf [55] in their study observe how elements of internal marketing, i.e. training and development, organizational communication and employee motivation, need to be focused on for improving performance. They concluded from empirical findings that faculty members were not satisfied with the state of existence of internal marketing in Indian banks setting. Schuller and Chalupsky [56] analyze how internal marketing communication activities are managed at public banks in the Czech Republic and identify best practice solutions in this sphere.

These studies indicate the scope and necessity of further study on internal marketing in the Indian banks. Further study on internal marketing in Indian banks will aid in validating generalization of results of prior

empirical studies on internal marketing in other service settings. More importantly, it will also help in identifying what elements of internal marketing banks need to focus attention on and how employee satisfaction can be achieved through it.

Policy makers would also derive cue from these works by understanding the significance and applicability of internal marketing in banks; it would eventually lead to focusing attention and resources on establishing internal marketing systems in banks. This would be of benefit to all stakeholders of the Indian banking business, the most important being the customers.

CONCLUSION

This paper discussed the position of internal marketing in the banks in India of today. A brief review of literature of internal marketing and employee satisfaction was then presented. Previous empirical work on the relationship between internal marketing and job satisfaction in different service settings was discussed. This was followed by description of the few studies on internal marketing in banking business and the future need of further studies. Taking cue from this research paper it is evident that there is a great scope in implementing internal marketing systems in banks effective utilization of internal marketing techniques in banks could go a long way in achieving employee satisfaction and eventually enhanced performance. Previous empirical work has indicated a positive relationship between internal marketing and employee satisfaction. Employee satisfaction in banking industry could eventually lead to enhanced quality of customer services provided by the banks in India. Case studies on internal marketing of other service industries could be thoroughly studied to emulate similar strategies in the banking service setting. There is a lack of research on internal marketing and its effect on job satisfaction in

banking industry setting. Further study in this direction could be of benefit in better understanding of the scope and significance of internal marketing in banks and its eventual

implementation for enhanced services.

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A STUDY ON THE RELATIONSHIP BETWEEN EMPLOYEE REMUNERATION AND EMPLOYEE PRODUCTIVITY IN PORT SECTOR IN INDIA

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ABSTRACT

Ports, by their very nature of work in Exim trade, play a very important role in the development of a country and India is no exception of it. India has a very long coastline of more than 6000 Km with presence of about 200 ports. Despite present of a large number of ports, the research work on port sector is very limited. In this specific study we have taken the 'Employee Number', 'Total cost for salary/remuneration', and 'Total Quantity handled' for all the 12 Major ports during last 6 years and analysed the relationship between the "Per Capita Salary" with "Per Capita Productivity" using regression analysis using SPSS-23. The study is unique in the sense that in all probability no such study on Indian Port Sector was ever undertaken from any corner. The result proved that there is significant impact of salary on productivity and about 40% of the productivity variance can be explained by the salary component. The result of the study is expected to help the policymakers for fixing employee salary for productivity improvement purposes.

Keywords: Port, Per Capita Salary, Per Capita Productivity

INTRODUCTION

The primary reason for performing a job by any individual to obtain money (Pfeffer, 1998). The person provides desired service to his/her employer, and the employer in turn pays the wages to the employee as the cost of the service. The wages/salary helps the individual and his family to maintain their livelihood. But whether, the wages/salary motivate the employee to increase the productivity of the organisation, by direct as well as indirect means, is a debatable issue. In this study we tried to find out the extent of impact the salary/remuneration/wages have on the employee productivity in the port sector in India. The article is divided into (a) Literature Survey (b) Brief introduction of port sector in India (c) Hypotheses (d) Data Collection and analysis (e) Findings (f) Conclusion and (g) References. The words "remuneration/wages/salary/pay/income" convey the same meaning in this article.

(A) LITERATURE SURVEY

Armstrong (2010), observed that money can motivate people because by use of money one can satisfy his needs. A regular income provides the safety and security, in addition to satisfying the basic needs of Maslow's hierarchy of needs. It also satisfies the "self esteem" needs because one rich person can afford to purchase which his peers cannot afford. Armstrong (2010) further observed that "pay is often the dominant factor in the choice of employer and is an important consideration when people are deciding whether or not to stay with an organisation" but the effect of money as motivator varies from person to person. Almost the same observation was made by Rynes et al. (2004) (page 385) where they observed that "The broad usefulness of money as well as its many symbolic meanings suggest that, far from being a low order motivator, pay can assist in obtaining virtually any level on Maslow's motivational hierarchy, including social esteem and self actualisation." Thus we can conclude that money is considered as a motivator though its effect on motivation varies from person to person.

On the other hand "Productivity" in management is defined by "the amount of output per unit of input" (Chase et al., 2010, CIPD Report July 2015). Accordingly Employee productivity is defined as the "output per employee" (CIPD report July 2015, page 10) and calculated by dividing the total output by the number of employees.

A number of researches were conducted to identify the relationship between employee performance and remuneration. Said (2008) (cited in Gunawan and Amalia, 2015) observed that employee performance is important because it measures the effectiveness of employees. Gunawan and Amalia (2015) mentioned that age, gender, education, work environment, length of service etc of the individual affects his/her performance. Calvin (2017) found that there exists a strong and positive relationship between remuneration and employee performance and salary/wages/bonus etc serve as a motivator. He found that performance is positively correlated with salary (.804) and Bonus (.589). Hameed et al. (2014) conducted a survey in this regard in the banking sector in Punjab region and observed that compensation has a positive but minor impact on employee performance. The correlation coefficient between salary and performance was found .072 and regression analysis considering salary as independent variable shows β coefficient as .096. Yamoah (2013) did a study on 60 respondents of Ghana Commercial Bank and found a statistically significant relationship

between compensation and productivity. However, Gunawan and Amalia (2015) , found that only a small part of employee performance can be explained by wages and quality of work life. They found that only 4.4 % and 15.9 % of the employee performance can be explained by the variables “wages” and “quality of work life” respectively. Leddy and Gazatte (2013) found that the productivity of the employees were significantly increased when a part of their wages are given as gift. Thus , from the above, it transpires that the research findings could not show any conclusive evidence that the salary increases employee performance or productivity. The general typology is that the impact of salary as a variable, on performance is minor in nature. It signifies the observation of Armstrong (2010) that some people are motivated to perform better for money , provided they consider it a significant reward but other peoples are more interested in non financial reward as a source of motivation in comparison to the remuneration.

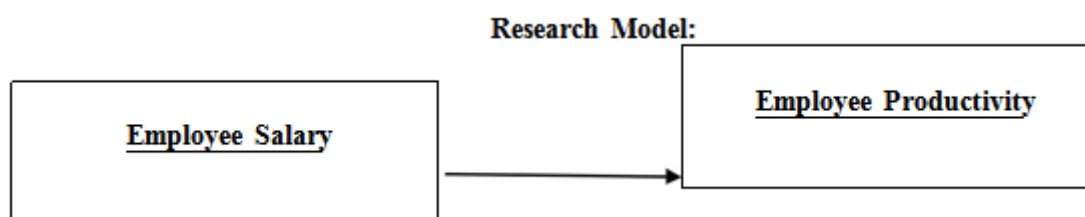
(B) THE PORT SECTOR

Ports, by their very nature of work in Exim trade , play a very important role in the development of a country and India is no exception of it. Port is the place in the bank of an waterway (sea ,river etc), called berth, where ships are anchored, import cargo is unloaded and export cargo is loaded. The organization which control these operations are called “Port Management”. These port managements are typically either a municipal body, a state entity or a private or joint venture entity which operate under the framework of rules and regulation of the respective regions/state. The prime activities of a port is to bring ships at the berths, arrangement for cranes, equipments, manpower etc for loading/unloading operation, management of warehouses for storing of cargo, maintaining close liaison with rail, road and waterways carriers for bringing import cargo and dispatching export cargo at port premises, safety and security of ships and cargo , maintain statutory formalities like customs clearance etc (Alderton,2009; Das,2014).

India has a very long coastline of more than 6000 Km with presence of about 200 ports. Out of these odd 200 ports, 12 ports, viz. Paradip, Vizag, Jawaharlal Nehru port etc, are called Major Ports as these are under the control of the Ministry of Shipping ,Govt of India. These 12 ports handle about 60% of cargo of the total cargo quantity handled by all Indian Ports. Rest ports are either small ports under direct control of respective state governments, or are

private ports like Mundra, Dhamra, Krishnapattanam etc (https://en.wikipedia.org/wiki/Ports_in_India retrieved on 19.3.18). Ports by their very nature of work were labour intensive as huge manpower were needed for loading/unloading/transportation of cargo. But with the gradual increase of technology most of the manual works are being performed mechanically at present.

(c) In India the research work on the port sector is very limited. Further there was no study was carried out to find out the impact of employee salary on employee productivity, which is an important consideration for increasing the salary of the port employees. Thus, apparently there is a research gap exist in this area which the instant article tries to fill up.



Hypotheses: The instant paper tries to address the question “ What is the impact of “Employee Remuneration” on “Employee Productivity” ?

Thus, the null hypotheses H0 is : There is no impact of Employee Remuneration on Employee Productivity

Against the alternate hypotheses H1 : There is significant impact of Employee Remuneration on Employee Productivity

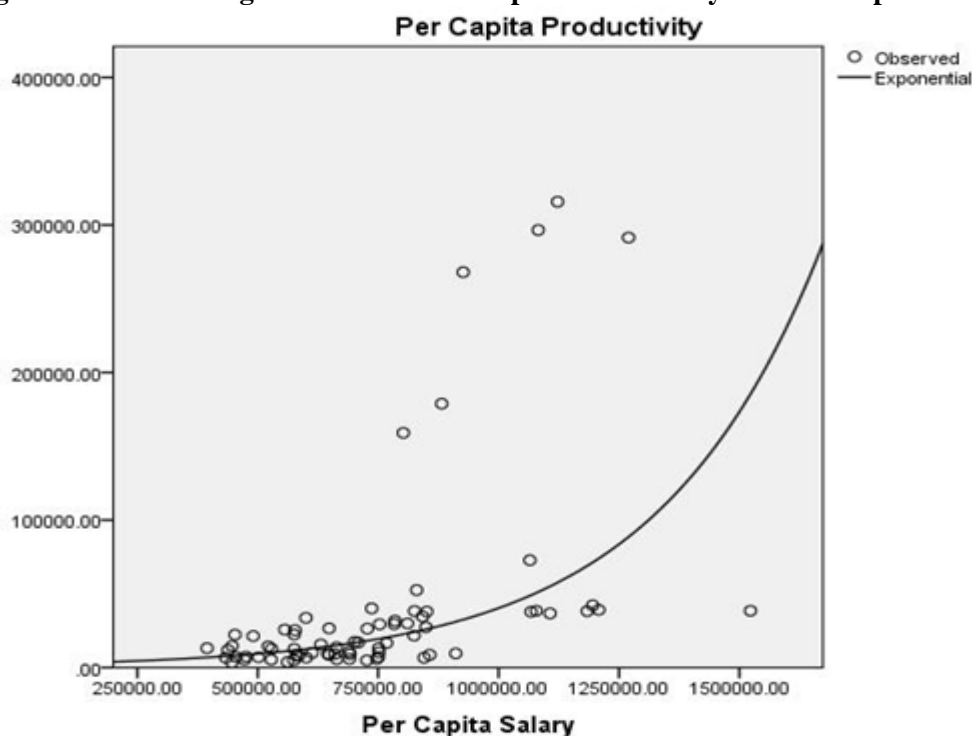
DATA COLLECTION

In this specific study we have taken the ‘Employee Number’, ‘Total cost for salary/remuneration’ , and ‘Total Quantity handled’ for all the 12 Major ports during last 6 years (2011-12 to 2016-17) from the publication viz. “Major Ports of India , A profile” for the years 2011-12 to 2016-17 , which is an annual publications of Indian Ports Association, New Delhi .We primary analysed the relationship between the “Per Capita Salary” with “Per Capita Productivity” using regression analysis using SPSS-23. Per Captita Income is considered as “Independent Variable” and “Per Capita Productivity” is as “Dependent Variable”.Per capita Productivity is

defined as “ Total Cargo Handled/Total Manpower” and Per Capita Salary is defined as “ Total amount incurred for remuneration including salary/ Total Manpower” .For theoretical knowledge we take the help of the book “Basic Econometrics : by Damodar Gujarati & Sangeetha, 2007 Edition” and for using statistical software we followed the procedures mentioned in the book “SPSS for Windows : Step By Step by George and Mallery,2011 Ed”.

Results: Table-1:Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Per Capita Salary (In Rs)	72	394540.85	1523034.06	739770.6776	231523.33270
Per Capita Productivity(In M.Tonnes)	72	3430.37	315745.10	38872.3221	68320.54055
Valid N (listwise)	72				

Figure-1-Pictorial diagram between Per Capita Productivity and Per Capita Salary

Table-2: Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.636	.404	.395	.826

The independent variable is Per Capita Salary.

Table-3: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	32.393	1	32.393	47.435	.000
Residual	47.802	70	.683		(almost nil)
Total	80.195	71			

The independent variable is Per Capita Salary.

Table-4: Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Per Capita	2.917E-6	.000	.636	6.887	.000
Salary (Constant)	2178.849	714.986		3.047	(almost nil) .003

The dependent variable is ln(Per Capita Productivity).

The above table represents the summary of the regression analysis done by SPSS-23. The characteristics of the analysis are :

We have chosen different curve fitting methods mentioned in the sub menu “Curve Estimation” under Analyse ☐ Regression in SPSS-23 window.

We have chosen the exponential curve fitting regression, instead of linear regression , as it maximizes the value of the Adjusted R square . Further the pictorial diagram between Per capita Salary and Productivity (figure 1) also supports it.

The correlation value is between the variables is found as .636 and Adjusted R sq. as 0.395. So about 40 % variation of the per capita productivity can be explained by the per capita salary.

The F statistic value is found as 47.435 which is significant at 1% level of significance as p value is found almost nil.

The value of the constant term is found as 2178.8 , and the power of “Per capita salary(PCS)” is found as 0.002917. So the regression equation is “Per Capita Production”= 2178.8 X PCS 0.002917

The t statistic of the β constant was found as 6.887 , which is significant at 1% level of significance as p value was found almost nil .

Conclusions and Recommendations: Thus , as the value of F statistic is significant and the value of β is positive, we can conclude that the null hypotheses is rejected and there is significant impact of employee remuneration on employee productivity, which also supports the result of most of the studies mentioned in the literature survey. Further, instead of linear regression, exponential regression curve is used for better fitting the trend line with the actual values. In the literature survey, we have found that almost all the studies collected data from a sample of the employees using likert scale. But in this study, the actual value of productivity and salary of all the employees in the 12 Major ports are used for analysis. Thus, the results of this study may provide a more robust and realistic output.

However, there are certain limitations of this study , which may be explored in further research. It is found that only about 40% variation in productivity is affected by the remuneration. But, the productivity depends on many other operational factors like –(i) Total Quality Management (ii) Just in Time systems (iii) Extent of use of ICT and various HR practices like recruitment ,training ,development, empowerment of the employees etc (Sibers et.al, 2008) and organizational culture (Bhaduiy,1991). So inclusion of some or all of these factors in this model is likely to make it more realistic. Moreover, there is scope to use this model for identifying the relationship among private port operators in India and both the results may be combined also. Another interesting dimension may be to identify the extant of impact of salary on productivity considering officers/managers and other employees as separate groups.

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**ANALYZING THE EFFECTIVENESS OF DIGITAL PAYMENT SYSTEM: A STUDY AMONG
COLLEGE GOING STUDENT'S IN SOUTH KOLKATA**

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ABSTRACT

The digital India campaign has had a very significant effect in making India a digitalised economy. With the passage of time the mode of payment has also changed as people are more adapted to smart phones and have everything at their convenience. The demonetization is also one of the reasons for people to switch to the digital payment system. The initiative taken by the government of India to make our country a cashless economy acted like a catalyst among the youth of the country for taking up initiatives to make India a cashless economy. The youth or the students of the country prefer to use more digital payment mode as most students get limited pocket money so when they get additional benefits and extra saving they naturally opt for digital payment systems. We have taken up this study to analyze the effectiveness of digital payment among college goers in South Kolkata. A structured questionnaire was used as research tool for understanding the effectiveness of Digital payment System. Primary data was collected from 150 respondents in South Kolkata. Chi Square and Correlation was used to analyze the responses. Chi Square indicate that there is difference in monthly spending among age groups. Correlation indicates the relationship between monthly spending and the mode of payment after demonetization. However, there were many other reasons too for students using the digital payment system.

Keywords: Digitalised, Digital Payment, Demonetization, Cashless Economy

INTRODUCTION

Digital payment is a seamless and non-traditional mode of payment system involving one or more participants. Here the transactions are effected without the need for physical cash. Digital payment involves a constantly evolving way of doing things where financial technology companies collaborate with various sectors of the economy for the purpose of meeting the increasingly sophisticated demands of the growing tech-savvy users. Although digital payment had entered the Indian market years back, but people were hardly interested to know about it. As people were facing shortage of paper currency so they had to adapt to the digital payment system using their cell phone or internet to avoid the problem of demonetization in the country. To catalyze the country's economy, people had to switch to digital payment system to make the country a cashless economy. Out of the population of 7 billion, over 5 billion or 70% have a mobile phone, whereas only 2 billion or 30% have a bank account. In India: 800 million have a mobile phone and only 250 million have a bank account. Consumers are increasingly using their mobile phones to make digital payments.

The digital payments have now become a common mode of transaction be it E-commerce, Mobile bill payment, Direct-To-Home Recharge, Electrical bill, Restaurants, Vendors, etc. The basic purpose of this initiative was to make our economy a digital and cashless economy. This platform of transaction saves a lot of time and it's one of the fastest and safest modes of transaction as it can be used from any part of the world. As we know that in today's generation the use of a smart phone has become very common among all the age-groups. The youth of the country, who are more technologically advanced than the elder ones, can contribute the most towards the Digital India initiative taken by the Government of India and make our economy a cashless economy.

During the demonetization period in India all the youth specifically the college going students had to face a lot of problem. To avoid such situation maximum college going students had opted for digital payment system which was a life savior for all. As Digital payment system slowly penetrated the Indian market to help out people in the tough situation the college students mostly prefer to shop online as now most e-commerce companies prefer digital payment as it offers cash-back and other offers. So, they are the once who use different digital payment system to get the additional benefits and avoid using paper currency. Today digital payment is accepted everywhere and it is a safer mode of carrying money and convenient everywhere as most college students prefer eating in restaurants, going for movies, using the app cab and so on. It is expected that in near future there will be a surge in digital payment system among all college going students as they get additional benefit for using it.

2. LITERATURE REVIEW

2.1 STUDY UNDERTAKEN IN INDIA

Kadamudimatha (2016) evaluated how the mode of payment has kept on changing from barter system to the latest trend i.e. Digital Wallet. In India after demonetization people have started to use it as a substitute of physical money to meet their needs, as it's a secure way to make transaction and easy to use. He has stated that

it is not only useful for making transaction but also time saving, simple to use, attractive offers and discounts are also provided. At present there are many digital wallet companies in India namely Paytm, Mobiki, PayUMoney, State Bank buddy, etc. Further it was discussed how post demonetization there has been an increase in internet usage and digital wallets. The digital wallet companies also got an opportunity to expand their market and how it will help our country to become a Digital India.

Singh (2017) studied how digital payment and digital wallet in India got popularized due to demonetization. A tremendous growth in the usage of internet and the no. of smart phone users is increasing so people found it convenient to use it as an alternative for cash. In this study, he also pointed out that how different digital wallet companies were having competition to enter and expand the Indian market as it was the best opportunity for them to establish their company. It was also predicted that in future India will become a cashless economy and with digitalization people will surely adopt the digital mode of payment. ANOVA was used in this study to show that there is no significant variance in the consumer perception with respect to its demographic factors.

2.2 STUDY UNDERTAKEN IN ABROAD

Dennehy & Sammon (2015) analyzed how in the 21st century the usage of digital payment has increased over the years. The main focus here was to find out where the digital payment system will stand in the future. Many papers have been examined to find out what are the views regarding the digital payment system. With the passage of time the technology has been shifting very fast so with the innovation of technology the aim was to make people familiar with digital payment. It was studied that the merchants also got a new platform to invest so as to cater the customers. Data was collected by following empirical method i.e. survey, interviews, etc. Lastly the study was only focused on Google data base that was a limitation about the study.

Bezhovski (2016) studied how internet and e-commerce has opened the gateway for digital payment system. The study also talks about the increment in technology and how people are adopting the new means of payment system, how are they getting benefited and is there any

pitfall of using it. It was found that when e-commerce was launched it was a unique way of trading so the digital payment is also a unique way of transaction which will also emerge as the e-commerce and in near future it will become the backbone of e-commerce. It states that the future of these digital wallets will depend on the security and privacy that are provided by the companies as people are highly security concerned. It also stated that smart phone has removed many devices from our daily life and has clubbed the usefulness in one device only similarly it is expected that digital wallet will also become a substitute for many other things.

3. RESEARCH GAP

After reviewing the work done in international context and national context, we have found out that various researches have been conducted in the field of digital wallet particularly on m-wallet. Furthermore there has been no research conducted in the eastern part of India, in relation to South Kolkata to be specific. Present study tries to address that particular issue.

4. OBJECTIVES

- To study the frequency of usage of digital wallet among the college going students of South Kolkata
- To analyze the monthly spending of different age group of students.
- To study the effect of demonetizations on the usage of digital mode of payment.

5. HYPOTHESIS

1. H0: Age does not play a significant role in the use of digital payment system on a monthly basis.
H1: Age does a significant role in the use of digital payment system on a monthly basis.
2. H0: There is not a significant relationship between the monthly spending using digital payment and preferred mode of payment after demonetization.
H2: There is a significant relationship between the monthly spending using digital payments and preferred mode of payment after demonetization.
3. H0: There has not been a significant improvement or increase in the use of card, cash, cheque, e-wallets and net banking before and after demonetization.
H3: There has been a significant improvement or increase in the use of card, cash, cheque, e-wallets and net banking before and after demonetization.

6. RESEARCH METHODOLOGY

This study adopts descriptive research by using both primary and secondary data as the research methodology. The data used for supporting the analysis in this section is from a practical survey of students going to colleges in South Kolkata, using digital mode of payment system. A total of 150 respondents have been taken into account to analyze the effectiveness of digital payment system as a mode of payment. The sample selected was on the basis of Convenience Sampling. The survey was conducted between December 2017 and January 2018 in South Kolkata, West Bengal. The questionnaire was prepared in such a manner that it made the college going students' responds in the most convenient way. The set of questionnaire was designed to know why, when, where the students use digital payment system and to find out the effectiveness pre and post demonetization. The study area included the college goers in South Kolkata who uses digital wallet for their convenience, or for making payments.

