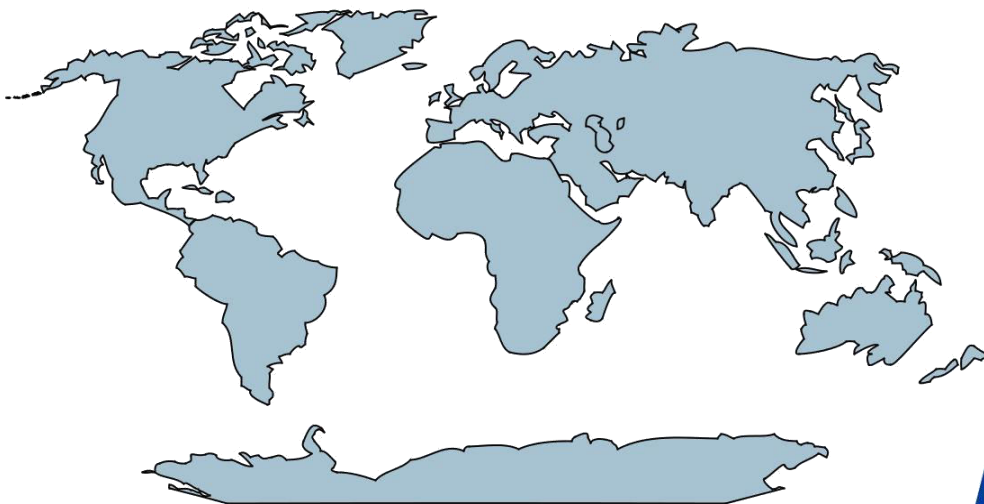


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A handwritten signature in black ink, appearing to read "Risto Wengate".

Signature:

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PREDICTORS OF EMPLOYEE ABSENTEEISM AND THEIR IMPLICATIONS FOR EMPLOYEE RETENTION

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ABSTRACT

Purpose: The research paper aims at examining the factors responsible for employee absenteeism and the strategies adopted by the management to curb the absenteeism and enhance retention of employees. The study is conducted at Hindustan Calcined Metals Pvt. Ltd, Bellary.

Design/ Methodology: The study conducted is exploratory and descriptive in nature and convenience random sampling method was used. A structured questionnaire with five point likert scale was used to gather primary data from a sample of 50 employees at, Hindustan Calcined Metals Pvt. Ltd., Bellary. The data is analysed using simple tools like averages and percentage measurement scales.

Findings: Sickness, poor compensation structure, family and personal issues of the employees are the main factors for the absenteeism. Management observed that few measures like Job rotation, Training and development, welfare measures, rewards and reorganizations, better working conditions, good employee relations would help reduce absenteeism and assist in retaining the key workforce.

Research Implications: This study helps understand the various factors that lead to employee absenteeism. An effort is made to understand employee as well as employer's perception about absenteeism and the measures to achieve employee retention

Keywords: Employee absenteeism, employee retention, employee relations, rewards & recognition

INTRODUCTION

Absenteeism at workplace has always been one of the most common problems in any industry. It is commonly understood as an employee or a group of employees remaining absent from work either continuously for a long period or repeatedly for short periods due to many reasons. Absenteeism is a serious workplace problem and an expensive occurrence for both employers and employees seemingly unpredictable in nature. A satisfactory level of attendance by employees at work is necessary to allow the achievement of objectives and targets by a department. Absenteeism results in financial losses, because of the resultant reduction in productivity. Most researches had concluded that absence is a complex variable and that it is influenced by multiple causes, both personal and organizational. This paper aims to understand the factors responsible for absenteeism and how to effectively reduce it for the consequent retention of employees.

A Brief Note on Iron & Steel Industry

India is the largest producer of sponge iron in the world and is the second largest producer of steel in the world. The future of the sponge iron industry in India expected that it is going to be in good position and also says that the sponge iron would be the largest raw material used in iron and steel manufacturing in upcoming days. The gradual increase of the sponge iron production in the country is due to availability of raw materials easily like iron ore, coal, limestone, etc.... in the country, and increasing demand in construction, automotive industries and Capital and consumer durable goods gives scope for the development of the industry, and also help in raising the foreign and domestic investment. The gross value added by the construction industry for the sponge iron and steel sector grew by 13.9 % in the year 2018-19 and it is expected to increase in this FY20.

A Brief Note on Hindusthan Calcined Metals Private Limited (HCMPL)

It is a manufacturing company of sponge and iron located near Belagal village Bellary, Karnataka with annual production of 18000 metric tons of capacity. Hindustan Calcined Metals private limited was incorporated in the year 2003 by Mr. S. K. Modi and Mrs. Manju Modi . The plant is situated around 10km from Bellary in Belagal Village. And it covers 16.43 acres of land where all the operations of the unit are set up.

A Brief Note on Employee Absenteeism and Employee Retention

The definition of absenteeism is a "habitual absence from work for one or more days, usually justified by medical certificate but, actually, due to personal interests and poor sense of duty." In addition, the definition becomes more severe by adding - "Indifference, lack of interest in political and social problems or in issues of common interest". Fillipo defines that, 'absenteeism as a condition that exists when a person fails to come to

work when he is properly scheduled to work'. Webster's Dictionary defines that, "absenteeism is the practice or habit of being in 'absence', and an 'absenter' is one who habitually stays away".

There are Four Types of Absenteeism.

- **Authorized Absenteeism:** Absenteeism taken by an employee with the permission of authorized people of an organization or by the management is called authorized absenteeism.
- **Unauthorized Absenteeism:** Absenteeism by employee without informing to the organization authorized people or management of an organization is called unauthorized absenteeism.
- **Willful Absenteeism:** Absenteeism of an employee from his job/work willfully is called willful absenteeism
- **Absenteeism Caused by the Circumstances Beyond Control:** Absenteeism of employee due to the circumstances that cannot be controlled like accidents, health problems etc...

By studying the factors related to the absenteeism, we find that the phenomenon can really bear on many company's dynamics: It forces to oversize the workforce, It penalizes the planning of the working activities, especially in relation with the necessity of rotations and availability, It stops the company's processes in the case of employers who have critical competences and knowledge, It has a big economic effect.

EMPLOYEE RETENTION

Employee Retention is defined as an organization's ability to retain its employees. It can also be called as a process, in which the employees are motivated and encouraged to stay in an organization for a longer period of time for the sustainability of the organization. Research says that most of the employees leave an organization out of frustration and constant friction with their superiors or other team members. In some cases low salary, lack of growth prospects and motivation compel an employee to look for a change. The management must try its level best to retain those employees who are really important for the system and are known to be effective contributor.

LITERATURE REVIEW

- Rahaman. T (2016) studied about the causes of absenteeism related to retail shops to know the reasons, motivation factors, perception of employees and measures regarding absenteeism in Chennai textile retail shops. The author used explorative methodology was the research is done for 6 months with sample size of 300 employees. He used ratio analysis, t-test, and ANOVA for analysis. He used factors like family, health, psychological factors of employees as hypothesis. The author found that work conditions, health, personal and other factors effects in employees absenteeism whereas salary is not effecting much the absenteeism and the author suggest to train the employees and give better welfare programs to reduce the rate of absenteeism
- Bennedsen, Tsoutsoura and Wolfenzon (2017) studied about the measures to eradicate the absenteeism by variable pay and insensitive pay mainly in family firms. This was conducted in Denmark using survey method. The authors used firms' characteristics, employee position and experience as factors of variables. He used statistics, histograms, line and bar graphs to analyze the data. The authors found that incentives and pays impact for low rate of absenteeism
- Markussen, Røgeberg, Røed and Gaure (2009) studied about sickness absence and other hazards due to absenteeism. The research was conducted in Norway using longitudinal survey from 2001-2005. the author used tables and line graphs to represent the data, he used demographic and different character of employees like dependency, age, gender and family background as factors. The authors found that the majority of absenteeism is due to sickness than other factors. This can be over come through providing good health care facilities for the employees.
- T. S. Swamy (2016) studied about the factors and relationship between different factors and absenteeism and employee retention in garment industry, with sample size of 180, he used questionnaires and survey method to collect the data and the data is analyzed using chi-square test with the help of Microsoft Excel. He used demographic, work environment and culture as the variable factors. The author found that the relationship between employee and supervisor affects on absenteeism of employee in organization
- Mr. Chowdhury (2016) studied about the absenteeism in manufacturing company and to know the causes and measures for absenteeism with sample size of 90. Author used sampling technique and divided sample as direct and indirect employees. It is a descriptive research; factors used are job satisfaction, absenteeism, causes and cost of absenteeism. Author found that lack of team work, recognition schema in indirect employees and lack of basic facilities, actions taken and work seriousness in direct employees are the major

causes of absenteeism. And he suggests that rewards, counseling, empowerment and motivation are need for employees' retention.

- Prof.Guptha (2013) examined about the absenteeism of employee in retail sector and to know the reasons, measures, causes, effects, management techniques and how to lower the rate of absenteeism of employees in the retail sector. This is done in 6 retail shops of Madhya Pradesh with sample size of 50 using questionnaires and interviews the data is analysis with tables and interpretation. The author found that the absenteeism decrease productivity and increase cost such that to avoid that proper monitoring should be done in the shops.
- Raja and Gupta (2019) studied impact of absenteeism in service sector with intention to know the reason, level, management attitude and personal factors of employee absenteeism. It is a descriptive research were primary and secondary data is used sample size of 82workers in Nagpur, Maharashtra The authors used tables, graphs, percentages, figures and bar graphs for the analysis of data. The authors found that working culture is affected by absenteeism and some of the benefits and salaries are a major cause of absence of employees. The authors suggest that to improve welfares and benefits in the organization.

RESEARCH GAP

From the extensive study of literature, it is observed that the study of employee absenteeism are based on the IT industries, Retail industries etc.. less research carried out on employee absenteeism at manufacturing industries mainly it is observed that there is complete lack of study on absenteeism and its impact on employee retention in sponge iron industries. And the study of employee absenteeism is made only with the prospective of employee but not employer prospective. In understand the real nature of absenteeism, equal response of management and employees is essential. So based on this the further study is carried on.

OBJECTIVES

- To identify the factors responsible for employee absenteeism.
- To understand the efforts made by the management in reducing absenteeism and enhance employee retention

RESEARCH METHODOLOGY

Descriptive research methodology is used for the study. The study uses survey method with structured questionnaire as the tool. Convenience sampling method is used and 50 employees of the organization from various departments such as Accounts, Administration, Electrical, F&A, labor, Mechanical, Stores, OC lab, Process department, purchase department etc...are selected for the study. Data analysis is carried out using simple average and Percentage analysis.

ANALYSIS AND INTERPRETATION

➤ Demographic Analysis:

- 1) Frequencies of Age of Employees in the Organization.

| Age | No of frequencies | Percentage |
|-------------|-------------------|------------|
| 21-30 years | 6 | 6.12% |
| 31-40 years | 28 | 56% |
| 41-50 years | 14 | 28% |
| 51-60 years | 2 | 4% |

Interpretation: it is observed that majority of people (56%) are of aged between 31-40 years

- 2) Experience in the Organization

| Experience | Frequency of respondents | Percent |
|------------------|--------------------------|------------|
| less than 1 year | 0 | 10 |
| | | 18 |
| 1-2 years | 9 | |
| 2-3 years | 17 | 34 |
| above 3 years | 24 | 48 |
| Total | 50 | 100 |

Interpretation : it is observed that majority of employees are having more than three years of experience, and no employee are experienced less than 1 year

➤ **Job Characteristics Analysis:**

3) Leaves Taken in a Month by the Employee

| Leaves taken | Frequency of respondents | percentage |
|------------------------|--------------------------|------------|
| 1 day | 3 | 6 |
| 2 days | 24 | 48 |
| 3 and more than 3 days | 23 | 46 |
| Total | 50 | 100 |

Table 1.3: representing frequency of respondent's and percentage analysis of leaves taken

Majority of employees in HCMPL, 48% take 2 days leaves per month and 46% people take 3 and more than 3 days leaves and only 6% take one day leave per month.

4. Number of Shifts you Attend Per Day

| No of shifts | Frequency of respondents | percentage |
|-------------------|--------------------------|------------|
| 1 shift | 27 | 89 |
| more than 1 shift | 23 | 11 |
| Total | 50 | 100 |

Table 1.4: representing respondents and percentage analysis of leaves taken.

In HCMPL they follow both single and multiple shifts by employees in the case of deficiency of employee due to absenteeism. If one person is absent the other person does 2 shifts.

5. Unawareness on Your Job Leads to Absenteeism

| Job unawareness | Frequency of respondents | Percentage |
|-------------------|--------------------------|------------|
| strongly disagree | 16 | 32 |
| disagree | 22 | 44 |
| neutral | 8 | 16 |
| agree | 4 | 8 |
| strongly agree | 0 | 0 |
| Total | 50 | 100 |

Table 1.5: representing respondents and percentage analysis of unawareness of job.

Through the above data it is mentioned 44% of respondents disagree, 32% strongly disagree, 16% neutral, 8% agree, 0% strongly agree that, unawareness about the job as a cause. Where it is found that unawareness about the job is not the factor of the employee absenteeism in the organization.

➤ **Health Issues and Family Responsibilities Analysis:**

6. Sickness/health issues is the cause of your absenteeism

| Sickness | Frequency of respondents | Percentage |
|-------------------|--------------------------|------------|
| strongly disagree | 4 | 8 |
| Disagree | 7 | 14 |
| Neutral | 6 | 12 |
| Agree | 20 | 40 |
| strongly agree | 13 | 26 |
| Total | 50 | 100 |

Table 1.6: representing respondents and percentage analysis of sickness.

Through the overall analysis of above data it is founded that sickness of the employee is the major cause(76%) of employee absenteeism

7. Family Issues/Commitments is the Cause of Absenteeism

| Family issues/commitments | Frequency of respondents | Percentage |
|---------------------------|--------------------------|------------|
| strongly disagree | 1 | 2 |
| Disagree | 9 | 10 |
| Neutral | 11 | 22 |
| Agree | 21 | 42 |

| | | |
|----------------|-----------|------------|
| strongly agree | 8 | 16 |
| Total | 50 | 100 |

Table 1.7: representing respondents and percentage analysis of family issues/commitments.

Above data states family problem is one of the factors of absenteeism. Where 42% of agree and 16% of respondents strongly agree that family problem is also the cause of the absenteeism, where as 22% of respondents respond neutral, 2% strongly disagree and 22% disagree.

8. Lack of Proper Compensation is the Reason to Your Absenteeism

| Lack of compensation | Frequency of respondents | Percentage |
|----------------------|--------------------------|------------|
| strongly disagree | 19 | 38 |
| disagree | 16 | 32 |
| Neutral | 5 | 10 |
| Agree | 9 | 18 |
| strongly agree | 1 | 2 |
| Total | 50 | 100 |

Table 1.8 representing respondents and percentage analysis of lack of compensation.

By the above data it can be analyzed that 38% strongly disagree, 32% disagree, 10% respond neutral, 18% agree and 2% strongly agree that lack of proper compensation as a reason of absenteeism. It is found that compensation doesn't effect in employee absenteeism

Efforts Made by the Management to Reduce Absenteeism and Enhance Retention in Organization Data.

1. Job Rotation

| Job rotation | Frequency of respondents | Percentage |
|-------------------|--------------------------|------------|
| strongly disagree | 1 | 20 |
| disagree | 0 | 0 |
| Neutral | 3 | 00 |
| Agree | 1 | 20 |
| strongly agree | 0 | 60 |
| Total | 5 | 100 |

Table 1.11: representing respondents and percentage analysis of job rotation

By the above data it is observed that majority (60%) of employees agree that job rotation can help as a strategy for the management to reduce the absenteeism and enhance retention.

2. Training and Development

| Training and development | Frequency of respondents | Percentage |
|--------------------------|--------------------------|------------|
| strongly disagree | 0 | 0 |
| disagree | 0 | 0 |
| Neutral | 2 | 20 |
| Agree | 1 | 40 |
| strongly agree | 2 | 40 |
| Total | 5 | 100 |

Table 1.12: representing respondents and percentage analysis of training and development.

By the above data it is observed that majority (80%) of employees agree that training & development can help as a strategy for the management to reduce the absenteeism and enhance retention.

3. Rewards and Recognition

| Rewards and recognition | Frequency of respondents | Percentage |
|-------------------------|--------------------------|------------|
| strongly disagree | 0 | 0 |
| Disagree | 0 | 0 |
| Neutral | 1 | 20 |
| Agree | 2 | 40 |
| strongly agree | 2 | 40 |
| Total | 5 | 100 |

Table 1.13: representing respondents and percentage analysis of rewards and recognition

By the above data it is observed that majority (80%) of employees agree that training & development can help as a strategy for the management to reduce the absenteeism and enhance retention.

SUMMARY OF FINDINGS

Demographic Analysis: It is observed that all the respondents of the study were male and most of the employees are experienced more than a year and majority are experienced more than 3 years. They are provided at least 2 days of leaves per month. Here majority of employees work in flexible shifts according to the requirement in the organization.

Factors Responsible for Absenteeism

Analyzing the psychological and relationship of employee and management factors, working conditions, grievance related factors, job characteristics are not the cause of employee absenteeism. As most of the respondents disagree these factors as cause of their absenteeism. Through the survey analyses it is observed that compensation, bonus and incentives are not the major cause of employee absenteeism in HCMPL.

Also, it was noted that sickness is one of the major factors for the cause employee absenteeism in HCMPL. Where sickness can be cause due to heavy work, working conditions or other reasons. Another major factor for the cause of the employee absenteeism is family problems. This may be caused by the external factors or any personal factors of family's. This cannot be totally reduced but can be influenced to some extent by using strategies like family welfare programs.

Managerial Effort to Reduce Absenteeism and Enhance Retention of Employees

Management adopted performance appraisal, Training and development, Rewards and recognition, better working conditions and Good employee relations as strategies to reduce the employee absenteeism in HCMPL. Whereas, the management did not focus more on job rotation, and welfare measures as the strategy to reduce the absenteeism.

CONCLUSION

Employee absenteeism poses a serious threat to the productivity and efficient functioning of any organisation. It is the responsibility of both the employee and the management to control and manage the absenteeism such that to implement organization discipline and for the smooth working of the organization. Reduction in absenteeism points to the improved satisfaction level of employees and which would lead to long term commitment and retention of the employees.

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EMOTIONAL INTELLIGENCE AND MENTAL ILLNESS STIGMA IN EARLY ADULTHOOD: A CORRELATIONAL STUDY

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ABSTRACT

The study purpose is to measure whether there is a significant relationship between emotional intelligence and mental illness stigma among early adults. The sampling method used was the Purposive sampling method with a sample size of 100 (50 male and 50 female). The study adopted a Correlational research design and the tools used were the Emotional intelligence and the Beliefs toward Mental Illness (BMI). The statistical measure used was Spearman's Rho rank correlation and Mann Whitney U Test. The result indicated that there is a negative relationship between Emotional intelligence and mental illness stigma among early adults. There is a significant gender difference in the level of Emotional Intelligence in early adults. There is a significant gender difference in the level of Belief toward mental illness in early adults.

Keywords: Emotional intelligence, mental illness stigma, early adults

1. INTRODUCTION

Emotional intelligence is a form of social intelligence that involves the ability to display and distinguish between one's own and others' emotions and feelings, and to use this information to guide one's thoughts and actions" (Salovey P and Mayer J.D, 1990). Goleman defined it as "the ability to discover, examine, and manipulate one's own feelings, the emotions of others, and those of groups". Emotional intelligence (EI) is a set of skills that help us recognize, understand, and manage our own emotions, as well as recognize, understand, and influence the emotions of others. Study showed that EI was reliably measured in adolescents was higher in females than in males, and was positively associated with the ability to identify emotional expression, social support, satisfaction with social support, and mood management behaviors (Joseph C et al. 2001). Emotional intelligence helps build stronger relationships, succeed in school and at work, and achieve professional and personal goals. Another study showed that men have high emotional intelligence compared to women (Ahmad S et al.)

The notion of EI consists of five distinct components, first introduced by Goleman, a psychologist and best-selling author. The five additions of EI are:

- 1. Self-Awareness:** Self-awareness refers to the ability to recognize and understand emotions and to have a sense of how one's actions, moods and the emotions of others come across. Self-knowledge also includes recognizing that our feelings and what we do are connected, being aware of our own strengths and limitations, being open to new information and experiences, and learning from our interactions with others.
- 2. Self-Regulation:** This aspect of EI involves the appropriate expression of emotions. Self-regulation includes flexibility, management of change and conflict resolution. It also relates to diffusing difficult or tense situations and being aware of how one's actions affect others and taking responsibility for those actions.
- 3. Social Skills:** This component of EI relates to interacting well with other people. It's about applying an understanding of the emotions of ourselves and others to communicate and interact with others on a daily basis. Strong social skills enable people to form meaningful relationships with other people and develop a greater understanding of themselves and others. Important social skills are active listening, verbal communication skills, non-verbal communication skills, leadership and persuasion.
- 4. Empathy:** Empathy refers to the ability to understand how other people are feeling. This component of EI allows a person to respond appropriately to other people based on recognizing their emotions. Empathy involves understanding power dynamics and how they affect feelings and behavior, as well as being aware of situations in which power dynamics are at work.
- 5. Motivation:** Motivation, when viewed as part of EI, refers to intrinsic motivation. Intrinsic motivation means that a person is driven to meet personal needs and goals rather than being motivated by external rewards such as money, fame, and recognition. People who are intrinsically motivated also experience a state of "flow" by immersing themselves in an activity. They are more action-oriented and set goals.