7. FINDINGS

In the study we found that 150 respondents completed the survey, out of which 85 were male and 65 were female. The maximum number of respondent belonged to the age group 18-22. It was also found that all the 150 respondents uses smart phone. There were 127 respondents who already used digital payment system before demonetization and the remaining opted it after demonetization. It was also seen that people did not use only one mode of payment system after demonetization; they used cash, cheque, debit/credit card, e-wallets and net banking.

For high value transaction 83 respondents preferred using debit / credit card for making their digital payment and the remaining used net banking, e-wallet or none of the said option. The purpose of using the digital payment system was not fixed as 89 out of 150 respondents use it for money transfer, recharge, utility and bill payments etc. The amount that is spent by maximum respondent is between 500-2000 and the remaining respondents spend either less than 500 or 2000-3500 or above 3500. The following tests were conducted to prove the hypothesis:

CHI-SQUARE TESTS

	Value	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.074a	.003
N of Valid Cases	150	

The significance value of the Pearson Chi-Square is 0.03, which is less than 0.05 indicating that it is highly significant at 5% level. Thus, we accept the alternative hypothesis and reject the null; it can be concluded that age of the users have a significant impact on the monthly spending through digital payment system. There are 96 respondents in the age group 18-22 including both male and female. It shows that basically the young once or the fresher's going to college are more into the habit of using the digital payment system than the other age category. Thus, age plays a significant role in monthly spending.

The second test that was conducted was correlation, in the table below we can see the sig. value is .000, which is less than 0.05. We can say that the sig. value is significant at 5% level of confidence, thus, we will accept the alternative and reject null hypothesis. There is a significant relationship between preferred mode of payment after demonitisation and money spend using digital payment system on a monthly basis. Value for Pearson Coefficient is 0.000 which further indicates that there is positive correlation between the two variables.

CORRELATIONS			
		WHAT HAS BEEN YOUR PREFERRED MODE OF PAYMENT AFTER DEMONITISATION?	HOW MUCH MONEY DO YOU SPEND USING DIGITAL PAYMENT SYSTEM ON A MONTHLY BASIS?
WHAT HAS BEEN YOUR PREFERRED MODE OF PAYMENT AFTER DEMONITISATION?	Pearson	1	.294**
	Correlation		
	Sig. (2-tailed)		.000
HOW MUCH MONEY DO YOU SPEND USING DIGITAL PAYMENT SYSTEM ON A MONTHLY BASIS?	N	150	150
	Pearson	.294**	1
	Correlation		
	Sig. (2-tailed)	.000	
	N	150	150

** . Correlation is significant at the 0.01 level (2-tailed).

Lastly, Wilcoxon Signed Ranked Test (Non-parametric, 2 Related Sample Test) was conducted and the result was the significance value is .000 which is less than 0.05; therefore we accept alternative and reject Null. Demonetization had a great impact on the payment system and there has been a great change in the mode of payment, and people have used less cash after demonetization as they started to use the digital payment system.

8. LIMITATION OF THE STUDY

There were some limitations in the study which are as follows:

1. Firstly, the geographic area was a limitation as the research was conducted only South Kolkata.
2. Secondly, the target respondents were limited to college going students in only.
3. Only the digital wallet users were considered for the study.
4. Lastly, the sample size was limited.

9. CONCLUSION

In an era of digitalization, the study aims to study the customer perception, usage pattern Preferences and satisfaction level regarding digital payment system based on a study of 150 respondents. It further indicates the usage pattern, reasons for adoption and monthly spending of the students through digital payment system. The study observed that respondents preferred digital payment system because they not only saves time and are easy to use and access and they also used it for their convenience. While the age of respondent had some significant impact on types, amount spends using digital payment system. There has been a significant change in the usage digital payment system pre and post demonetization. It was observed that the people are slowly adopting the digital mode of payment for their convenience. It is predicted that by the year 2025 there will be a great change in the number of user using digital payment such as card , e-wallet etc. and there will also be a fall in the use of cash as a mode of payment .

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FACTORS AFFECTING EMPLOYEE RETENTION: A REFERENCE TO PRIVATE HOSPITALS IN WEST BENGAL

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ABSTRACT

Planning and Organizing are the two significant aspects of any organization that brings competitiveness within the system. Organizations have to identify and focus on core competencies to gain competitive advantage. In the age of Liberalization, Privatization and Globalization, 'sustainability' is the major watch-word of any Management Research. Competitive Advantage is composed of two basic elements- delivering Value to the customer and the degree of innovativeness in the approach. Delivery of value creates immediate Competitive Advantage, whereas, innovativeness adds Sustainability to the value-system creation. Thus, Sustainable Competitive Advantage forms the building block for survival of any organization. In the arena of Human Resources, with respect to private hospitals, attrition of employees creates brain-drain as well as a skill-vacuum in the system leading to poor service-delivery. So Retention of human resources can create Competitive Advantage, as 'people' forms an integral part of the service- mix elements. This paper aims in exploring the factors contributing to employee retention. Exploratory Factor Analysis (EFA) is used to identify from the fourteen variables that are included in the study and the reduced dimensions - Competency, Career Development, Reliability and Flexibility - have been identified to have a relevant significance on the process of Retention.

Keywords: Core Competency, Sustainable competitive advantage, Innovativeness, Brain drain, Retention

INTRODUCTION

For success of any corporate unit, human resource is the pivot of rise and fall. Every organization, irrespective of any business, market place, or economic conditions, needs the right people to be engaged for making right contributions and taking right decisions for their completion. Reduction in employees due to retirement, resignation or death are the inherent factors, but these situations create vacuum in the system and need to be replaced either through recruitment or by promoting the existing efficient employees. Replacement of the talented personnel becomes a serious concern to each business group as the employees to be deployed at the crucial positions need cautious approach in the event of delivering equal or better performance. The tailor-made HR practices need to be designed and delivered to balance as a good branded employer. The need for the researchers to provide a more satisfactory means of unleashing workers' interests is in the modelling of employment relationship.

Globalization has given the young generation opportunities to get them employed in the organizations of their choice, resulting in solution of unemployment problem to a great extent. India is the second highest populated country in the world and young talent have witnessed their capability in the competitive global market and secured their position with their knowledge and skill.

Employee retention involves taking measures to encourage employees to remain in the organisation for the maximum period. Employees are valuable assets for every firm. Organisations have realized this fact and started to take initiatives to treat their employees as the most valuable assets. It is the unique workforce, which provides competitive advantage to any organisation. Two organisations can have same products and excel in same business. However, what differentiates them, is their workforce. An organisation having a stable and productive workforce becomes successful in building their competitive advantage and organisational efficiency. Unfortunately, healthcare sector in India is confronted with high employee turnover rates. High employee turnover is not healthy for any organisation. It will have a great impact on organisational productivity.

1.1 HEALTHCARE SCENARIO: GLOBAL & INDIA IN LARGE: AN OVERVIEW

The health care industry is one of the world's largest and fastest-growing industries. Basic framework according to the United Nations International Standard Industrial Classification (ISIC) categorizes the health care industry as generally consisting of:

- (a) Hospital activities,
- (b) Medical and dental practice activities and
- (c) Other human health activities.

The fourth category involves activities that are under the supervision of nurses, midwives, physiotherapists, scientific or diagnostic laboratories, pathology clinics, residential health facilities, or other allied health professions, e.g. in the field of optometry, hydrotherapy, medical massage, yoga therapy, music therapy, occupational therapy, speech therapy, chiropody, homeopathy, chiropractics, acupuncture, etc (http://en.wikipedia.org/wiki/Health_care_industry).

The global health-care industry is undergoing many changes, from government reforms to groundbreaking drug development. Drivers for growth in the global health care sector include an aging population, rising incidence of chronic diseases, increasing access to care, technological advancements and product innovation and emerging market growth. Health care organisations must address major issues in 2014 such as navigating the impact of health care reforms in many countries, rising costs, quality issues, lack of infrastructure in many parts of the world, workforce issues and safety and privacy concerns. Coming years will be constructive at the same time challenging time for global healthcare sector.

Among the Healthcare sector, hospitals account for 71 per cent, of the total healthcare revenues in the country, pharmaceuticals for 13 per cent and medical equipment and supplies for 9 per cent. In India, having an estimated population of 1.27 billion, in 2014, hospitals play a crucial role in health aspects. Hospitals have implemented various retention strategies to retain their key performers. However, how effective are these strategies to retain the employees in their organisations becomes imperative to understand whether the staffs in these hospitals are actually satisfied with the retention strategies implemented in their hospitals, whether they are committed to their organisations and whether they have decided to stay with their organisation for a long tenure. It becomes essential to understand the perception of employees related to the retention strategies implemented in their organisations to facilitate the management to make their employees satisfied and committed.

In India, healthcare has emerged as one the largest service sector. The Indian healthcare industry, which comprises of hospitals, medical infrastructure, medical devices, clinical trials, outsourcing, telemedicine, health insurance and medical equipment, that was valued at US \$79 billion in 2012 is expected to reach US \$160 billion by 2017. The Indian healthcare sector is expected to grow at about 15 percent year-on-year. Factors that account for this growth are growth in infrastructure development, creation of demand for higher levels of healthcare, rising awareness of end users and launch of innovative insurance, reimbursement and financing policies.

Domestic hospitals have a long-standing reputation in the healthcare sector. Some of the prominent private Indian hospital chains that offer world-class medical treatment include Max Healthcare, Fortis, Escorts Healthcare, Anandlok Hospital, Apollo Group of Hospitals, Manipal Hospitals, Narayana Hrudayalaya, P.D. Hinduja National Hospital, Sir H.N. Hospital and Research Centre, Manipal Group of Hospitals, Woodlands Multispeciality Hospital etc.

Private practitioners and hospitals are the major providers of health care in India. Practitioners of alternate systems of medicine also play a major role in Indian healthcare sector. India faces the twin epidemic of continuing or emerging infectious diseases as well as chronic degenerative diseases. The first one is related to poor implementation of the public health programs and the second is related to demographic transition with increase in life expectancy. Healthcare system in India is in a rickety situation. Healthcare costs seem to be escalating everyday, which becomes unaffordable to common person.

The scope of Indian healthcare is immense. Health care covers not merely medical care but also all aspects of pro- preventive care too. It cannot be limited to care rendered by or financed out of public expenditure within the government sector alone but should include incentives for self care and care paid for by private citizens to get over ill health (Srinivasan n.d.). Many foreign players have entered the Indian healthcare market due to potential of the large market. Some of these foreign players are Pacific Healthcare of Singapore, which is a Joint venture with Vital Healthcare in Hyderabad. Columbia Asia Group, a Seattle-based hospital services company, Wockhardt Hospitals Steris, a US-based medical equipment company that has set up a wholly owned arm in India.

Besides investing in hospitals, foreign players have also expressed interest in establishing Research and Development (R&D) centers in India. As an evidence for this, Abbot Laboratories has announced plans to set up an R&D centre in collaboration with Syngene, a contract research subsidiary of Biocon Ltd., to develop nutrition products in India. US pharma company Merck, which is known as MSD outside the US and Canada, plans to set up a laboratory in New Delhi for developing vaccines at an estimated cost of USD 133.93 million. It is high time for Indian healthcare to learn and invest more in research and development.

1.2 CHALLENGES FACED IN HOSPITAL SECTOR

Though hospital sector is growing rapidly, it is also facing immense challenges. Growing population in India itself is a greatest challenge. India has a rapidly progressing private healthcare sector with state-of-the-art equipments and skilled doctors, patients are not satisfied with the care they are receiving at these hospitals. There is a growing demand for the quality health care but the absence of matching delivery system pose a great challenge to the hospitals. Recent analyses indicate high absenteeism, low quality in clinical care and low satisfaction levels of quality care (clinical and about courtesy and amenities). Gap seems to be widening and in order to minimise this gap, employees should be trained and developed and make them committed to the organisation. Research done by various scholars has indicated that satisfied employees provide customer satisfaction.

Healthcare industry in India is expected to be around \$45 billion by the end of 2013 accounts for less than 1% of the global healthcare industry and has to address the healthcare needs of 17% of the global population. Thus, India health sector faces severe resource constraints to deliver quality health services. India spends about 5% of GDP on healthcare while developed countries spend 10-12% of GDP on healthcare. The government's share in the total healthcare expenditure in India has remained around 1% of GDP and therefore the private players have become dominant in health service delivery (Ramani 2014).

A major challenge faced by the healthcare is the high attrition rate of the paramedical staff in hospitals. Since Indian healthcare sector is growing at an exponential rate there is a demand for skilled human resources. Recruiting and retaining nurses has become a deep concern for hospitals in India. According to HR experts, attrition rate among nurses is the highest, varying from 28 per cent and 35 per cent as compared to the average attrition rate of healthcare sector that is 10.1 percent in 2005. Attrition among nurses is high because they have much demand in foreign countries. Countries such as the Middle East, UK and USA, choose Indian nurses and train them as per their requirements (<http://healthcare.financialexpress.com/201005/healthcarelife01.shtml>). Even in India, opportunities are abundant for the skilled nurses since private players have become dominant. While doctors are paid well in India, it is not the same with nurses and other technical staff. According to The Economic Times, attrition rate was 12% in Healthcare sector in the year 2010-11.

The reasons for the high attrition in healthcare, according to HR experts are inadequate pay, poor working conditions, weak relationship with their supervisors and lack of training and career advancement. It is imperative that organisations should understand these concerns of their valuable employees and keep them with their organisations for a long time. Excellent performance of the employees should be valued and rewarded. Factors that drive employee's satisfaction need to be identified and implemented. These factors include, opportunity to learn and grow, fair compensation, good work environment and recognition and respect for each person's competencies, needs, desires and style.

Managers and team leaders can reduce attrition levels by creating a motivating team culture and improving the relationships with team members. Recent studies have shown that retention of highly skilled personnel has become a challenging task for HR managers, as these highly skilled professionals are always lured by the competitors (Samuel & Chipunza 2009).

The most valuable asset of any firm is its stable workforce. In hospitals, when more employees depart, it will have an impact on the quality of the service the hospital provides. Turnover of the employees disrupts the teams, raises expenses, reduces productivity and result in lost of organisational knowledge. Both Private and public sector organisations are beginning to struggle substantially with knowledge loss resulting from employee turnover. Departing employees may leave with many kinds of knowledge such as subject matter expertise, organisational memory of why certain decisions were made, awareness of past company projects and relationship with both internal employees and external business partners and customers. A stable workforce becomes significant for a firm to sustain its competitive advantage. Effective retention strategies become crucial in this context to retain the valuable assets of the organisation.

Employees are less happy with their jobs today and retaining them has become a difficult task for the HR managers. Retention strategies are the actions or steps adopted by HR managers in order to retain their key performers. Most obvious retention strategy according to Abrams (2004) is money in the form of bonuses, or other financial incentives to employees who remain with the organisation for a fixed period.

Retention strategies adopted by hospitals include improving work life balance of employees, encouraging learning and development, developing a positive organisational culture etc. Providing employee state insurance, subsidised food etc are some strategies introduced by hospitals in India. Providing a conducive work culture, providing flexibility are also some retention strategies implemented by hospitals in India.

Organisations have designed retention programs that include attractive employee benefits, flexible work arrangement, career development programmes and a host of other initiatives. Findings of Randstad Work monitor survey Q2 2012 revealed that 54 percent of the respondents felt that the financial performance of their organisation was under pressure. 68 percent of the respondents felt that salary was a more important factor than enjoying work they did. 81 percent of the employees agreed that they would quit an organisation where there is lack of personal development (The Times Ascent, Times of India, August 1, 2012).

2. REVIEW OF LITERATURE

Employee Retention has become the most important task of business culture, where various experts have assessed the business related issues from varied angles. Few works in this area have been enumerated as under: Spherion (2002-03) in Introduction to Talent Management has stated that every person has unique talent that suits a particular job profile and any other position. It is the job of the management, particularly the human resource department, to place employees accordingly with sincerity and sagacity.

Talent management has become high priority for many companies in their organizations specially when there is a pressure of cost-cutting, says Leo Webster (Best Practices of Talent Management and Succession Planning, 2008). The integrated talent management process is critical for 'effectiveness' and 'efficiency'. The new retention or talent management process focuses more on pool of talent than on specific individuals.

Hudson (2008) Public Sector Talent Management: The Influence of the Private Sector has differentiated in policies of human resource practices in public and private sectors, where the public sector has serious annoyance for comparing their talent management strategies with private sector. The private sector is described as forerunners in introduction of new talent management tools. In public sector, performance is measured against financial target and outcomes, but career development based on individual performance is difficult to elaborate. Influenced by the increasing costs of developing, testing and marketing drugs, the European and American companies have entered into India for manufacturing as well as research and development. Nearly every multi-national pharmaceutical company has been investigating Indian possibilities for contracting manufacturing and licensing agreements, joint - ventures, mergers, acquisitions, and so forth. This has created more and better job-options to the employees.

Profits are related to customer retention. If employees are abused by management or superiors, they reciprocate in the same way, and this process leads to adverse effect of ruining the company. Pharmaceutical industry cannot afford to lose its trained and skilled talent, specially when the cost of talent pool is phenomenal (Mahua Majumdar : Talent Retention in Pharmaceutical Company: A Perspective in the Modern Era; 2009).

Gregory P. Smith (2010) in his article on Employees Retention Strategies: How to Attract, Keep and Motive Today's Workforce has stated that employers face major challenge in finding skilled people that success of business depends on stability of employees, who are well acquainted with the work culture and retention is possible with creative measures. In similar lines, Richard S Wellins, Audrey B Smith and Scott Erker (2010) in their white paper on Nine Best Practices for Effective Talent Management have highlighted that organizations remain well aware of the requirement of best talent to succeed in hyper-competitive and increasing complex global economy. Retention management enables organizations to rapidly align, develop, motivate and maintain high performance labour force.

Most of the organizations remain unaware about the reason of stay of employees or reason for departure from the company. Many employees report better compensation and career prospects as causes of leaving current job, instead of mentioning negative factors of leaving, possibly from fear of retribution. If the problem of such employees are heard and suitably addressed, satisfactory approaches could have been taken earlier.

Susan Gauff (2010) in the article Retention of Key Workers is # 1Entrepreneurial Challenge

has stressed that "employees do not leave companies but they leave managers." The employee usually wants good behaviour and encouragement after their task completion. In similar lines, Josh Greenberg (2010) in his article on Increasing Employees Retention through Employee Engagement has defined employee's engagement as level of commitment and involvement towards organization and its values.

Pharmaceutical industry is growing tremendously. There is constant thrust for the best and brightest of employees but the ever-growing industry is facing problem of heavy attrition, which is "highest after information technology sector." Sources from the industry reveal that marketing and sales areas are most affected from attrition problems. However, even in the research and development sector, the attrition rate is very high, as in any highly-skilled work areas there has always been a severe dearth of experienced

professionals (Alaknanda Dhotre in the article on Attrition in Pharmaceutical Industry: Human Resource Management's Roles and Strategy; 2010).

The pharmaceutical industry employs more than 5 lakh persons in India across domestic and global sectors, losing at least 30 percent work force annually. With changes in strategy and innovations in human resource management, like transparent recruitment policy, development and training, talent retention measures, conducive psychological relationship, long term organizational culture and career track management, it is feasible to reduce attrition in the pharmaceutical industry --- where there is business with innovative approach along with services to the mankind.

3. OBJECTIVES OF THE STUDY

A significant growth of hospital industry has given boost to India's GDP and economic development spreading the rapid progress of the Indian economic market. The general objective of the study is to make an in-depth exploratory study of the HR policies in hospital industry and its future direction.

In the present research, the Researcher has focussed on the identification of the Gap of perception between the Management and Employees' "need" to stay in the organization of the hospital industry. However, the availability of literature in this field of hospital industry in the Indian context is negligible as most of the research is stressed on IT and allied Service industries. The major research objective is as follows:

- To explore the various factors affecting retention practices in the hospital industry of West Bengal.

4. RESEARCH METHODOLOGY

Variables used for the Study:

The following variables are used for the data collection process:

- i) Demographic variables – age, education, gender, profession, income
- ii) Type of hospitals –Private

Table-1: Variables impacting employee satisfaction under study

Variables	Descriptions
V1	My supervisor has knowledge and competence to solve my problems in work.
V2	My Company/ supervisor gives proper training and information on its recent updates.
V3	Employees/ peers are trust worthy.
V4	Work-environment: Employee attitude is friendly and co-operative.
V5	My supervisor goes out of way to help me in times of professional emergency.
V6	My organization is always there to fulfill promises in timely manner, regarding promotion, incentive etc.
V7	My peers are highly dependable
V8	Other departments of the organization provide quick response to any service failure.
V9	My Company always keep customers updated on new products.
V10	My Company arranges periodic meetings with employees to keep communication effective.
V11	My Company provides hassle-free claim settlement process of any expenses incurred for work.
V12	My Company takes due care of performance appraisal giving right feedback at the right time.
V13	Leave policy is customized as per the job category and employees' requirement.
V14	Queries are handled always in timely manner inter & intra department.

4.1 DATA COLLECTION METHODOLOGY

The present study is exploratory and empirical in nature. To meet the objectives of the study stated above both qualitative and quantitative techniques (Qual-Quan approach) are used. The study is based on mainly the information available through a structured questionnaire among randomly selected respondents of different categories, and the available information on this context from different publications.

Suitable sampling techniques were adopted to collect primary data from respondents through final questionnaire. Some relevant aspects are as follows:

STUDY PERIOD

The study period is February 2017- January 2018.

Apollo # B.M. Birla # CMRI # Fortis hospitals of Kolkata district.

POPULATION

Management and Employees of private hospitals in West Bengal, more specifically,

SAMPLING METHOD

Four areas are selected randomly from the Kolkata district of West Bengal, which is taken as the sampling frame. Two stages involved Cluster sampling, followed by Stratified Random Sampling without Replacement.

SAMPLE SIZE

180 people were initially contacted, out of them 126 agreed for completing the full questionnaire, and finally 114 people (doctors/ paramedics/ non-medical staffs) gave a valid response.

DATA SOURCES

Primary Data: For primary data collection, the researcher has considered the structured questionnaire which was drafted initially and a pilot survey was done to finalize it.

The questionnaire contains two parts: a) the psychological details of the respondents and b) questions relating to their preferences and perceptions about Job satisfaction from employees and Retention strategies from employers (measured using 5-point Likert Summated scale) ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

The researcher has approached the respondents explaining to them the questionnaire in detail (including its purpose, the meaning of the items and what was expected of the respondents).

Secondary Data: Information collected from the internet, different hospital journals, books and magazines is taken into consideration for the study as secondary source.

4.2 DATA ANALYSIS METHODOLOGY

The raw data was analyzed using SPSS 17.0 (Green et al., 2000) to extract inferences more specifically- Factor Analysis (principal component analysis) was done to reduce the complexity within the dataset and convert large number of variables into few factors to explain the original data more economically and efficiently.

Here, factor analysis is done in order to summarize the 14 variables of survey questionnaire into smaller sets – Items with factor loadings of 0.40 or higher were clustered together to form separate constructs, as recommended by Hair et al. (2006).

5. FINDINGS

After the data collected from the survey, the Descriptive statistics was used to summarize the respondents' demography. Factor Analysis (Principal Component Analysis) was used to reduce the complexity within the dataset and convert large number of variables into few factors and to identify latent factors. The latent factors were studied and renamed to develop the dimensions. In this case, the principal component analysis with varimax rotation was conducted on all the variables to extract factors from the scales of each construct.

Table-2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.780
Bartlett's Test of	Approx. Chi-Square	1540.373
Sphericity	Df	91
	Sig.	.000

Source: SPSS Output

From Table 1, Kaiser-Meyer-Olkin (KMO) measure and Bartlett's sphericity test was found highly significant; with a p-value of .000, that rejected the null hypothesis of identity matrix. It provides support for validity of the factor analysis of the data set and indicates that, factor analysis is appropriate.

Table-3: Communalities

	Initial	Extraction
V1	1.000	.784
V2	1.000	.838
V3	1.000	.754
V4	1.000	.958
V5	1.000	.976
V6	1.000	.892
V7	1.000	.855
V8	1.000	.871
V9	1.000	.798
V10	1.000	.747
V11	1.000	.712
V12	1.000	.773
V13	1.000	.940
V14	1.000	.958

Extraction Method: Principal Component Analysis.

Source: SPSS Output

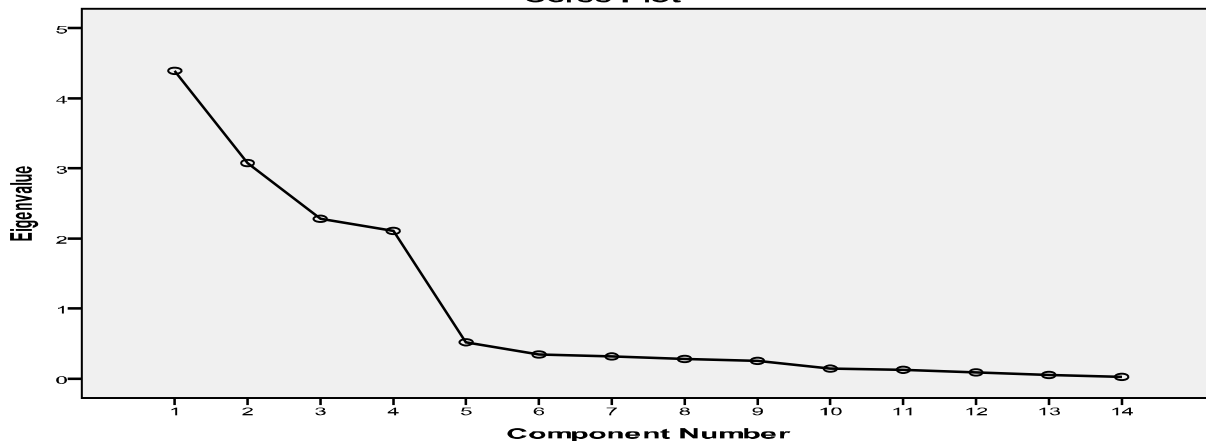
The next item from the output is a table of communalities which shows how much of the variance (i.e. the communality value which should be more than 0.5 is to be considered for further analysis. Else these variables are to be removed from further steps) in the variables has been accounted for by the extracted factors. The table of Communalities (*Table 2*) did not display any value less than 0.5. So all these variables are taken into consideration to proceed further.

Table -4: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.394	31.384	31.384	4.394	31.384	31.384	4.141	29.580	29.580
2	3.077	21.979	53.362	3.077	21.979	53.362	2.951	21.076	50.656
3	2.279	16.276	69.638	2.279	16.276	69.638	2.485	17.750	68.406
4	2.107	15.047	84.685	2.107	15.047	84.685	2.279	16.279	84.685
5	.522	3.726	88.411						
6	.345	2.464	90.875						
7	.313	2.237	93.112						
8	.279	1.994	95.106						
9	.252	1.800	96.906						
10	.140	1.000	97.906						
11	.129	.919	98.825						
12	.086	.617	99.442						
13	.054	.385	99.827						
14	.024	.173	100.000						

Source: SPSS Output

The Eigen-value table (Table:4) has been divided into three sub-sections, ie. Initial Eigen values, Extracted Sums of Squared Loadings and Rotation of sums of Squared Loadings. For analysis and interpretation purpose we are concerned with Extracted Sums of Squared Loadings. Here the first factor accounts for 31.384 % of the variance, the second 21.979 %, the third 16.276 % and the fourth 15.047 %. All the remaining factors are not significant. Overall the factors explained about 85% of the Total Variance.

Table - 5**Scree Plot**

Source: SPSS Output

Here, the researcher had considered only those factors whose Eigen-values is more than one, as significant (Guttman-Kaiser rule). The above diagram shows four components having Eigen- value more than 1; so out of 14 variables, these four are selected as the criteria.

Now, the idea of rotation is to reduce the number factors on which the variables under investigation have high loadings. Rotation does not actually change anything but makes the interpretation of the analysis easier.

Table 6: Rotated Component Matrix

	Component			
	1	2	3	4
V1	.864	-.194	.006	-.012
V2	-.104	.131	.899	-.042
V3	.062	.107	-.014	.859
V4	-.044	.975	.073	-.022
V5	-.043	.981	.100	-.019
V6	-.133	.143	.924	-.011
V7	.916	.073	-.089	.051
V8	.931	.018	-.062	.005
V9	.003	-.037	-.002	.892
V10	-.019	-.103	.015	.858
V11	.837	.002	-.101	.033
V12	-.016	-.009	.878	.046
V13	-.003	.965	.094	.001
V14	.975	-.030	-.074	-.014

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Source: SPSS Output

Variables of similar nature are clubbed together to form the factors, and the variables which has the highest factor loading are clubbed together to represent that particular factor. (*Meghdoot Ghosh, Diptendu Simlai* ,

"Factors Affecting Customer Satisfaction and its Impact on Customer Loyalty: A Study of Life Insurance Companies in West Bengal", 2017, pp. 19-38)

Looking at the table below (Table 7), the researcher observes that "My supervisor has knowledge and competence to solve my problems in work", "My peers are highly dependable" and "Other departments of the organization provide quick response to any service failure", "My Company provides hassle-free claim settlement process of any expenses incurred for work" and "Queries are handled always in timely manner inter & intra department" are substantially loaded on *Factor 1*, while, "My Company/ supervisor gives proper training and information on its recent updates", "My organization is always there to fulfil promises in timely manner, regarding promotion, incentive etc.", and "My Company takes due care of performance appraisal giving right feedback at the right time" are substantially loaded on *Factor 2*.

Variables "Employees/ peers are trust worthy", "My Company always keep customers updated on new products", "My Company arrange periodic meetings with employees to keep communication effective", are loaded on *Factor 3*. All the remaining variables ---"Work-environment: Employee attitude is friendly and co-operative", "My supervisor goes out of way to help me in times of professional emergency", "Leave policy is customized as per the job category and employees' requirement" are substantially loaded on *Factor 4*.

Table 7: Reduced Dimensions & Factor Loadings

Dimensions	Variables	Descriptions	Factor Loadings
Competency	V1	Refer to Table 1	0.864
	V7		0.916
	V8		0.931
	V11		0.837
	V14		0.975
Career Development and Learning Curve	V2	Refer to Table 1	0.131
	V6		0.143
	V12		-0.009
Reliability	V3	Refer to Table 1	-0.014
	V9		-0.002
	V10		0.015
Flexibility	V4	Refer to Table 1	-0.022
	V5		-0.019
	V13		0.001

6. CONCLUSION & SUGGESTIONS

Employee-turnover had been historically viewed as a question by researchers in terms of why employees leave their organisations and what could be the basis of employee's intention to leave the organisation. High employee turnover has adverse effects on productivity. Since last decade, researchers have shifted their focus on HR policies and practices of the organisation in order to identify the reasons of employee turnover.

In this study, the output of the Exploratory Factor Analysis confirmed that there are significant factors – **Competency, Career Development, Reliability and Flexibility** – identified from the fourteen variables selected from the survey and literature review. If the employer can take care of these four components, turnover of employees from the organisation can be minimised to a great extent.

Competence or having the domain knowledge forms the basis of any service delivery. Competency, or the ability of an individual to do the job in a proper manner, is actually a set of defined behaviours that provide a

structured guide enabling the identification, evaluation and development of the behaviours in individual employees. Employees want to be competent so that they can be more confident in their work and also it will help them in their career development. In the healthcare sector the role of competency is much more intense and prime.

Career Development: It is the " ... the total constellation of psychological, sociological, educational, physical, economic, and chance factors that combine to influence the nature and significance of work in the total lifespan of any given individual" [Wikipedia]. The lifelong process of managing learning, work, leisure, and transitions in order to move toward a personally determined and evolving preferred future determines the development of the person's career. Right from the school-life individuals are taught how important the career is -- whether to make the life smooth-sailing or full of hills and gorges -- is determined by the career in his or her life.

Reliability can be referred as the quality or the ability to be dependent on or relied on, for the honesty, achievement or accuracy. Reliable is something on which we can count or bank on; for an instance, when we talk about a car being reliable, is when we find the speed, safety and comfort of travelling is as same as what the manufacturers and the marketers say. We also talk about the news we hear, whether it is from the reliable source or it might be fake. In both the cases, the word reliable simply means trustworthy or dependable. In the workplace, employers want their employees to be reliable; similarly, employees too want that their place of work where they put their daily effort and most importantly their *boss*, is something or someone where they can rely upon.

Flexibility on the job includes the willingness and ability to readily respond to changing circumstances and expectations. Being flexible when it comes to work is worth a lot both for employers and the employees. Workplace flexibility is a trait most employers look for in an employee as it shows his or her willingness to change as per circumstances. Employees who approach their job with a flexible mindset are typically more highly valued by employers. Again, employees want flexibility in their job to complete their assigned work as per their 'free will' and not 'forced'. Workplace stress can be avoided a lot if there is flexibility.

7. LIMITATIONS & FUTURE IMPLICATIONS OF THE STUDY

Managing high employee turnover has become a challenge for the HR managers. Realising this fact, HR managers have implemented effective retention strategies in their organisations. However, how satisfied are the employees pertaining to the retention strategies implemented in their organisation? What are their perceptions towards these strategies --- this study is an attempt to find out answers for these questions. However, Research is an ongoing process. An individual research may be completed but it only shows direction to subsequent researches in the relevant areas. The present study is an attempt to understand the perceptions of the employees of the hospital industry with regard to the retention strategies implemented in their organisation and influence of the retention strategies on their intention to stay. The study is confined to West Bengal (Kolkata); and the sample size is petite; only four multi-speciality hospitals are taken as the samples, who are mainly the market leaders (word-of-mouth).

The researcher has started her research with one objective, and is conducted on private hospital industry alone. A future study will be conducted on other group of hospitals chosen on some relevant parameters from the same industry but may be from different region. Similarly, relevant Service Quality Model can be applied to understand their pros and cons of hospitals or any other service industry. Also, the relationship of service quality with employee satisfaction and employee loyalty can be estimated and explored. There are ample opportunities for future researchers to analyze the gaps in other healthcare sector using same constructs or different relevant constructs. The study is only the tip of the iceberg; the rest of its exploration is yet to be unveiled.

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RELATIONSHIP OF FOREIGN DIRECT INVESTMENT (FDI) INFLOWS AND NOMINAL EXCHANGE RATE IN INDIA: AN APPLICATION OF AUTO REGRESSIVE DISTRIBUTOR LAG MODELLING AND GRANGER CAUSALITY APPROACH

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ABSTRACT

This paper analyses interdependency of foreign direct investment(FDI) inflow and exchange rate from the perspective of Indian economy. To determine the relationship between these two different time series data, Auto Regressive Distributor Lag (ARDL) Modelling approach and Granger Causality Test (GC Test) have been applied. Quarterly data is chosen for the analysis over the period 1991 to 2016. From the result of ARDL, it is proved that there is no long run cointegration as well as short run relationship among FDI inflow and Nominal Exchange Rate in India. Moreover, the speed of adjustment from short run disequilibrium to long run stability is only 10 percent. The Granger Causality results exemplifies the absence of causality from both the direction, either from FDI to Nominal Exchange Rate and vice versa.

Keywords: FDI inflow, Nominal Exchange Rate, ARDL, Granger Causality Test **JEL Classification:** C2, F31, F21

INTRODUCTION

Foreign Direct Investment (FDI) is a key driver for economic growth of any developing economy. Inflow of FDI depends on several factors- Government policies, openness of an economy to the international market by international trade, the currency exchange rate at which economy exchanges goods and services with another economy, etc. Discussing this issue from the perspective of India, FDI plays a significant role in shaping the structure of Indian Economy since 1991. After Liberalization, Privatization and Globalization in 1991, Indian Economic policies were reconstructed for the development of Indian Economy. The economic policies were designed with the aim to create a market-oriented economy, an open economy, and a foreign investment-oriented economy. The strategies taken to achieve this goal of accumulating foreign investment were tax reduction, participation of private sectors in the economy, reduction of tariff, expansion of quota, reduction of imports, expansion of exports and reduction in the value of Indian rupees with respect to dollar (Exchange Rate).

On the other hand, exchange rate is another crucial factor for determining the growth of the economy. Exchange rate determines international trade of a country. A depreciation of currency results in a decrease in the relative price of export. This helps in increasing export volume. At the same time, depreciating exchange rate helps to attract more foreign investment – either through direct investment or through institutional investment. However, from the point of view of maximizing profit out of the existing investment, depreciating currency diminishes it.

The current trend of FDI and Nominal Exchange Rate (Rupee/ Dollar) can be shown in this respect as in Figure 1 and Figure 2.

Figure - 1

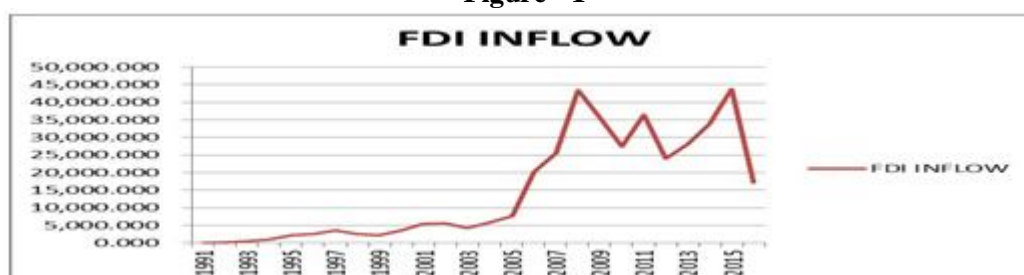


Figure - 2



Figure 2 shows there is a clear pattern of depreciation of Indian currency during these years, but, Figure 1 has no deterministic trend giving an ambiguous relation between FDI inflow and currency into India. Despite having two different trends in their movements, these two variables are much discussed topics in current international economics area. In this regard, we tried to focus on the long run as well as short run relationship between FDI inflow in India and Nominal Exchange Rate (Rupee/ Dollar). The sections below define as: Section two will discuss about the review of literature. Section three will analyze the research gap and objectives of the article. Section four concentrates on data sources and description of the variables. Section five is based on analysis and interpretation of the econometric methods used in this study. Finally, section six concludes the paper.

REVIEW OF LITERATURE

Standing in the second position to acquire FDI from different countries, India is pushing its growth of development at faster rate. Like India, there are different South Asian Economies where FDI penetration created a positive impact to let the country pursue with higher economic growth. We have discussed these studies related to these stages of development of different economies by assessing few reviews of literature.

Nagesh Kumar (1998), in his article- "Liberalization and Changing Patterns of Foreign Direct Investments: Has India's Relative Attractiveness as a Host of FDI Improved?", explored the sectoral percentage of the foreign capital inflow as a part of total FDI. In his analysis, he found the major percentage of FDI was channelized to energy and service sectors than manufacturing sector. According to his analysis, having high potential of implementing FDI into profits, India is still facing FDI fund crunch in its economy. MNEs should be encouraged to seek efficient markets for their operations. Employment; labor supply, technical labour source and cheap labour cost are the macroeconomic variables which are to be given importance to promote growth in the Indian Economy apart from FDI regulations in India.

Arindam Banik, (2003) in his research "Foreign Direct Investment Inflows to India and China: Trends, Assessments and Determinants" examined different factors affecting FDI into India and China during a period of 1979-2000. It was found that USA is the major investor in India. Result shows Gross National Product (GNP) and its lagged values jointly affect FDI in both India and China. On the other hand, only in India, it is seen that FDI and domestic investment is highly correlated. In terms of OLS estimates, he examined linearity between GNP (as a proxy of increase in market size) and FDI.

Constantinos Alexiou, Persefoni V. Tsaliki, (2007) in their study "Foreign Direct Investment-Led Growth Hypothesis: Evidence from the Greek Economy" focused on finding the importance of FDI in the development of the economy of Greece. It was found that in Greece, the adjustment of GDP is followed by the change in FDI. A descriptive analysis of this kind helps us to find out the fluctuation of the macroeconomic variables.

Muhammad Tariq Majeed, Eats Ahmad (2007), in their analysis -"FDI and Exports in Developing Countries: Theory and Evidence" proved that GDP, economic growth, domestic absorption in an economy positively affects FDI, whereas, external debt and BOP deficit has a negative relation with FDI. In this analysis, it is proved that domestic investment outweighs the effects of FDI. It has a negative impact with

FDI creating a limiting capacity-oriented investment in the 49 developing countries. In this study, it was mentioned that developing countries cannot face growth in their developments with penetration of FDI being a complementary to domestic investment.

Erdal Demirhan, Mahmut Mascain (2008), in their article - "Determinants of Foreign Direct Investment Flows to Developing Countries: A Cross Sectional Analysis" examined the factors determining FDI for developing countries' Infrastructure and GDP (reflecting the size of population and income). This study concludes with the direction of analysis that foreign investors go for large economies rather growing economies.

Zafar Mueen Nasir, Arshad Hassan (2011), in "Economic Freedom, Exchange Rates Stability and FDI in South Asia" explored that economic freedom and attraction of FDI in South Asia. They proved that with an economic freedom present in an economy, FDI is attracted towards the developing countries. He also suggested improving infrastructure and technical skill of the labour source as these are the basic requirements of FDI inflow in an economy.

Aekapol Chongvilaivan (2012), in "From Inward to Outward: An Assessment of FDI Performance in Thailand" analyzed inward FDI is the key driver of economic growth for the developing economies like India, Thailand, China and Malaysia. FDI is the main factor of growth for the development of an economy. But due to 2008 global recession, the amount of FDI was low and for this, the growth of world economy hampered.

B.K. Loksha, D.S. Leelavathy (2012), in their study “Determinants of Foreign Direct Investment: A Macro Perspective” discussed about the performance of the policy measures to boost an economy by attracting FDI into India. They specify on competitiveness and economic stability of a country to attract FDI and there by choosing a way to reach higher economic development.

RESEARCH GAP

Conferring the past reviews of literature, it is evident that FDI is the prior macroeconomic variable to determine a long run growth of an economy irrespective of its structure of development. The major concentration was given either to determine different factors affecting to FDI or the performance of FDI in developing economies like India, China, and Pakistan. The need to carry out an analysis to find the relationship of FDI and a specific macroeconomic factor, Exchange Rate, in India—which is thus the research gap of this paper. This paper focuses on the following objectives:

- To measure the long run relationship between FDI inflow and Nominal Exchange Rate from 1991-2016.
- To analyze long run and short run impact of Nominal Exchange Rate on FDI inflow for the given period.
- To find out short run Granger Causality among the variables.

DATA SOURCES AND DESCRIPTION OF THE VARIABLES

Quarterly time series data on FDI and exchange rate which cover the period 1991-2016 have been considered for the analysis of the study. The data have been gathered from Reserve Bank of India bulletin, OECD. Due to different scales of the data, logarithmic values have been considered for further analysis.

ANALYSIS AND INTERPRETATION

Econometric methodology and empirical results

Unit Root Tests

In Time series analysis, before running the causality, variables need to be checked with stationarity problems. For this purpose, we have performed Augmented Dicky Fuller(ADF) Test, and Phillips Perron for checking stationarity and detrending of each variable prescribed by Elliot et al. (1996). ARDL model is established on the concept that all the underlying variables should be either integrated to order zero $I(0)$ or order one $I(1)$, but none will be of $I(2)$ because of its spurious outputs in the analysis. The results of Augmented Dicky Fuller(ADF) Test, and Phillips Perron are given in Table (1) and Table(2).

Table-1: ADF, PP and DF-GLS unit root tests on log levels of variables

Variables	ADF t-Stat	Critical value at 1%	PP t-Stat	Critical value at 1%
Ln(FDI)	-3.862287**	-3.724070	-3.763071**	-3.724070
Ln(NER)	-2.117248	-3.724070	-2.046144	-3.724070

Values with intercept.

Table 2. ADF, PP and DF-GLS unit root tests on first difference of log levels of variables

Variables	ADF t-Stat	Critical value at 1%	PP t-Stat	Critical value at 1%
Ln(NER)	-3.995424**	-3.737853	-3.969905**	-3.737853

Values with intercept.

** significant at 1% level

ARDL BOUND TEST FOR COINTEGRATION RESULTS

To analyze an empirical long run relationship and short run nexus among the variables (FDI and Nominal Exchange rate) taken into consideration for this analysis, we execute Auto Regressive Distributed Lag (ARDL) model.

The basis of applying ARDL model, here, is that ARDL contains three advantages over the other time series techniques. First, the underlying variables need not to be integrated of the same order. Variables can be of order zero, one or fractionally integrated. In our article, FDI is $I(0)$, and exchange rate is $I(1)$. The second is ARDL is more effective for small sample data size. In this study, quarterly data for all the variables are taken from 1991

to May 2016. The third advantage is through ARDL, we can get an unbiased long run relation among the variables taken into consideration. The ARDL equation applied in this study is as follows:

$$\Delta \ln Y_t = \alpha + \sum_{i=1}^n \beta_i \Delta \ln Y_{t-i} + \sum_{j=0}^n \gamma_j \Delta \ln X_{t-j} + \gamma_1 \ln(Y_{t-1}) + \gamma_2 \ln(X_{t-1}) + \epsilon_t \quad \text{---Equation(1)}$$

Where the two variables employed here are $\ln(\cdot)$ or Logarithmic operator. Δ is first difference and ϵ_t is error term.

The specifications of the variables are:

Y_t = FDI Inflow

X_t = Nominal Exchange Rate (Rupees per Dollar)

The first step in ARDL model is to measure the above equation (1) by Ordinary Least Square(OLS). Through this procedure, we can find out the long run relationship between FDI, and exchange rate over the period. The estimation of the above equation (1) tests for the joint significance of coefficients of the lagged variables by conducting F test. The Null (H_0) hypothesis for long run estimation of the variables states that $\gamma_1 = \gamma_2 = 0$, i.e, no cointegration or long run relationship among the variables against the alternative hypothesis $\gamma_1 \neq \gamma_2 \neq 0$, i.e proving existence of cointegration. Two sets of critical values at given significance levels can be ascertained from Pesaran Table (Pesaran et al.,2001). The first set of values, i.e., upper bound values, at any given significance level is evaluated on the assumption that all the variables under consideration are of order one and the second set of values, i.e., lower bound, are of the order zero. If the value of calculated F statistic exceeds the upper bound values, it ascertains the rejection of Null Hypothesis of no cointegration and explains a long run cointegrating relationship among the three variables and vice versa. If calculated F statistic falls in between the upper and lower bound values, the result is inconclusive. Therefore, here arises a need to perform the test again to avoid spurious results in the study.