Faltas (2017) argues that there are three main models of emotional intelligence: Goleman's EI performance model, Bar-On's EI competency model, and Mayer, Salovey, and Caruso's EI ability model. These three models were developed from research, analysis and scientific studies. According to Goleman, EI is a cluster of skills and competencies that focuses on four skills: self-awareness, relationship management, and social awareness. Goleman argues that these four skills form the basis of 12 "subscales" of EI. Bar-On proposed that EI is a system of interconnected behavior that arises from emotional and social skills. He argues that these competencies influence performance and behavior. Bar-On's EI model consists of five scales: Self-Awareness, Self-Expression, Interpersonal, Decision-Making, and Stress Management. The EI capability model by Mayer, Salovey, and Caruso (Faltas, 2017) suggests that information from a perceived understanding of and handling of emotions is used to facilitate reasoning and guide our decision-making. This EI framework emphasizes the four-pronged model of EI: Perceiving Emotions, Using Emotions to Facilitate Thinking, Understanding Emotions, and Managing Emotions.

MENTAL ILLNESS

According to the World Health Organization (WHO), mental health includes "subjective well-being, perceived self-efficacy, autonomy, competence, intergenerational dependency and self-realization of one's intellectual and emotional potential". Cultural differences, subjective assessments, and competing theories all affect how "mental health" is defined. Mental health encompasses our emotional, psychological and social well-being. It is the "psychological state of an individual functioning at a satisfactory level of emotional and behavioral adjustment".

About 50 million people live with mental illness in India, which is estimated to be 5% of the population with mental health problems. According to national government estimates, 1 in 5 people in India require either psychological or psychiatric counselling. Many patients not only have to cope with the often-devastating consequences of their illness, but also suffer from social exclusion and prejudice (Unal S et al, 2010). Stigma has been reported by individuals, families, communities and institutions, including health services. Similarly stigmatizing beliefs related to traditional, religious, and medical frames of explanation, high levels of "associated stigma", common mental health problems that are rarely medicalized, and discrimination related to poverty, gender, and conflict. (Quinn N and Knifton. L. September 1, 2014). Studies showed that female displayed less stigmatizing attitudes than male (Savrun B M et al. 2007)

The stigmatization of the mentally ill has a long history, and the word 'stigma' already indicates its negative connotation. For millennia, society did not treat people suffering from depression, autism, schizophrenia, and other mental illnesses much better than slaves or criminals: they were imprisoned, tortured, or killed. In the Middle Ages, mental illness was considered God's punishment: those affected were considered possessed by the devil and were burned at the stake or thrown into prisons and insane asylums, where they were chained to the wall or to the bed. During the Enlightenment, the mentally ill were finally freed from their chains and institutions were established to help the mentally ill. However, stigma and discrimination against mental illness continue and as negative beliefs about mental illness increase, so does stigma; In addition, uneducated people are more likely to be stigmatized (Murat M et al. July 2020). The stigma of mental illness is a particular concern in some diverse racial and ethnic communities and can be a major barrier to accessing mental health services for people from these cultures.

Awareness and understanding of mental illness are critical to seeking help for mental illness. Most studies on stigma have focused on adults. Very little research has been conducted to examine label use and stigma among young people. So far, adolescence and young adulthood is perhaps a more important life stage in which to study the implications of labeling mental disorders, as these disorders are likely to be onset (Kessler et al., 2007) and most common (Statistics Australia, 2007). Being under the age of 25, having no history or treatment for mental illness, and not having personal contact with someone who had a mental illness were all associated with higher levels of personal stigma (Lally et al., 2018). At this stage, a stigma of mental illness emerges, consisting of negative attitudes, emotions, or discrimination, as well as a lack of understanding or acceptance of mental illness. Emotional intelligence (EI), on the other hand, which is often defined to include the individual's ability to perceive, interpret, and regulate emotions, has been predicted to help mediate the negative emotions or effects typically associated with the Stigma associated with mental illness. A study showed that EI and stigma of mental illness are correlated (Armstrong E. N. 2015). The aim of the study is therefore to measure whether there is a significant association between emotional intelligence and stigma associated with mental illness among early adults across gender.

2. METHODOLOGY

The adopted design is a Descriptive Correlation design. The objectivity of the study is to find the relation between emotional intelligence and mental illness stigma. In addition, to the gender differences in the level of emotional intelligence and mental illness stigma. The Independent variable: Gender and the Dependent variable: Emotional intelligence and Mental illness stigma.

Participant

The samples consisted of 100 early adults aged range from 20-25 years, 50 males and 50 females respectively, making the 'N=100' and the data was collected from Meghalaya.

Measures

Two instruments were used to collect data from the respondents. They include:

Emotional intelligence scale was developed by Hyde A, Dethe S, & Dhar U in 2001. It contains 34 questions along with 10 sub-dimensions of emotional intelligence. They are Self-awareness, Empathy, Emotional stability, managing relations, Integrity, Self-development, Value orientation, Commitment, and Altruistic behavior. Reliability: The split-half reliability coefficient was found to be 0.88. The validity coefficient was found to be 0.93. The scoring contains 0 refers to Strongly disagree, 1 refers to Disagree, 3 refers to Uncertain, 4 refers to Agree, and 5 refers to Strongly Agree. Total the score and interpret the result based on norms.

Beliefs toward Mental Illness (BMI) Scale developed by Hirai and Clum (2000). The scale consists of 21 items rated on a 6-point Likert type scale. The BMI scale consists of three subscales: dangerousness, poor social and interpersonal skills, and incurability. The reliability of Cronbach's alpha coefficient of the scale was 0.878. The scoring contains a 6-point Likert type scale (0=completely disagree, 1=mostly disagree, 2=partly disagree, 3=partly agree, 4=mostly agree, 5=completely agree). The lowest and highest possible scores to be obtained from the scale are 0 and 105 respectively. Higher scores on the total and subscales indicate negative beliefs.

Procedure

The data was collected online mode by using Google forms. The participant's willingness to participate in the study was ascertained and a questionnaire was given to the participants to fill in their opinion on the scale. The data collected is scored and interpreted with the help of respective norms. To test the normality Shapiro-Wilk test was used for testing the normalcy of the data. Quantitative data analysis was conducted on the study. Descriptive statistics like Mean and Standard Deviation were used in the present study. The inferential statistics technique, Spearman's rank correlation was used to study the relationship between Emotional Intelligence and mental illness stigma in early adulthood. Mann Whitney U Test was used for comparison between the gender. SPSS for window (version 22.0) was used for statistical calculations.

3. RESULTS

Participants range in age from 20-25 years old. The respondent was from Meghalaya, India. The distribution of the selected sample by frequency based on gender were 50 (50%) male and 50 (50%) female respondents.

Table 1 shows the correlation between Emotional Intelligence and Belief towards mental illness. The finding of the study indicates that at the 0.05 level of significance, there is no significance correlation between Emotional intelligence and Belief towards mental illness with the r-value of -.049.

Table 1: Descriptive and correlation between Emotional Intelligence and Belief towards mental illness

| | | EI | BMI |
|--|-----|-------------------------|-------|
| | EI | Correlation Coefficient | 1.000 |
| | | Sig. (2-tailed) | . |
| | | N | 100 |
| | BMI | Correlation Coefficient | -.049 |
| | | Sig. (2-tailed) | .629 |
| | | N | 100 |

Table 2 shows the mean, standard deviations, U-value and p-value for emotional intelligence score between male and female participants. The mean score was higher in male which is 132.40 than in female which is 126.60. The standard deviation was also higher in male which is 13.619 then in female which is 11.143. The U-value came out to be 942.00 and the p-value is .034. The obtained p-value indicates that the finding is statistically significant differences in the level of emotional intelligence among males and females.

Table 2: Mean and other descriptive statistics for Emotional intelligence score of male and female respondents and results of Mann Whitney U tests

| | Gender | N | Mean | SD | U-value | p-value |
|-------------------------------|--------|----|--------|--------|---------|---------|
| Emotional intelligence | Male | 50 | 132.40 | 13.619 | 942.00 | .034 |
| | Female | 50 | 126.60 | 11.143 | | |

Table 3 shows the mean, standard deviations, U-value and p-value for belief towards mental illness score between male and female participants. The mean score was higher in male which is 50.42 than in female which is 43.64. The standard deviation was also higher in male which is 17.013 then in female which is 13.791. The U-value came out to be 902.00 and the p-value is .016. The obtained p-value is 0.16 which indicates that the finding is statistically significant differences in the level of Belief towards mental illness among males and females.

Table 3: Mean and other descriptive statistics for Belief towards mental illness score of male and female respondents and results of Mann Whitney U tests

| | Gender | N | Mean | SD | U-value | p-value |
|------------|--------|----|-------|--------|---------|---------|
| BMI | Male | 50 | 50.42 | 17.013 | 902.00 | .016 |
| | Female | 50 | 43.64 | 13.791 | | |

4. DISCUSSION

The hypothesis stating that there is no significant relationship between Emotional Intelligence and Mental illness stigma among early adults was tested using Spearman's rho rank correlation. There is no relationship found between emotional intelligence and mental illness stigma among early adults. However, the correlation value suggests that there is a slight negative correlation which means if one variable increase the other variable decreases and vice versa. The present study findings are supported by previous studies namely Armstrong E. N (2015) concluded that there is a correlation between emotional intelligence and mental illness stigma and it also suggests that there is a moderately negative correlation between EI scores and scores of stigmatizing mental illness.

The hypothesis stating that there is no significant difference on emotional intelligence among gender was tested using Mann Whitney U test. The result indicates that there is a significant difference in the level of Emotional Intelligence among male and female early adults. Thus, the Null hypothesis is rejected and states that there is no significant gender difference in the level of Emotional Intelligence in early adults. The present study findings are supported by previous studies namely conducted by Ahmad S et al. (2009) concluded that there is a significant relationship between emotional intelligence among males and females and it also showed that males have high emotional intelligence as compared to females.

The hypothesis stating that there is no significant difference on belief towards mental illness among gender was tested using Mann Whitney U test. The result reveals that there is a significant difference in the level of belief towards mental illness among male and female early adults. Thus, Null hypothesis is rejected states that there is no significant gender difference in the level of Belief towards mental illness in early adults. The present study findings are supported by previous studies namely conducted by Savrun B M et al., (2007) which concluded that there is a statistically significant difference between female and male. Female respondents showed less stigmatizing attitudes than male respondents.

5. CONCLUSION

Emotional intelligence has been predicted to help mediate the negative emotions or effects typically associated with the Stigma associated with mental illness. However, the correlation value suggests that there is a slight negative correlation which means if one variable increase the other variable decreases and vice versa. EI is higher in male than in female as other study shown that the probable reason for the present finding might be due to the fact that emotional intelligence primarily deals with managing and expressing once emotions as well as social skills. Whereas females show less stigmatize attitudes than male as study have shown that it is due to their comparatively optimistic attitude towards the treatability of mental illnesses.

6. LIMITATION OF THE STUDY

The present study included only one domicile Meghalaya. Further research can be done including more places. The present study was done only for early adults aged 20-25 years. The sample size of the study was relatively small since there are only 100 participants that participated in the study.

7. SCOPE FOR FURTHER RESEARCH

This follow-up research should be conducted with larger and more diverse samples in order to make the results more generalizable to the overall population. Qualitative research design can explore more about the variables.

8. IMPLICATIONS

The study's findings show the requirement in creating awareness among people about mental health to enhance their understanding and thus to reduce the stigma providing knowledge and information about mental illness. Also, by providing training program for combating stigma and for increasing emotional intelligence.

Author's Contributions

This work was carried out in collaboration between both authors. The research was carried out by author AM under the guidance of author MB. Both authors read and approved the final manuscript.

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AN INSTINCTIVE TUTEE DECISION PERCEPTIVE ONLINE ENVIRONMENT DESIGN USING MODERN MACHINE LEARNING ALGORITHMS

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ABSTRACT

In the modern age of computing, decision making has subjected itself into everyone as a necessity trait that everyone must directly or indirectly possess. Now decision making can range from a wide verity of scenes, all the way from deciding a fate of a company to deciding what to have for your breakfast. In this huge spectrum of decision making there lies a grey area where decisions decide the future of a particular individual. As you go up the decision- making tree harder decisions require you to consider more variables and constraints, while considering huge number of data sets, that may or may not imply plausible to the current problem case. This paper addresses this particular issue in modern times so that the most 'logical' and 'realistically' plausible decisions could be considered. The key intension of this paper is to provide students with mathematically generated most desirable decisions that the pupil may not be able to reach if not for the algorithms used in this perceptive environment. This paper shall be divided into phases, as the phases increase the range and understanding of the environment shall proportionally increase as well. As the decision- making power of program increases, the same environment can be subjected with more difficult situations to decide and conclude better results for a given data set.

Keywords: Concept Learning, Instances, Training Examples, Weights, Candidate Elimination

1. Introduction
As machine learning is the art of making a system comprehend and adapt it self to a particular scenario and perform actions as an actual human would by learning. The main important aspect for a machine or a human to learn is the amount of data that the human or the machine could understand analyse and store. There are lot of areas from where this so called data could be collected, depending on the origin of the data, for example if we are about to design a machine learning program which would analyse the amount (capital generated) of food a restaurant might sell in a specified period of time, the data that might be relevant to this problem would be, 1) The item in the menu that is sold most number of times,

2) The eating patterns of customers in a certain period of time during the working hours, 3) Percentage of Customers Satisfied with the food, now using these three constraints we could construct a machine learning program which takes the above data as input and constructs a model that could be used for analysis.

Now as we know what it means to learn, which is, "A computer is said to learn from Experience E with respect to some class of tasks T and performance measure P, if it's performance at tasks in T, as measured by P, improves with experience E." Now if we consider the above definition of a computer capable of learning to perform a certain task, it is understood that the Experience E would be increased by performing the same task over and over until major perfection is observed. If we come back to our hotel prediction, there the task would be to predict a week or day's capital generated.

There the performance measure would be how close was the prediction of the program to the actual capital earned that day. As the program progresses further into perfecting its data model it gets as close to exactly predicting that days' earnings and we could also improve the model to provide inputs to the restaurant to earn more and more capital. The similar above concepts can be used to create a student online portal which would help the students get an idea and grip on their carer, depending on the data sets provided by the student and the institute. Now, what would be the point of creating such an online portal and what do we mean by data sets that are need for this to be achieved.

1.1 Understanding the Project

As the world of engineering is growing at a brisk phase, it has become harder and harder for freshers to choose a liable carer path. If you consider the stream of computer science and engineering, there are other sub streams under computer science as a carer path. Under the Bachler's degree for computer science, we have various streams such as, Artificial intelligence, Machine Learning, Data sciences, Cyber security, block chain technology, Cloud Management and many more. Even though every student has studied or explored all of these career path during the tutee's degree time, it would be illogical for the fresher to further continue his/her studies in all of these branches, so there comes a time where the fresher has to choose one path as his/her career direction, now most of the freshers would have a dilemma about which career to opt for.

As the main conundrum for a student is to choose a carer path for his/her future, it would be helpful to have a guiding platform where the student can enter his or her progression, contribution and achievements in their respective fields. Then the portal would analyse this data and provide a reasonable path to the tutee.

The generated result shown by the portal need not be only about the carer path the student can also get info about his/her recent performance in each of the respective subjects the student took up in this respective semester along with electives and much more.

a) The Structure of the Portal

The portal would be completely data centric, depending on the accuracy of the data the web portal would generate more accurate predictions for the fresher's career. It would be more reasonable to create such a portal which is web based and real time, which means the academic data provided by to the portal would be control by the current institute of the tutee. For example, the academic data would contain the following attributes "< academic scores, papers published, hackathons won, certifications done, contribution to course >", Now some of these attributes take in only Boolean values such as papers published. Depending on the data received the portal would use the built-in machine learning model to predict the most probable instance of the data set provided of the student. As the model can only predict using real time data, the model can only compute a certain prediction only after the required amount of data is provided. So, the portal would only start the prediction after a certain data limit is reached. To elaborate, prediction of a first semester student without any adequate information about the student's accomplishment's information would render pointless.

b) The Modes of Providing Data to the Portal

As mentioned before, for such a portal to work efficiently data is everything, proper data and accurate data is very crucial. For the machine learning model to work the data must be properly arranged and provided in an orderly manner. For the time being we have considered the SQL database frame work to suffice the work flow of the model. But in the actual real time implementation of this model .CSV files might prove to be more easy and ready to use.

The entire data flow to the Machine Learning model should be free of noisy data, overfitting and underfitting of data provided. So, the machine learning model used by the portal is also equipped with counter measures to tackle overfitting and noisy data such as regularization and cross validation.

c) How Could Such a Learning Model be Constructed

The first design choice to create such a model would be the kind of training example we would need through which our model would predict properly. For example, consider a case where we have a student who is really good with Python, has cleared various hackathons and has built few working products, but all these products that he has built are more of business based, so the ML model should predict that the best case for this person should be the field of business analytics. Now the algorithms that would help achieve this would be the ID3, KNN, K means clustering and Find S algorithm,

i. Id3

The algorithm learns decision trees by constructing them top-down, by deciding which attribute should be at the root of the tree, to decide this we evaluate each of the instance attribute using a statistical test. Then a descendent of the root node is then created for each possible value of this statistically generated attribute.

ii. K Nearest Neighbour

This is the most basic instance-based method. This algorithm assumes all instances correspond to points in the n-dimensional space. This is supervised learning technique; this algorithm assumes the similarity between the new data and available data into the category that is most similar to the available categories. At the training phase the algorithm just stores the data and whenever it gets the new data it classifies the new data depending upon the currently present data.

iii. K Means Clustering

This is an unsupervised learning method that is useful to solve the clustering problem in machine learning. It allows to cluster the data into various groups and a convenient way to describe the unlabelled datasets.

iv. Find S Algorithm

This Find-S algorithm first initializes given hypothesis h to the most specific hypothesis in the Hypothesis space H . Then for each positive training instance x find an attribute constraint which I_s is satisfied by x , if found then do nothing, if not replace the attribute constraint by the next more general constraint that is satisfied by x . Then output the hypothesis h .

CONCLUSION

The problem tackled in this problem can be upgraded into more further predictions as well, but as currently seen, the growing depth of technology has forced students to choose a very particular stream for the rest of their careers, this paper provides a way around that problem by giving the students various options before, so that they can think of all the possible paths. By this being a web- based application, the data management and data maintenance would also prove to be considerably easy. All the computation and machine learning models would be built using the programming language python (Python3), the database would be Oracle- Database and the web development would be done using PHP, JavaScript. With the predictions provided by these machine learning model students, teachers and educational institutions can have better understanding of the capabilities and performance of their students.

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APPLICATION OF PUBLIC SERVICE STANDARDS (CASE STUDY AT KUPANG CITY LAND OFFICE)

Victor William Benu, Melkisedek N.B.C Neolaka and Laurensius P Sayrani

ABSTRACT

This study uses a qualitative descriptive approach with data analysis techniques using the interactive model developed by Miles and Huberman (1992) . This research was conducted from March to April 2022 at the Kupang City Land Office with 8 informants consisting of employees and service users . The focus of the research is the application of service standards related to service delivery, namely requirements; procedure mechanism system; term of service; fees/tariffs; service products; and handling of complaints, at the first registration service. The author examines the application of service standards at the Kupang City Land Office based on 6 (six) principles, namely; (a) simple, (b) participatory, (c) accountable, (d) sustainable, (e) transparency, and (f) fairness. These six principles are a combination of elements contained in the theory of Lovelock (1992) (Visibility, Accountability), LAN (2017) (participatory, transparent, easy, fair), Thoha in Widodo (2001) (simple, transparency, punctuality), and Complaint handling, which is not only contained in the theory, is also contained in Law No. 25 of 2009 concerning Public Services and several decisions of the Minister of Administrative and Bureaucratic Reform.

The results show that when viewed from the principle of transparency, the Kupang City Land Office is relatively obedient in informing each component of service delivery. Meanwhile, the principles of participatory, accountable, sustainable, and fairness have not been fully used as guidelines in the application of service standards at the Kupang City Land Office. Overall leadership and human resources factors are supporting and inhibiting factors in implementing service standards at the Kupang City Land Office .

Keywords: Public Service, Public Service Standard, Land Service

1. INTRODUCTION

One of the functions of state government is to provide services as constated by the theory of public administration. This is related to the nature of the state as a welfare state , which in essence seeks to create a prosperous, just and prosperous society as has also been mandated in Pancasila and the 1945 Constitution (Hardyansyah, 2018:10; Neolaka, 2020: 1). Thus, all the resources owned, including the public bureaucracy as state servants and public servants, are directed to provide optimal and quality public services in accordance with the interests and needs of the community. The emphasis is on the public interest which is the center of attention or the most important element in the state. This is in line with the paradigm New Public Service (NPS) which repositions people's status as citizens who are the owners of "ships" or the state (King & Stivers, 1998 in Denhardt & Denhardt, 2000:556-557) . This paradigm criticizes the principle of " run government like a business " a la New Public Management (Gaebler and Osborne, 1992), in which people who access public services should not be positioned as customers (customers), but rather as citizens (as citizens) who have the right to hold the public bureaucracy accountable for its actions, or for its failure to carry out its obligations (Denhardt & Denhardt, 2000; Gedeona, 2010: 310; Keban, 2019: 284-286). In this case, citizens have the right to obtain protection of their rights, including participating, having their voices heard, as well as respecting their values or preferences.