By incorporating the automatic process of ARDL, we have determined the lag periods in this model. The calculated F statistic values for long run co integration are noted in Table (3).

Table 3: Results from ARDL Bound Test (ARDL 1,0)

Dependent Variable	Independent Variables	Calculated F Statistic	Critical Values at 1 % level	Critical Values at 5 % level	Critical Values at 10% level	Decision
Ln(FDI)	Ln(NER)	8.204226*	4.94- I (0) 5.58- I (1)	3.62-I (0) 4.16-I (1)	3.02-I (0) 3.51-I (1)	Cointegration
Ln(NER)	Ln(FDI)	1.256926	4.94- I (0) 5.58- I (1)	3.62-I (0) 4.16-I (1)	3.02-I (0) 3.51-I (1)	No Cointegration

*values are significant at the given levels of 1%, 5% and 10%.

Lower and Upper-bound critical values are taken from Pesaran et al. (2001), Table CI(iii) Case III. The cointegration is proved when FDI is dependent variable and NER is independent variable. But the other way, co integration is not found.

Once the cointegration is established, the long run equation and model of FDI, and Exchange Rate is expressed as below

$$\ln Y_t = \Omega + \sum_{i=1}^n \beta_{1i} \ln Y_{t-i} + \sum_{j=0}^n \gamma_{1j} \ln X_{t-j} + \mu t \quad \text{---Equation (2)}$$

The estimated Long run coefficients of the above equation are given below in Table (4).

Table (4): Estimated Long run coefficients of ARDL Bound Test

Variables	Coefficient	t-statistic	Probability
C	18.11340	-0.547399	0.5896
Ln(NER)	-8.086317	-0.547399	0.5896

As cointegration is proved keeping FDI as dependent, the long run and short run coefficients of the independent variable, exchange rate (NER) can be discussed as follows:

The long run impact of exchange rate on FDI is negative with insignificant result (probability more than 0.05), imparting the result that depreciation of rupee brings in less FDI inflow into Indian economy.

The short run and long run impact, taking together, are expressed in equation (3). The short run coefficients of the equation, also, are reported in Table (5). The short run causality is depicted by F statistic value and the coefficient of Error Correction Term (ECT) displays long run causal relationship. The error correction term is an equation where null hypothesis of no cointegration is rejected.

The Error Correction Term along with short run causality equation is noted below as:

$$\Delta \ln Y_t = \pi + \sum_{i=1}^n \beta_i \Delta \ln Y_{t-i} + \sum_{j=0}^n \gamma_j \Delta \ln X_{t-j} + \eta \text{ECT}_{t-1} + \Psi_t \quad \text{----- Equation (3)}$$

The coefficients in the above equation β_i , and γ_j explain the short run impacts and the coefficient along with ECT_{t-1} , η , explains the speed of adjustment towards long run equilibrium from short run disturbances within next quarter.

The details of the short run and long run coefficients are reported below in Table (5)

Table (5): Results of Equation (3)- ARDL (1,0)

Variables	Coefficients	t-Statistic	Probability
C	1.625689	2.019920	0.0557
D (Ln(NER))	-0.725752	-1.109198	0.2793
ECT (-1)	-0.089751	-5.181717	0.0000
DW-statistic 1.804886	NA	NA	NA

To begin with the explanation of Table (5), it is observed that the impact of nominal exchange rate is negative. The result matches with long run impact of nominal exchange rate which verifies depreciation of rupee in the due course of time will discourage the inflow of FDI in India. The speed of adjustment towards long run is significant with correct sign. Study explains there exists 10% chance to move from disturbances in short run to equilibrium in long run.

Finally, the analysis represents the short run Granger Causality between the variables. The results are reported in Table (6).

Table (6): Results of Granger Causality:

Null Hypothesis:	F-Statistic	Prob.
$\Delta(\text{Ln}(\text{FDI}))$ does not Granger Cause $\Delta(\text{Ln}(\text{NER}))$	1.03102	0.3215
$\Delta(\text{Ln}(\text{NER}))$ does not Granger Cause $(\text{Ln}(\text{FDI}))$	0.51557	0.4807

Table (6) explains from both the direction, there is no causality running from each other as both the probability value is greater than 0.05. This proves that neither FDI inflow nor Nominal Exchange Rate can cause the other variable in short run.

CONCLUSION

The above result clearly explains that there is no causal relationship between FDI and currency in the short and long run. Erdal Demirhan, Mahmut Masca(2004) mathematically determines the factors affecting to FDI flows to developing economies. In their article, it is observed that market size, growth, trade openness, labor cost and productivity, infrastructure and tax are playing the major role in determining the FDI flow in an economy. There is no clear mention of exchange rate being the contributor for the determination of FDI flow in developing economies. In this study, it is empirically proved that there is no impact of exchange rate on FDI inflow and both of them do not granger cause each other. Though there exists a long run cointegrating relationship between them, it does not signify any impact or short run causality. The study empirically proves that during a situation of continuous rupee devaluation against dollar with instability in exchange rate, foreign investors will not find it profitable enough to engage foreign currency in Indian market. foreign investors will be attracted towards Indian investment if and only if Indian rupee touches too low and it is stabilized. Despite having various disadvantages, FDI in India can still be encouraged by Government of India as it certainly

transfers technology, brings in foreign capital, generates employment, and increases productivity in Indian economy.

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DATESET

YEAR	FDI INFLOW	CURRENCY
1991	75.000	22.742
1992	252.000	25.918
1993	532.000	30.493
1994	974.000	31.374
1995	2,145.000	32.427
1996	2,523.000	35.433
1997	3,619.000	36.313
1998	2,633.000	41.259

1999	2,168.000	43.055
2000	3,585.000	44.942
2001	5,472.000	47.186
2002	5,627.000	48.610
2003	4,323.000	46.583
2004	5,771.000	45.316
2005	7,606.000	44.100
2006	20,336.000	45.307
2007	25483.000	41.349
2008	43407.000	43.505
2009	35597.000	48.405
2010	27396.000	45.726
2011	36498.000	46.67
2012	23996.000	53.437
2013	28153.000	58.598
2014	33870.000	61.03
2015	43857.000	64.152
2016	17281.000	67.197

**A COMPARATIVE ANALYSIS OF THE PATTERNS OF CONSUMER BEHAVIOR AMONG THE
NEW AGE BUYERS ACROSS KOLKATA**

Ria Roy**ABSTRACT**

In the present marketing scenario, the study of consumer behavior is a very important factor. Consumers are the cynosure of the markets. Without consumers no business organization can function. Present markets are more interested to know the pulse of the new age consumer buying patterns. Consumer buying pattern is based on the change seeking or variety seeking behavior, desire for unique consumer product, susceptibility to interpersonal influence and consumer buying styles. Advertisements play a major role to introduce a product in the market. Different media of advertisement provide important information about the product to the consumers and the buying behaviors of the consumers affect the marketing strategies of the sellers as well. The present investigation was designed to analyze the pattern of consumer behaviors among the new age buyers across Kolkata. Accordingly, 90 data were collected from the high schools, colleges and university students across Kolkata, using purposive sampling technique. General information schedule, Advertisement effectiveness questionnaire, Change seeking index, Desire for unique consumer product, Consumer susceptibility to interpersonal influence and consumer shopping style inventory were used as a tool for this investigation. It was appeared from the research that the new age buyers perceived different parameters very differently, in case of the effectiveness of the advertisement of the two media to be not significantly different, but the young consumer belonging to the high school level perceived both the kind of advertisement to be more effective than the university and college students.

Keywords: Consumer buying pattern, new age buyers, advertisement effectiveness.

INTRODUCTION

Advertisement nowadays is a very important area in the field of consumer behavior. It is the medium through which a company lets its target audience know about its products in the market. Thus proper advertisements not only provide knowledge to the potential customers but also motivate them to buy and try the product. The effectiveness of advertising depends on the selection of right media for conveying the said message to the target audience. Print is one of the dominant media, and has greatly contributed to the development of media. Print media is found in many different forms, from newspaper (the most popular form) and magazines to newsletters, brochures and posters etc. Print media is tangible. Readers are engaged as they turn page to read articles, look at images and view advertisements in their favorite magazines or newspapers. Newspaper and magazines differ from the broadcast media because they allow the presentation of detailed information that can be processed at the reader's own pace, and some effort on the part of the reader for the advertising message to have an impact. Also, newspaper and magazines are viewed as credible source for information. While newspaper is often disposed after use, the life span of a magazine can go on for years. These factors represent an important aspect of print media that other media cannot offer. Auditory advertisement is an important medium of an advertisement. It is mainly used in the broadcast media. In auditory advertisements listeners have no visual stimulation to support the ad message. This makes creative copy essential for success of radio ads. Radio advertising, one of the medium of auditory advertisement often is said to develop the theater of the mind. Both radio and TV advertising can include music and sound effects that help set the tone for commercial and establish mood.

There have been few studies across India and the world which dealing with the effectiveness of advertisement and consumer buying behavior in the market. **Herbjirm et al.** (2005) analyzed the advertisement effectiveness of Internet ads (pop-ups), Print advertisements (posters), and radio advertisement in relationship to consumer attitudes towards individual products-regarding the ad. Sample population of the study was chosen from three European (Norway) regional universities. The sample contained 42% females and 58% males. The result of this study support rendering purchase decision. **Hermelin (1972)**, in his study of modality and order interact in determining the retrieval strategies that people use was found that when information was presented auditory, subjects were more likely to use order of presentation as a retrieval even when other cues were available to them. Conversely, the likelihood of use of spatial cues was greater when information was presented visually. Thus these studies indicate that in case of presented of information of consumer products in advertisements, ads presented auditory (as in radio broadcast) would get better retrieval from the potential consumer than ones presented visually (print ads).

Fromkin 2002, in Roheric, was the first to suggest a link between innovativeness and the need for uniqueness. According to Fromkin, the need for uniqueness pushes the individual to distinguish himself/herself through the possession of rare items. **Snyder and Fromkin** suggest three consequences of the need for uniqueness: The Absence of interest in the reaction of others to one's own different ideas or acts; the desire not to always follow the rules; and the willingness to publicly defend one's opinions.

Kelly et al (2007) investigate motivations for online apparel Consumption using the Consumer Styles Inventory. Data from a sample of 357US college students showed that quality consciousness, brand consciousness, fashion consciousness, hedonistic shopping, impulsiveness and brand loyalty were positively correlated with online apparel shopping. Thus, the present investigation has been designed to analysis the pattern of consumer behavior among new age buyers across Kolkata.

OBJECTIVE

- To study the significance difference between the perceived attractiveness of advertisement presented in auditory and visual modalities as perceived by young female consumers across Kolkata.
- To study the significance difference between the different age group of young female consumers across Kolkata, regarding their change seeking, desire for unique products, susceptibility to interpersonal influence and buying style.

HYPOTHESES

Hypothesis I : There is a significant difference in the perceived effectiveness of auditory advertisements among the young female consumers across Kolkata.

Hypothesis II : There is a significant difference in the perceived effectiveness of visual advertisements among the young female consumers across Kolkata.

Hypothesis III : There is a significant difference between the perceived effectiveness of auditory and visually presented advertisement of the young female consumers across Kolkata.

Hypothesis IV : There is a significant difference between the change seeking index of the young female consumers studying in high schools, colleges and universities across Kolkata.

Hypothesis V : There is a significant difference between the desire for unique consumer products of the young female consumers studying in high Schools, College and Universities across Kolkata.

Hypothesis VI : There is a significant difference between the consumer susceptibility to interpersonal influences of the young consumers studying in high schools, colleges, and universities across Kolkata.

Hypothesis VII : There is a significant difference between the consumer style inventory of the young female consumers studying in high schools, colleges and universities across Kolkata.

SAMPLE AND STUDY AREA

A group of 90 female students (30 class nine students ,30 graduations 1st year students and 30 masters 2nd year) were selected as a sample from north and central Kolkata. All respondents were Bengali medium students and staying in Kolkata. Purposive sampling technique was used to collect data. Age range: 13-14,19-20,23-24

TOOLS USED

General information schedule

General information schedule was developed for the research, which Incorporated name, age, education.

Advertisement Effectiveness Questionnaire

It consists of 10 statements answerable in a five-point scale from strongly agree to strongly disagree. This test exists different sub-criteria. Each item of this test have different weightages. The reliability (Alpha-coefficient) of the questionnaire is 0.89.

Change Seeking Index(CSI)

It consists seven items, scores on five-point scale ranging from +2 to -2. The reported coefficient alpha estimates of internal consistency ranged from 0.82 to 0.92 across the samples, and alpha for the scale where data was pooled over all the samples was 0.84.

Desire for Unique Consumer Products(DUCP)

This is an Eight items scale; each item being rated on Five options 1 to 5. The test-retest reliability is 0.85.

Consumer Susceptibility to Interpersonal Influence (CSIIS)

It consists of 12 statement answerable in a seven-point scale from completely true to completely false. Test-retest reliability is 0.75 and 0.79.

Consumer Style Inventory(CSI)

It consists 39 items answerable in a five-point scale from strongly agree to strongly disagree. It was designed to identify 8 consumer shopping/decision style viz Perfectionist/High Quality Conscious, Brand

Consciousness/Price Equals Quality, Novelty and Fashion Conscious, Recreational and Shopping Conscious, Price Conscious/Value for the Money, Impulsiveness/Careless, Confused by Over-choice, Habitual/Brand Loyal. The coefficient alpha estimates longer and three items versions of the style scales ranged from 0.41 to 0.76.

ADMINISTRATION, PRE ADMINISTRATION SET UP

General information schedule, Auditory effectiveness questionnaire, Visual effectiveness questionnaire, Change seeking Index, Desire for unique consumer products, consumer susceptibility to interpersonal influence, consumer shopping style inventory were prepared for administration. Total 90 sets of each questionnaire were prepared. Consent was taken from each of the respondent and data was collected using pencil, paper test. Two advertisement (print ad, Auditory ad) on the same kind of consumer product were prepared for the present investigation.

ADMINISTRATION AND DATA COLLECTION

Rapport was established with the respondents.

Respondent were brief about the advertisements they were going to see and about the following questionnaire they were about to answer.

The auditory advertisement was presented being followed by the administration of advertisement effectiveness questionnaire.

After a brief interval the visual advertisement (print Ad) was presented being followed by advertisement effectiveness questionnaire again.

Following a brief interval again a final set of questionnaire including Change seeking index, Desire for unique consumer products, Consumer susceptibility to interpersonal influence and Consumer style inventory was given to each respondent.

STATISTICAL TREATMENT

The data was collected and tabulated by using Excel and SPSS. At first, Descriptive statistics was done. The 'mean' and 'standard deviation was calculated.t-test was used to find whether any significant difference exist between the perceived effectiveness of auditory advertisement and visual advertisement among female consumers. ANOVA was used to find if there is significant differences exist between perceived effectiveness of auditory and visual advertisements, Change seeking index, Desire for unique consumer products, consumer susceptibility to interpersonal influence and consumer style inventory among high school, college and universities student across Kolkata.

TABLE-1: Significance difference in auditory effectiveness among school, college and University students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	23309.392	2	11654.696	23.648	.000***
Within Groups	42876.908	87	492.838		
Total	66186.300	89			

TABLE-2: Comparison of auditory effectiveness among senior school group, college group and university group of consumer

	N	Mean	Std. Deviation
Senior school group	30	164.48	15.39
college group	30	127.10	29.85
University group	30	156.63	18.71

Score Range:42.34-191.85

Higher Score indicates higher level of perceived auditory effectiveness.

***Significance difference is found at more than 99% cases.

It can be seen from the table above there is a significant difference between the three groups of buyers regarding the perceived effectiveness of auditory advertisement. It can be seen that the group belonging to the senior school perceived the auditory advertisement to be more effective than the college and university group. It can be said in this context that the senior school consumer group in the study are in their adolescence and more receptive to new products in the market. Thus, they perceived the advertisement more effective than the other two groups. Followed by them is the consumer group belong to the universities. They have more consumer experience than the groups belonging to high school but most of them are early earners (either by freelancing or by some part time jobs) and thus are on a look out for new products in the market which they can buy from their own pockets. The consumer group have belonging to the colleges have perceived the auditory advertisement least effective than the other two groups. Thus, Hypothesis I stating **“There is a significant difference in the perceived effectiveness of auditory advertisements among the young female consumers across Kolkata.”** is accepted.

TABLE-3: Significance difference in visual ad effectiveness among school, college and University students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12877.146	2	6438.573	13.011	.000***
Within Groups	43052.017	87	494.851		
Total	55929.164	89			

TABLE-4: Comparison of visual ad (print)effectiveness among senior school group, college group and university group of consumer

	N	Mean	Std. Deviation
Senior School group	30	170.44	22.90
College group	30	141.59	23.01
University group	30	160.47	20.75

Score Range:42.34-191.85

Higher Score indicate higher level of perceived visual ad effectiveness

***Significance difference is found more than 99 % cases

It can be seen from the table above there is a significant difference between the three groups of buyers regarding the perceived effectiveness of visual advertisement. It can be seen that the group belonging to the senior school perceived the visual advertisement to be more effective than the college and university group. The consumer group have belonging to the colleges have perceived the visual advertisement least effective than the other two groups. Therefore, Hypothesis II postulates “There is a significant difference in the perceived effectiveness of visual advertisements among the young female consumers across Kolkata.” is accepted in this investigation

TABLE-5: Comparison of auditory ad effectiveness and print ad effectiveness among three age group of consumer

Categories	Senior school group			College group			University Group		
	Mean	Standard Deviation	t- Value	Mean	Standard Deviation	t- Value	Mean	Standard Deviation	t- Value
Auditory	164.48	15.39	0.33*	127.10	29.85	0.039*	156.63	18.71	0.42*
Visual	170.43	22.90		141.59	23		160.47	20.75	

Differences is insignificant

It can be seen from the table 5 no significant difference exists between perceive effectiveness of auditory and visual advertisement in any of the groups. Thus it can be said that the new age buyers and consumers are equally receptive of advertisement presented through both the modalities. One important reason behind this may be an influx of consumer product and advertisement in all possible media. Along with the audio visual advertisement presented in the t.v, cinema hall, or at audio or at audio visual terminals, road signal and shopping malls the number of print ads(visual) in magazines, motorway hoarders etc. and audio advertisement in radio channels, audio C.D , Mp3 etc. have also steadily increased. Thus the hypothesis iii stating “There is a significant difference between the perceived effectiveness of auditory and visually presented advertisement of the young female consumers across Kolkata.” is rejected.

TABLE-6: Significance difference in change seeking index among school, college and University students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	86.489	2	43.244	2.443	.093*
Within Groups	1539.733	87	17.698		
Total	1626.222	89			

Differences is insignificant.

TABLE-7: Comparison of change seeking index among school, college and university students

	N	Mean	Std. Deviation
Senior school group	30	3.27	4.45
College group	30	5.67	3.74
University group	30	4.40	4.39

Score range: -7 to 14

Higher Score indicates higher level of change seeking index It can be seen from table 6 that no difference exists between the three group of new age consumer regarding the need for variation in buying consumer products. All the three groups can be seen to have moderate level of need to seek change in buying consumer products. It can be said this context that all the three groups belong to the category of new age buyers, they would not like to stick to old product all through. Therefore, hypothesis stating “**There is a significant difference between the change seeking index of the young female consumers studying in high schools, colleges and universities across Kolkata.**” is rejected.

TABLE-8: Significance difference in Desire for unique consumer product among school, college and University students

	Sum Of Squares	df	Mean Square	F	Sig.
Between Groups	424.822	2	212.411	5.215	.007***
Within Groups	3543.800	87	40.733		
Total	3968.622	89			

Significant difference is found at 99% cases.

TABLE-9: Comparison of desire for unique consumer product among senior school, college and university students

	N	Mean	Std. Deviation
Senior school group	30	23.13	7.026
College group	30	28.43	6.18
University group	30	25.37	5.89

It can be seen that the means of college students is the highest and mean of senior school students is the lowest. It can be interpreted with the uniqueness theory (Snyder & Fromkin 1980) which deals with people's emotional and behavioral responses to information and about their similarity to others. These customers who desire unique consumer products obtain intrinsic satisfaction from the perception that they are distinctive, special and separable from the masses (Fromkin & Snyder 1980, Snyder 1992). College time is the time when students want to be different and make herself special and noticeable to others. Mean of senior school students is the lowest. The reason might be that they want to be similar with their peer groups. Additionally, school students do not have much access to unique consumer products as do students of college and universities. Thus the hypothesis v stating **"There is a significant difference between the desire for unique consumer products of the young female consumers studying in high Schools, College and Universities across Kolkata."** is accepted.

TABLE-10: Significance difference in consumer susceptibility to interpersonal influence among school, college and University students

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	978.289	2	489.144	3.106	.050**
Within Groups	13699.767	87	157.469		
Total	14678.056	89			

TABLE-12: Comparison of desire for unique consumer product among senior school college and university students

	N	Mean	Std. Deviation
Senior school group	30	46.20	15.64
College group	30	52.30	11.12
University group	30	44.67	10.21

Significant difference is found at 95% cases

Score range:12 to 84

Higher score indicates higher level of susceptibility.

It can be seen from the table above that there exist a significant difference between the three groups of senior school, college and university student regarding their susceptibility to interpersonal influence. Finding revealed that college students are more susceptible to the influence of peer groups. To the contrary university students prefer to retain their original identities rather than be affected interpersonal influence. Thus the hypothesis vi stating **"There is a significant difference between the consumer susceptibility to interpersonal influences of the young consumers studying in high schools, colleges, and universities across Kolkata."** is accepted.

TABLE-13: Significance difference in consumer buying style among school, college and University students

	Perfectionist			Brand Conscious			Novelty & Fashion Conscious			Recreational & Shopping Conscious			Price Conscious & Value For Money			Impulsiveness Or Careless			Confused By Over Choice			Brand Loyal		
	Between Group	Within Group	Total	Between Group	Within Group	Total	Between Group	Within Group	Total	Between Group	Within Group	Total	Between Group	Within Group	Total	Between Group	Within Group	Total	Between Group	Within Group	Total	Between Group	Within Group	Total
Sum Of Squares	3.289	2377.033	2380.322	13.756	2854.70	2868.45	37.48	1948.83	1986.32	13.42	521.03	534.45	37.06	523.33	560.4	13.40	1056.2	1069.6	81.75	1314.7	1396.4	72.60	921.50	994.1
df	2	87	89	2	87	89	2	87	89	2	87	89	2	87	89	2	87	89	2	87	89	2	87	89
Mean Square	1.644	27.322		6.878	32.813		18.74	22.40		6.71	5.98		18.533	6.01		6.70	12.14		40.87	15.11		36.30	10.59	
F	0.60			.210			.837			1.12			3.081			.552			2.70			3.42		
Sig.	.942*			.811*			.437*			.331*			.051**			.578*			.072*			.037**		

Difference is insignificant.

significant difference is found at more than 95% cases.

TABLE-14: Comparison of consumer buying style among school, college and university students

	Perfect ionist			Brand Conscio us			Novelty &Fashion Conscious			Recreational & Shopping Consci ous			Price Conscious &Value For Mon ey			Impulsiveness Or Careless			Confused By Over Choice			Brand Loyal		
	N	Mea n	Sd	N	Mea n	Sd	N	Mea n	Sd	N	Mea n	Sd	N	Mea n	Sd	N	Mea n	Sd	N	Mea n	Sd	N	Mea n	Sd
Senior School Group	30	25.2 3	4.78	30	17.3 3	6.8 2	30	15.5 0	5.27	30	16.0 3	2.56	30	8.27	2.80	30	13.9 0	2.77	30	11.3 6	4.18	30	11.3 3	3.07
Colleg e Group	30	25.4 3	6.49	30	17.1 6	5.9 7	30	16.4 7	5.13	30	15.4 3	2.60	30	9.80	2.51	30	13.7 0	4.27	30	13.4 6	4.17	30	12.4 3	3.59
Univer sity Group	30	25.7 0	4.12	30	18.0 7	4.0 2	30	17.0 6	3.60	30	15.1 0	2.14	30	9.33	1.97	30	14.6 0	3.23	30	13.3 0	3.23	30	13.5 3	3.05

Score range perfectionist-7-35, Brand conscious-6-30, Novelty & fashion conscious-5-25, Recreational & shopping conscious-3-15, Price conscious & value for money-5-25, Impulsiveness or careless-5-25, confused by over choice-4-20, Brand loyal-4-20. High score indicates higher level of perfectionist, Brand conscious, Novelty & fashion conscious, Recreational and shopping conscious, Recreational & shopping conscious, price conscious.

MAJOR FINDING OF THE STUDY

Significant difference is perceived effectiveness of visual advertisements among the young female consumers across Kolkata.

Significant difference is also perceived effectiveness of auditory advertisement among the young female consumer across Kolkata.

No significant difference was observed between the perceived effectiveness of auditory and visually presented advertisement of the young female consumers across Kolkata.

Desire for unique consumer products of the young female consumers studying in high schools, College and Universities across Kolkata, differ significantly.

Significant difference is found between the three groups of senior school, college and university student regarding their susceptibility to interpersonal influence.

A significant difference between the consumer style inventory of the young female consumers

studying in high schools, colleges and universities across Kolkata is found in the shopping style of price consciousness and brand loyalty.

No significant difference observed in case of perfectionist, brand consciousness, novelty and fashion conscious, Recreational and shopping conscious, impulsiveness, confused by over choice.

CONCLUDING REMARKS

It has been noted from the investigation that the new age buyers and consumers are equally receptive of advertisement presented through both the modalities. Thus now-a-days modality become less important factor in case of perceived effectiveness of advertisement for the new age buyers but the senior school students perceived both advertisement more attractive than college student and university student. One reason behind this they are in adolescence and more receptive to new product in market.

Another important finding that college students are more susceptible to the influence of peer group and have desired for unique product than university and senior school group.

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IDENTIFYING NATURE AND BEHAVIOR FOR OPTIMAL PERFORMANCE IN BUSINESS MANAGEMENT

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ABSTRACT

One of the foremost concerns for the successful business is to ensure optimal performance from the employees. There are several reports on how to extract the best from the employees, but a set of solutions considered agreeable to the companies is still a milestone to achieve. Several high growth strategies point to recruit the best talents with high salaries and perquisites. The emphasis is on high academic achievements of the employees followed by psychoanalysis tests. There are instances to prove that despite best efforts, unsatisfactory performance has been reported resulting in retrenchment and even closure of the companies. We posit that for satisfactory performance, the priority is the aptitude and behavior. We list out the factors responsible for poor performance, and suggest solution. The proposed method is based on Spectral Analysis parameters, Hue (HSV space) and Wavelength of spectral colors, using human biofields and thought forms images from Theosophical Society texts, in simulation like studies. Application of spectral analysis for nature and behavior studies in other areas have been published in several IEEE, ACM, and Springer sponsored international conferences in India, Japan, and USA recently. It is claimed that the proposed procedure is the first application in management science.

Keywords: Nature and Behavior, Nature and Nurture; Human Biofield, Thought Forms, Spectral Analysis, Theosophy

INTRODUCTION

Engagement of employees today touches almost all parts of human resource management facets. If every part of human resources is not adequately addressed in appropriate manner, then optimal performance to the credit of employees would be in serious doubt. Concepts like job satisfaction, employee commitment and organizational behavior have been put forward in literature. Some aspects of human behavior have also been discussed with respect to employees' recruitment and manager's outlook towards employees. Most of the behavioral studies in personnel management are centered on psychological tests which are known to be a set of parameters obtained through laborious and time-consuming survey and statistical analyses (SSA). Organizations so far have been relying on these parameters, after ensuring that academic and professional qualifications are up to the mark according to the grade and scale of companies. Despite fulfillment of these standards, there is less than satisfactory performance on the score of employees' contribution to the overall performance of the companies. The main issues are the job satisfaction, employee commitment and organizational citizenship behavior. While issues related to job satisfaction and citizenship behavior have dealt with elsewhere, the issue of employee commitment is the subject matter of study in this paper for ensuring high growth in business concerns. Whether the engaged employees are emotionally attached to their organization and are highly involved in their job with great enthusiasm for the success of their employer is the question this paper answers through a set of parameters evolved using scientific method with almost zero level of inaccuracy.

Industries have the know-how of strategies for the material benefit of mankind but the know-how of technology is still in fixed boundaries. Organizers have been adopting two extremes for higher productivity. At one extreme, they adopt coercion, threat, close supervision, and control to direct proper behavior; at the other extreme, management can be soft using methods such as satisfying employees' demands, being permissive, etc. This 'dual weapon' has been in practice for more than seven decades, but the tragedy is they are still searching for new measures to ensure proper behavior of employees so that they perform as owners themselves. The behavior of employees is the cornerstone for the success or failure of an enterprise. The soft approach works for a while but soon starts evaporating, bringing back the original situation. Man is a wanting animal, if one want is satisfied another want appears. This cycle goes on endlessly for a vast majority, if not for all. Managers must understand that a satisfied mind is not a motivator of behavior guaranteeing higher productivity. This is a fact of great significance which is generally overlooked. Even if all physical and physiological needs are satisfied, the needs of 'egoistic people, in the lower and higher hierarchy both, cannot be satisfied. What are the remedies then to improve behavior (?)—that is the moot question which the management is facing. Can we guarantee that an employee coming from an affluent background with high academic qualifications and high IQ would necessarily be expected to show good behavior? The answer is definitely negative. Good nature and good behavior are not privy to the high background of 'intellect' and family status. This paper is the first-of-its kind

in the area of successful business management using a novel technique based on spectral analysis of human biofield and thought forms images to identify the nature and behavior of employees. The application of the proposed procedure is expected to bring a paradigm shift for the solution to ensure proper behavior for a successful business management.

This paper is organized as follows: the next section is devoted to the literature survey on the topic of nature and behavior studies. Section 3 introduces the concept of biofields to familiarize the management specialists who, perhaps, may not be aware of the importance of ongoing research in this area, known as biophotonics. Section 4 brings out the essential difference between biofield and thought forms, and then discusses the origin of biofield and thought forms images which have been taken from Theosophical Society texts for experiments. Section 5 reviews the technique used in spectral analysis for identification of behavior using biofield and thought forms images. Section 6 highlights applications of the proposed procedure in business management. Section 7 concludes with our views of the prospects of application in management.

NATURE AND BEHAVIOR

Seven main factors related to nature and behavior and responsible for poor performance in business enterprises are the following:

1. Ego: This leads to clash of personalities. In the lower hierarchy of organization, this may not affect the performance of employees, but when it happens in the higher level of the management, it poses serious problems. Many times such situations go unnoticed by managers till it reaches high proportions.
2. Anger: If the employees/ managers are, by nature, impatient and short-tempered, it is bound to result in tensions and stresses causing poor performance.
3. Animal Passion: There are cases where bosses or colleagues threaten an employee for no reason or pass offensive remarks against an employee. This may lead to the creation of a hostile environment in the workplace.
4. Religious devotion: There are instances where employees who are God -fearing perform much better than those of contrasting nature even though the academic qualifications may be poor in the former by comparison. The reason is that such class of employees consider their job as the work-place of utmost responsibility and devotion.
5. Greed for drink: This is a commonly found habit (nature and behavior) among the employees across all types of enterprises throughout the world. Such employees and managers cannot be expected to keep the companies strategies and secrets safe from their competitors. Surprisingly, the owners who themselves may be teetotalers do not generally object to such an environment in the organization. It is not conducive to sustain the healthy growth of business in companies for a long duration.
6. Jealousy: The worst form of nature is the jealousy! Employees, who suffer from this, are liable to cause incalculable harm to the interests of business. If it prevails in the lower levels the harm caused may not be as much detrimental as it would cause if it persists at the top level among managers holding high responsibilities in different units of an organization.
7. Love and affection for all: Persons of this nature across the hierarchy are sure to ensure an extremely healthy and congenial environment where there would be no jealousy, hatred, and anger. This scenario in the business concerns is generally always conducive for achieving performance at the topmost level throughout the world.

(A) NATURE AND NURTURE (NN) DEBATE

A review of literature on Nature and Nurture (environment) (NN) studies is given in order to highlight the importance of both in employees' outlook towards their duties and responsibilities. It is useful to consider nature as the inheritance phenomena represented by the DNA which has been shown to be reflected in the human biofield [1], and nurture as the environment prevailing around the employee both in the past as well in present time. Both the terms are generally found in the field of psychology on which many diagnostics have been put forth to identify the nature and behavior (NAB) of individuals at the time of recruitment, or for administering therapies for certain ailments. All the diagnostics are, however, based on sample survey and interpretation of results using known methods of statistical analyses. While the survey and statistical analyses (SSA) techniques have been proved to be successful in small or in good measure, there is yet to emerge an ideal SSA technique guaranteed to identify human NAB correctly. This paper is devoted to proposing such a novel technique purely on scientific basis using existing image processing tools of Matlab [2] software, and

experimenting on biofield and thought forms images taken from Theosophical Society literature [3], [4] in simulation like experiments.

One of the most persistent issues in the field of psychology is the NN debate. This debate concerns how much of an individual and who s/he is can be attributed either to nature (i.e., inborn tendencies or genetic factors) or to nurture (i.e. learning or environmental factors). Although the science of psychology has entered the 21st century, it seems that the NN debate will continue to be an active part of psychological research for many years, though, in this paper, this issue is intended to be brought to an end with a definitive answer.

The NN debate stretches all the way back to the earliest days of western philosophy, when Plato essentially believed that knowledge was inborn in humans and we merely needed to recollect this knowledge. Plato's position can be firmly placed on the nature side of the debate. On the other hand, Aristotle's views can be placed on the nurture side of the debate. According to Aristotle, true knowledge was not inborn but came from one's experiences with and observations of the physical world. For many centuries after Plato and Aristotle, the German rationalist Emanuel Kant and the British empiricist John Locke had views on opposite sides of this same debate. Kant believed that before the mind acquires experiences, there must be an innate structure to the mind that enabled it to perceive the world giving meaning to one's experiences. Kant was on the nature side of the debate. Locke gave the notion of the human mind as a blank slate at birth, meaning that individuals are not born with inherited knowledge; a person attains the knowledge through experiences only. This places Locke firmly on the nurture side of the debate. Whereas Plato, Aristotle, Locke, and Kant were primarily concerned with how humans can gain knowledge, modern psychologists are more interested in factors such as intelligence, personality, and mental illness. While Kant was very near the truth as shown later, he failed to explain the reasons for mind to gain experience of a particular kind. Thus, the NN debate has a long history in western civilization [5]. Note that personality includes all the seven attributes (described earlier) commonly found in individuals though in varying degrees.

Some of the early leaders in the field of psychology, e.g. Galton and Goddard, believed that intelligence (IQ) was largely inherited. Scientists like Galton tended to have a strong bias toward the nature side of the debate. This bias was manifested in Galton's explanation of his data. When Galton discovered that achievement tends to run in families he concluded that this was evidence that intelligence was inherited. In USA, Goddard shared Galton's view of intelligence. Like Galton, Goddard failed to consider environmental factors which may influence psychological phenomena. Unfortunately, the belief that intelligence was inherited led to some of the most controversial applications in the history of psychology [6]. Fortunately, this strict view of intelligence being inherited only and not influenced by the environment would not persist forever as we have shown in our scientific analyses in this paper. As stated earlier, the word intelligence would be replaced by DNA which in turn is reflected by human biofield.

For psychologists in the early 20th century, behaviorism emphasized the role of nurture and the environment in influencing individuals and their behavior. John Watson, a strong supporter of behaviorism in USA, denied the effect of inherited influences on human behavior, claiming that if he is given infants, then he could make one a doctor, other a thief, yet other a painter, etc! This emphasis on the environment was so strong that many psychologists believed that a phenomenon like the infant-mother bond had no relation to nature [6]. Harlow [7] challenged this assumption that the infant-mother bond was due only to nurture (i.e. learning). In addition to Harlow's study, there was additional research that was demonstrating that the behaviorists had gone too far when they concluded that nature did not need to be considered in the development of the organism [5]. This trend toward a recognition of the biological factors that can influence the behavior of the individual continued and eventually led to the development of evolutionary psychology. In evolutionary psychology, researchers focus on the biological design of the organism and on how certain behaviors developed over time because they were adaptive [6]. As biological influences on behavior and cognition became more and more evident, the field of behavioral genetics developed.

(B) CURRENT PSYCHOLOGICAL APPROACHES ON NATURE VS NURTURE (NN)

Today there are a number of approaches that are relevant to the nature/nurture issue in psychology. The first of those areas is behavioral genetics, which has grown into a very respectable and popular area of study. Behavioral genetics focuses on identifying the heritability of psychological traits, such as intelligence and personality. Heritability is "an estimate of the size of the genetic effect" [8] for a particular trait. The field of behavioral genetics has been able to conclusively demonstrate the importance of nature on many psychological traits.

Although the field of behavioral genetics has demonstrated the importance of heritability to a plethora of psychological traits, the same findings also lead to the conclusion that environment too plays an important part in these psychological phenomena. Even though research findings concerning how much of a trait like intelligence is due to our genes is often widely disseminated in the media, the other side of the coin is nurture. Any variance that is not due to genes is by definition due to environment [9]. Nature never accounts for 100 percent of the variance for any psychological trait [7]. We posit that we agree partially with Kant, Steen [9], and views expressed in [6], i.e. the DNA (biofield) possesses the gene which normally remains silent (subdued) unless excited by the matching attributes of genes in the environment surrounding the individual. When excited by a matching attribute in environment, there takes place a phenomenon of resonance which results usually in generating high amplitudes of the particular behavior. This phenomenon lasts until the matching environmental attribute persists after which the biofield comes back slowly to its original state. The biofield thus possesses most of the seven attributes in all human beings but of different proportions and the amplitude generated is also in the same proportion. This further means that if the matching attribute of the environment persists for frequent and longer duration, the gene may become reinforced, on the other hand new formation of attribute (gene) in the biofield (DNA) may take place if a new attribute in the environment persists frequently for very long duration.

From the above, it is obvious that if we try to separate out nature and nurture for explaining behavior, e.g. in classic genetic studies of twins and families, it is both impossible and unproductive. In practice, the nature-nurture model cannot be separated in two distinct compartments. ‘Recently, research into genetic variations associated with aggressive and antisocial behaviour has received more attention in the media’ [10]. In this paper we explore ideas on the role of nature and nurture responsible for the employee’s behavior not being conducive to the growth of business enterprises. In particular, the emphasis is on identifying undesirable characteristics of behavior such as the anger, jealousy, ego, lust, etc. So far most of these undesirable characteristics have been identified through interviews and open-ended questionnaires among employees. These questionnaires and interviews lead to a general agreement that everybody’s behavior is influenced to varying degrees by both genetic (nature) and environmental (nurture) factors which only satisfy the logic put forth earlier using resonance phenomena. Incidentally, exactly the same facts are highlighted in [10] for identifying behavior of public at large. According to Levitt [10], “only emphasis on nature was seen as dangerous in its consequences, for society and for individuals themselves. Whereas academic researchers approach the debate from their disciplinary perspectives which may or may not engage with practical and policy issues, the key issue for the public was what sort of explanations of behavior will lead to the best outcomes for all concerned”. This paper is specifically concerned for a select group of employees, e.g., in business enterprises, to propose an ideal but realistic and implementable procedure for identification of behavior using image processing tools from computer science.

HUMAN BIOFIELD

The concept of a biofield has now emerged prominently on the world scene to attract biophysicists for research, mostly in medical diagnostics. This has been possible with the work of several individuals and groups of scientists since over six to seven decades to prove that a physical body is attached with an invisible body in energy form. This invisible body is given the name biofield on the basis of experiments by several biophysicists [11]-[17] led by A F Popp [11]. These experiments proved that biophotons emissions of very low intensity with properties of spectral colors take place from human body (human biofield). Our eyes can not perceive these photons since the intensity level of photons is less than one-thousandth part of our eyes perception level. A number of scientists have historically proposed that a biological field exists in a holistic or global organizing form [17]. In some suppositions, a “subtle body” is invoked, as related to acupuncture meridians in traditional Chinese medicine¹⁸ and chakras, the subtle energy centers in the Indian esoteric tradition [17]. Rubic [18] states that “At the highest level of organization, each life form may possess an innate biologic field, or biofield, a complex, dynamic, weak energy field.”

The human body emits low-level light, heat, and acoustical energy which are part of the human energy field, the biofield. Scientific advances in biofield research have now advanced sufficiently to receive a wide acceptance as a frontier area for exploration not only in Alternative and complementary medicines (ACM) and conventional medicines, but also in other areas including in security environment [19]. Rubic [18] says “the biofield is also elusive. We cannot isolate it or analyze it comprehensively. For a field, this connection is especially true, given that, regardless of its source, it travels outwards to infinity, interacts with other fields by superposition, and interacts with matter along the way”. As stated earlier, a phenomenon such as resonance may occur. With recent advances in capturing ultraweak biophotons, the characteristics of human biofields can be known. The use of latest instrumentation using charge-coupled device (CCDs) [13], [20] and photomultiplier

tubes (PMTs) has now made it possible to amplify the extremely low intensity of biophotons and capture its emission rate. A combined CCD and Spectrophotometer based image capturing system was used in [21].

THOUGHT FORMS AND BIOFIELD

In the authors' recently published reports [22], the concept of the terms Thought forms and Biofield (called Astral body in theosophy) have been explained from the view point of a scientist using a simple analogy of the thought forms as the waves on the surface of an ocean, and an ocean being analogous to an astral body. We know that ocean is not always in turmoil. It is only when the external factors like low pressures, high temperature stresses, gravitational forces between moon and earth, etc. act upon the ocean, then waves are generated of varying amplitudes forcing the surface to be in agitation corresponding to the strength of the external factors responsible for causing high amplitudes. This phenomenon is similar to the case when two waves of the same frequency are perfectly synchronized in phase. With the disappearance of external factors, the ocean returns to its normal state of equilibrium. Quoting from the theosophical book [4], this phenomenon of thoughts affecting biofield is beautifully coined in these words "When a sudden wave of some emotion sweeps over a man, for example, his astral body is thrown into violent agitation, and its original colours are almost obscured by the flush of carmine, or of blue, or of scarlet which corresponds with the rate of vibration of that particular emotion. This change is only temporary; it passes off in a few seconds, and the astral body rapidly resumes its usual condition. Yet every such rush of feeling produces a permanent effect: it always adds a little of its hue to the normal colouring of the astral body, so that every time the man yields himself to a certain emotion it becomes easier for him to yield himself to it again, because his astral body is getting into the habit of vibrating at that especial rate." A scientific evidence for this phenomenon can be better described in the concept of receptor similar to the conformational matching invoked to characterize receptor-mediated responses to hormones and drugs; similarly, biofield reception may be better described by phenomena from physics, such as resonance and impedance matching, based on tuning to signal frequencies. The above explanation for the phenomena of interplay between the Thought forms and Biofield has been most explicitly demonstrated in experiments by Korotkov [16]. 'The fluctuation in biofield is dependent upon the individual's thoughts at any point- if the thoughts are non-changing the fluctuation is not, but a little change in thought brings immediate response with fluctuations in glow'. This fact was proved in laboratory by Korotkov [16], where he demonstrated that "the glowing halo around the body of an individual or his/her particular organs, for example, an EPI-gram taken from a finger, remains constant and stable for a certain period of time and, therefore, two images taken with only a small delay will look almost the same. But, if the individual starts thinking something other than the thoughts in earlier stance, e.g., the individual starts thinking about how to check the downward trend in his/her business fortunes, then the glowing image of EPI-gram changes, it shivers and a gentle wave passes throughout the structure, touching its every section". Korotkov [16] maintains that the 'biological energy of humans reacts to ideomotor images and mental pictures, and an EPI-gram can be useful for psychophysiological diagnostics of an individual's state and/or the state of mind'. People who spoke of thoughts influencing a person's health were once ridiculed. But the discovery of the placebo effect helped change that. Now it's commonly accepted that some such connection and impact exists. In Tillerian physics, Tiller's experiments [23] have shown that human intention can cause fruit fly larvae to grow 30 percent more quickly; it can change the pH-level of water by one point [36]. The state of mind is reflected in the thought waves of individual which is highly significant on which this paper is built. Every color in Red Green and Blue (RGB) space has its own frequency range, and the biophotons exhibit colors which may vary in ratios B/R and B/G. In proximity of some other subject or object, frequency synchronization may occur in which case the astral body is set in agitation for the duration of the synchronization period. This can easily be comprehended by a simple example of day-to-day experience. In a garden of flowers some people are deeply moved by the fragrance or beauty of flowers while others do not even notice them. A summary of the authors' published reports on thought forms and biofields [24], [25] is now given to explain the reasons for using images of thought forms and biofields from Theosophical Society literature.

Study of theosophical texts including [26], [27], reveals that a great deal of similarity exists between the theosophists' view and biophysicists' view of structural form of human beings. This is shown diagrammatically below:

Theosophists View: Physical body □ Astral Body □ Color

Biophysicists View: Physical body □ Biofield □ Biophotons □ Color

The first similarity of views is in respect of astral body and biofield which are both clouds of biophotons field. The second similarity is in respect of color. Theosophists claim that astral body (biofield) has spectrum of colors (without scientific proof); the biophysicists' view is exactly similar (with scientific proof) that

biophotons have spectrum of colors. This provided the motivation for analysis of thought forms and biofield images from theosophical texts to verify the rationale of comments attributed to the images.