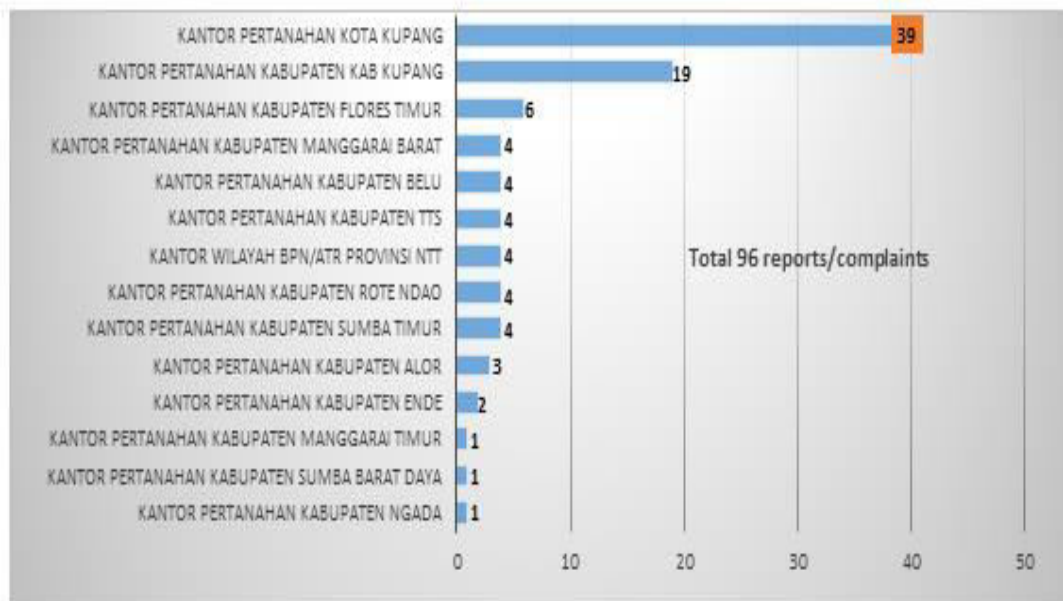
Normatively, this law places citizens or the community in a high bargaining position. Operators are required to make service standards so that the public can monitor and complain if the services they receive do not meet the established standards. In fact, there are sanctions for the organizers/implementers who violate such as sanctions for release from office to sanctions for release with respect not at their own request (Article 54). With the existence of the Law on Public Services, every agency providing public services is required to apply service standards to each type of service, including services in the land sector. Service in the land sector is one of the crucial types of administrative services, because land has become a valuable asset, a source of prosperity and also welfare in life for the wider community, so it requires a good process in administrative services.

It is known that the factor that makes it difficult for the Ministry of ATR/BPN to move from the 'yellow zone' is the lack of uniformity in the implementation of public service standards at each Land Office spread across regencies/cities throughout Indonesia (Ombudsman, 2019: 9). For example, East Nusa Tenggara (NTT) Province, of the 13 Land Offices assessed by the Ombudsman in 2019, there were only 2 (two) land offices that were successfully included in the 'Green Zone' or achieved the title of 'High Compliance' in displaying service standards, namely the Office of Kupang Regency Land Affairs Office and Kupang City Land Office (data can

be seen in Table 1.1). This shows that the obligation to fulfill service standards has not been fully complied with by service providers, especially in the land sector. If the issue of displaying public service standards alone cannot be fulfilled by the organizers, then quality public services are still difficult to obtain by the community.

Furthermore, based on data from the RI Ombudsman Representative for NTT Province in 2020, from a total of 809 public complaints received by the RI Ombudsman Representative for NTT, it is known that the land service provider (National Land Agency for the NTT Region/Regency/City Land Office) is in first place as the organizer the service that the public complained about the most, namely a number of 96 complaints. From the total complaints from the land service community, it is observed that the Kupang City Land Office occupies the top position as the agency that the public complains most often with 39 complaints. This fact illustrates that the compliance of the Kupang City Land Office in displaying these service standards is not accompanied by a lack of public complaints (detailed data can be seen in Figure 1.1) below:

Figure 1.1 Graph of Public Complaints on Land Substances in 2020 As for the 96 reports/complaints on land substance, it is known that the type of service



Source: RI Ombudsman Representative of NTT Province (processed)

The type of land service that the community most often complains about is related to land certificate issuance services, which are as many as 42 reports. Meanwhile, other complaints related to dispute resolution services (25 reports), complaint management services (8 reports), certificate cancellation services (3 reports), measurement services (11 reports), transfer of names (4 reports), and PTSL land acquisition and compensation services. loss (2 reports). Of the 8 (eight) services, the following main issues can be detailed, namely: First, the protracted delay in the issuance of the certificate of ownership (SHM), missing SHM documents, and embezzlement of SHM; Second, the settlement of land disputes in the form of protracted delays in the implementation of mediation, failed mediations, and responses to complaints on land disputes; Third, not responding to public complaints and discrimination in handling complaints; Fourth, the protracted delay in the certificate cancellation process and the complicated certificate cancellation process; Fifth, the protracted delay in the service of the application for land measurement for the purpose of the new certificate, the protracted delay in the resolution of the certificate, and the protracted delay in the return of the boundary service; Sixth, the protracted delay in the certificate transfer service process; Seventh, compensation for community land for the public interest, discrimination in PTSL services where some certificates are issued and some do not; Eighth, the protracted delay in the issuance of the Mortgage Certificate (Data can be seen in Table 1.2).

Table 1.2 Main Data on Public Complaints Problems in Land Services in NTT in 2020

| Pokok Permasalahan | Keterangan | Jumlah |
|---|---|--------|
| Penerbitan Sertifikat | Penundaan Berlarut Penerbitan SHM | 42 |
| | Dokumen penerbitan SHM Hilang sehingga SHM Belum terbit | |
| | Penerbitan SHM atas warga transad Naibonat | |
| | Dugaan penggelapan SHM | |
| Penyelesaian Sengketa Pertanahan | Penundaan Berlarut Pelaksanaan Hasil Mediasi | 25 |
| | Mediasi Gagal | |
| | Pengaduan sengketa tanah | |
| Pengelolaan Pengaduan | Tidak diresponnya surat pengaduan pelapor | 8 |
| | Adanya diskriminasi dalam penanganan pengaduan | |
| Pembatalan Sertifikat | Lamanya proses pembatalan sertifikat | 3 |
| | Berbelit-belitnya prosedur pembatalan sertifikat | |
| Pengukuran | Penundaan berlarut permohonan pengukuran tanah untuk sertifikat baru | 11 |
| | Penundaan berlarut permohonan pengukuran tanah untuk pemecahan sertifikat | |
| | Penundaan berlarut dalam proses pengembalian batas tanah | |
| Balik Nama | Penundaan berlarut proses balik nama | 4 |
| Pengadaan Tanah non PTSL serta Ganti Rugi | Pengaduan terkait ganti rugi lahan oleh PLN | 2 |
| | Pelayanan Prona | |
| Hak Tanggungan | Penundaan berlarut penerbitan SHT | 1 |

Source: RI Ombudsman Representative NTT

Based on the data above, it is known that the problems complained of by the public are dominated by "protracted delays" in the issuance of certificates of property rights (SHM). This means that the issuance of SHM served by the Kupang City Land Office exceeds the predetermined time period or does not comply with the time standard. In addition, the problem of convoluted and unresponsive service is also often complained of by the public. This phenomenon is interesting to be investigated further, because even though it was successfully awarded the title of 'High Compliance' (green zone) in displaying service standards, it is not directly proportional to the lack of public complaints about the services of the Kupang City Land Office . This indicates that there are problems in the application of service standards at the Kupang City Land Office . Meanwhile, at the same time, the Land Office as a public bureaucracy that has monopolistic authority will always get public visits, so that good or bad services provided will not reduce people's access to land services. Therefore, consistency in the application of service standards is needed, because only then all public service systems developed at the Land Office can work as expected.

So starting from the background of existing research, the author is interested in conducting research with the title "**Application of Public Service Standards (Case Study at the Kupang City Land Office)**".

2. LITERATURE REVIEW

2.1 Public Service

Robert (1996:30) public services are defined as all forms of public service activities carried out by central government agencies, in the regions and within the state or regional state-owned enterprises in goods or services, both in the context of efforts to fulfill community needs and in the context of implementing public order. . Meanwhile, according to Widodo (2001:131) public service is an activity to serve the needs of people or communities who have an interest in the organization in accordance with the basic rules and procedures that have been set.

Based on the Law on Public Services, it is observed that there are at least 3 (three) types of services in the implementation of public services, namely:

1. Goods Services, namely services that produce various forms/types of goods used by the public, for example the provision of electricity, telephone networks, clean water, and so on;
2. Services, namely services that produce various forms of services needed by the community (public), for example education services, health care, transportation management, and so on;
3. The next type of service is the type of service that will be the focus of this research, namely Administrative Services. Administrative services are services that produce various forms of official documents required by the public. This service is a service that is held to guarantee the rights and basic needs of citizens administratively, for example, KTP services, birth certificates, land certification, and so on. This type of administrative service is very vital, for example, KTP and birth certificate services are needed in people's lives because they guarantee their existence, identity, and other civil rights. Likewise, land certification is a guarantee of certainty and protection of citizens' ownership rights to property (land) which is a place to carry

out and preserve their lives as citizens. Because it is part of basic services, the state needs to ensure that the administrative service process is well organized, and has quality output.

2.2 Service Standards

Initially, the term service standard was developed from the concept of a critical moment of service. This concept was first developed by Albercht and Bradford (1990) who define a critical moment of service as the contact that occurs between consumers and every aspect of the organization that will form consumer opinions about the quality provided by the organization (Albercht & Bradford, 1990: 30; in Ratminto, 2019: 19). What is emphasized is how each organization identifies and manages critical moments to match the references owned by the organization with the references owned by consumers in order to create good quality service to its service users. This conception of service standards can also be found in citizen's charter as it was first introduced in England during the time of Prime Minister Margareth Thatcher (Ratminto and Winarsih, 2005: 306-307).

3.3 Principles of Applying Service Standards

According to the Big Indonesian Dictionary, principles are principles, truths which are the basis for thinking, acting and so on. So 'principle' is defined as a basis of an action. Ratminto & Winarsih (2018: 21-22) emphasize that public service providers need to pay attention to and apply principles in public services as the basis for every service action. The application of standards in service is a characteristic of the bureaucracy that follows the Weberian principle (Weberian Bureaucracy). As stated by Caiden (2009) in Dwiyanto (2015: 136-137), that the service system in the Weberian bureaucracy is designed to prioritize impersonal principles, by ignoring personal characteristics both from the service regime and the service users. This impersonal principle encourages the application of standards or standardization of procedures in every bureaucratic service, which is aimed at preventing the service system from only taking sides with certain community groups, especially those close to power. Simply put, the impersonal principle through the application of these standards is intended to maintain justice, equality, consistency and uniformity of the bureaucracy in serving.

Based on these several things, one of the things that is emphasized is the principle of responsiveness/responsiveness. This is understandable, because often procedures and routines make government bureaucratic actors less sensitive to differences and dynamics in society (Dwiyanto, 2015: 137). Meanwhile, the government bureaucracy should be directed to respond to every aspiration of citizens who are the owners of the government who are given the mandate to provide these services (Denhardt and Denhardt, 2007). This is also emphasized by Sawir (2020: 42) that the responsiveness or responsiveness of public service organizations is part of the responsiveness of the state (government) to the vital needs of its citizens. Meanwhile, Ratminto and Atik (2018: 180) write that responsiveness is the ability of service providers (government) to recognize community needs, develop service agendas and priorities, and develop service programs according to community needs and aspirations. Therefore, it can be said that public service providers should not only pay attention to impersonal principles through the application of clear standard procedures, but also need to be based on principles that increase the responsibility of service providers.

3. METHOD

This study uses a qualitative descriptive approach while the data sources used in this study consist of two types, namely primary data and secondary data. Then the data collection techniques in this study are through in-depth interviewing, observation and documentation, as well as equipped with audiovisual materials that allow to be taken in the field while the data analysis technique in this study uses the model proposed by Miles and Huberman (1992:16), that the analysis consists of three streams of activities that occur simultaneously, namely: data reduction, data presentation, conclusion drawing/verification.

4. RESEARCH RESULTS AND DISCUSSION

The author examines the application of service standards at the Kupang City Land Office based on 6 (six) principles, namely; (a) simple, (b) participatory, (c) accountable, (d) sustainable, (e) transparency, and (f) fairness. These six principles are a combination of elements in Lovelock's (1992) theory (Visibility, Accountability), LAN (2017) (participatory, transparent, easy, fair), Thoha in Widodo (2001) (simple, transparency, timeliness), and The handling of complaints, apart from being in theory, is also contained in Law No. 25 of 2009 concerning Public Services and several decisions of the Minister of Administrative and Bureaucratic Reform with the results of research and discussion as follows:

1. Simple Principle

The requirements component should avoid complicated services through requirements that are easy to understand, easy to follow, and measurable. However, based on the results of the interview, it can be illustrated that the community still considers the requirements applied to be not so easy, this is related to the uncertainty of

the information on the requirements that must be met, so that the process of preparing the requirements document becomes tedious and seems convoluted. Specifically for the problem of these additional requirements, they should be identified, inventoried and then evaluated by the Kupang City Land Office together with the community and stakeholders to update the components of these requirements. In Permenpan-RB 15/2014, it has been stipulated that Providers are required to change Service Standards if there are changes in policy, innovation in services, application of information technology, business processes, and other changes. Fulfillment of requirements is the initial stage that the applicant goes through, so that if the initial stages cannot be improved, it is not surprising that land services at the Kupang City Land Office seem convoluted and full of uncertainty. If so, it is not surprising that some residents then feel bored and can no longer access land services properly, and choose to use middlemen in managing their interests. Therefore, simple principles in the application of service standards are important to ensure that land services are easy to understand, easy to follow, easy to implement, easy to measure with clear procedures for the community and administrators.

2. Participatory Principle

Departing from the view of Denhardt and Denhardt who emphasize that "government should run like a democracy", then public servants should not only serve the community but also serve democracy (Denhardt & Denhardt, 2003:62). So that the quality of service is a result of the widespread involvement (participation) of citizens in determining it. Therefore, all parties are involved and no one becomes a "bystander". This is in line with the opinion of John Stuart Mill in Denhardt & Denhardt (2007: 47) that citizen participation is an important component in democratic governance. Furthermore, Silalahi said that there are two perspectives when studying participation in public administration, namely from the perspective of public administrators and the perspective of citizens (Silalahi, 2016: 2). The first perspective places the public administrator as the initiator of citizen participation in public administration activities. While the following perspective is a perspective that puts citizens as the focus, where participation is the willingness of citizens to be involved in public administrative activities. In the context of this study, the main thing that is seen is how the Kupang City Land Office opens a space for community participation starting from the involvement of the formulation of service standards, to the provision of facilities, procedures and complaint management officers.

First, it involves the formulation of service standards. The results of the study reveal that the Kupang City Land Office has provided most of the components of service standards based on Perkaban 1/2010, including the components of requirements that must be met by service users/applicants. However, as previously stated, the results of the study found that there were various additional requirements outside of Perkaban 1/2010 which were not informed from the start of the applicant accessing services at the Kupang City Land Office. Even the additional requirements are informed after the status of the applicant's file is declared complete. This has the potential to cause uncertainty in the services of the Kupang City Land Office. Therefore, the components of these requirements need to be evaluated by involving residents as one of the stakeholders. However, based on the research, it is known that the existence of supporting documents (additional requirements) in the services of the Kupang City Land Office is an internal policy and does not go through a discussion mechanism that accommodates community participation. Meanwhile, normatively, laws and regulations have also required service providers to involve the community and related parties in the formulation of service standards (such as Law No. 25 of 2009, Government Regulation 96 of 2012, Permenpan 15 of 2014). Second, community involvement through the provision of facilities, procedures and complaint management officers. Another important space for participation to be developed in strengthening the public service system is the involvement of citizens and stakeholders in ensuring that all actors comply with service standards and notices. To support this, the Public Service Law guarantees the right of citizens to file complaints and obliges the organizing organization and/or the Ombudsman to respond to the complaint. Based on observations, it is known that the Land Office of Kupang City has provided complaint facilities such as complaint counters, complaints officers, as well as information regarding the complaint number of the RI Ombudsman for the NTT Representative (see Figure 5.1). According to Dwiyanto's opinion that recognition of citizens' rights to make complaints is very necessary, at least for two reasons, namely recognition of user rights as sovereign citizens and as a consequence of the existence of monopolistic public services (Dwiyanto, 2015:71). Citizens as service users have the right to express their protests, complaints, and dissatisfaction with the practice of public services which are their right to obtain them and the state's obligation to provide them, either through its own bureaucracy or through non-governmental institutions. In addition, the type of land service is a type of public service that tends to be monopolistic so that citizens who are dissatisfied with land services do not have the option to use services from other institutions outside the Land Office services. For monopolistic services like this, there is no exit mechanism, so whether they like it or not, residents have to keep in touch with the government bureaucracy, in this case the Land Office, which has the mandate to provide land certification services. In this regard, the Land

Office should pay attention to the management of complaints so that citizens can actively participate through the complaint mechanism (voice mechanism) if there are services that do not meet service standards.

The results of the interview show that the community is quite active in using the complaint facilities provided by the Kupang City Land Office. However, there are things that attract the attention of the author, namely the absence of complaint data that is inventoried by the Kupang City Land Office. Regarding the absence of complaint data, the Head of the Administrative Subdivision of the Land Office of Kupang City acknowledged when the author asked for data on complaints that the public often complained about the services of the Kupang City Land Office.

3. Accountability Principle

Public service accountability means that the implementation of public services must be accountable, both to superiors/leaders of service units of government agencies and to the public, both regarding service processes, service costs and service products (Dwiyanto, 2002). According to Starling (Djaha, 2019: 18), the same term as accountability is being responsible. Furthermore, he said that organizations should be accountable to someone or something outside of them. In this regard, the Kupang City Land Office in carrying out its services must be able to account for any inconsistencies between the service process and the standards that have been set. Elwood (Raba, 2006) suggests that accountability consists of several types and one of them is related to process accountability. This accountability is used by the author to analyze the application of service standards at the Kupang City Land Office which can be measured through the provision of fast or timely and responsive services.

The results of the study reveal that when viewed from the principle of accountability, it can be said that there are problems in the service process for issuing land certificates at the Kupang City Land Office, especially in terms of the speed of completion of applications that are not in accordance with the specified time period. The Service Period as referred to in Article 4 letter d of the Regulation of the Head of BPN RI No. 1 of 2010 is the period of completion of land services starting from the receipt of complete documents and the payment of the specified fees has been paid. The period in question is the longest period for the completion of each type of land service which is calculated based on working days. In addition, the time period for making certificates depends on the area of the land unit, namely: 38 days for agriculture with an area of less than 2 ha and non-agricultural land with an area of less than 2000 m²; 57 days for agricultural land with an area of more than 2 Ha and non-agricultural land with an area of more than 2000 m² to 5000 m²; and 97 days for non-agricultural land with an area of more than 5000 m². The period as referred to in the Regulation of the Head of BPN RI No.1 of 2010 does not apply to applications for land services where in the process it is known that there are disputes, conflicts, cases, or other legal problems and the files can be returned to the Applicant.

Regarding the speed of service of the Kupang City Land Office, it is also related to the availability of human resources both in quantity and quality. Werther and Davis (2008) in Indahingwati and Nugroho (2020: 22) define human resources as an employee who is ready, capable, and alert in achieving organizational goals. Human resources in public services at the Kupang City Land Office are an indispensable factor for service operations. However, in the implementation of services, the Kupang City Land Office is still faced with a lack of human resources both in quantity and quality. In terms of quantity, the lack of human resources seen from the number of service providers available is not proportional to the task load and high volume of applications. In addition, the quality of human resources still needs to be improved in line with the changing demands of land services that shift from manual services to application-based services.

The Kupang City Land Office is also experiencing a shortage of human resources both in quantity and quality. From the quantity aspect, this can be seen from the concurrent positions of the Head of the Administrative Subdivision which affect the acceleration of services. Meanwhile, quality still needs to be improved as a result of the development of services that switch from manual to application-based in order to minimize loss of application files and input errors. In addition, the problem regarding the service period that exceeds the standard time was also expressed by the service user community, namely the length of time waiting for files to be signed by the Head of the Kupang City Land Office.

4. Sustainability Principle

According to this principle, services must be continuously improved by service providers as an effort to improve service quality and innovation. What needs to be considered is the extent to which efforts to improve routine services are carried out by the Kupang City Land Office. This service improvement can be achieved through the Community Satisfaction Survey . This is done to evaluate service performance as a basis for continuous improvement. The survey -based evaluation method should be carried out using the Community

Satisfaction Survey (SKM) method as stipulated in the Regulation of the Minister of Administrative Reform and Bureaucratic Reform 14 of 2017 concerning Guidelines for Compiling a Community Satisfaction Survey for Public Service Providers (Permenpan-RB 14 of 2017).

Based on the results of the study, it is known that in previous years the Kupang City Land Office had conducted community satisfaction surveys, but the survey was still centralized or dependent on surveys conducted by the Ministry of ATR/BPN through the ikm.atrbpn.go.id application and the Kupang City Land Office. only served as a data collector (enumerator). Meanwhile, based on the instructions of the new Head of the Kupang City Land Office, this year the Kupang City Land Office has used the survey method independently to evaluate the performance of the implementers via the surveyheart.com link . This independent survey conducted by the Kupang City Land Office is carried out quarterly or annually carried out 4 (four) community satisfaction surveys. The community satisfaction survey conducted by the Kupang City Land Office consists of 4 (four) questions, namely those related to community satisfaction with the Kupang City Land Office services; staff friendliness; ease of understanding the explanation; as well as criticism and suggestions for the services of the Kupang City Land Office.