(A) ORIGIN AND FEATURE OF THOUGHT FORMS AND BIOFIELD IMAGES

Thought-form images for analysis in published reports [24],[25] were taken from the theosophical text [3] authored by C W Leadbeater and Annie Besant, the renowned theosophists of the 20th century. Images of some unidentified individuals were captured using the power of clairvoyance (claimed by the authors) of real incidents or situations. The hand-drawn and hand-painted thought forms images by three friends of the authors were qualified with comments in text [3] based on following three principles: '(i) Quality of thought determines colour, (ii) Nature of thought determines form, and (iii) Definiteness of thought determines clearness of outline'. Each image was attributed comments of 'Very Good (VG), Good (G), Bad (B), or Very Bad (VB), or mix of all four categories'. The same principles were also applied to biofield images except that in this case the shape and outline of the images are exactly the same for all biofield images, and the comments were in respect of the titles of the images. This is shown in Fig.1-Fig.8 for thought forms images, and Fig.9-Fig.16 for biofield images.

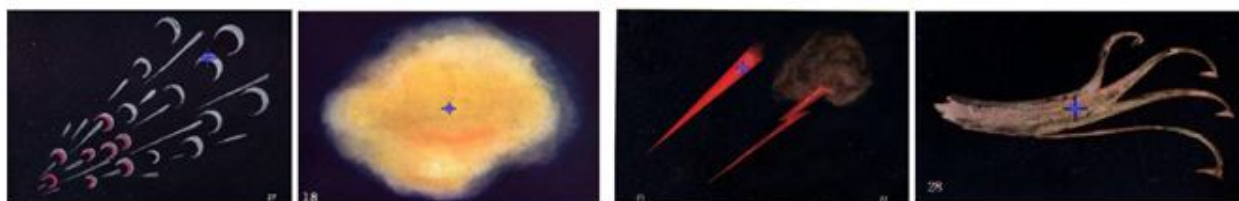


Fig.1 Sudden Fright Fig.2 Intellectual Pleasure Fig.3 Murderous Rage/ Sustained Anger Fig.4 Selfish Greed



Fig.5 Peace and Protection Fig.6 Self Renunciation Fig.7 At a Funeral Fig.8 At a Shipwreck



Fig.9 Savage Man Fig.10 Average Man Fig.11 Developed Man Fig.12 Man under Depression



Fig.13 Scientific Type Man Fig.14 Man in Devotion Fig.15 Man in Intense Anger Fig.16 Miser Man

It is important to note that the images in the theosophical texts [3], [4] are not conjectured or hypothetical; they are images captured of real situations or happenings for some unidentified individuals. Only thing which separates it from real time images is that these are produced by artists under supervision of the authors, CW Leadbeater and Annie Besant. For detailed comments on this, readers may refer to [3], [4].

5 SPECTRAL ANALYSES OF THOUGHT FORMS AND BIOFIELD IMAGES (A) HSV Space for Color

For thought forms images, a well recommended color space, Hue, Saturation and Value (HSV) was used for identification of image patterns (Good or Bad). Considering limitations of space, details of the procedure may be seen in [24],[25]. Applying this image processing tool, i.e. HSV, parameters were developed to identify the patterns in images using scatter diagrams in [24], [25]. The developed parameters are Hue (low) = 0.050, Hue (high) = 0.960, and Saturation = 0.250. Note that Hue and Saturation form the chromaticity parameters, while Value is not. Using these three thresholds in a sample size of thirty one thought forms images, twenty one images formed the training group, and the rest as the test group in a neural network with feed-back like

approach. Patterns were then identified either in Good or in Bad category [18]. The scatter diagrams used for determining the three threshold, mentioned above, are shown in Fig. 17 and Fig. 18 as detailed in [24], [25].

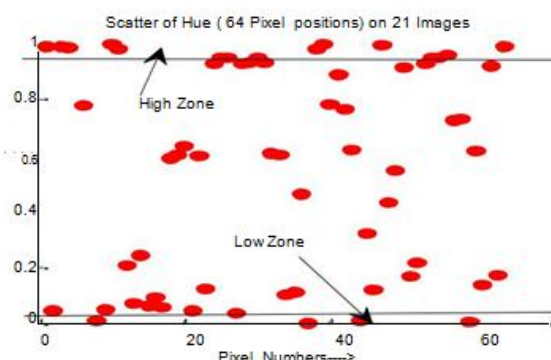


Fig.17 Scatter of Hue in 21 images

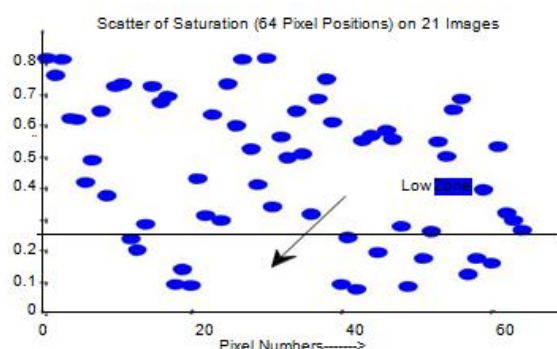


Fig.18 Scatter of Saturation in 21 images

(B) BIOFIELD IMAGES: SPECTRAL ANALYSIS FOR PATTERNS IDENTIFICATION

Eight biofield images out of eleven used for experiments in [19], shown in Fig.1-Fig.8 are of real situations, all of contrasting nature and behaviour or emotional state. Since the truth of comments on thought forms images has been validated to the extent of more than 95% in [24], [25], the two thresholds of Hue (lower and upper values) were only used, leaving out the threshold of saturation as it contributed very little in case of thought forms images. Another reason for choosing Hue for spectral analysis in spatial domain is that Hue also represents the dominant wavelength of the single color in RGB space. Salient features of the procedure used in [24] are reproduced for appreciation of its application in biofield images. Between the two extremes of RGB intensities [0 0 0] and [255 255 255], the colors corresponding to RGB intensities [50 50 50] are dark gray, and [100 0 0] are red. The objective of the experiments in thought forms was the scientific interpretation of the image for classification in the two broad categories of Good and Bad which has been stated earlier. In those images, pixels acquisitions were carried out at specific positions on the images. Some images contained more than single color on visual inspection which warranted choice of more than one position for acquiring pixels, otherwise only one position was used. Further details can be found in [24]. Since there are eleven biofield images, each of them being a multicolor feature, the data cursor on the Matlab [2] was placed on at least twelve locations to represent all possible color features for acquisition of pixels data. It is important to note that the name of each of the astral bodies suggests the nature or behavior or emotion of the persons involved. Due to space constraints, it is not possible to show each location of data cursor for acquisition of pixels in the image (the total number of pixels locations exceeds more than 160). Therefore, only few locations on only three images together with their scatter diagrams are shown; for full details of the procedure, readers may refer to our published report [19]. Complete results are, however, shown in Table 1. Wherever the name of the astral body images representing the type or nature of a person requires some explanations, this is provided in [19]. Titles or names of most of the biofield images are, however, self-explained and readers can easily understand what kind of the person is from the name of the biofield images.

Ex 1 Astral body of a Savage Man (see Fig.9)

Since this image has multi colors feature like others in the sample under test, there were at least twelve locations for pixels acquisitions on any image. However, here only six positions are shown in Fig.22a-Fig.22f.



Fig.22a-Fig.22f show different positions of Data Cursor

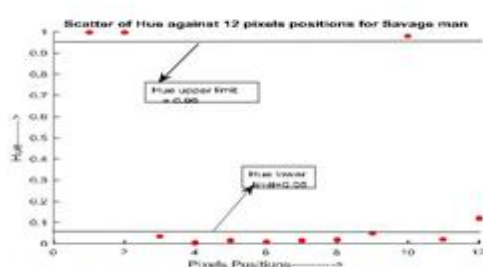


Fig. 23 Scatter of Hue against 12 pixels locations

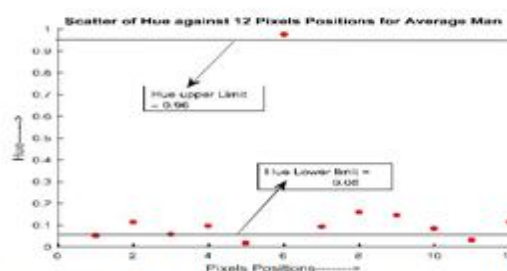


Fig.24 Scatter of Hue against 12 pixels locations

Fig. 23 shows the scatter of Hue against twelve data positions, where it is clearly visible that except for one data position at 12 (x-axis), all the eleven data positions indicate the image in Bad zone and therefore in Very Bad pattern. This result justifies the title of the image 'Savage Man' fully.

Ex 2 Astral body of an Average Man (see Fig.10)

Since this image has multi colors feature, there were twelve locations for pixels acquisitions but only six positions are shown in Fig.25a-Fig.25f. In the scatter diagram shown in Fig. 24, at least six data positions out of twelve are not found within the Bad category area, i.e., above the upper and below the lower horizontal lines. Compared with the scatter diagram in Fig.23 for 'Savage Man', Fig.24 indicates a much better pattern of scatter of Hue, and hence, the name 'Average Man' is justified.

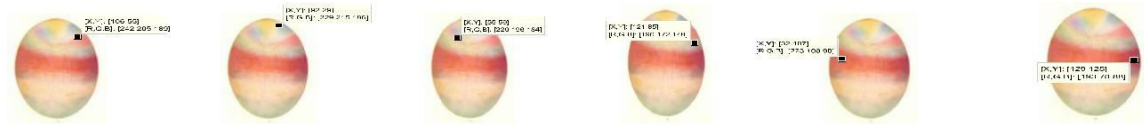


Fig.25a-Fig.25f show different positions of Data Cursor

Ex 3 Astral Body of Developed Man

Eight out of total twelve data cursor positions for pixels acquisitions are shown in Fig. 26a-Fig.26h, and the scatter of Hue against pixels locations are shown in Fig. 27.



Fig. 26a-Fig.26f show different positions of Data cursor for acquisition of pixels on image

A look at the scatter diagram shown in Fig.26 shows that not more than three locations of data cursor positions for pixels are in Bad category. When compared with the scatter of Hue in Fig. 24, although only five number of locations are in Bad category, but the rest seven are nearer the lower threshold level (0.05) compared to those in Fig. 26. Hence, the biofield image of 'Developed Man' is in better pattern compared to the biofield image of 'Average Man'.

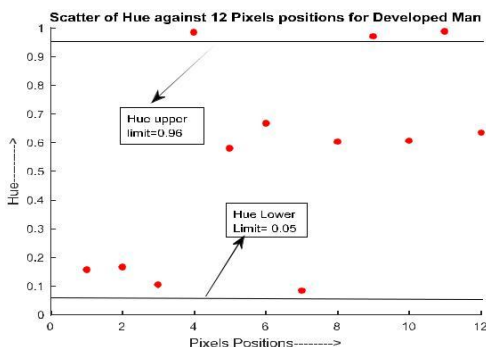


Fig. 26 Scatter of Hue against Pixels

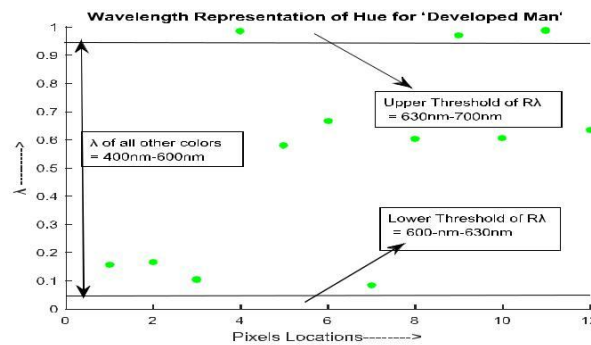


Fig.27 Wavelength Assignment corresponding to Hue content

TABLE 1 Summary of Results (✓ means 'Matched')

Ser No	Title of Astral Bodies	Patterns	Remarks
1	Savage Man	Very Bad	✓
2	Average Man	Good	✓
3	Developed Man	Very Good	✓
4	Deep Depression	Very Bad	✓
5	Diseased Health	Bad	✓
6	Normal Health	Good	✓
7	Scientific Man	Good	✓
8	Sudden Rush of Devotion	Good	✓
9	Intense Anger	Bad	✓
10	Sudden Rush of Affection	Very Good	✓
11	Miser Man	Bad	✓

(C) Wavelength Calculations in Biofield Images

Details of the procedure for wavelength calculation of single color represented by Hue of biofield images may be seen in recently reported paper [19]. Hue follows a circular scale increasing from zero value in red color to reaching its maximum value (1.0) in anti-clockwise as it closes its circular travel to repeat its second round (see Fig.28). Fig. 29 is a symbolic representation of spectral colors emission from human body. Corresponding to lower threshold of 0.05 and upper threshold of 0.96, the corresponding range of 0.00-0.05 is assigned a spread of 600nm-630nm, and 631nm-700nm in the upper range (0.96-1.0) for red color. This assignment of the wavelength for $R\lambda$, is not unique but both the ranges must lie within the spread of 600nm-700nm (wavelength of red color). This is so because Bad patterns are recognized in HSV space using red color as the identifier [24], [25], also supported in texts of major religions [28], [29]. This was verified in our experiments using more than fifty thought forms images in [24], [25]. Based on this, the scatter diagrams of one of the images showing the dominant wavelength areas to which the pixels positions lie may be seen in Fig. 27 for biofield image Fig.11 and the scatter of Hue against pixels locations in Fig.26, respectively. For space limitations the rest of the images are not shown but the conclusions for them are easily interpretable. Summary of results for all images are shown in Table1. The patterns have been divided in four categories of Very Good, Good, Bad, and Very Bad. As seen in Table 1, there is no image which is misclassified. Therefore, the performance of the procedure is very satisfactory (100%).

NATURE AND BEHAVIOR IDENTIFICATION IN BUSINESS ORGANIZATIONS

For identifying nature and behavior of employees in business organizations, identification is proposed to be carried out both at the entry level of the employees and at any stage during the service if not exposed earlier at the time of entry to the profession. Since the images of the biofield of employees have to be taken

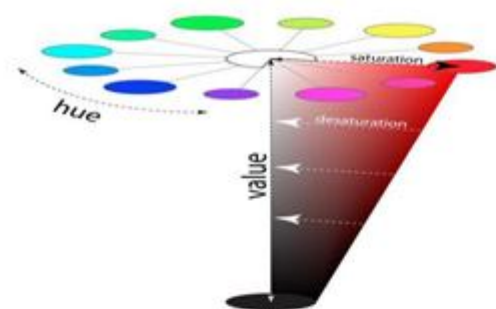


Fig. 28 Explaining HSV Basics [21]



Fig. 29 'We are beings of Light'-Symbolic representation

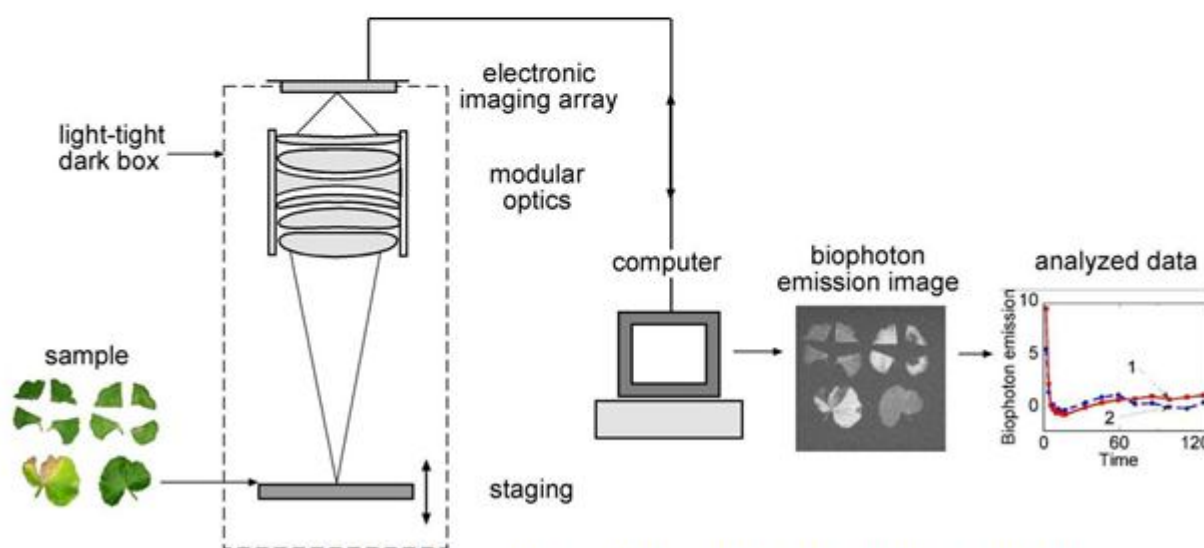


Fig. 30 Schematics of CCD-based Image Capturing System [20]

in real-time, the existing state-of-the-art biophotons image capturing system using CCD-based camera along with spectrophotometer would be needed. Such a system has been used for experiments in medical diagnostics particularly for cancer detection. A schematic diagram of the instrumentation used is shown in Fig. 30 but without a spectrophotometer. The use of spectrophotometer is to record the wavelength of the spectral colors in the HSV space. The wavelengths represented by the Hue contents of the biofield images would be compared

with the prototypes of biofield images obtained from Theosophical texts which has been used and discussed earlier in this paper. Seven main factors related to nature and behavior and responsible for poor performance in business enterprises which have been shown and explained in Section 2, would be the determinants for the attributes of an employee-whether it is Good or Bad attribute would be then identified by the wavelength. Table 2, showing the wavelength for Good or Bad patterns corresponding to the seven factors responsible for affecting the performance of employees, would serve as the guidelines or rules.

TABLE 2 Guidelines for Patterns Identification in Employees

Sr No	Factors: Examples	Wavelength range	Category/ Remarks
1	Savage Type, Intense Anger, Grred for Drink	> 650 nm	I Very Bad Type
2	Ego Type, Miser Type	600nm – 635nm	II Bad Type
3	Average Type	500nm – 600nm	III Not Bad Type
4	Scientific Type	450nm – 550 nm	IV Good Type
5	Devotional type	450 nm-500 nm	V Very Good Type

It may be noted that the criteria for identification of all Bad types of nature and behavior would be determined on the basis of wavelength represented by Hue content of the biofield images in the manner in which the wavelength has been determined, discussed earlier. All Hue contents falling in the Bad zone (see the scatter diagrams) are represented by wavelength range of 600nm- 700nm, a range which represents Red color spectrum. All employees at any level of hierarchy who undergo the identification test may be considered eligible for employment if the patterns identified are not in category I. Those employees found to be in category II and III may be put under ‘watch’ and subjected to course correction. Employees under IV and V categories should be considered assets of the organizations and given due honor and perquisites.

CONCLUSIONS

This paper describes a unique and practical procedure for identification of nature and behavior of employees. The proposed procedure is very scientific, practical, and implementable on the existing instrumentation used by the biophysicists in advanced Biophotonics laboratories throughout the world. The method of survey and statistical techniques used by psychologists in nature and behavior studies is subjective and not a fool-proof method. It is claimed that the proposed method is the first ever unique method recommended for use in business organizations for the purpose of ensuring growth and success which can be sustained. However, the proposed method needs to be tested in laboratories to fine-tune the wavelength ranges shown under the five categories of patterns of nature and behavior. It is expected that in the next few years the proposed method would be applied in all fields of human activities related to nature and behavior studies.

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**ASYMMETRIC RESPONSE OF FOREIGN CAPITAL VOLATILITY IN INDIAN NEW ECONOMY-
1992-2015 TIME SERIES ANALYSIS**

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ABSTRACT

It is known that the growth in FDI and FPI are increasing at the global scenario. Especially in the developing countries like India, FDI and FPI increased significantly in last two decades. The current study will investigate the effect of Foreign Direct Investment and Foreign Portfolio Investment on the economic indicators in India.

OBJECTIVES

1. To study the pattern of FDI and FPI in Indian economy in the last twenty four years.
2. To find out the impact of FDI on leading Economic indicators in Indian scenario.
3. To find out the impact of FPI on leading Economic indicators in Indian relevance.
4. To analyze the Causal relationship between FDI and FPI.

Research Methodology: The data of FDI, GDP growth, BSE SENSEX, NSE NIFTY and FOREIGN CURRENCY ASSETS from 1992 to 2015, have been used for the purpose of study. Various statistical tools i.e., Mean, Standard Deviation, have been used to show the nature of the data. Correlation and Regression, D-W test, ADF test analysis have been used to study the relationship and dependency of these variables.

Findings: The findings revealed that there is a visible effect of FDI and FPI on the economic indicators. The result of the correlation and regression analysis shows the significant impact of the FDI and FPI on the Indian economic indicators.

INTRODUCTION

Investment plays an important role in accelerating economic expansion of any economy. Indian economy opened up to the universal world in 1991 through allowing foreign investors to invest in India. The foreign investments can be channelized either in the listed companies' share through financial markets (called Foreign Institutional Investors) or through directly investment in capital structure of the listed/unlisted companies in India (called Foreign Direct Investment). Foreign investment helps the domestic investments by increasing economic activities and capital formation and it makes the domestic market more competitive. Foreign institutional Investors (FIIs) boost up the domestic investment by increasing capital inflows through the secondary markets and by nature, it is very volatile. On the other hand Foreign Direct Investment (FDI) plays more important role than FIIs in progress of any developing country especially like India. It contributes significantly to human capital such as managerial skills and research and development (R&D) For the investors, India is being considered as the second most important FDI destination after China for transnational corporations during 2010-12. Although both types of investments provide an momentum for economic and industrial expansion, but now India give more emphasis on attracting FDI as it stays for longer period, for its exist policy is not as easy as for FIIs. Availability of highly qualified human resource, huge untapped potential domestic markets, low-cost manufacturing, makes India a favorable destination for foreign investors

GROWTH OF FDI AND FII

During the last five decades in India, there have been momentous changes in approaches towards FDI policies. The FDI policy was modified as per the developments of industrial policies and the foreign exchange situation.

The first phase (1950-1967) emphasized on import substituting industrialization. The attitude towards FDI was very limited due to limited availability of capital, technology, skills, etc.

Due to the foreign exchange crisis in 1957-58, FDI policies were further modified and highlighted on incentives and tax concessions. The market Seeking FDI was encouraged by locational advantage in production.

The second phase (1967-1980) the investment in various industries sectors was increased. India's technological knowledge and base were developing and human resource skills were getting more skilled. Due to this reason, Indian government showed liberal attitude towards foreign capital from developed countries like U.S.A., Japan, Germany, etc. To examine and scrutinized this flow of capital the Foreign Exchange Regulation Act (FERA), 1973 was setup during this period.

The third phase (1980-1990), there was a need to reevaluate and re-examine the foreign policy in India. The elevated oil prices across the world, India failed to boost her manufactured exports which led to deterioration in the Balance of Payment. To overcome this situation, Indian policy maker framed the foreign policy in such a way so that it attracts more foreign investors holding equity in export-oriented units.

In the early period of the fourth phase (1991 onwards), the external foreign debts were the highest and the foreign reserves were not enough to balance the debt. At that time there was a paradigm shift in the policies on foreign investment and trade across the globe. In this critical situation, the former Prime Minister of India, Dr. Manmohan Singh with the help of World Bank and IMF was taken an initiative to introduce the macro-economic stabilization and structural adjustment program.

Industrial Policy statement of July 1991 was reframed as “foreign investment and technology collaboration will be welcomed to obtain higher technology to increase exports and to expand production base”. As a result, these initiatives turned into favorable policy environment for foreign investment, foreign technology collaboration, foreign trade and foreign exchange in the country.

In this phase India tried different routes to attract more FDI like investment in tax-incentives backward districts, public private partnerships, and then special economic zones. Automatic approval was granted in specified high-priority industries for up to 51 per cent direct foreign investment and in trading companies, associated primarily in export activities. Introduction of FII was a major revolution in this scenario. An FII may invest in the capital of an Indian Company under the Portfolio Investment Scheme which limits the individual holding of an FII to 10% of the capital of the company and the aggregate limit for FII investment to 24% of the capital of the company. To make it more easy and understandable, Arvind Mayaram committee was set up in recent years. As per their recommendation, Where the stake is less than 10% it would be termed as FII and where it's more than 10% it would be termed as FDI.

ECONOMIC INDICATORS FDI AND FPI (FII)

It has been a well established fact that the growth of foreign direct investment (FDI) escalates the economic growth of a country. The impact of FDI on the economic factors-GDP, Currency, Stock Market, Foreign Exchange Reserves, Interest Rate, Current Account, Exports, Imports, and Unemployment Rate has been phenomenal.

Market Size (Gross Domestic Product)

If the market size (GDP) of a country is large it will attract more FDI and vice versa. There is positive correlation between GDP and FDI which is matched with the objective to achieve higher growth in terms of GDP and FDI.

Availability of Human Resources (Wages Paid)

Availability of human resources is another factor which has influenced on any country's economy. It is noted there is positive correlation between Wages paid and FDI inflow, it means if there is 1% change in wage rate it causes positive changes in FDI too.

Economic Stability (Deficit Balance of Payment)

Balance of Payment is one of the pull factors of FDI inflow. The economic theory suggested the negative elasticity coefficient between FDI and Deficit in Balance of Position.

Government Policies (Trade Openness)

Government policies are one of the major factors which determine the flow of FDI in Countries. Degree of trade openness means ratio of total trade to real GDP of Economy. As the government policies are liberal then there is high probability of inflow of FDI into the country.

Exchange Rates

Exchange rate can be defined as the admiration of Indian Rupee in international market which encourages the foreign investors firms to obtain the specific assets required at cheap rates and earn higher profits.

Inflation

A reliable economy can be defined if the inflation rate is low. Any changes in inflation rates of home country and foreign country are probably alter the most favorable investment decisions and gives negative impact on FDI.

BSE & NSE index

Financial indexes are constructed to measure price movements of stocks, bonds, T-bills and other forms of investments. Stock market indexes are meant to capture the overall behavior of equity markets. A stock market

index is created by selecting a group of stocks that are representative of the whole market or a specified sector or segment of the market. An Index is calculated with reference to a base period and a base index value. On the other hand FDI and FII play an important role for the movement of these indices.

SCOPE OF THE STUDY

FDI and FII have a major role to play in India's economic development. Many sectors have seen the growth of foreign investment in the form of FDI and FII, over the past few years. New reforms /policies are being taken by the Government to promote FDI due to which a consistent and rapid growth has been recorded in India. The present study takes into consideration FDI and FII inflows in the country in the last twenty four (1992-2015) years. The relationship between FDI, GDP and Market Indices and FII, GDP and Market Indices were examined. GDP is taken as the proxy for economic growth. NIFTY and SENSEX were taken as the proxies for stock market movements. FCA is taken as the proxy of Foreign Exchange Reserve. Trend in the flow of FDI and FII is studied and its impact on country's economic growth is considered to evaluate the country's current liberalized FDI and FII regime.

REVIEW OF LITERATURE

Mucuk and Demirsel (2013) conducted a study to find out the impact of FDI on the unemployment rate in seven developing countries. The result disclosed that, most of the foreign investors come to the country and associate with a company that are already existence, so FDI usually causes an negative effect on the unemployment rate in the country.

Laskiene& Pekarskiene (2011) have conducted a study and shown that FDI has a positive effect on the investment of host country's labour productivity. But the growth of productivity is not the same in different areas of economic activity.

Kumar & Pradhan (2002) conducted a study to find out the effects of FII inflows on the Indian stock market and concludes that FII investments are more driven by Fundamentals and do not respond to short-term changes or technical position of the market

Balasubramanyam et al. (1996) reveals significant results to support the assumption that FDI is more important for economic growth in export promoting than in importing substituting countries. This stated that the impact of FDI varies across countries and trade policy can affect the role of FDI in economic growth.

Pal (1998) in his study highlighted that FII flows have failed to invigorate the stock market in India. It further analyses the linkages between the stock market and domestic saving rate both theoretically and at empirical level in context of Indian experience.

Alfaro et al. (2004) reveal that FDI plays an important role in contributing to economic growth but the level of development of local financial markets is crucial for these positive effects.

Afees(2004) reveal that inflation, debt structure, and exchange rate significantly influence FDI flows in Nigeria. The study stated the government to pursue prudent fiscal and monetary policies that will be uplift towards attracting more FDI and enhancing overall domestic productivity.

Miguel D. Ramirez (2006) conducted a study and unearth that that increase in both private and foreign investment per worker have a positive and economically significant effect on the rate of labour productivity growth.

Mohan (2005) highlighted that flows of private capital in form of FII in recent years have amplified the Forex reserves in emerging markets and helped in enhancing capital markets in India. The study further analyses the implications of an enlarged FII presence in terms of stock market and macroeconomic volatility. The study concluded that drastic increased in FII flows in Indian economy has shifted the focus of equity market from mutual funds to FII inflows.

RESEARCH GAP

Growing India needs abundant foreign capital in the form of FDI & FII for the development of basic infrastructure like Roads, Railways, Sea Ports, Warehouses, Banking Services and Insurance Services etc. Moreover, rapid industrialization since 1991 has further strengthened the need of foreign capital across various industries. Many developing countries suffer from severe scarcity of funds in highly capital intensive areas such as infrastructure. This problem can be diverted to the foreign capitalists by allowing them to invest. Other words, foreign capital are the panacea for the scarcity of all resources. Foreign capital is an easy route to reduce the cost of capital. Thus investors tend to invest in countries like India where they can gain maximum return on

their investments. Gradual Integration of global financial markets ultimately results in explosive growth of FDI around the globe.

The results of macroeconomic studies on FDI and growth have generally been mixed. Though most studies find some positive correlation between FDI and growth but some are not. But till now no combined study have been found to compare FDI and FII jointly and show their impact on growth and stock market indices in India.

OBJECTIVES

The present study tries to do a comparative analysis of FDI and FII and discern their contribution towards economic growth. Nominal GDP is used as a proxy for economic growth; annual FDI and FII investment data have been taken. In today's times of rapid growth both FDI and FII are an important source of foreign funds for any country especially developing country like India. India is rapidly growing for which it needs to channelize foreign funds from all over the world. Thus, the Indian economy is increasingly becoming part of global inter-connectedness, with changes in policy contributing to changes in both the nature and magnitude of capital flows. However, the current financial crisis has emphasized upon the volatile nature of foreign capital flows to developing countries with changes in risk perception and attitudes towards investment in countries most affected by global financial turbulence. The volatile nature of foreign funds affects the flow of FII and FDI in varying degrees. The continuous adjustments in investment inflows and outflows of foreign funds in India, strongly affects the economic growth of the country. Thus, new policy changes have to be adopted and old one has to be amended from time to time in order to have robust growth of the country. The recent amendments in FDI policies indicate the same. The study attempts to discover the implications of FDI and FII flow on Economic growth of India. The policies are changed with changing economic environment in order to attract foreign funds to increase the speed of economic growth in India. Hence, following are objectives of this study.

- The research aims
- To study the pattern of FDI and FII in Indian economy in the last twenty four years.
- To find out the impact of FDI on leading Economic indicators in Indian scenario.
- To find out the impact of FPI on leading Economic indicators in Indian relevance.
- To analyze the relationship between FDI and FPI

RESEARCH METHODOLOGY

Data collection

The present research will investigate the relation of economic indicators and FDI for Indian subcontinent. The study is based on the secondary data. The Indian data of Gross Domestic Product growth, BSE SENSEX, NSE NIFTY Foreign exchange reserve(FCA) from 1992 to 2015 have been used to perform the analysis.

Analytical tools

A line in a two-dimensional or two-variable space is defined by the equation $Y=a+bX$; in full text, the Y variable can be expressed in terms of a constant (a) and a slope (b) times the X variable. The constant is also referred to as the intercept, and the slope as the regression coefficient or B coefficient.

DATA ANALYSIS

Obj: To study the pattern of FDI and FII in Indian economy in the last twenty four years

Tab 1: FDI FROM 1992-2015

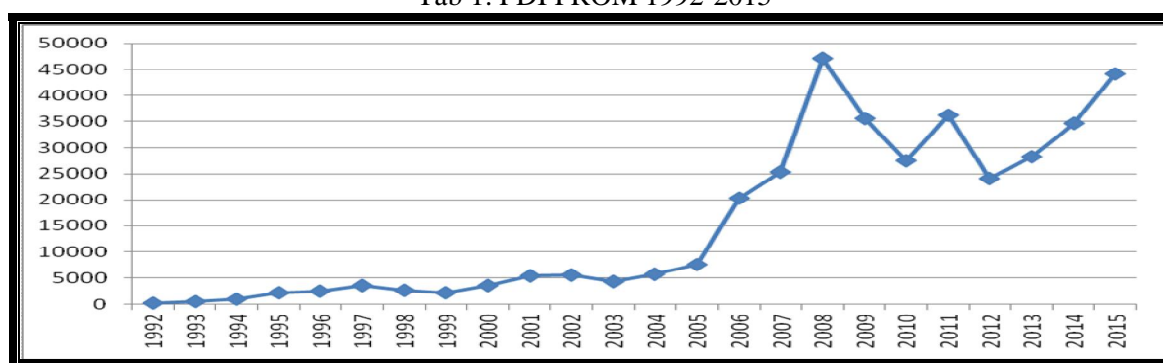


Figure 1: Trend of FDI Inflows

INTERPRETATION

The above line chart depicts the growth of FDI in Indian economy. From 1992 to 2004, there was no significant movement of FDI. In the year of 2008, it was significantly increased whereas in 2012 there was a

gradual drop down. But for the next two consecutive years 2013 and 2014 it raised again. Hence, the equation of the model is polynomial which fits best among the regression model. The R² value being 0.787, explains about 78.8% of the total variation of the dependent variable by the independent variable.

$$y = 62.20x^2 + 372.5x - 1921. R^2 = 0.787$$

Tab 2: FPI FROM 1992-2015

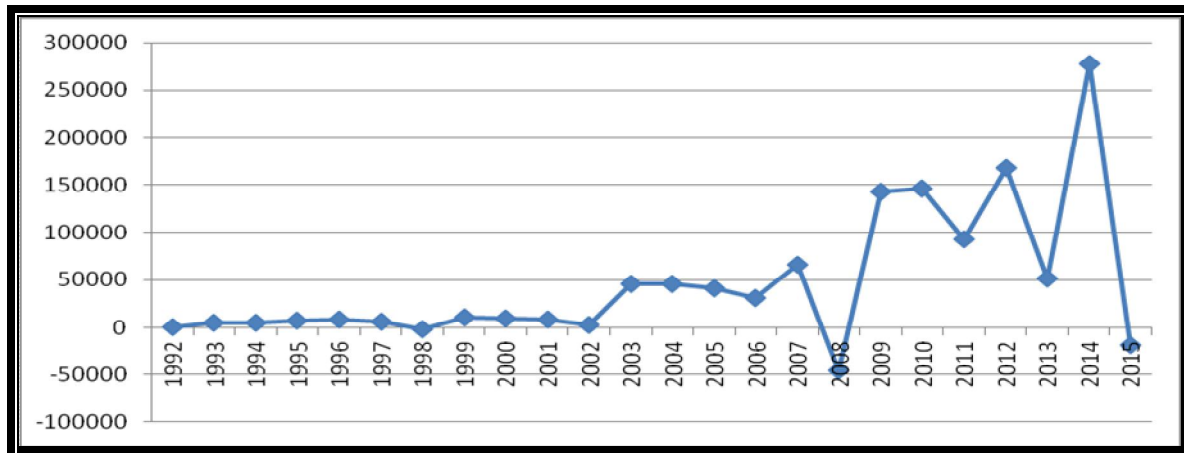


Figure 1: Trend of FDI Inflows

INTERPRETATION

The above line chart depicts the growth of FPI in Indian economy. From 1992 to 2002, there was no significant movement of FPI. In the year of 2008, it was significantly negative, having a rise in the next two consecutive years, i.e. 2009 and 2010 whereas again in 2011 there was a gradual drop down. In 2013 it increased significantly. Hence, the equation of the model is polynomial which fits best among the regression model. The R² value being 0.440, explains about 44% of the total variation of the dependent variable by the independent variable.

$$y = -11.17x^4 + 516.1x^3 - 7271x^2 + 36783x - 43730$$

Tab 3: Correlation Matrix

		Correlations					
		FDI	FII	GDP	FCA	NSE	BSE
FDI	Pearson Correlation	1	.896**	.889**	.842**	.889**	.898**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	24	24	24	24	24	24
FII	Pearson Correlation	.896**	1	.977**	.947**	.977**	.881**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	24	24	24	24	24	24
GDP	Pearson Correlation	.889**	.977**	1	.988**	1.000**	.902**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	24	24	24	24	24	24
FCA	Pearson Correlation	.842**	.947**	.988**	1	.987**	.904**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	24	24	24	24	24	24
NSE	Pearson Correlation	.889**	.977**	1.000**	.987**	1	.902**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	24	24	24	24	24	24
BSE	Pearson Correlation	.898**	.881**	.902**	.904**	.902**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	24	24	24	24	24	24

** . Correlation is significant at the 0.01 level (2-tailed).

INTERPRETATION

The above table depicts the statistical relationship between the variables FDI, FII BSE SENSEX, GDP, NSE NIFTY and Foreign Currency Assets. From the above table it can be concluded that there is very strong positive

correlation between FDI and BSE SENSEX (0.89), FDI and GDP (0.88), FDI and NSE NIFTY (0.889), FDI and Foreign currency Assets (0.847), FII and BSE SENSEX (0.881), FII and GDP (0.977), FII and NSE NIFTY (0.977), FII and Foreign currency Assets (0.947). The correlation is ascertained significant at 1 percent level of significance.

Obj: To find out the impact of FDI on leading Economic indicators in Indian scenario

The following Equations are being formulated to measure the relationship between FDI and other economic indicators. Where Economic indicators are dependent variable and FDI is independent variable.

$$1. \text{ GDP} = \alpha + \beta_1 \text{ FDI} + e \quad (1)$$

$$2. \text{ NSE (NIFTY)} = \alpha + \beta_1 \text{ FDI} + e \quad (2)$$

$$3. \text{ BSE (SENSEX)} = \alpha + \beta_1 \text{ FDI} + e \quad (3)$$

$$4. \text{ FCA} = \alpha + \beta_1 \text{ FDI} + e \quad (4)$$

IMPACT OF FDI ON GDP

Tab-4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889 ^a	.791	.781	1109.18143

a. Predictors: (Constant), FDI

According to Table – 4, manifests the regression model fit summary, the value of R, .889, signifies that 88.9% of correlation is present between the dependent and independent variables. The value of R^2 , 0.791 depicts linear regression and further explains that 79.1% of the variance in the dataset when the independent variable in the model affects the dependent variable, and the adjusted value of R^2 , .781 depicts that 78.1% of variation is explained by only independent variables that in actuality affect the dependent variable.

Tab 5: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	102240467.161	1	102240467.161	83.103	.000 ^b
Residual	27066235.690	22	1230283.440		
Total	129306702.851	23			

a. Dependent Variable: GDP

b. Predictors: (Constant), FDI

According to the Table – 5, the F-test depicts a high value of 83.103 along with degree of freedom (df), 23, which means there is no linear relationship between any of the two variables in the model. The p-value (Sig.) is .000 i.e. less than 0.05, which indicates that the regression model is statistically significant and predicts the outcome variable.

Tab 6: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	949.110	321.318		2.954	.007
FDI	.135	.015	.889	9.116	.000

a. Dependent Variable: GDP

According to Table – 6, the independent variable “FDI” is having a beta value of 0.135. Hence, a unit increase in the variable X1 (FDI) will lead to increase 0.135 unit in the variable Y (GDP).

$$Y = 949.110 + 0.135X_1$$

Impact of FDI on NSE

Tab 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.889 ^a	.791	.781	1109.05906

a. Predictors: (Constant), FDI

Table – 7, manifests the regression model fit summary, the value of R, .889, signifies that 88.9% of correlation is present between the dependent and independent variables. The value of R^2 , 0.791 depicts linear regression and further explains that 79.1% of the variance in the dataset when the independent variable in the model affects the dependent variable, and the adjusted value of R^2 , .781 depicts that 78.1% of variation is explained by only independent variables that in actuality affect the dependent variable.

Tab 8: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	102188118.031	1	102188118.031	83.079	.000 ^b
Residual	27060263.855	22	1230011.993		
Total	129248381.886	23			

a. Dependent Variable: NSE

b. Predictors: (Constant), FDI

According to the Table – 8, the F-test depicts a high value of 83.079 along with degree of freedom (df), 23, which means there is no linear relationship between any of the two variables in the model. The p-value (Sig.) is .000 i.e. less than 0.05, which indicates that the regression model is statistically significant and predicts the outcome variable.

Tab 8: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	950.157	321.283		2.957	.007
FDI	.135	.015	.889	9.115	.000

a. Dependent Variable: NSE

According to Table – 8, the independent variable “FDI” is having a beta value of 0.135. Hence, a unit increase in the variable X1 (FDI) will lead to increase 0.135 unit in the variable Y (NSE).

$$Y = 950.157 + 0.135X_1$$

Impact of FDI on BSE

Tab 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.898 ^a	.807	.798	1362.78613

a. Predictors: (Constant), FDI

Table – 9, manifests the regression model fit summary, the value of R, .898, signifies that 89.8% of correlation is present between the dependent and independent variables. The value of R^2 , .807 depicts linear regression and further explains that 80.7% of the variance in the dataset when the independent variable in the model affects the dependent variable, and the adjusted value of R^2 , .798 depicts that 79.8% of variation is explained by only independent variables that in actuality affect the dependent variable.

Tab 10: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	170746350.187	1	170746350.187	91.938	.000 ^b
Residual	40858092.714	22	1857186.032		
Total	211604442.900	23			

a. Dependent Variable: BSE

b. Predictors: (Constant), FDI

According to Table – 10, the F-test depicts a high value of 91.938 along with degree of freedom (df), 23, which means there is no linear relationship between any of the two variables in the model. The p-value (Sig.) is .000 i.e. less than 0.05, which indicates that the regression model is statistically significant and predicts the outcome variable.

Tab 11: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1663.323	394.785		4.213	.000
FDI	.174	.018	.898	9.588	.000

a. Dependent Variable: BSE

According to Table – 11, the independent variable “FDI” is having a beta value of 0.174. Hence, a unit increase in the variable X1 (FDI) will lead to increase 0.174 unit in the variable Y (BSE).

$$Y = 1663.323 + 0.174X_1$$

Impact of FDI on FCA:

Tab 12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.842 ^a	.709	.695	4587.27417

a. Predictors: (Constant), FDI

Table – 12, manifests the regression model fit summary, the value of R, .842, signifies that 84.2% of correlation is present between the dependent and independent variables. The value of R², .709 depicts linear regression and further explains that 70.9% of the variance in the dataset when the independent variable in the model affects the dependent variable, and the adjusted value of R², .695 depicts that 69.5% of variation is explained by only independent variables that in actuality affect the dependent variable.

Tab 13: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1126443847.440	1	1126443847.440	53.530	.000 ^b
Residual	462947855.605	22	21043084.346		
Total	1589391703.045	23			

a. Dependent Variable: FCA

b. Predictors: (Constant), FDI

According to Table – 13, the F-test depicts a high value of 53.530 along with degree of freedom (df), 23, which means there is no linear relationship between any of the two variables in the model. The p-value (Sig.) is .000 i.e. less than 0.05, which indicates that the regression model is statistically significant and predicts the outcome variable.

Tab 14: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3585.179	1328.885		2.698	.013
FDI	.447	.061	.842	7.316	.000

a. Dependent Variable: FCA

According to Table – 14, the independent variable “FDI” is having a beta value of 0.447. Hence, a unit increase in the variable X1 (FDI) will lead to increase 0.447 unit in the variable Y (FCA).

$$Y = 3585.179 + 0.447X_1$$

To probe the impact of FPI on leading Economic indicators in the Indian scenario

The following Equations are being formulated to measure the relationship between FDI and other economic indicators. Where Economic indicators are dependent variable and FDI is independent variable.

$$1. \text{ GDP} = \alpha + \beta_1 \text{ FPI} + e \quad (1)$$

$$2. \text{ NSE (NIFTY)} = \alpha + \beta_1 \text{ FPI} + e \quad (2)$$

$$3. \text{ BSE (SENSEX)} = \alpha + \beta_1 \text{ FPI} + e \quad (3)$$

$$4. FCA = \alpha + \beta_1 FPI + e \quad (4)$$

Impact of FPI on GDP

Tab 15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.977 ^a	.955	.953	515.93428

a. Predictors: (Constant), FPII

Table – 15, manifests the regression model fit summary, the value of R, .977, signifies that 97.7% of correlation is present between the dependent and independent variables. The value of R², .955 depicts linear regression and further explains that 95.5% of the variance in the dataset when the independent variable in the model affects the dependent variable, and the adjusted value of R², .953 depicts that 95.3% of variation is explained by only independent variables that in actuality affect the dependent variable.

Tab 16: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	123450562.784	1	123450562.784	463.772	.000 ^b
Residual	5856140.066	22	266188.185		
Total	129306702.851	23			

a. Dependent Variable: GDP

b. Predictors: (Constant), FPI

According to Table – 16, the F-test depicts a high value of 463.772 along with degree of freedom (df), 23, which means there is no linear relationship between any of the two variables in the model. The p-value (Sig.) is .000 i.e. less than 0.05, which indicates that the regression model is statistically significant and predicts the outcome variable.