Based on the results of interviews with the Head of the Land Office, it is known that the Kupang City Land Office survey used an online questionnaire so that the public could directly provide input without going through the intervention of officers. However, the results of the community satisfaction survey are still internal information and have not been published so that they are not known by the wider community as required by Permenpan-RB 14 of 2017.

Publication of the results of the Community Satisfaction Survey is an integral part of the survey implementation process, as has also been regulated in the Regulation of the Minister of Administrative Reform and Bureaucratic Reform of the Republic of Indonesia Number 14 of 2017 concerning Guidelines for Compiling a Community Satisfaction Survey for Public Service Providers. The publication of the survey results is a form of service transparency and accountability. When the public service satisfaction survey mechanism has not yet become an integral part of the public service system, public satisfaction has no significant effect on the life of the government bureaucracy. In contrast to the lives of private profit-seeking companies, they are fully aware that their lives and those of their companies are largely determined by the satisfaction of the users of their services. Corporations and market participants are usually very sensitive to complaints and user satisfaction assessments and try to respond appropriately. Meanwhile, as stated by Dwiyanto (2015: 126) that for the government bureaucracy and its apparatus, service utilization and user satisfaction will not affect their fate.

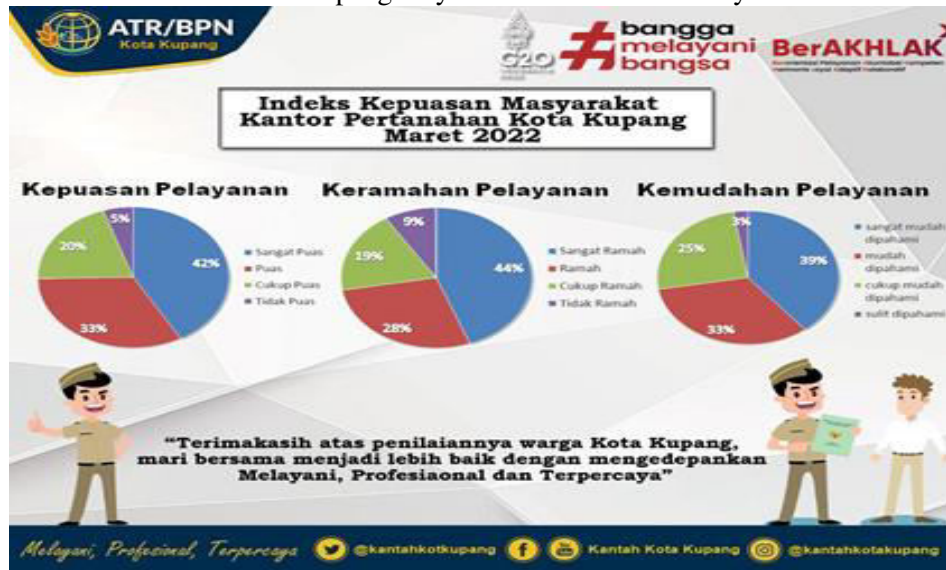
Based on the author's observations, a few days after the author conducted the interview (questioning the publication of the survey results), it is known that the Kupang City Land Office has published the results of the community satisfaction survey on the Kupang City Land Office official website (<https://kot-kupang.atrbpn.go.id>). At a glance, the Kupang City Land Office can be said to have implemented the principle of sustainability in service by conducting an independent Community Satisfaction Survey. However, the survey conducted by the Kupang City Land Office was not guided by the national community satisfaction survey standard as regulated in Permenpan-RB 14 of 2017 concerning Guidelines for Compiling a Community Satisfaction Survey for Public Service Providers. The published results of the community satisfaction index do not include the survey period, the number of respondents and the results of the community satisfaction survey in the previous 2 years for comparison. In addition, the survey questions from the Kupang City Land Office have not accommodated all the important elements to be asked before finally being able to form a community satisfaction index.

The principle of sustainability in the services of the Kupang City Land Office can be seen based on the service innovations produced. Based on the research results, it is known that there are innovations resulting from the evaluation process carried out by the Kupang City Land Office. The innovation is called 'SAKLAR' which stands for 'One Day Straight Out'. The aim is to simplify services, shorten bureaucratic flows, realize the expectations of service users in the land sector and realize the commitment of the Kupang City Land Office to provide fast services. The Switch Innovation is carried out every working day, specifically for services for requesting the abolition of mortgage rights on land certificates and mortgage books (Roya), Land Registration Certificate (SKPT), Change of Rights from Building Use Rights to Ownership Rights (Special for RSS), and First time registration from SK Hak.

Service performance evaluation in the form of a satisfaction survey is a series of activities comparing results or achievements with established service standards. So that the organizers know what factors influence the success and/or failure in the implementation of Service Standards. In addition, the evaluation process also resulted in service innovations at the Kupang City Land Office. Based on the results of the monitoring and evaluation,

service providers can make improvements to improve the quality of public services/innovation on an ongoing basis (continuous improvement).

Figure 5.2. Related Publication of Kupang City Land Office Community Satisfaction Survey Results



Sumber: website Kantor Pertanahan Kota Kupang

Figure 5.3. Public Satisfaction Survey Questionnaire Display Ministry of ATR/BPN

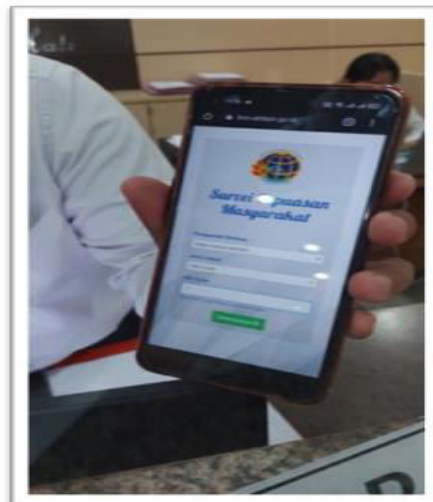
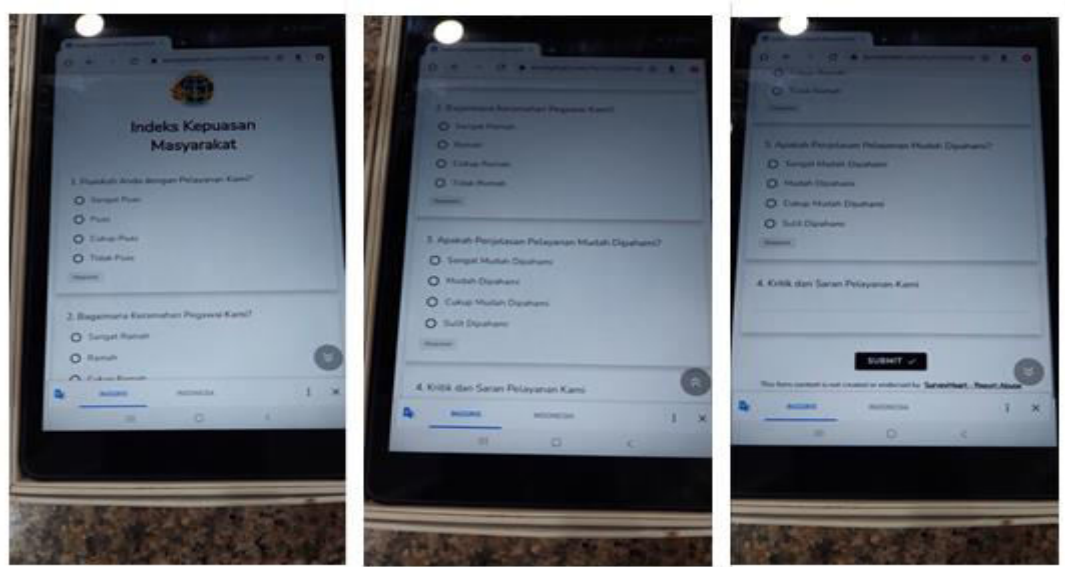


Figure 5.4. Public Satisfaction Survey Questionnaire Appearance Kupang City Land Office



5. Transparency Principle

The principle of transparency emphasizes that service standards must be easily accessible to the public. The measure of openness or transparency is that procedures / procedures, government administration and other matters relating to the public service process must be informed openly so that it is easily known and understood by the public, whether requested or not (Ratminto & Atik, 2018: 182, Permenpan-RB 15 of 2014). In this regard, the Kupang City Land Office is directed to ensure that every component of the service standard is publicly informed so that it is easily accessible to the public, either through online media (website) or offline. The thing that is focused on is the service delivery component because in this component the service provider relates to the service user community. The service delivery section consists of 6 (six) components, namely requirements; procedure mechanism system; term of service; fees/tariffs; service products; and handling of complaints, facilities and inputs. In addition, what the author considers important to be informed clearly and widely is the service announcement. The service announcement is a statement of the operator's ability to carry out services in accordance with predetermined standards. So that by displaying the service announcement, the service user community will get a guarantee that the service accessed will be carried out based on the service standard that has been informed/displayed.

1. Requirements

Based on observations, it is known that the Kupang City Land Office has attempted to publish the components of service standards as regulated in Perkaban 1 of 2010 concerning Service Standards and Land Regulations (Figure 5.5). However, in practice, the Kupang City Land Office applies additional requirements to its services. These additional requirements are adjusted to the circumstances and situation of the object/land that is requested for certification. However, based on the results of observations and interviews with Plt. The Head of the Administrative Subdivision of the Kupang City Land Office, Mrs. Ni Wayan, it is known that the additional requirements were not informed in writing. This situation has the potential to cause uncertainty regarding information requirements in the services of the Kupang City Land Office.

Requests for additional documents beyond the requirements by the Kupang City Land Office are also subject to other types of services. Meanwhile, the purpose of providing public services, in addition to seeking to fulfill community needs or serving the community, is also in the context of implementing order that creates certainty, so that every service activity should be based on basic rules and procedures that have been carefully determined (Robert, 1996:30; Widodo, 2001: 131). To achieve this order, every activity of the Kupang City Land Office in providing public services, including in determining mandatory service requirements, is based on predetermined provisions so that there are no complaints from applicants due to the uncertainty of information requirements that do not have a clear legal basis. Information related to requirements should be clearly and clearly published in front of service users. Thus, service users get clarity, while on the other hand, if the information requirements are displayed clearly, then the Kupang City Land Office officers can minimize verbal explanations to users

Figure 5.5. Information Board and Brochure Requirements for Issuing Property Rights Certificates Kupang City Land Office

| NO. | KELOMPOK PELAYANAN | JENIS PELAYANAN | PERSYARATAN | B I A Y A | JANGKA WAKTU | NO |
|-----|--|--------------------------------------|--|--|--|----|
| I. | Pelayanan Pendaftaran Tanah Pertama Kali | Komersi, Pengakuan Dan Penegasan Hak | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Fotocopy SPPT Tahun Berjalan 6. BPHTB 7. PPH | 1. Biaya Pemeriksaan : $T_{pe} = (L \times HSBKpa) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times HSBKu) + 100.000,-$ 500 3. Biaya Pendaftaran : Rp.50.000,- 4. BPHTB jika terutang. | 98 (Sembilan puluh delapan) Hari | |
| | | Pemberian Hak Milik Perorangan | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Fotocopy SPPT Tahun Berjalan | 1. Biaya Pemeriksaan : $T_{pe} = (L \times HSBKpa) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times HSBKu) + 100.000,-$ 500 3. Biaya Pendaftaran : Rp.50.000,- 4. BPHTB jika terutang. | 38 (Tiga puluh delapan) Hari - Tanah Pertanian yang luasnya tidak lebih dari 50.000 M2. - Tanah Non Pertanian yang luasnya tidak lebih 3.000 M2. | |

Figure 4.3.



Sumber: Kantor Pertanahan Kota Kupang

2. Procedure

The service procedure is a series of processes or work procedures that are related to each other, so that it shows the stages clearly and definitely and the ways that must be taken in order to complete a service. Based on observations, it is known that the procedure for the Kupang City Land Office service has been made in the form of a frame and displayed in the service room so that it is easily accessible by the applicant. The results of the study indicate that this component has been fulfilled by the Kupang City Land Office in the form of a flowchart which is displayed in the service room. The flowchart explains that land service activities have been regulated in Article 4 letter e of the Regulation of the Head of BPN RI No. 1 of 2010. In essence, the series of activities for administering land rights and land rights certificates in the context of land registration can be explained as follows:

1. The process of completing (administrative file selection) the application for land rights at the City Land Office, which includes the following activities: recording/registration, land surveying & drawing of a map/map of land situation, land inspection and trial by Committee A, forwarding the application for land rights to Provincial Land Office for processing Land Rights Decree (SK);
2. The process of completing the SK Land Rights at the Provincial BPN Regional Office, including the following activities: selecting and examining the validity of the administrative documents for land rights applications to be issued by the Land Rights SK by the BPN Regional Office, and recording in the form of the SK Hak;
3. The process of completing the registration and issuance of land certificates at the City Land Office, whose activities include: after the SK Hak is handed down from the Provincial BPN Regional Office to the City Land Office, to be registered in the Land Book, and the application for land rights pays income/administration fees to the State and land registration fee, then a land title certificate is issued.

Based on the results of the research, it is known that the Kupang City Land Office has made the components of the Service System, Mechanism, and Procedure in the form of a flowchart and displayed it in the service room to make it easier for the Applicant to be able to understand the flow of services to be traversed (see Figure 5.5. and Figure 5.6.) . However, based on the results of observations and interviews with the Petitioner with the initials RK, it is known that the components of the System, Mechanism, and Service Procedure displayed by the Land Office of Kupang City are still difficult to read due to the relatively small font size and too high placement position.

In displaying service standards, it is obligatory to consider the purpose of the simple principle, which is to make it easier for the public to understand it, starting from the appearance (chart shape, font size, color) to the position of its placement that needs to be taken into account properly. When viewed from this simple principle, the appearance of the flowchart (Systems, Mechanisms and Procedures) of the Kupang City Land Office services needs to be adjusted to the background that highlights the flowchart (can be in plain color), proportional font size, and appropriate placement positions. appropriate to be easily read by the Applicant.

Transparency in the implementation of public services is the implementation of tasks and activities that are open to the community starting from the policy process, planning, implementation and supervision/controlling, and are easily accessible to all parties who need information. In short, public service providers, including the Kupang City Land Office, are directed to ensure that every service and component that supports these services is easily accessible to the public.

Figure 5.6. Position of System Component Frame Placement, Service Mechanism at the Kupang City Land Office



Sumber: Kantor Pertanahan Kota Kupang

Figure 5.7 System Components, Mechanisms, and Procedures for the Granting of Property Rights Kupang City Land Office



Sumber: Kantor Pertanahan Kota Kupang

3. Service Fees/Fees

Unclear cost information often creates problems. Public users of public services are often faced with confusion about the amount of rupiah they have to spend. This means, to prevent the potential for illegal levies, the

Kupang City Land Office is required to display the amount of fees/tariffs that must be paid by service users. In this way, clarity can be created and potential deviations in the form of illegal levies (extortion) can be avoided. The cost of obtaining a land certificate is very relative, especially depending on the location and size of the land. The wider the location and the more strategic the location, the higher the cost.

The cost of land services has been regulated in Government Regulation Number 128 of 2015 concerning Types and Tariffs on Types of Non-Tax State Revenues Applicable to the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency. The costs as referred to in Article 4 letter c of the Regulation of the Head of BPN RI No. 1 of 2010 is the service fee that is required to the applicant in accordance with the laws and regulations regarding the types and rates of non-tax state revenues that apply to BPN RI. The rates for the First Time Registration Service specifically for the Granting of Individual Property Rights at the Kupang City Land Office (Land area up to 10 hectares) are as follows:

- Registration Fee: Rp. 50.000,00
- The cost of measuring and mapping land parcel boundaries is calculated based on the following formula:

$$Tu = (L/500 \times HSBKu) + IDR 100,000.00$$

- The land parcel inspection fee (by Committee A) is calculated based on the following formula:

$$Tu = (L/500 \times HSBKpa) + IDR 350,000.00$$

- Pay off the Land and Building Rights Acquisition Fee (BPHTB) if it is owed .

Based on this formula, it is defined that "Tu" is the tariff for the Measurement and Mapping of Land Fields in the Context of Boundary Determination. "L" is the land area. "HSBKu" is the unit price of the special cost of measurement activities applicable for the year concerned, for the components of material expenditure and honorariums related to the output of activities. "HSBKpa" is the Special Cost Unit Price for Land Inspection activities by Committee A for the year concerned, for the components of material expenditure and honorariums related to the output of the land inspection committee session activities, issuance of rights decisions, and issuance of certificates. Meanwhile, the registration fee is IDR 50,000 (fifty thousand rupiah).

For example, Petitioner A owns a land area of 300 m², and the HSBKu for the East Nusa Tenggara area is Rp. 40,000.00 (non-agricultural), then the calculation of the rates for the Measurement and Mapping of Boundaries of Land Plots can be simulated as follows:

$$Tu = (300/500 \times IDR 40,000.00) + IDR 100,000.00$$

$$= IDR 24,000.00 + IDR 100,000.00$$

$$= Rp124,000.00$$

So, the rate for Measurement and Mapping of Land Plot Boundaries imposed for non-agricultural land with an area of 300 m² is Rp. 124,000.00.

Furthermore, Petitioner A owns a land area of 300m², and the HSBKpa for the East Nusa Tenggara area is Rp. 20,000.00 (non-agricultural), then the calculation of the rate for inspection of land parcels (by Committee A) can be simulated as follows:

$$Tu = (300/500 \times 20,000.00) + IDR 350,000.00$$

$$= IDR 12,000.00 + IDR 350,000.00$$

$$= IDR 362,000.00$$

So, the rate for inspection of land parcels (by Committee A) imposed for non-agricultural land with an area of 300m² is Rp. 362,000.00 .

Based on observations, it is known that the Kupang City Land Office has displayed standard service fees in accordance with Government Regulation No. 128 of 2015 concerning Types and Tariffs of Non-Tax State Revenues Applicable to the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency as can be seen in Figure 5.8 .

4. Time Period

The Service Period as referred to in Article 4 letter d of the Regulation of the Head of BPN RI No. 1 of 2010 is the period of completion of land services starting from the receipt of complete documents and the payment of the specified fees has been paid. The period in question is the longest period for the completion of each type of

land service which is calculated based on working days. In addition, the time period for making certificates depends on the area of the land unit, namely: 38 days for agriculture with an area of less than 2 ha and non-agricultural land with an area of less than 2000 m²; 57 days for agricultural land with an area of more than 2 Ha and non-agricultural land with an area of more than 2000 m² to 5000 m²; and 97 days for non-agricultural land with an area of more than 5000 m². The period as referred to in the Regulation of the Head of BPN RI No.1 of 2010 does not apply to applications for land services where in the process it is known that there are disputes, conflicts, cases, or other legal problems and the files can be returned to the Applicant. Based on observations, it is known that the Kupang City Land Office has published information on the period of its service on an information board placed in the service room so that it is easily accessible by the service user community (see Figure 5.9.)

Figure 5.8. Announcement of Service Term on display

| NO. | KELompok PELAYANAN | JENIS PELAYANAN | PERSYARATAN | B I A Y A | JANGKA WAKTU |
|-----|--|---|--|---|--|
| 1. | Pelayanan Pendaftaran Tanah Pertama Kali | Konferensi, Pengakuan Dan Penegasan Hak | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Fotocopy SPPT Tahun Berjalan 6. BPHTB 7. PPH | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp_{pe}) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times H \times Rp_{ku}) + 100.000,-$ 500 3. Biaya Pendaftaran : Rp.50.000,- 4. BPHTB jika terutang. | 98 (Sembilan puluh delapan) Hari |
| | | Pemberian Hak Milik Perorangan | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Fotocopy SPPT Tahun Berjalan | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp_{pe}) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times H \times Rp_{ku}) + 100.000,-$ 500 3. Biaya Pendaftaran : Rp.50.000,- 4. BPHTB jika terutang. | 38 (Tiga puluh delapan) Hari - Tanah Pertanian yang luasnya tidak lebih dari 50.000 M ² . - Tanah Non Pertanian yang luasnya tidak lebih 3.000 M ² . |
| | | | 6. SK Penunjuk Badan Hukum yang dapat memperoleh Hak Milik dari Kepala Badan Pertanahan Nasional RI. 7. Surat Ijin untuk memperoleh Hak Milik dari Kepala Badan Pertanahan Nasional RI. 8. Fotocopy SPPT Tahun Berjalan. 9. SSP / PPH sesuai ketentuan. | 1. Biaya Pengukuran : $T_u = (L \times H \times Rp_{ku}) + 100.000,-$ 500 2. Biaya Pendaftaran : Rp.50.000,- 3. BPHTB jika terutang. | |
| | | Hak Guna Bangun Perorangan | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Surat Pernyataan 6. Fotocopy SPPT Tahun Berjalan 7. BPHTB jika terutang | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp_{pe}) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times H \times Rp_{ku}) + 100.000,-$ 500 3. Biaya Pendaftaran : Rp.50.000,- 4. BPHTB jika terutang. | 38 (Tiga puluh delapan) Hari - untuk luas tidak lebih dari 3.000 M ² |
| | | Hak Guna Bangun Badan Hukum | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Surat Pernyataan 6. Fotocopy SPPT Tahun Berjalan 7. BPHTB jika terutang | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp_{pe}) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times H \times Rp_{ku}) + 100.000,-$ 500 3. Biaya Pendaftaran : Rp.50.000,- 4. BPHTB jika terutang. | 38 (Tiga puluh delapan) Hari - untuk luas tidak lebih dari 20.000 M ² |
| | | Hak Pakai Perorangan WNI | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Surat Pernyataan 6. Fotocopy SPPT Tahun Berjalan 7. BPHTB jika terutang | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp_{pe}) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times H \times Rp_{ku}) + 100.000,-$ 500 3. Biaya Pendaftaran : Rp.50.000,- 4. BPHTB jika terutang. | 38 (Tiga puluh delapan) Hari untuk : - Tanah Pertanian yang luasnya tidak lebih dari 50.000 M ² . - Tanah Non Pertanian yang luasnya tidak lebih dari 3.000 M ² (kecuali mengenai tanah bekas Hak Guna Bangunan). |
| | | Hak Pakai Perorangan WNA | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Surat Pernyataan 6. Fotocopy SPPT Tahun Berjalan 7. BPHTB jika terutang | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp_{pe}) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times H \times Rp_{ku}) + 100.000,-$ 500 3. Biaya Pendaftaran : Rp.50.000,- 4. BPHTB jika terutang. | 38 (Tiga puluh delapan) Hari untuk : - untuk luas tidak lebih 2.000 m ² 57 (Lima puluh tujuh) Hari untuk : - untuk luas lebih 2.000 m ² s.d. 150.000 m ² . 97 (Sembilan puluh tujuh) Hari untuk : - untuk luas lebih dari 150.000 m ² . |
| | | Hak Pakai Badan Hukum Indonesia | 1. Permohonan 2. Surat Kuasa Jika Dikuasakan 3. Fotocopy e-KTP 4. Fotocopy tanda daftar perusahaan akta pendirian dan penegasan badan hukum. 5. Ijin lokasi / surat ijin penunjukan penggunaan Tanah. 6. Bukti Pengelolaan Tanah. | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp_{pe}) + 350.000,-$ 500 2. Biaya Pengukuran : $T_u = (L \times H \times Rp_{ku}) + 100.000,-$ 500 | 38 (Tiga puluh delapan) Hari untuk : - untuk tanah pertanian yang luasnya tidak lebih dari 2 Hq - Tanah non pertanian yang luasnya tidak lebih dari 2.000 m ² (kecuali mengenai tanah bekas Hak Guna Usaha). |

Sumber: Kantor Pertanahan Kota Kupang

Figure 5.9. Announcement of Service Fees / Tariffs on display at the Kupang City Land Office

| NO. | KELompok PELAYANAN | JENIS PELAYANAN | PERSYARATAN | B I A Y A | JANGKA WAKTU | NO |
|-----|--|--|---|--|--|----|
| I. | Pelayanan Pendaftaran Tanah Pertama Kali | Konfirmasi, Pengukuran Dan Penegasan Hak | 1. Permohonan 2. Surat Kuasa Jika dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Fotocopy SPPT Tahun Berjalan 6. BPHTB 7. PPH | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp. 350.000,-) / 500$ 2. Biaya Pengukuran : $T_u = (L \times H \times Rp. 100.000,-) / 500$ 3. Biaya Pendaftaran : Rp. 50.000,- 4. BPHTB jika terutang. | 96 (Sembilan puluh delapan) Hari | |
| | | Pemberian Hak Milik Perorangan | 1. Permohonan 2. Surat Kuasa Jika dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Fotocopy SPPT Tahun Berjalan | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp. 350.000,-) / 500$ 2. Biaya Pengukuran : $T_u = (L \times H \times Rp. 100.000,-) / 500$ 3. Biaya Pendaftaran : Rp. 50.000,- 4. BPHTB jika terutang. | 30 (Tiga puluh delapan) Hari - Tanah Pertanian yang luasnya tidak lebih dari 50.000 M2. - Tanah Non Pertanian yang luasnya tidak lebih 3.000 M2. | |
| | | | 6. SK Penunjuk Badan Hukum yang dapat memperoleh Hak Milik dari Kepala Badan Pertanahan Nasional RI. 7. Surat Ijin untuk memperoleh Hak Milik dari Kepala Badan Pertanahan Nasional RI. 8. Fotocopy SPPT Tahun Berjalan 9. SSP / PPH sesuai ketentuan. | 1. Biaya Pengukuran : $T_u = (L \times H \times Rp. 100.000,-) / 500$ 2. Biaya Pendaftaran : Rp. 50.000,- 3. BPHTB jika terutang. | | |
| | | Hak Guna Bangun Perorangan | 1. Permohonan 2. Surat Kuasa Jika dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Surat Pernyataan 6. Fotocopy SPPT Tahun Berjalan 7. BPHTB jika terutang | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp. 350.000,-) / 500$ 2. Biaya Pengukuran : $T_u = (L \times H \times Rp. 100.000,-) / 500$ 3. Biaya Pendaftaran : Rp. 50.000,- 4. BPHTB jika terutang. | 30 (Tiga puluh delapan) Hari - untuk kawasan tidak lebih dari 3.000 M2 | |
| | | Hak Guna Bangun Badan Hukum | 1. Permohonan 2. Surat Kuasa Jika dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Surat Pernyataan 6. Fotocopy SPPT Tahun Berjalan 7. BPHTB jika terutang | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp. 350.000,-) / 500$ 2. Biaya Pengukuran : $T_u = (L \times H \times Rp. 100.000,-) / 500$ 3. Biaya Pendaftaran : Rp. 50.000,- 4. BPHTB jika terutang. | 30 (Tiga puluh delapan) Hari - untuk kawasan tidak lebih dari 20.000 M2 | |
| | | Hak Pakai Perorangan WNI | 1. Permohonan 2. Surat Kuasa Jika dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Surat Pernyataan 6. Fotocopy SPPT Tahun Berjalan 7. BPHTB jika terutang | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp. 350.000,-) / 500$ 2. Biaya Pengukuran : $T_u = (L \times H \times Rp. 100.000,-) / 500$ 3. Biaya Pendaftaran : Rp. 50.000,- 4. BPHTB jika terutang. | 30 (Tiga puluh delapan) Hari untuk : - Tanah Pertanian yang luasnya tidak lebih dari 50.000 M2. - Tanah Non Pertanian yang luasnya tidak lebih dari 3.000 M2 (kecuali mengenai tanah bekas Hak Guna bangunan). | |
| | | Hak Pakai Perorangan WNA | 1. Permohonan 2. Surat Kuasa Jika dikuasakan 3. Fotocopy e-KTP 4. Alas Hak / Bukti Pemilikan 5. Surat Pernyataan 6. Fotocopy SPPT Tahun Berjalan 7. BPHTB jika terutang | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp. 350.000,-) / 500$ 2. Biaya Pengukuran : $T_u = (L \times H \times Rp. 100.000,-) / 500$ 3. Biaya Pendaftaran : Rp. 50.000,- 4. BPHTB jika terutang. | 30 (Tiga puluh delapan) Hari untuk : - untuk kawasan tidak lebih 2.000 m2 5. (Lima puluh tujuh) Hari untuk : - untuk kawasan lebih 2.000 m2 s.d. 50.000 m2. 9. (Sembilan puluh tujuh) Hari untuk : - untuk kawasan lebih dari 150.000 m2. | |
| | | Hak Pakai Badan Hukum Indonesia | 1. Permohonan 2. Surat Kuasa Jika dikuasakan 3. Fotocopy e-KTP 4. Fotocopy tanda daftar perusahaan badan hukum 5. Ijin lokasi / surat ijin penggunaan tanah. 6. Bukti Pengelolaan Tanah | 1. Biaya Pemeriksaan : $T_{pe} = (L \times H \times Rp. 350.000,-) / 500$ 2. Biaya Pengukuran : $T_u = (L \times H \times Rp. 100.000,-) / 500$ | 30 (Tiga puluh delapan) Hari untuk : - untuk tanah pertanian yang luasnya tidak lebih dari 2 H2 - tanah non pertanian yang luasnya tidak lebih dari 2.000 m2 (kecuali mengenai tanah bekas Hak Guna sah). | |

Sumber: Kantor Pertanahan Kota Kupang

5. Service Products

Just like entering a restaurant, service products are menu lists that are presented to customers. What is the use of various useful services if the user does not know the available service products? Information about service products needs to be known by users, so the organizers are obliged to publish various existing service products. Likewise, every public service provider, including the Kupang City Land Office, is obliged to publish its service products. Through this publication, service users can see all service products provided by the Kupang City Land Office, so that the continuity of the implementation of quality public services can be created and always maintained.

Based on the results of the study, it is known that several service products served by the Kupang City Land Office have been published by the Kupang City Land Office. Publication of these service products has been carried out through information boards displayed in the waiting room so that they are easily accessible to the public using the service. Apart from information boards, the publication of service products is also carried out through the Kupang City Land Office website (kot-kupang.atrbpn.go.id). However, based on observations, it is known that not all service products under the authority of the land office are published by the Kupang City Land Office either on information boards or on the website . Meanwhile, according to the results of interviews with Plt. The Head of Subdivision of Administration (Head of Subsection TU), Mrs. Ni Wayan, it is known that most of the land services regulated in the Regulation of the Head of BPN RI No. 1 of 2010 was processed at the land office.

Based on the results of the study, it is known that information on service products served by the Kupang City Land Office cannot be published in its entirety on the information board due to limited space. However, the Kupang City Land Office should be able to maximize its official website to inform every service product that is under its authority. Based on observations, it is known that the Kupang City Land Office website only publishes 3 (three) types of services, namely file checking services, juridical announcement services, and lost certificate announcement services (see Figure 4.8). Even the type of complaint service which according to the author is crucial for service users to know is not informed in the list of services displayed on the information board or the official website of the Kupang City Land Office. Meanwhile, the type of complaint service is one of the service products which is one of the obligations of the land office as regulated in the Regulation of the Head of BPN RI No. 1 of 2010. The obligation to inform service products is closely related to the principle of transparency, which in essence directs public service providers including the Kupang City Land Office to ensure that every service and component that supports its services is easily accessible to the public using the service.

6. The Principle of Justice

According to this principle, the organizers of the Kupang City Land Office are directed to guarantee and ensure that the services provided can reach all people with different economic status, geographical location distance, and differences in physical and mental capabilities (persons with disabilities) so as to create justice in services. In addition, according to Yoga in Kamaruddin (2019: 146), justice is also defined as the implementation of public services that do not discriminate between one public and another as service users. Simply put, the principle of justice relates to services that reach all aspects of society and every community is served within the same standard of time and the imposition of fair service rates.

the determination of the range of accommodation, transportation and consumption costs can be based on the mayor's regulation that regulates transportation accommodation for employees who carry out tasks in the city. However, if there is no clear formulation regarding the determination of the tariffs for transportation, accommodation and consumption, there will be potential differences in treatment in the (discriminatory) services of the Kupang City Land Office. As also emphasized in Simamora's research (2020: 396), measuring officers (potentially) will prioritize applicants who pay more for transportation, accommodation and consumption costs than applicants who pay less, so the administrative process being carried out is not timely. as determined (properly) and result in uncertainty in the provision of public services.

In this regard, the Kupang City Land Office needs to formulate and discuss a definite formulation regarding the imposition of transportation, accommodation and consumption costs borne by the Petitioner by referring to the Regulation of the Minister for Empowerment of State Apparatus and Bureaucratic Reform 15 of 2014 concerning Guidelines for Service Standards. So that it is clear what is the measuring instrument for the amount of the tariff, whether it is the distance traveled, the complexity of the location of the land, and so on. In addition, the discussion regarding this financing must involve the community and related parties as mandated in Article 20 of Law Number 25 of 2009 concerning Public Services. The fact that there is no certainty of "fare formulation" in the imposition of transportation, accommodation and consumption costs borne by the Petitioner illustrates that the implementation of land services by the Kupang City Land Office has not fully prioritized the principles of applying service standards to the service fee/tariff component, namely the principle of transparency and simple principles. The principle of transparency relates to the ease with which the public can access all service information, including standard fees/tariffs (including tariff formulation) without having to go through service counters.

Furthermore, the principle of justice in this public service also demands fair treatment of all elements of the community group served without differentiating economic status, geographical location distance, and differences in physical and mental capabilities (persons with disabilities) so as to create justice in services. The components of this service standard relate to the equipment and facilities needed in the delivery of services,

including equipment and service facilities for vulnerable groups. A quality service unit must be supported by adequate facilities and infrastructure. This condition needs to be created so that users feel comfortable when accessing their services.

Based on observations, it is known that the Kupang City Land Office already has adequate facilities and infrastructure, including waiting rooms, service counters, seats, toilets. In addition, the Kupang City Land Office has also provided service facilities for vulnerable groups such as vines and wheelchairs, and there are even special services for persons with disabilities for certificate-solving activities, certificate merging, return of limits, and replacement of blanks due to damage. With this special service for vulnerable groups, it can be said that the Kupang City Land Office has sought to create the principle of justice in its services, namely services that reach all people, including people who have different physical and mental capabilities (people with disabilities)

5. CONCLUSION

Service standards related to service delivery (service delivery components) are important factors in determining the quality of public service delivery, both in terms of service requirements; System, Mechanism, Procedure; Term of Service; Service Fees/Tariffs; Service Products; and Handling of Complaints, Facilities, and Feedback. This section is the focus of attention because in this component the service provider deals directly with the service user community. With the implementation of public service standards at the Kupang City Land Office, it will create open access to information so that the service process is easily measured and known to the public without experiencing confusion. In addition, the application of public service standards will also open up space for community participation to be actively involved in conducting supervision.

The results of the study reveal that although the service standards of the Kupang City Land Office have mostly implemented the principle of transparency through displaying service standards, in the implementation process they have not applied the simple, fair, participatory, accountable, and sustainable principles as have become the basic things in the application of service standards.

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FACE RECOGNITION SYSTEM UNDER DIFFERENT LIGHT CONDITIONS

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ABSTRACT

Face recognition technology is one of the kinds of biometric technologies where a system is able to identify a person using facial features. Different faces are first recognized in real-time & then the system can easily identify using various algorithms. In today's fast growing technological era, face recognition technology has emerged as one of the necessities & not only restrained to our desires only. The paper introduces numerous perspectives & related researches of this named technology. A methodology is proposed for face recognition system under different light conditions. This proposed methodology may prove to of utmost use in the nearby future.

1. INTRODUCTION

Kesha Williams once said, "the best way to enhance security is through facial recognition—it's going to be the standard very soon".

Her statement seems to be true with every passing day today. Face Recognition Technology [6] is a biometric technology that identifies the faces by using facial features of a person. This technology basically includes face detection & recognition based on its position. More often, existing technologies have already worked in constant conditions of light but this part has been ignored. Face recognition [7] is a sub-division problem of visual pattern recognition. It works by creating a dataset of different faces & then it is enabled to correctly detect & recognize those faces under different light conditions which might be properly illuminated or less illuminated. Face recognition is more advantageous than the other biometric technology like fingerprint and iris-based pattern recognition. The main advantage of this technology is that a picture for recognition can be taken from a good distance in a covert manner. This is how we got the idea to pick up this untapped area. Face recognition system under different light conditions, up to a good extent, will be able to solve the problems of people by saving them from any zoonotic threats (animal to human transmission). Also, this proposed methodology is easy to implement because it requires a person to just stand in the front of the system & it's done. We aim to train the dataset which is created by us with our images only. After that, it will be enabled to detect, recognize & identify different faces. Furthermore, the success rate of face recognition system is critical for industrial problems & this can be affected by variable light conditions so we create this system that has better success rate of face detection in such given conditions coupled with smooth applicability in diverse fields & reliability issues.

2. LITERATURE SURVEY

Face recognition system widely gained its popularity but the system was not considered for bringing in some advanced tools and techniques that can work under almost any given condition. Different projects have tried to find lacunae in existing system but couldn't improve besides few areas.

"A Review of Face Recognition Technology" [1] is included in the research that describes various development phases in face recognition and talks about the technologies related to the face recognition. It uses Principal Component Analysis (PCA) which is used to pre-process the data before analyzing it. Face data that have more dimensions, it removes redundant information and noise and retain the essential characteristic of data and improve the processing speed of the data.

Support Vector Machine (SVM) is a supervised learning algorithm for small sample but high dimensional facial recognition problem. It is a classifier developed from generalized portrait algorithm. Due to its better performance in text classification, they use SVM to extract the facial features and distinguish different faces by finding the hyperplane.

Neural network is the algorithm of artificial neuron to recognise the relationship between the data and stimulate the human brain. Due to most exciting biometric technology, face recognition has become a study area in the neural network field.

"Face Detection and Recognition Based on Visual Attention Mechanism Guidance Model in Unrestricted Posture" [2] introduces VAM guidance model that uses the visual attention mechanism to guide the model.

The study of features extraction network and face analysis network is done in this study. In the features extraction network, input images are extracted by the feature extraction network and the face position is

predicted by the face analysis network. This results the face recognition in a very simplified high level semantic feature detection problem and faces are predicted.

Another research is “Face Recognition Accuracy of Forensic Examiners, Super recognizers, and Face Recognition Algorithms” [3] which discusses the concept of deep convolutional neural network (DCNN) approach for better face identification accuracy.

DCNNs can perceive faces from profoundly factor, bad quality pictures. These algorithms are frequently prepared with a huge number of face pictures of thousands of individuals.

The objective was to accomplish the most dependable face ID utilizing individuals or potentially machines working alone or in cooperation. The assignment was to decide if sets of face pictures showed similar individual or various individuals. Picture matches were prescreened to be profoundly difficult in light of information from people and PC algorithms. Pictures were taken with restricted control of brightening, articulation, and appearance. The review gives a proof-based guide to accomplishing exceptionally precise face ID.

“Future of Face Recognition: A Review” [4] presents the review of face recognition in infrared spectrum. The IR pictures can be captured in various kinds of lighting; even in the dark which shows the strength of IR pictures to address the facial changes for FR. This algorithm also supports to limit the reliance of the temperature which emerges because of heat appearance at the face.

“Face Recognition utilizing facial elements” [5] was incorporated to investigate the fitness of the two-face recognition algorithm named face net and facial landmark for face check and human following. The info video is given to the framework and the goal of that specific casing is checked which ought to be equivalent to or more noteworthy than 640X480. Assuming this condition is fulfilled, A frame is preprocessed by changing over the BGR picture into RGB followed by a light revision in the event that the picture is corrupted because of unfortunate enlightenment.

Assuming the gained outline has a goal not exactly the recommended esteem, then the algorithm moves to the following casing and the sequential edge is given as info. When the preprocessing is done, the subsequent stage is to extricate the area of the highlights from the info. These areas are checked and encoded into an exhibit which is additionally used to extricate highlights from the picture which is extraordinary for each person.

Face recognition system widely gained its popularity but the system was not considered for bringing in some advanced tools and techniques that can work under almost any given condition. Different projects have tried to find lacunae in existing system but couldn't improve besides few areas.

“A Review of Face Recognition Technology” [1] is included in the research that describes the development stages and the related technologies of face recognition. It uses principal component analysis (PCA) which is used to pre-process the data before other analyses. In the face data with more dimensions, it can eliminate excess data and noise, hold the fundamental attributes of information, significantly diminish the aspects, further improve the processing speed of information, and save a ton of time and cost.

Support vector machine (SVM) is an algorithm specifically for small sample, high dimensional facial recognition problem. It is a classifier developed from generalized portrait algorithm. Because of its excellent performance in text classification, they use the extracted face features and SVM to find the hyperplane for distinguishing different faces.

Neural network is collection of artificial neurons to simulate human brain for face recognition. Now face recognition has become one of the trending topics in the field of neural networks. Figure 1 shows Single Layer Hidden Layer Neural Network.

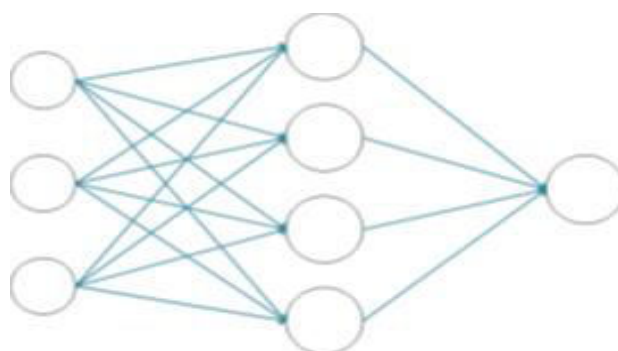


Figure 1: Network Output

“Face Detection and Recognition Based on Visual Attention Mechanism Guidance Model in Unrestricted Posture” [2] introduces VAM guidance model which uses the visual attention mechanism to guide the model and highlight the visual area of occluded face. This paper consists of two parts: feature extraction network and face analysis network. Feature extraction network is used to extract the input image and then feature fusion is done by feature-guided attention module. Position, height and heat map of the face is predicted by semantic feature. As a result, face detection problem is simplified into the high-level semantic feature detection problem through the improved analytical network and the location and scale of the face are predicted by the activation map.

Another research is “Face Recognition Accuracy of Forensic Examiners, Super recognizers, and Face Recognition Algorithms” [3] which discusses the concept of deep convolutional neural network (DCNN) approach for better face identification accuracy.

DCNNs can perceive faces from profoundly factor, bad quality pictures. These algorithms are frequently trained with a large number of face pictures of thousands of individuals.

The objective was to accomplish the most dependable face distinguishing proof utilizing individuals as well as machines working alone or in coordinated effort. The task was to decide if sets of face pictures showed similar individual or various individuals. Picture matches were pre-screened to be profoundly difficult in view of information from people and computer algorithms. Pictures were taken with restricted control of light, articulation, and appearance. The review gives a proof based guide to accomplishing exceptionally precise face Identification.