Tab 17: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-301.596	187.055		-1.612	.121
FPI	.004	.000	.977	21.535	.000

a. Dependent Variable: GDP

According to Table – 17, the independent variable “FPI” is having a beta value of 0.004. Hence, a unit increase in the variable X1 (FDI) will lead to increase 0.004 unit in the variable Y (GDP)

$$Y = -301.596 + 0.004X_1$$

Impact of FPI on NSE

Tab 18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.977 ^a	.955	.953	516.06205

a. Predictors: (Constant), FII

Table – 18, manifests the regression model fit summary, the value of R, .977, signifies that 97.7% of correlation is present between the dependent and independent variables. The value of R², .955 depicts linear regression and further explains that 95.5% of the variance in the dataset when the independent variable in the model affects the dependent variable, and the adjusted value of R², .953 depicts that 95.3% of variation is explained by only independent variables that in actuality affect the dependent variable.

Tab 19: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	123389341.047	1	123389341.047	463.312	.000 ^b
Residual	5859040.838	22	266320.038		
Total	129248381.886	23			

a. Dependent Variable: NSE

b. Predictors: (Constant), FPI

According to Table – 19, the F-test depicts a high value of 463.312 along with degree of freedom (df), 23, which means there is no linear relationship between any of the two variables in the model. The p-value (Sig.) is .000 i.e. less than 0.05, which indicates that the regression model is statistically significant and predicts the outcome variable.

Tab 20: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-300.256	187.101		-1.605	.123
FPI	.004	.000	.977	21.525	.000

a. Dependent Variable: NSE

According to Table – 20, the independent variable “FPI” is having a beta value of 0.004. Hence, a unit increase in the variable X1 (FDI) will lead to increase 0.004 unit in the variable Y (NSE)

$$Y = -300.256 + 0.004X_1$$

Impact of FPI on BSE

Tab 21: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.881 ^a	.776	.766	1467.06612

a. Predictors: (Constant), FPI

Table – 21, manifests the regression model fit summary, the value of R, .881, signifies that 88.1% of correlation is present between the dependent and independent variables. The value of R², .776 depicts linear regression and further explains that 77.6% of the variance in the dataset when the independent variable in the model affects the dependent variable, and the adjusted value of R², .766 depicts that 76.6% of variation is explained by only independent variables that in actuality affect the dependent variable.

Tab 22: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	164254216.998	1	164254216.998	76.316	.000 ^b
Residual	47350225.903	22	2152282.996		
Total	211604442.900	23			

a. Dependent Variable: BSE

b. Predictors: (Constant), FPI

According to Table – 22, the F-test depicts a high value of 76.316 along with degree of freedom (df), 23, which means there is no linear relationship between any of the two variables in the model. The p-value (Sig.) is .000 i.e. less than 0.05, which indicates that the regression model is statistically significant and predicts the outcome variable.

Tab 23: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	509.182	531.893		.957	.349
FII	.004	.000	.881	8.736	.000

a. Dependent Variable: BSE

According to Table – 23, the independent variable “FII” is having a beta value of 0.004. Hence, a unit increase in the variable X1 (FDI) will lead to increase 0.004 unit in the variable Y (BSE)

$$Y = 509.182 + 0.004X_1$$

Impact of FPI on FCA

Tab 24: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.947 ^a	.898	.893	2720.48423

a. Predictors: (Constant), FPI

Table – 24, manifests the regression model fit summary, the value of R, .947, signifies that 94.7% of correlation is present between the dependent and independent variables. The value of R², .898 depicts linear regression and further explains that 89.8% of the variance in the dataset when the independent variable in the model affects the dependent variable, and the adjusted value of R², .893 depicts that 89.3% of variation is explained by only independent variables that in actuality affect the dependent variable.

Tab 25: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1426568945.288	1	1426568945.288	192.753	.000 ^b
Residual	162822757.757	22	7401034.444		
Total	1589391703.045	23			

a. Dependent Variable: FCA

b. Predictors: (Constant), FPI

According to Table – 25, the F-test depicts a high value of 192.753 along with degree of freedom (df), 23, which means there is no linear relationship between any of the two variables in the model. The p-value (Sig.) is .000 i.e. less than 0.05, which indicates that the regression model is statistically significant and predicts the outcome variable.

Tab 26: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-832.943	986.326		-.844	.407
FII	.012	.001	.947	13.884	.000

a. Dependent Variable: FCA

According to Table – 26, the independent variable “FII” is having a beta value of .012. Hence, a unit increase in the variable X1 (FDI) will lead to increase .012 unit in the variable Y (FCA)

$$Y = -832.943 + 0.012X_1$$

CONCLUSIONAL OBSERVATION

1. This research manifested that FDI and FPI have positive impact on stock market development indicators (BSE and NSE). The correlation result depicts that there is a positive correlation among the economic indicators FDI, BSE and NSE (0.798, 0.781) and are also statistically significant with p value being less than 0.05 whereas FPI also have a positive relation with the economic indicators BSE and NSE (0.953, 0.766) and are also statistically significant with p value being less than 0.05. **Dhiman & Sharma (2013)** probed that the influx of capital in terms of foreign direct investment (FDI) has a positive impact on the economy as well as

the capital markets. They concluded that there is strong degree of correlation between FDI & Sensex, and FDI & Nifty.

2. Another observation of this research manifested that FDI and FPI have positive impact on GDP in India. The correlation result depicts that there is a positive correlation among the economic indicators FDI and GDP (0.781) and is also statistically significant with p value being less than 0.05 whereas FPI also have a positive relation with the economic indicator GDP (0.953) and is also statistically significant with p value less than 0.05. **Yameen & Ahmad (2015)** have conducted a study and concluded that there is a strong positive relation among FDI and GDP and FPI and GDP
3. The third observation of this research manifested that FDI and FPI have positive impact on FCA in India. The correlation result depicts that there is a positive correlation among the economic indicators FDI and FCA (0.695) and is also statistically significant with p value being less than 0.05 whereas FPI also have a positive relation with GDP (0.893) and is also statistically significant with p value less than 0.05. **Kotishwar (2016)** found that FII and FDI are having the significant impact on foreign reserves.

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UTILIZATION OF WETLAND, SUSTAINABLE DEVELOPMENT AND SCOPE OF SELF EMPLOMENT-- A CASE STUDY

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ABSTRACT

A land which is soaked in water, abidingly or seasonally is known as wetland. The available in wetland may be fresh or brackish. Other hand sustainable development is the organizing principle for meeting human development goals while at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. So the sustainable development and wetland utilization are related each other. Rich agriculture resource, fisheries development, balance biodiversity, employment opportunity, increase per capital income good connectivity, health premises have ample opportunity for further growth and development. Keadah 1 No gram panchayet under Sonarpur block is an area under the wetland. Panchayet office and BDO (Block Development Office) take some action for wetland conservation as well as sustainable development. Also they are taken some policy for reduction unemployment burdening.

Keywords: Wetland use planning, Biodiversity, Self employment enhancement, Sustainable development.

INTRODUCTION

Environment provides us much kind of resources. Major source fields are land, water bodies, forest area etc. Wetland (a land soaked with water) is taken vast significance in maintaining ecological balance, effect on economic, social and cultural environment. Proper way of conservation, management, extraction and utilization of the resources are benefitting our society. In 1987 Brundtland Report introduced the notion of sustainable development. The quest for sustainable use of land resources become an important policy planning goal.

After independence, India's planners and policy makers have shown concern for efficient use of land, for accelerated economic development. The questions of efficiency, equity, environment protection as well as sustainability have been accepted in all five year planning. But it is not working properly and moreover pollution hazard all over environments. In 2002 East Kolkata Wetlands were designated as Ramsar Site. Sonarpur Block and under wetland areas panchayet are taken some step for conservation wetland. They encourage local people for fishery and agricultural development and encourage also self employment.

OBJECTIVES

- To describe usability of land under different categories in kheadah 1 no panchayet.
- To highlight wetland reclamation, conservation, management and Sustainable development.
- To establish relationship with use of wetlands self-employment opportunity especially in farm sector.

METHODOLOGY

The present research work is based on intensive field survey. Data and information have been collected primary and secondary source and analysis of these data are made adopting the advanced technique of measurement especially intern of

1. Pre-field work 2. Field work 3. post-field work (Mukhopadhyay 1980,82)

➤ **PRE-FIELD WORK:**

Include collection water test data from DDF office, map of gram-panchayet, block are collected and the related literature from different source.

➤ **FIELD WORK:**

Include ground truth verification collection of data on the basis of field survey.

➤ **POST- FIELD WORK:**

Include analysis of sample and data procured using the appropriate techniques of tabulation final map preparation using adopt photo shop, internet map and preparation final report.

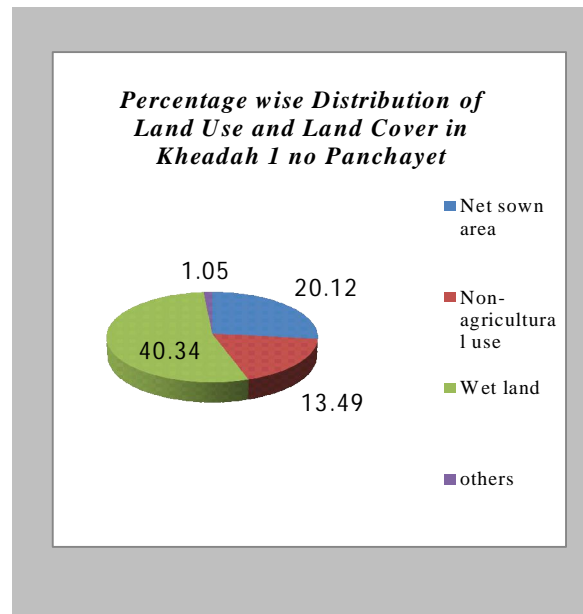
STUDY AREA

Kheadaha 1 no Gram Panchayet is situated in Sonarpur block and its surrounding area are at the northern side Bamanghata, southern side Kamrabad G.P, eastern side Tardaha G.P and western side Kheadaha 2 no G.P. It is structured with 11, 12, 13, 15, 16 and 17 J.L no. Sonarpur is located at 22026/04// North and 88026/49// East and elevated 6mt from the sea level. 22 villages have present in this panchayet.

Total area of Kheadaha 1 no Gram Panchayet is covered with 7.5 km/sq. Total population of this area are 20,401. Total Male population of this area is 10,509 and Female population is 9,892. In this G.P mainly live s.c and s.t population. In this G.P maximum people are depend on agriculture and fishery. At recent young generation trained from different institution and them modified development agriculture and pisciculture

Land Use and Land Cover in Kheadah 1

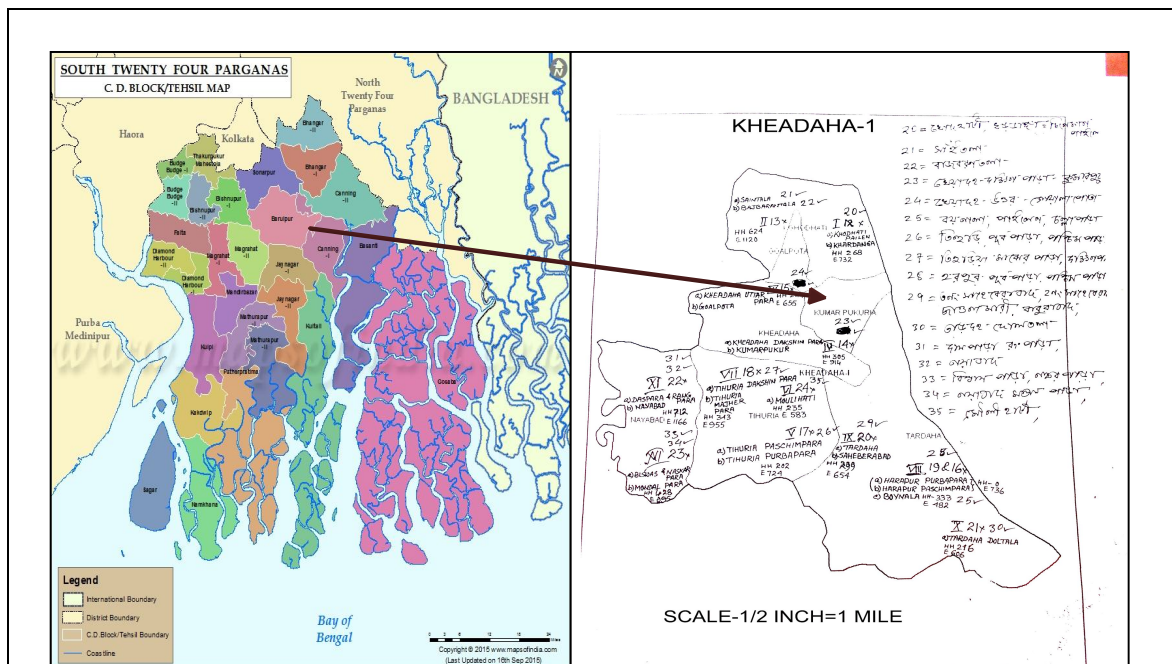
Category of Land	Net sown area	Non agricultural use	Wet land	others
Percentage of land	20.12	13.49	40.34	1.05



This Gram-Panchayet is formed with 22 villages; they are Nayabad Uttar, Nayabad dakshin, Tihuria, Dakshin Tihuria, 2 no Saheberabad, 3 no Saheberabad, Baburabad,

Baynala, Khardanga, Kheadaha, Khodhati, Goalpota, Kumarpukuria, Harapur, Moulihati,

Tardaha Doltala, Chapnamari, Pailen, Challapara, Bajbarantala, Saitala, Chineman pailen. Total no of school have present in this G.P.



Different level of school under the G.P

School	Number
Higher Secondary	2
Upper Primary	2
Primary	11

I.C.D.S.	28
M.S.K	1
S.S.K.	3
SOURCE: Kheadaha 1 no Gram Panchayet.	

Total health centers have 2 and post office has 1.

Maximum villagers in this G.P are engaged in agricultural land based on the “Tally’s Nala” canal water, **Shallow Tube-Wells (STW) which help in winter as a source of water** for cultivate crop. Approx 12000 - 14000 people are related with crop field and fishery. Chemical ingredients of the “Tally’s Nala” canal water, soil condition Kheadaha 1 no Gram Panchayet. Panchayet people cultivates fish in land is called bheri and in winter and summer season cultivate different type of vegetable in bheri.

CHEMICAL INGREDIENTS OF THE “TOLLY’S NALA” WATER: *Chemical Investigation:*
Different Chemical test Parameter

Parameter	Test Result	Optimum Result
1) pH	7.5	7.5-8.5
2) Total alkalinity (mg/lit) as CaCO ₃	310	100-150
3) Dissolve CO ₂ (mg/lit)		
4) Dissolved Oxygen (mg/lit)	0.7	5-7
5) Nitrite(mg/lit)		
6) Nitrate (mg/lit)		
7) Phosphate(mg/lit)		
8) Total Hardness (mg/lit)	230	<100

Source: Office of the Deputy Director of Fisheries (M & P), Government of West Bengal.

It is said that from above data chart that Total alkalinity and Total Hardness have present excess amount from optimum result. For reduce alkalinity to use calcium sulphate in water. Dissolved Oxygen has very low amount. For increase it mixed fresh water and phytoplankton. If Sweet water and ground water will mingle with it then it will be proper use for farming and fishery development. PH balance has properly.

WET LAND RECLAMATION, CONSERVATION AND MANAGEMENT

Wet land reclamation is the gain of preservation water bodies and restoration of productivity. Conservation of wetlands means protects the lands from degradation by natural and human activities. Flood is the natural and manmade cause to degrade the wetlands in kheadah 1 and 2 panchayet of Sonarpur block. Excessive use water for irrigation and use of huge chemical fertilizer are main causes of land degradation. Population pressure and urbanization is the causes of reduce and degradation of wet land. So management practices are necessary to take actions according to areas.

USE OF WET LANDS AND SELF-EMPLOYMENT

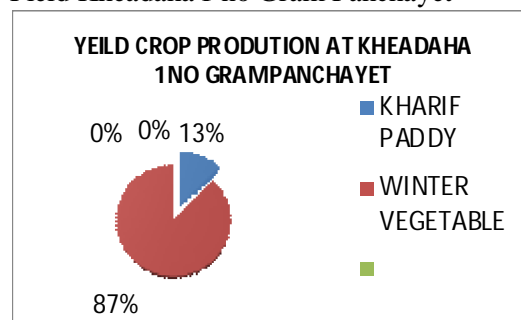
Current wet land is suitable for conversation for farm activity and crop productivity. The following activities promote to self-employment status in the panchayet along with use of wetland:

AGRICULTURE PRACTICES

In the Khedaha 1no Gram-Panchayet agriculture is a remarkable development and acting as an important role in the Sonarpur block. Under the Sonarpur block maximum agriculture is developed Khedaha 1no Gram-Panchayet, Pratapnagar Gram-Panchayet and Kamrabad Gram-Panchayet. Here soil is ideal for farm crop, climatic condition is a better and cheap labours are available. In the Khedaha 1no Gram-Panchayet tally’s nala canal pass as like web-network and it is announced as a wetland area .Local people plough their field for their own consumes and they sell their excess in the market. Details information is given below:

Table6:-Showing the different type Crop Field Kheadaha 1 no Gram Panchayet

One Crop Field	Two Crop Field	Fallow Land
200 Bigha	3500 Bigha	Nil



Source: Kheadaha 1 no Gram Panchayet

Crop/Vegetable Name	Yields/Hectares		
	2014-15	2015-16	2016-17
Kharif paddy	3550	Damage due to flood	6040
Winter Vegetable (Califlower, Cabbage, Beans, Tomato, Pea, Spinaches etc.)	12000	12550	15430

Crop Production in Kheadaha 1 no Gram Panchayet

Source: Office of Assistant Director of Agriculture, Government of West Bengal.

Total worker are 10,000-12,000 and they adjoining with the field. In the financial year 2015-16 kharif paddy were totally damaged by the flood. Farmer got compensation 7000 rupees per bigha. After flood soil are enriched, for its winter vegetable was well developed and production rate was high. In the Kheadaha 1 no Gram Panchayet kharif paddy develop depend on the monsoon and tally's nala water; winter vegetable were grow up by using shallow tube well and canal water.

PISCICULTURE

Since the late 19th century sewage-fed-fish farming is practiced in the Salt lake areas lying to the east and the south Calcutta. Formerly these fisheries link with saline tidal waters borne by the Bidhyadhari. Later on, due to progressive siltation of the Bidhyadhari bed with the refuge of the city, its linkage with saline water was cut off and fresh water fish culture based on the sewage has been started.

In 1985, the Directorate of Fisheries of the State Government set up the 'Institution of Wet Land Management and ecological Design' with the objective of proper utilization the waste water and swampy lands lying in the of Calcutta.

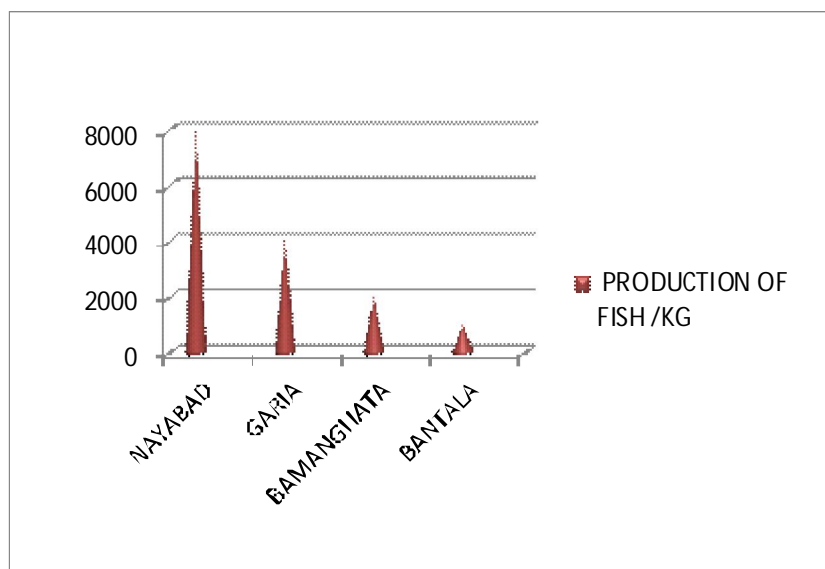
Sewage-fed-fish farming help to create employment opportunity development of resource, maintenance of environment balance and at the same time increase in the supply of fish.

In South 24 Parana's about 532 hectares of land in Sonarpur P.S, 886 hectares of land in Bhangore P.S and 657.22 hectares in Tiljala area are under Sewage-fed-fisheries.

The study area Kheadaha 1 no Gram-Panchayet in Sonarpur block are practiced fisheries with the help of Sewage canal water and fresh Shallow -Tube-well water (STW). Though fisheries are maximum develop Kheadaha 2 no Gram-Panchayet in Sonarpur block. But recent farmers are encouraging pisciculture Kheadaha 1 no Gram-Panchayet. They are gain more profit than yield crop. Fishes are growing up with running and three times can be produce in a year. Here trained people try to give their best effort and total self developer is increased. In 2005 total fisheries had 125 bigha, at recent 2015 total fishery have 200 bigha and in future 2025 it will be 400 bigha. Detail is given bellow:

Total Fisheries land	Total Farmer	Name the Fishes	Fish Market Production Kg/ Day
800 Bigha	2000-3000	Rohu, Katla, Mrigal, Kalbose, Grass carp, Silver carp, Sai prass,	Nayabad -7000-8000 Garia-4000 Bamanghata-2000 Bantala-1000
		vetki and fish kept alive	1000 in total

Source: Kheadaha 1 no Gram Panchayet and Primary data Survey.



Total fish shop has present 25 in Nayabad and it is opened at first morning at 4am to 8am. Local trader sells and buys the fishes in this market. Nona fishes are come in the market from the outside. (At Malancha, Bhusighata). Fish demand is increased up and farmer increase pisciculture with great enthusiasms.

ECO-TOURISM

Eco-tourism is an emerging sector for wage employment and self employment. Eco-tourism spots are possible conservation and management the wet land. Local people can scope shopping business activities spots area and it is developed economic condition of local people.

SUSTAINABLE DEVELOPMENT

Sustainable development is an essential for proper utilization of land, ecological balance, preservation of green verge. Wet land preservation and Sustainable development are inter related each other. This wet land area will be preserved and as well as well development through this method:

- Established a social project on piscicultur.
- All water body will be preserved.
- Canal reconditioning.
- Drainage system will be clear condition.
- Non conventional energy utilization and rain water harvesting would be encouraged.
- Exiting park and play ground will be preserved.

CONCLUSION

In the above description, it is say that in this keadaha 1 is a wetland area where agriculture and psiciculture is well development and there is vast scope of ecotourism in future. In this area maximum people live in farmer the panchayet should be extra care their agriculture equipment sublimite like different type of seed, fertilizer, net, etc. Implementation of government policies, awareness and involvement of local people are important issues for self-employment through wet land management. Modern technique of agriculture are helpful for improve self-employment status. Environmental status and economic development will be increase. The present study on stressed on environmental protection, sustainability and economic development through self-employment.

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- Ananda Bazaar patrika and Sonarpur block information Internet Website.

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