“Future of Face Recognition: A Review” [4] presents the review of face recognition in infrared spectrum. The IR images can be captured in different types of lighting environment; even in the complete dark night which shows the strength of IR images to represent the facial variances for FR. This algorithm also supports to minimize the dependency of the temperature which arises due to thermal appearance.

Face Recognition using facial features” [5] investigate the use Face net and Facial Landmark algorithms for recognition of the facial feature of faces. Facial feature are the some general point of our face like mouth, nose, jawline. These facial features are extracted by HOG method.

The input image is checked for the resolution of 640*480 and then converted the BGR image into RGB image and then into grayscale. This algorithm is find faces by analysing the image pixel by pixel and gives output.

3. PROPOSED METHODOLOGY

Face recognition system under variable light conditions works in three phases. The system should be able to detect the faces first before recognizing it. Between these phases, the system matches the upcoming faces from the specified dataset of different faces which is self-made without the aid of external data. This part comes under system design. Meanwhile, the training of the dataset also takes place using HAAR cascade algorithm. After detection, it identifies faces & if the given face (input) is matched from the dataset then it's able to accurately recognize it with names (output).

4. PROPOSED DEVELOPMENT TOOLS AND TECHNOLOGIES:

VS Code is the most widely used IDE for Python coding. This chapter provides an overview of VS Code and describes its functionality.

VS Code provides its customers and developers with some of the top features in the following areas:

- Inspection and completion of the code
- Debugging
- It has Task Running & Version Control Features

4.2.1 PYTHON

Python is a high-level, interpreted, object-oriented programming language with dynamic semantics, and its built-in data structures, as well as its active typing and active binding, contribute to its admiration for Fast Application Growth.

Modularity and reusability are encouraged by Python by supporting modules and packages. The Python interpreter and the wide-ranging typical library are free of charge and can be freely distributed on all main platforms. Guido van Rossum developed Python after reading the scripts of the BBC comedy series "Monty Python's Flying Circus", which was broadcast during the 1970s.

4.2.2 OpenCV:

OpenCV is a text file library written in ASCII that is largely used for laptop vision applications. This library includes gesture tracking, face recognition, object detection, separation and recognition, and a variety of other functions and algorithms. Using this toolkit, images and actual-time video streams are often altered to suit a variety of purposes.

4.2.3 Requirements:

Python-based computer vision and deep learning packages will be utilized for the project's development and testing. Tools like Python, and libraries like, OpenCV, are going to be used for this method.

5. PROPOSED SYSTEM DESIGN AND METHODOLOGY

Figure 2 shows the overall architecture of proposed methodology and how all the components are connected to each other. It is a significant tool as it gives a general perspective on the physical deployment of the software system and its development guide.

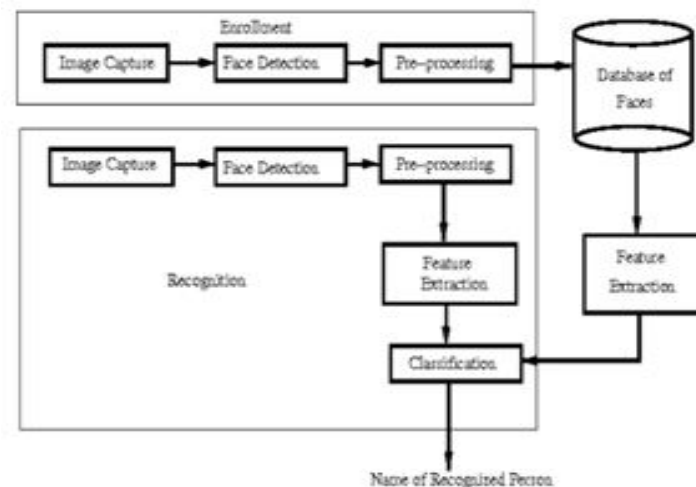


Figure 2: System Architecture

This is basically a graphical portrayal of steps followed. It shows steps in successive request and is generally utilized in introducing the progression of algorithms, work flow Typically, a flowchart shows the means as boxes of different sorts, and their request by interfacing or processes. them with arrows.

Its methodology highlights every necessary requirement to complete with the help of different technologies. It is basically divided into three parts-face acquisition/detection, dataset creation & face recognition.

5.1 Face Detection: Neural Network Training

- Stochastic Backpropagation.
- Training patterns pre-whitened.
- Learning Rate, h , Decreased with each training approach.

5.2 Color Space Options and Network Topology

- Choose the number of hidden units you want.
- Color may be expressed in a variety of color spaces.
- RGB, XYD, and HSV are three different color schemes.
- RGB had the least number of false positives.

In the first phase, which is face acquisition/detection, HAAR cascade classifier can be used to detect face objects.

After completion of first phase the next phase is of dataset creation. It's required to train the face recognition model.

After completion of second phase, there comes the final phase where faces are finally recognized.

After all these functions are performed successfully, the system will be able to recognize faces otherwise it will display the message as "unknown". The screenshots are shown below in Fig. 5.1, 5.2, 5.3, 5.4.



Figure 5.1. Face Detect



Figure 5.2. UNDETECED OBJECT



Figure 5.3. Dataset



Figure 5.4. Dataset

6. CONCLUSION

Existing program requires more processing power in the machine in which they are running whereas our proposed methodology can run with minimal resources and very limited processing power. Existing systems focus on increasing the data and feeding more and more images to the AI for better image matching but this may lead to confusion in the system and accuracy may increase. Our proposed methodology makes the system more reliable and less time to train the dataset. It has a simple and symmetric design.

Previous biometric technologies like fingerprint sensors are now redundant because it involves exposure to the surface which might be infected. Face recognition system under different light conditions is able to recognize criminals even in the darkness. Hence, the system is effective in the long-run to make our lives easier & safer.

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DEVELOPING OCCUPATIONAL SAFETY AND HEALTH (OSH) TECHNICAL COMPETENCY MAPPING FOR THE PETROCHEMICAL INDUSTRY; STUDY CASE: PT PUPUK KALIMANTAN TIMUR

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ABSTRACT

This research was conducted for the needs of Occupational Safety and Health (OSH) technical competence in the petrochemical industry, where in this research a case study was conducted at Pupuk Kalimantan Timur (PKT). The purpose of this research is to develop OSH technical competence for employees in the OSH Department, mandatory OSH technical competence for all employees in PKT and OSH competency training syllabus. The preparation of OSH technical competencies uses a conceptual framework in the form of determining performance effectiveness criteria, identification of the OSH Department job desk, identification of work activities and work competency requirements (using SIPOC diagrams, RACI Matrix analysis, and Taxonomy Bloom Principles) taking into account OSH regulations and OSH standards, validating competencies work and prepare the application of competency models. In validating the proposed OSH Technical Competencies, a mapping of compliance with Indonesian government regulations in the OSH sector was reworked with a list of OSH technical competencies. In this study, the results obtained in the form of PKT the number of OSH technical competencies for employees in the OSH Department as many as 174 competencies, mandatory OSH Technical competencies for all employees in PKT as many as 74 competencies and the OSH training syllabus as many as 65 training syllabus.

Keywords: OSH technical competency, SIPOC diagram, RACI matrix, OSH training syllabus.

INTRODUCTION

Occupational Safety and Health (OSH) Performance indicators are divided into 2 types, namely lagging indicators, and leading indicators. Lagging indicators reflect the frequency and occurrence of prior situations, such as the number and rate of injuries, illnesses, and fatalities (OSHA, 2019). Leading Indicators is an indicator that predicts future events and tend to chance ahead of the event. Sometimes used as a predictor. Leading indicators area proactive, preventive, and predictive measures that provide information about the effective performance of safety and health activities. Leading indicator can be used to improve the OSH Program. For example, leading indicators are used to measuring the implementation of recommended practices for education and training.

Education and training program is one of the important programs to ensure all workers and management behave and work safely and more productively. In general, workplace accidents occur because of a lack of information or training, a lack of supervision, a lack of means to complete the activity properly, or a result of a lapse in judgment, carelessness, apathy, or outright recklessness. In addition to these variables, the construction industry's short-term and transitory nature, the lack of a controlled working environment, and the complexity and diversity of organization sizes all have an impact on safety performance (Sawacha, et al., 1999). Based on the analysis of accident investigations conducted at PT Pupuk Kalimantan Timur (PKT), during the last 3 years, the type of root cause of an accident is mostly (38,34%) caused by the lack of competence possessed by workers in doing a job safely.

Lack of competence that occurs such as not understanding safe work methods, not understanding how to use PPE properly, and not understanding how to make and ensure a safe workplace. Based on research conducted by Sawacha, workplace accidents occur due to inadequate knowledge or training, supervision, or the means to complete the task properly, or due to a lapse in judgment, carelessness, apathy, or outright recklessness (Sawacha, et al., 1999). One of the actions that must be taken immediately so that work accidents can be prevented is to ensure that the OSH technical competency requirements of all employees are in accordance with OSH Government regulations and OSH standards.

Through this research, the preparation of OSH technical competency and OSH training syllabus will be carried out by identifying employee job desks in the OSH department as well as OSH requirements in OSH regulations and standards. So that the results of this study will provide an overview of OSH technical competence in the petrochemical industry, so that companies can develop OSH technical competence and OSH training syllabus in accordance with applicable OSH regulations and standards.

LITERATURE REVIEW

Education & training are one of the 7 core elements of OSHA recommended practice for safety and health programs in Management Leadership (OSHA, 2016). The 7 core elements are:

1. Worker Participation.
2. Hazard Identification & Assessment
3. Hazard Prevention & Control
4. Education & Training
5. Program Evaluation & Improvement
6. Communication and Coordination for Host Employers, Contractors, and Staffing Agencies Education and training are expected to make employees understand how the program works and complete the tasks that have been assigned to them, have a responsibility to protect workers' rights and respond to worker reports and concerns, and understand how to identify hazards in the workplace and how to deal with them. using the hazard mitigation that has been implemented.

SIPOC Diagram

SIPOC stands for Suppliers, Inputs, Process, Outputs, and Customers. The explanation of each abbreviation can be seen in figure 1.

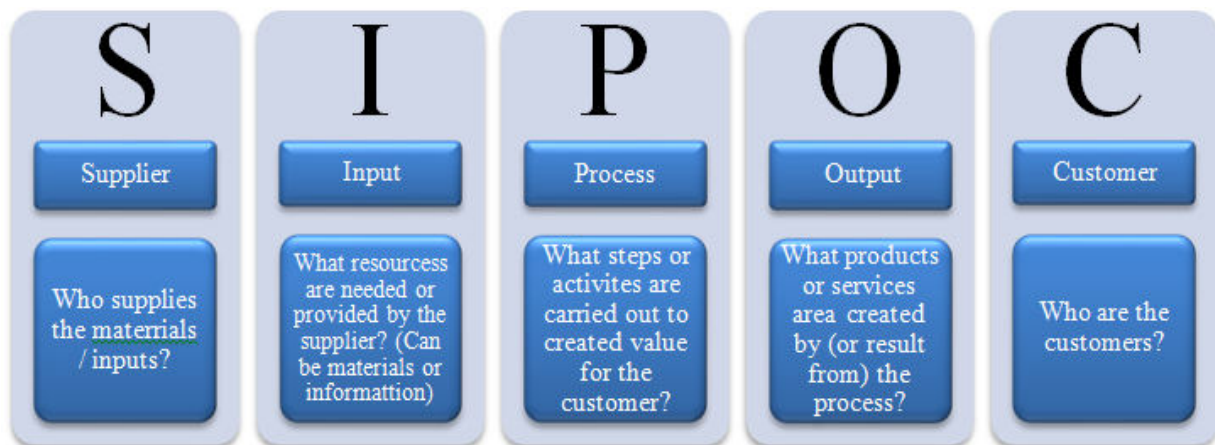


Figure 1: SIPOC Diagram

It's a visual tool for identifying all significant aspects of an entire process. (Hadek, et al., 2019). SIPOC is a tool for visualizing workflows and identifying the suppliers, inputs, processes, outputs, and customers of a process (Evans & Lindsay, 2004). The SIPOC diagram will be used to determine the activity process in each section in the OSH Department to carry out job activities and job competency requirements.

RACI Matrix

A RACI matrix is one way that a team can clearly lay out roles and responsibilities for any activity or group of activities. The acronym RACI stands for:

- **Responsible:** Those who do the work to achieve the tasks.
- **Accountable:** The one ultimately answerable for the correct and thorough completion of the deliverable or task, and the one who delegates the work to those responsible.
- **Consulted:** Those whose opinions need to be sought, typically subject matter experts. Consulting implies two-way communication before the task or decision can be completed.
- **Informed:** Those who are kept up to date on progress. This may often be only on initiating and/or completing the task or deliverable. Generally, this is just one-way communication.

The RACI Matrix will be used to identify the need and gradation of competence for a position in the OSH Department.

Furthermore, the technical competency level will be referred from Bloom's taxonomy for learning and assessing with a PKT's Proficiency Level based on the Dreyfus Model. Dreyfus and Dreyfus presented a five-stage progression from novice to master in their skills acquisition model. Those five levels were initially named novice,

competent, proficient, expert, and master (Dreyfus & Dreyfus, 1980). In a later revision Stuart Dreyfus, revised the stages to novice, advanced beginner, competence, proficiency, and expertise (Dreyfus, 2004). There are five level of proficiency that the author proposed with type and description in each level as seen in table 1.

Tabel 1: PKT's Technical Competency Proficiency Level

| PKT's Technical Competency Proficiency Level | | | | | |
|--|----------------|------------|-------------------------|------------------|--|
| No. | Bloom Taxonomy | | PKT's Proficiency Level | | Description |
| 1. | Level 1 | Remember | Level 1 (Grade 5B-7A) | Novice | Newbie at work; can work with supervision. |
| 2. | Level 2 | Understand | | | |
| 3. | Level 3 | Apply | Level 2 (Grade 4A-5A) | Advance Beginner | Has consistently met standards; able to do work independently. |
| 4. | Level 4 | Analyze | Level 3 (Grade 3A3rdB) | Competent | Able to analyze and consider the consequences of his work. |
| 5. | Level 5 | Evaluate | Level 4 (Grade 2A-2B) | Proficient | Already able to evaluate work from various perspectives (helicopter view). |
| 6. | Level 6 | Create | Level 5 (Grade 1A-1B) | Expert | Known to always be able to maintain high standards and be able to nurture and train others (subject Matter Expert) |

METHODOLOGY

Conceptual Framework is modified from Job Competency Assessment Process by Spencer and Spencer (Spencer & Spencer, 1993). Job Competency Assessment Process in Figure 2 consists of define performance effectiveness criteria, identify job desk of OSH Department, identify job activities and job competency requirements (using SIPOC diagram, RACI Matrix analysis and Taxonomy Bloom Principle), validate job competency and prepare application of the competency model.

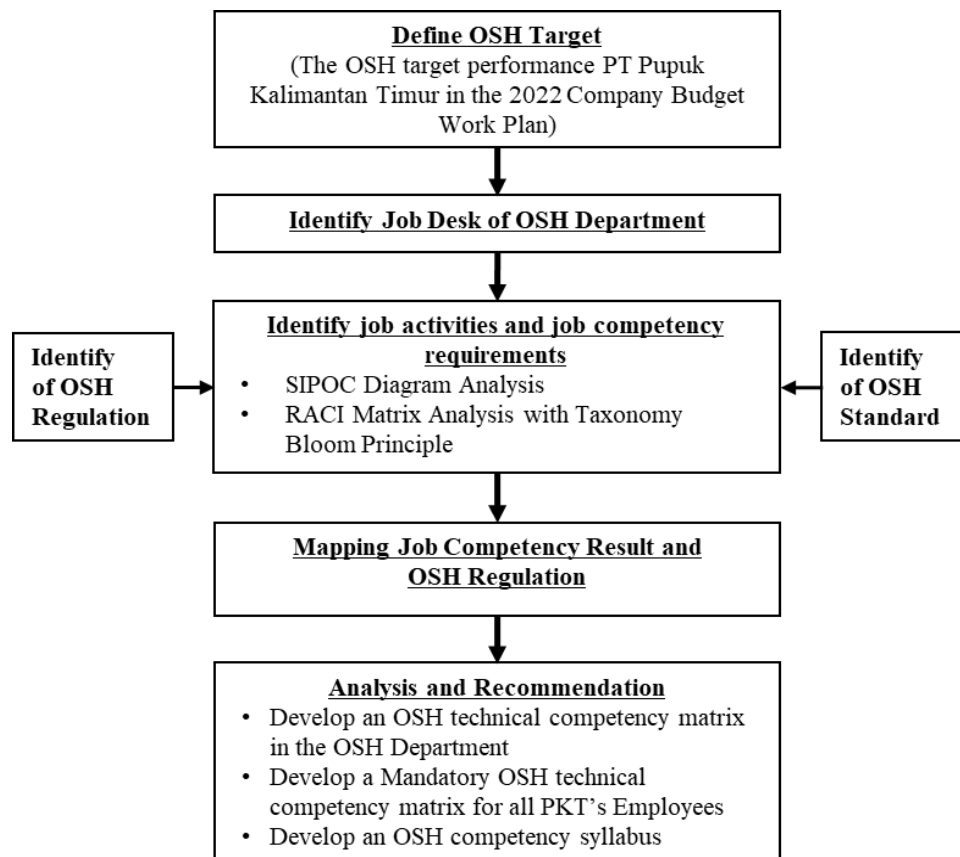


Figure 2: Conceptual Framework

Define OSH Target

The defining of corporate goals and objectives is usually the first step in developing a competency model. (Campion, et al., 2011). Based on the 2022 Company Budget Work Plan, the PKT's OSH Target are:

1. Minimize the occurrence of losses (loss prevention) caused by "personal safety" (Lost Time Incident Frequency Rate < 0.2).

2. Minimize the occurrence of losses (loss prevention) caused by “process safety” (Process safety incident tier 1 < 0.1).
3. Minimize the incidence of occupational diseases and the transmission of dangerous diseases in the work area (including HIV AIDS and COVID-19).

Identify Job Desk of OSH Department

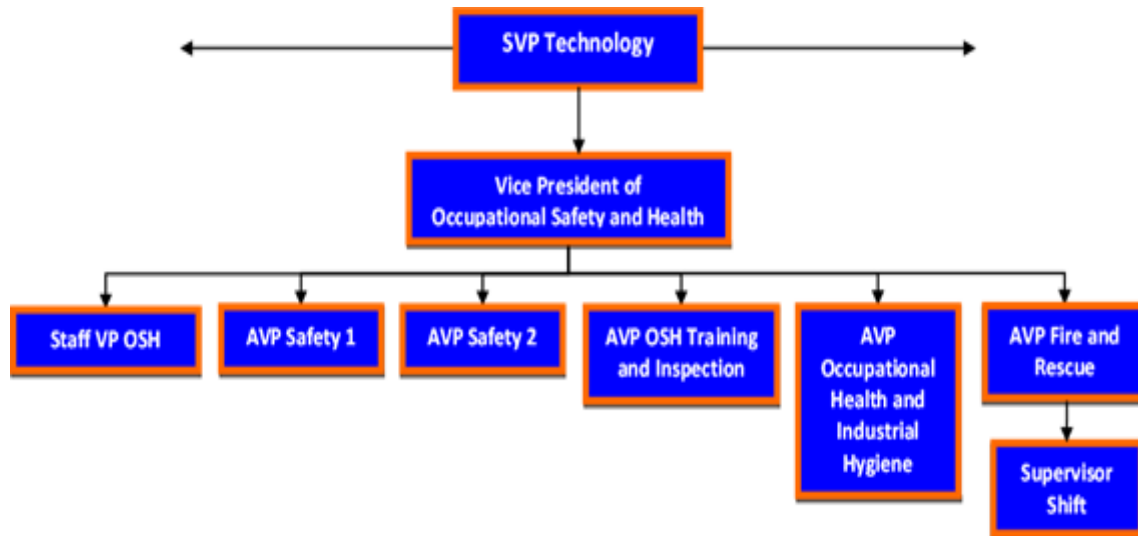


Figure 3: The Organizational Structure of OSH Department of PT Pupuk Kalimantan Timur

Figure 3 is an Organizational Structure of Occupational Safety and Health Department of PT Pupuk Kalimantan Timur is established by the President Director on January 1, 2022. The OSH Department consists of 5 sections, namely Safety 1, Safety 2, OSH Training and Inspection, Occupational Health and Industrial Hygiene, and Fire and Rescue. The job desks for each of these sections have been prepared by the PKT Job Analysis Team, which is coordinated by the Human Resource Development and Organization Department.

Safety 1 and Safety 2 Section has the duty and responsibility to ensure that OSH aspects in the workplace can be implemented properly, like safe work behavior, safe working conditions, compliance with OSH regulations and standards to analyzing and investigating accidents that occur.

OSH Training and Inspection Section has the duty and responsibility to ensure that the fulfillment of OSH training needs and equipment certification has been carried out in accordance with applicable regulations.

Occupational Health and Industrial Hygiene Section has duties and responsibilities to ensure aspects related to industrial hygiene and employee health can be carried out and implemented in accordance with OSH regulations and standards.

Fire and Rescue Section has the duty and responsibility to prevent and control fires and provide rescue in work accidents.

Identify Job Activities and Job Competency Requirements

Identifying OSH regulations and standard that applied Internationally and in Indonesia. Based on the identification results, there are 41 regulations and standards consisting of: Indonesian Act, Indonesian Government Regulation, Ministry Decree, The Director General Decree, ISO 45001, Responsible Care Management Practice, IFA Protect and Sustain Management Practice and Indonesia National Standard (SNI).

From the 41 regulations and standard, there are 17 (41.46%) regulations and standards that haven't been comply in the existing PKT's OSH Competency Matrix.

Using SIPOC Diagram and RACI Matrix, the author will be identified job activities and job competency requirements in each section at OSH Department.

Table 2 and table 3 shown below are examples of compiling OSH competencies in safety 1 and safety 2 sections using the SIPOC Diagram and RACI Matrix. References to OSH regulations and standards are the basis for determining the business processes in this section which are arranged in the SIPOC Diagram. Then from the SIPOC diagram, the process is used as an OSH Technical competency based on the PKT's Proficiency Level using the RACI Matrix.

Table 2: The Example of SIPOC Diagram for Safety 1 and Safety 2 Section

| Safety 1 and Safety 2 Section | | | | | |
|-------------------------------|--|--|--|----------------------|--|
| No | Supplier | Input | Process | Output | Customer |
| A1 | Act no. 1 of 1970. | PKT's OSH Management System Guidelines. Clinical Management System. Management Review Meeting. | Implement OSH Management policy. | OSH Policy Document. | Management Representative and Board of Director. |
| | Government Regulation no. 50 of 2012. | | Supervise the process of implementing OSH Management policies. | | |
| | The Ministry of Manpower of the Republic of Indonesia Decrees no. 02/MEN/1992 and 42/MEN/III/2008. | | Evaluation implemented of OSH Policy. | | |
| | ISO 45001:2018. | | | | |
| | IFA Protect and Sustain. | | | | |
| | 7 Codes Responsible Care. | | | | |

Table 3: The Example of RACI Matrix for Safety 1 and Safety 2 Section

| RACI Matrix Safety 1 and Safety 2 Section | | | | | |
|---|--|---|---|--|---|
| No. | OSH Technical Competency | Level 4 (VP OSH Dept. & Middle Staff / Grade 2A - 2B) | Level 3 (AVP & Young Staff / Grade 3A - 3B) | Level 2 (Supervisor & Primary Staff / Grade 4A - 5A) | Level 1 (Inspector / Grade 5B - 7A) |
| A1. | Implement OSH Management policy. | C, I | A | R | R |
| | Supervise the process of implementing OSH Management policies. | A | R | I | I |
| | Evaluation implemented of OSH Policy. | R | I | I | I |

Mapping Job Competency Result and OSH Regulation

In validating the proposed OHS Technical Competencies, a re-mapping of compliance with Indonesian government regulations with a list of OHS technical competencies (number of SIPOC Process Diagrams) was compiled. So that it will be seen the compatibility between OSH Technical competencies with Indonesian government regulations. the Proposed PKT OSH Technical competencies have 100% comply with the Indonesian government regulations relating to OSH.

RESULT AND DISCUSSION

The OSH Technical Competency is determined based on the OSH Technical competency which is the Responsibility of the RACI Matrix at each level in each section. The research will be purposed OSH technical competency matrix for the OSH Department (table 4), mandatory OSH Technical Competency Matrix for All PKT's Employees (table 5), and OSH Competency Syllabus (table 6).

Table 4: OSH Technical Competency Matrix in The OSH Department

| Level 4 (VP OSH Dept. & Middle Staff / Grade 2A - 2B) | | |
|---|--|---|
| 28 Competencies | | |
| Level 3 (AVP & Young Staff / Grade 3A - 3B) | Level 2 (Supervisor & Primary Staff / Grade 4A - 5A) | Level 1 (Inspector / Grade 5B - 7A) |
| Safety 1 and Safety 2 Section | | |
| 39 Competencies | 39 Competencies | 39 Competencies |
| OSH Training and Inspection Section | | |
| 25 Competencies | 25 Competencies | 25 Competencies |
| Occupational Health and Industrial Hygiene Section | | |
| 25 Competencies | 39 Competencies | 39 Competencies |
| Fire and Rescue Section | | |
| 22 Competencies | 22 Competencies | 22 Competencies |

Table 5: Mandatory OSH technical competency matrix for all PKT's Employees

| Level 4 (VP Dept. & Middle Staff / Grade 2A - 2B) | Level 3 (AVP & Young Staff / Grade 3A - 3B) | Level 2 (Supervisor & Primary Staff / Grade 4A - 5A) | Level 1 (Inspector / Grade 5B - 7A) |
|---|---|--|---|
| 16 Competencies | 27 Competencies | 31 Competencies | 31 Competencies |

Table 6: OSH Competency Syllabus Training

| Level 4 (VP OSH Dept. & Middle Staff / Grade 2A - 2B) | | |
|---|--|---|
| 20 Syllabus Training | | |
| Level 3 (AVP & Young Staff / Grade 3A - 3B) | Level 2 (Supervisor & Primary Staff / Grade 4A - 5A) | Level 1 (Inspector / Grade 5B - 7A) |
| Safety 1 and Safety 2 Section | | |
| 28 Syllabus Training | 30 Syllabus Training | 30 Syllabus Training |
| OSH Training and Inspection Section | | |
| 18 Syllabus Training | 18 Syllabus Training | 18 Syllabus Training |
| Occupational Health and Industrial Hygiene Section | | |
| 21 Syllabus Training | 25 Syllabus Training | 25 Syllabus Training |
| Fire and Rescue Section | | |
| 18 Syllabus Training | 23 Syllabus Training | 23 Syllabus Training |

In fulfilling the OSH Technical Competency Matrix, trainings must be carried out in accordance with the competencies that have been determined. OSH training, knowledge, and skill can all help to increase competence. OHS training and competencies have a significant positive effect on safety performance and employee satisfaction (Bayram, 2019).

RESULT AND DISCUSSION

In the preparation of the previous OSH technical competency (in the PKT's OSH Competency Matrix 2015), there was a gap in compliance with the Indonesian government regulations related to OSH technical of 41.46% (only 58.54% complied with the Indonesian Government Regulation). This resulted in the number of work accidents at PKT during the 2019-2021 period remain constant (there was no decrease in the number of work accidents). Based on the results of the investigation and analysis conducted, the type of root cause of an accident is mostly caused by the lack of competence possessed by workers in doing a job safely, where the number of occurrences of lack of competency as the cause of work accidents is 13 findings.

Using the job competency Assessment Process reference from Spencer and Spencer (Spencer & Spencer, 1993), the author created a conceptual framework by adding the SIPOC Diagram and RACI Matrix and succeeded in adding OSH technical competencies in each part of the OHS Department, OSH technical competence is mandatory for all PKT employee and OSH competency training syllabus.

Based on the results of Mapping Job Competency Results and OSH Regulations, the Proposed PKT OSH Technical competencies have 100% comply with the Indonesian government regulations relating to OSH. Thus, the author states that the Proposed PKT OSH Technical competency has been valid for the fulfillment of current Indonesian government regulations. This is also in accordance with the research by Hadek, where the SIPOC Diagram method can identify all significant aspects of an entire process (Hadek, et al., 2019).

By implementing the research results, the number of work accidents in the PKT will also decrease. This is also in accordance with research conducted by Sawacha, workplace accidents occur due to lack of knowledge or training, supervision, or means to complete tasks properly, or due to misjudgment, carelessness, apathy, or carelessness (Sawacha, et al., 1999).

Table 7 is the implementation plan for the OSH Technical competency mapping in the OSH Department that has been prepared in this research. The OSH Department must coordinate with the Human Resources and Organizational Development Department for the preparation of a competency-based Job Training Syllabus (SIPEJABAT) document.

Table 7: Implementation Schedule Plan

| Implementation Plan | PIC | 2022 | | | | 2023 | | | | | | | | | | | |
|---|---|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Establish The OSH Competency Development Team | The Human Resources and Organizational Development Department | | | | | | | | | | | | | | | | |
| | The OSH Department | | | | | | | | | | | | | | | | |
| Discussion of proposed OSH Competencies from each Section in the OSH Department | The Human Resources and Organizational Development Department | | | | | | | | | | | | | | | | |
| | The OSH Department | | | | | | | | | | | | | | | | |
| Preparation of the OSH Matrix and Syllabus (SIPEJABAT K3) | The Human Resources and Organizational Development Department | | | | | | | | | | | | | | | | |
| | The OSH Department | | | | | | | | | | | | | | | | |
| Approval of "SIPEJABAT K3" Document 2022 | The Human Resources and Organizational Development Department | | | | | | | | | | | | | | | | |
| "SIPEJABAT K3" 2022 Document Socialization | The OSH Department | | | | | | | | | | | | | | | | |
| Implementation of the Training Program | The OSH Department | | | | | | | | | | | | | | | | |
| Evaluation of implementation "SIPEJABAT K3" 2022 Document | The Human Resources and Organizational Development Department | | | | | | | | | | | | | | | | |
| | The OSH Department | | | | | | | | | | | | | | | | |

CONCLUSIONS

As a conclusion, in this study, the OSH technical competency for OSH Department has increased from previously only 42 competencies to 174 competencies, a mandatory OSH technical competency for all PKT's employees, there was an increase in the previous no competencies to 74 competencies, and OSH competency training syllabus increased from the previous only 40 syllabus to 65 OSH training syllabus.

The OSH Technical Competency Mapping Implementation for OSH Department will start from September 2022 to December 2023 with the total estimated cost of OSH training needed to implement the results of this research is 238,000,000 per year.

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IMPACT OF EMPLOYEE MOTIVATION ON JOB PERFORMANCE

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ABSTRACT

This article aims to review how motivation impacts job performance. It has been conducted by both primary and secondary sources. Primary sources include two surveys that were conducted and secondary sources include reviewing many literature works and other papers. Employee motivation is that the vital factor to zest up the capacity of a company. In this current era, each organization needs to support in the furious serious market. Business work or their presentation inside the market are frequently assessed by survey the degree of inspiration of representatives. Motivation can assume a lead part to encourage jobsatisfaction.

Keywords: Employee motivation, job performance, surveys, inspiration

1. INTRODUCTION

In the present globalized time, business elements bulls eye on to acquire huge income in each monetary year. In that prospects those associations set various types of plans to get the upper hand in the savage market rivalry. Representative inspiration carries accomplishment to any kinds of business endeavor, regardless of whether that is medium size association or a worldwide organization. So as to run the useful cycle in smooth way the organizations are setting up some remarkable techniques to keep up the corporate administration and get the upper hand in certain manner.

Any sort of organization has comprised with different office, for example, the account office, managerial office, public connection office, sells office and human asset division. Managers take the decision to advance or downgrade the representatives. As of now the human asset office has a significant effect for bring enormous scope efficiency for any association by dealing with the workers. As indicated by different scientists of this particular title that is the effect of the inspiration of representatives on work execution they have been expressed that on the off chance that the representatives of any organizations should be propelled, at that point their mental elements should be evaluated by the authority of an association. All in all a few researchers said that workers can not draw in with their allotted task until and except if they are seeking after the inspirational attitude. Relational correspondence proposed reason possibly can be satisfied if the intrapersonal correspondence goes in precise and fulfilled way. In the subject of correspondence relational correspondence is such a factor which help individual to speak with themselves.

2. LITERATURE REVIEW

2.1. Studies on Motivation

Practically all the hypotheses examined above are tried observationally. one among the primary exact investigations on Maslow's pecking order of necessities hypothesis attempted to check whether the rundown of requirements got from American culture by Maslow is pertinent to different societies. The investigation found that supervisors had these necessities which they were significant. Notwithstanding, despite the fact that these necessities could likewise be generally acknowledged the significance appended as per the general inclination of different needs shifts from culture to culture (Haire, et. al., 1963).

A review directed by Velnampy (2007) to check Maslow's order of requirements hypothesis uncovers that deliberately or unknowingly lower level workers in both public and individual area associations of Sri Lanka join more significance to bring down level needs and better level representatives accentuate more elevated level needs.

In another examination, Sajuyigbe, et al. (2013) gathered information from 100 representatives of those fabricating organizations in Ibadan, Nigeria and presumed that pay, execution reward, acknowledgment and acclaim were fundamentally connected with authoritative execution, supporting Herzberg's inspiration cleanliness hypothesis.

Aside from money or financial prizes, inspiration hypotheses and exact investigations likewise verify the function of non-monetary compensations in inspiration particularly in innovation based, lucrative positions. Earthy colored and Armstrong (1999) announced that the non-monetary plans in their study were especially mainstream among information and innovation based areas likewise as deals and fix organizations. Another examination by Beran (2005) affirmed that larger part of organizations have in situ one kind of non-money related prizes or the inverse particularly worker acknowledgment which the arrangement improved profitability.

ity. In another investigation, Rose (1998) found that the respondent organizations that incline toward non-money related prizes are individuals who accept significant level of client contact.

Studies utilizing information gathered inside the uk likewise bears witness to the part of non-budgetary motivators in spurring workers to high efficiency. during a 2009 McKinsey Quarterly overview of 1,047 heads, chiefs and workers from an assortment of areas inside the uk (Vrancic, 2015), the respondents see three non-monetary sparks: acclaim from prompt administrators, initiative consideration (for instance, one-on-one discussions) and an occasion to control activities or teams as no less or possibly more straightforward helpers than the three most noteworthy evaluated budgetary motivating forces: money rewards, expanded base compensation, and stock or investment opportunities. moreover, it had been likewise discovered that the study's main three nonfinancial sparks assume basic functions in causing workers to feel that their organizations esteem them, pay attention to their prosperity and endeavor to make open doors for vocation development. steady with these analysts, these subjects repeat continually in many examinations on approaches to inspire and have collaboration representatives (Vrancic, 2015).

Another examination led by Ng, et. al. (2010) as referred to in Singh, et. al. (2012) looked to survey the desires and needs of youthful representatives. They found that this class of employees evaluated open doors for professional success in light of the fact that the most alluring business related characteristic followed by great individuals to identify with and openings forever preparing and advancement. reliable with these analysts, shockingly, pay, advantages and professional stability were positioned inside the center behind professional success. In Pakistan, Tausif (2012, as referred to in Haider, et al., 2015:348) directed a study among government funded teachers and found that non-budgetary prizes were fundamental in building up representatives' occupation fulfillment and inspiration. Essentially, Barton (2006, as referred to in Haider, et al., 2015: 348) found that representative acknowledgment is that the most indispensable factor among non-budgetary awards in improving position fulfillment. Bull (2005, as referred to in Haider, et al., 2015: 348) directed an investigation and reasoned that difficult positions improved worker work fulfillment. At long last, a few colleges and innovation related foundations inside the us like Massachusetts Institute of Technology (MIT), University of Washington and University of California have planned, actualized and kept up representative acknowledgment projects to empower ingenuity and profitability inside the work environment.

In an observational investigation to check value hypothesis, Griffeth and Gaertner (2001) created and tried a model utilizing information gathered from 192 clinic representatives utilizing basic condition displaying which set fulfillment and aim to stop as arbiters of turnover rate. The scientists used numerous elements of saw shamefulness which incorporates: pay manages (the decency of one's compensation comparative with one's colleagues and subsequently the reasonableness of giving boosts in salary and advancements); pay organization (or the impression of the decency of the administrator in regulating the standards for pay increments and advancements); pay level, work pace (or the decency of the manager in keeping up a decent movement of work action and rule organization. The outcomes indicated that pay rules, pay organization and work movement or manager fulfillment were emphatically connected with stopped goals.

Different examinations pointed toward testing value hypothesis incorporate Summers and Hendrix (1991, as referred to in Griffeth and Gaertner, 2001: 11019) who found a major connection between work fulfillment and expectation to stop and Iverson and Roy (1994, as referred to in Griffeth and Gaertner, 2001: 1019) who researched the impression of changed compensation and advantages concerning associates and found a strong relationship between's compensation value and occupation fulfillment.

Staff preparing and advancement is another crucial spark inside the work environment. during an investigation led by Aibievi (2014) gathered information from 100 non-scholastic staff of University of Benin, Nigeria to check the effect of instructing and advancement on worker inspiration. The investigation found a major positive connection among preparing and inspiration; that prepared staff were discovered to be more devoted to obligation contrasted with those that didn't get preparing and furthermore that preparation could lead on to expanded profitability.

From the above brief conversation of the thought and observational confirmations, it's currently an ideal opportunity for us to draw out our perspectives while in transit to persuade employees to broaden their profitability.

In view of the first conversation on hypotheses and observational proof, we are constrained to arrive at the ensuing union of the writing. Above all else, there's the need to propel employees in order to broaden their efficiency and furthermore that there are numerous money related and non-budgetary procedures of spurring employees. Furthermore, apparently there's no single general standard material to each and every situation.

Contrastsexist among lower, center and better level representatives as far as their needs. For a few, the writ- ing recommends that money related prizes and oversight are important methodologies before they will per- form.. Others work better in a climate of decency, value, love and consolation. Some must be constrained or perhaps rebuffed before they will work.

2.2. Studies on Job Satisfaction

As indicated by Vroom (1964) Job fulfillment is a direction of feelings that representatives have towards job they are performing at the work place. Occupation Satisfaction is the fundamental segment for representative inspiration and support towards better execution .Many individuals have characterized work satisfactionover the years. Hoppok and Spielgler (1938) characterizes work fulfillment as the coordinated arrangement of mental, physiological and natural conditions that urge representatives to concede that they are fulfilled or content with their positions .Further, the part of workers at working environment is accentuated as there is an impact of different components on a representativeinside the association.

Clark (1997) contend that if representatives are not happy with the errand allotted to them, they are not sure about components, for example, their privileges, working conditions are dangerous, colleagues are not help- ful, director isn't giving them regard and they are not considered in the dynamic cycle; coming about them to feel separate from the association. Besides, he featured that in current occasions, firms can't manage the cost of disappointed workers as they won't perform up to the norms or the desires for their manager, they will be terminated, coming about firms to endure extra expenses for enrolling new staff. In this way, it is advanta- geous for firms to give adaptable workplace to representatives where they feel their assessments are esteemedand they are a piece of the association. Worker resolve should be high as it will be reflected in their exhibi- tion in light of the fact that with low confidence, they will put forth lesser attempts to improve.

Work has been done to comprehend the connection between workplace and employment fulfillment all around the globe in various settings throughout the long term. The investigation is increasing increasingly more significance with the progression of time due to its inclination and effect on the general public. The dis- coveries of a Danish report proposethat a firm can build its profitability through the improvement of actual components of workplace (inward atmosphere) and may positively affect firms' efficiency (Buhai, Cottini, and Nielseny, 2008). Herzberg et al. (1959) created inspirational model for work fulfillment and through ex- amination he secured that the position related variables can be separated into two classifications, Hygiene components and inspiration factors. Cleanliness elements can not cause fulfillment yet they can change dis- appointment into no disappointment or transient inspiration, where a persuasive elements have durable im- pact as they raise good emotions towards work and convert no disappointment into fulfillment. Without cleanlinessfactors (that are working conditions, management quality and level, the organization strategy and organization, relational relations, professional stability, and pay) the representatives odds of getting disap- pointed increment .

Baah and Amoako (2011) depicted that the inspirational elements (the idea of work, the pride from their work, the acknowledgment, the duty that is allowed to them, and open doors for self-improvement and headway) causes representatives to locate their value as for esteem given to them by association. Further, this can increment persuasive degree of workers which will at last raise inside joy of representatives and that the inner joy will cause fulfillment. Hygeine factor can just motivation outside joy yet they are not incredible enough to change over disappointment into fulfillment but rather still its essence is a lot of significant. As perthe Herzberg Two Factor Theory, both Hygiene and Motivation factors are connected with one another, as Hygiene factors move representative from Job disappointment to No Job disappointment, while inspiration factors moves workers from no occupation disappointment to work fulfillment (Herzberg et al., 1959). Sell and Cleal (2011)built up a model on work fulfillment by incorporating financial factors and workplace fac- tors to examine the response of representatives in dangerous workplace with high moneyrelated advantages and non- risky workplace and low money related advantages. The examination indicated that diverse psy- chosocial and workplace factors like work place, social help has direct effect on work fulfillment and that expansion in remunerations doesn't improve the disappointment level among representatives.The director's accessibility at period of scarcity, capacity to interlink representatives, animate innovative reasoning and in- formation on worth of liberality taking into account laborers, and capacity to speak with workers, are the es- sential oversight qualities. Results uncovered that with great and powerful management, representatives' ful- fillment level was high while with more unfortunate correspondence capacity, disappointment level among workers was high (Schroffel, 1999). Another investigation by Catillo and Cano (2004) hands on fulfillment level among employees of schools indicated that if legitimate consideration is given towards relational con- nections, acknowledgment and management, the degree of occupation fulfillment would rise.

Bakotic and Babic (2013) found that for the laborers who work under troublesome working conditions, working condition is a significant factor for work fulfillment, so laborers under troublesome working conditions are disappointed through this factor. To improve fulfillment of representatives working under troublesome working conditions, it is important for the administration to improve the working conditions. This will make them similarly happy with the individuals who work under typical working condition and consequently by and large execution will increment. An examination in telecom area by Tariq et al (2013) uncovered that there are various factors like remaining task at hand, compensation, stress at work spot and clashes with family because of occupation drives a representative towards disappointment that further outcomes in turnover. At definite stage these free factors impacts contrarily on authoritative execution which is adversely affected by these variables. Chandrasekar (2011) contend that an association needs to focus on establish a workplace that upgrades the capacity of representatives to turn out to be more gainful to build benefits for association. He likewise contended that Human to human associations and relations are assuming more predominant part in the general employment fulfillment as opposed to cash while the board aptitudes, time and energy, all are required for improving the general exhibition of the association in current period. In light of the above writing, the theoretical model tried in this paper is introduced in Fig 1. The free factor in this exploration is the workplace where the representatives are working inside an association and the needy variable is the Job fulfillment of representatives. Working climate incorporates the working hours, work wellbeing, professional stability, relationship among representatives, regard needs of representatives and the impact of top administration on crafted by workers.

2.3. Theories of Motivation

It is sufficiently recorded in the writing that few scholars from Adam Smith to Abraham Maslow and others have considered human conduct from alternate points of view – financial, mental, social, and so forth, to comprehend what inspire individuals to do the things they do. All the while, they built up a few speculations of inspiration. This part presents a fast audit of some of the hypotheses and experimental confirmations on the association among inspiration and profitability. Extensively the speculations of inspiration can be characterized in to content hypotheses and cycle hypotheses. The previous arrangements with what propels and are worried about distinguishing individuals' needs and their relative qualities, and the objectives they seek after so as to fulfill these necessities.

The principle content speculations incorporate Maslow's pecking order needs; Herzberg's two factor hypothesis and McClelland's accomplishment inspiration hypothesis.

Cycle hypotheses on the contrary hand, place accentuation on the specific cycle of inspiration. These speculations are worried about the connections among the dynamic factors which structure inspiration and with how conduct is started, coordinated and continued. Models are hope – based models, value hypothesis objective hypothesis and attribution hypothesis (Uzonna, 2013).

The most famous hypothesis of inspiration inside the old style writing is presumably that of a US therapist, Abraham Maslow's Hierarchy of Needs Theory. Maslow (1943) talked about five degrees of worker needs: physiological, wellbeing and security, social, regard or personality and self-actualization. As indicated by this hypothesis, individuals have numerous requirements which spur them to work, that those necessities are orchestrated in a progressive way so that lower level needs (physiological and security) must be fulfilled before resulting more significant level social need would rouse representatives to figure hard and increment efficiency. The second hypothesis of inspiration is the two factor hypothesis or spark and cleanliness hypothesis created by Frederick (Herzberg, 1966). Helpers or inborn factors, for example, drive for accomplishment and progression, being treated in a mindful and chivalrous way and getting positive acknowledgment are natural in the occupation itself and which the individual appreciates as a consequences of effectively finishing the assignment, produce work fulfillment and rouse representatives to figure more enthusiastically. Cleanliness or outward factors, for example, pay, advantages and professional stability are outside to the errand and frequently decided at the authoritative level can prompt disappointment and absence of inspiration if not present in sure degrees. Uzonna (2013) contends that one significant component of Herzberg's hypothesis is that realizing representative needs can assist us with inspiring the present youthful, goal-oriented and information and innovation based employees. Given the way that these employees as of now order lucrative positions, we can derive that cash or monetary compensations alone doesn't give enough of an impetus as a help for execution. This infers that to persuade employees, associations need to look past money related prizes.

Victor Vroom built up the desire hypothesis upheld the suspicion that representative exertion will cause execution and execution will cause rewards. Prizes might be either certain or negative. The more sure the prize the almost certain the specialist will be profoundly energetic. On the other hand, the more negative the prize the

more uncertain therepresentative will be propelled to work more earnestly (Vroom, 1964, as refered to inMalik, et al, 2011: 39). This hypothesis was additionally evolved by Porter and Lawler (1968).

Another hypothesis is that the value hypothesis of inspiration created inside the mid 1960's by J. Stacey

Adams, an analyst. The hypothesis recommends that an individual's inspirationdepends on what the person in question considers being reasonable when contrasted with others (Redmond and Housell, 2015). It perceives that inspiration are frequently influenced through an individual's view of reasonable treatment in social trades. When contrasted with others, people need to be remunerated decently for their commitments to the association. Anindividual's convictions with respect to what's reasonable and what's not can influence his in-spiration, perspectives and practices which can progressively influence ensuing execution.At the point when applied to the working environment, value hypothesis centers around a representative's work-remuneration relationship or "trade relationship" likewise as that worker's arrangement to limit any feeling of shamefulness that may result. As per the hypothesis, underpayment imbalance prompts outrage and pain while excessive charge actuates blame. (Redmond and Housell, 2015).

Ultimately, B.F. Skinner's support hypothesis expresses that those representative practices that cause positive results will be rehashed and practices that cause negative results won't berehashed (Skinner, 1953, as refered to in Malik, et. al., 2011:39). A reinforcer can thusly be viewed as a prize or motivation to carry on with a specific goal in mind. Reinforcers might be substantial like food or cash and they can be elusive like en- dorsement or recognition. Thesuggestion is that associations ought to fortify worker practices that cause posi-tive results and demoralize those practices that cause negative results. This can be accomplishedthrough staff preparing and improvement, among different techniques.

3. Surveys

3.1 Survey 1: Herzberg two factor theory

3.1.1 Scope of the Survey

To recognize the representatives level of fulfillment upon that work.This examinationis useful to that associa-tions for directing further exploration.

It is also useful to distinguish the business' degree of fulfillment towards government assistance measure. This examination is useful to the association for recognizing the region of disappointment of occupation of the workers.

This investigation assists with settling on an administrative choice to theorganization.

Hygiene factors considered are:

- pay
- quality of supervision
- company rules
- physical working conditions
- job security

Motivators considered are:

- chances at promotion
- personal growth
- acknowledgement
- responsibility
- achievement

3.1.2 METHODOLOGY

Population and Sample Size

The reason for the examination is to contemplate the connection between workplace and employment ful- fillment. The information is accumulated haphazardly from the manufacturing industries and small business-es in the city of Hyderabad, through review poll. From every area, 90 respondents were picked that permit usto get

900 reactions from representatives working in various foundations using self-managed polls. As proof recommend that self-directed survey, dispersed by hand and by means of messages, is generally appropriate in numerous investigations. The primary point of choosing workers from a few different fields is to get sentiment from an assorted gathering of individuals so the outcomes can be summed up on the immense gathering of populace.

Sample Size

Out of Sample 80 respondents were interviewed.

Source of Data

In this Study both Primary and secondary data were used.

- i. **Primary Data** _ Employees were interviewed with help of questionnaires.
- ii. **Secondary Data** - Various information's collected from company records..

Tools Used for Analysis

Data got from the respondents was broke down and deciphered with the assistance of pages iOS and other online tools. Performed elucidating insights and relapse investigation with the data assembled from essential and optional sources.

1. It is discovered that the manner in which association speak with representatives about objectives and goals is fairly agreeable to the laborers.
2. It is found from the investigation that the respondent uncovered the explanation behind the joy of the spot of posting as the great relational relationship with associates.
3. It is seen from the examination of the investigation that greater part of the respondent uncovered that they are fulfilled and are esteemed for the work they have done.
4. It is found out from the investigation that many of the respondents are having fulfillment and the excess are not having the fullest fulfillment in the level of inspiration got from their higher specialists.
5. It is found out that the majority of the employees are fulfilled in the occupation in view of the vocation openings gave by the association.
6. Employees are worried all the more frequently and remaining burden on the representatives have redirected them to work disappointment and from above we can see that half of workers feel pressurized in view of arrangement of less fun components and compensations to the workers.

3.1.3 RESULTS

The results are shown in Fig.1 and Fig.2

3.1.4 SUGGESTIONS

To principle great connection in the association, the executives should direct fun exercises and ensure all the representatives from every single office ought to effectively be enjoyed the exercises or functions. Every association ought to energize corporate business for the worker to feel persuaded in where they can advance the

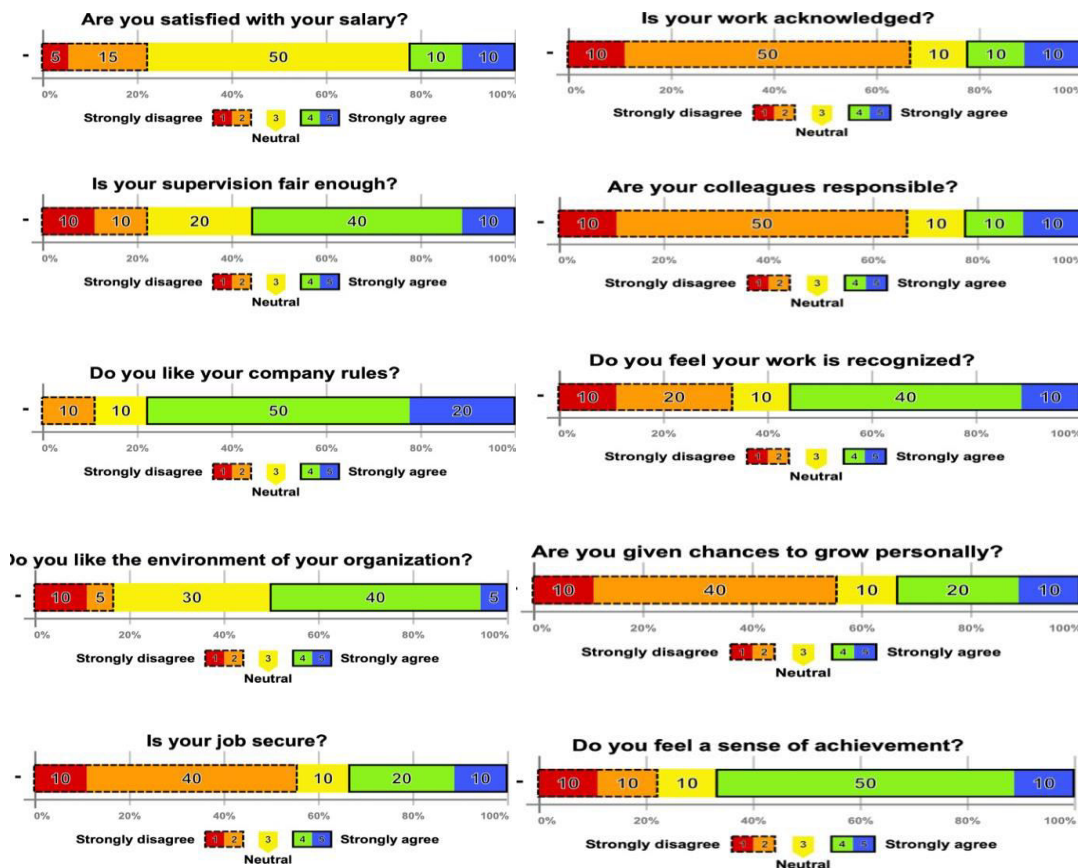


Fig.1: Hygiene Factors survey

Fig 2: Motivation Factors survey

creative thoughts for profession improvement just as association advancement. The top administration must inspire representatives who are slacking in any territory of their work however leading continuous preparing and giving examination report on the work they have done, with the end goal that they can upgrade more in their work. Performance examination like prizes, extra, grants and so forth, ought to be held frequently in an association so representatives could feel that their work is being esteemed and upheld by the association. Organizations must give high inclination to representatives and ought to think about their wellbeing and security, such a way that they should take quantifies in giving great climate to the workers.

3.2 Survey 2: Motivation and Job Satisfaction

3.2.1 Details

From the literature review, I gathered five hygiene factors and five motivation factors and conducted a survey, framing a few questions.

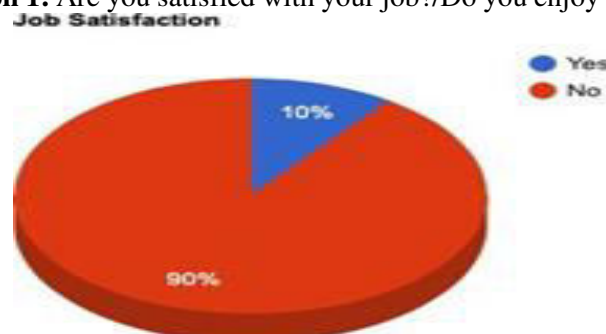
3.2.2 Data analysis and Discussion

Quantitative Analysis

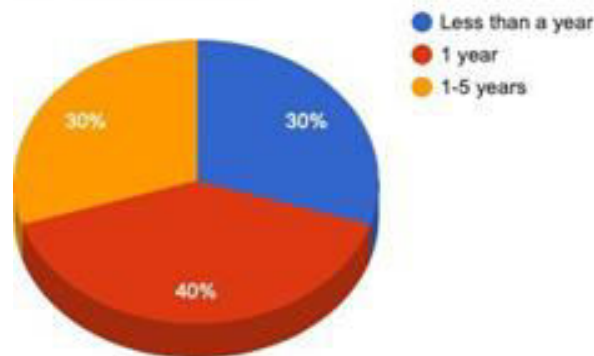
The survey has been done over the accumulated data collected from the primary source of information; sample size of the survey is 30 respondents.

Survey Questions and Answers

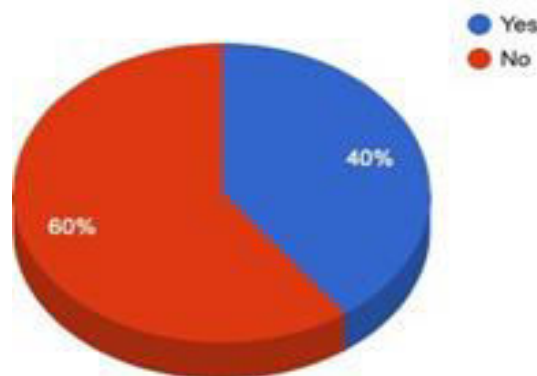
Question 1: Are you satisfied with your job?/Do you enjoy your job?



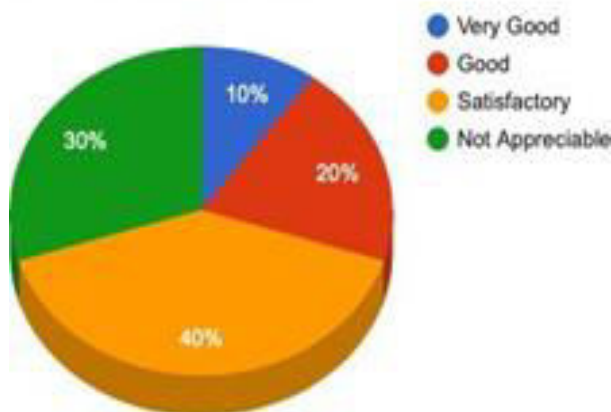
Question 2: How long has it been since you have been working for this organization?
Number of years working



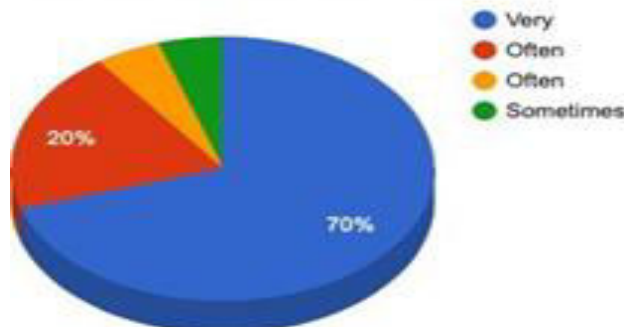
Question 3: Do you respect the organization you're working for?
Respect for the organization they are working for



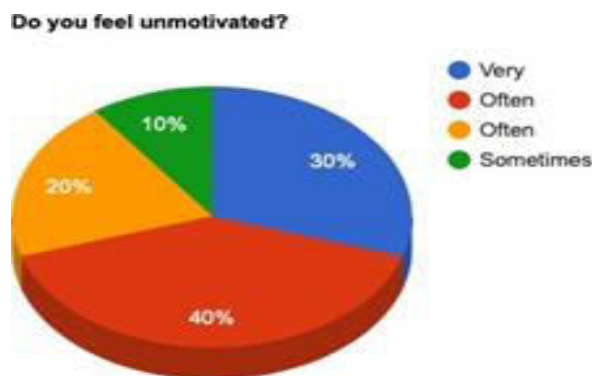
Question 3: How is your relationship with your colleagues?
Relationship with colleagues



Question 5: How often do you feel like quitting?
How often do you do not want to come to work?



Question 6: Do you feel demotivated ?



3.2.3 Results or Findings of the Survey

In the wake of doing the entire investigation it are frequently perceived that the employee inspiration isn't just a rising components in this day and age yet additionally it's some significance over the previous years likewise . In this day and age where we find worldwide organizations with extraordinary brand esteem, behind of that the specialist inspiration existed performed by those association. The previously mentioned examination would portrays the very actuality that, representatives for the most part need to figure in their working environment with inspiration and dedication subsequently the negative inquiry of review paper have less respondents. Along with that the questioners additionally said that they get the improvement in both money related and nonfinancial areas in the wake of stepping up to the plate and remain spurring their specialist.

4. LIMITATIONS

Conduction of exploration work is ordinarily in the midst of specific constraints that at certain point confine the conduction of a top to bottom assessment of the concerned subject. Anyway in worry to the exploration concentrate on the effect of representative inspiration on the work execution there have been a few factors that created as a restricting component for the concerned analyst. With the execution of the investigation on the connected theme the analysts could dissect that point and cash were the 2 main considerations that created as a genuine test for the concerned specialist of the examination. It was on account of the restricted time and little spending that limited the specialist to direct the said research work to an updated form. Moreover to the present the ethical contemplations were likewise another factor that implemented the scientist to restrict the concerned examination study.

The analyst as had chosen the auxiliary exploration technique for the date assortment measure. Hence this necessary approval from the individual specialists which needs a plentiful of your time . moreover to the present the information assortment and assessment required an installment sum. This instigated the specialist to execute the exploration concentrate inside a specified budgetary expense. it had been a moving circumstance for the specialist to accumulate information from the auxiliary sources that would not be effectively open without the separate approval. In addition it had been hard for the analyst to accomplish the entrance about the differentiating perspectives on an assortment of different specialists and understudies about the powerful effect of worker inspiration on the work execution of a firm.

5. CONCLUSION

The theory which expresses that worker inspiration assumes a prevailing part in the business execution of an association was acknowledged. This perpetually means that the privilege kind of inspiration is given to the employees of a firm then it affects the employees exhibitions which thus impacts the general business execution. This is in accordance with the experimental examinations expressed in the above segments that delineate that ideal persuasive elements will in general deliver better from the hierarchical employees . The exploration concentrate even portrays that a roused representative will in general show elevated degree of work execution that in obviously powerfully affects the business execution of the organization. The examination discoveries outline that it is the low thought made by the association in the representative inspiration portion that add to low confidence., absence of responsibility and low efficiency. Consequently the executed exploration study outlines that the representative inspiration ought to be perceived by the authoritative specialists as an essential hierarchical need to upgrade its general work execution. The auxiliary information gathered in regard to the concerned theme researches the central point that go about as inspirational drivers for the representatives.

The surveys exhibit the powerful utilization of methodologies in regard to improving the persuasive degrees of the employees could help the organization builds their general creation rate. In any case, just the presence of the persuasive apparatuses would not cause an improvement in the work execution. It must be appropriate applied

by understanding the necessities of the representatives persuasive needs at exactly that point there could be positive reaction regarding business execution.

It can along these lines be said that inspiration is a basic component in an association and however the discoveries have indicated that inspiration doesn't straightforwardly influence execution, if completely dismissed administrators who disregard it die which could be a drop in deals or benefit and more regrettable conclusion. Workers are a significant asset to the organization and those organizations that have acknowledged it like the SAS foundation and Starbucks have procured colossally. This exploration paper will give manners by which an association can inspire its labor force and it will show the bad marks of a de-spurred work power. It will additionally clarify certain inspiration angles which when dissected were found to have a few shortcomings or need consistency. Before the finish of this paper, the peruser will have the option to make and keep up a profoundly energetic labor force.

It is essential to call attention to scope for additional examinations as a route forward in propelling exploration here so as to address a portion of the restrictions featured. Experimental examination should be led to analyze the part of non-money related techniques of inspiration particularly those that appeal to representatives' more elevated level needs, for example, personality (regard) and self-completion.

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**CHALLENGES AND OPPORTUNITY WITH FOCUS TO EFFICIENT E-HEALTH CARE:
IMPORTANCE IN CURRENT SCENARIO - AN EMPIRICAL ANALYSIS**

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ABSTRACT

As healthcare prices grow and healthcare experts become scarce and difficult to recruit, healthcare companies will be forced to explore using "Health Information Technology" (HIT) systems. Health information technology enables health care companies to simplify several of their procedures and deliver services more productively and cost-effectively. Cloud Computing (CC), one of the most recent technology breakthroughs, provides a robust foundation and is a great facilitator for Health information technology services via the Internet. This may be accomplished using a pay-per-use paradigm of "e-Health Care" to assist the healthcare business in meeting present and forthcoming needs while maintaining prices low. Notwithstanding its considerable capability, Health information technology as a Cloud Computing model has received little attention in the literature. There are no obvious frameworks that incorporate all conceivable Health information technology and Cloud Computing systems and interconnections. As a result, assessing and evaluating the efficacy of such methods is critical. The authors explain the notion of "e-Health Care," emphasizing many of its parts and suggesting the creation of an e-health environment, as well as illuminating several of the problems that face e-Health Care's achievement. The primary data is acquired from 320 men and women in India. The aim of the study is to find out demographic profile's impact on E-health care services. The study also examined several options for dealing with issues like confidentiality and safety.

Keywords: e-Health Care; Health information technology; healthcare services; Cloud computing; security; privacy

1. INTRODUCTION

Several healthcare companies are intending to use the newest technology in the business as part of their effort to improve healthcare services while lowering operating costs. The requirement for healthcare services is increasing, and one of the most complicated problems facing healthcare providers is a scarcity of skilled healthcare specialists such as physicians, doctors, and chemists. Furthermore, as illnesses become more complicated, emerging advances in technology and investigation have aided the development of innovative and highly effective diagnosis and treatment procedures. As a consequence, the coordination of running such enterprises has gotten overly complicated and expensive. Moreover, the healthcare business has become increasingly competitive. Several healthcare organizations offer a variety of services to meet the requirements of people from various socioeconomic backgrounds and illness stages. The market is extremely competitive, and governmental influence swiftly drives underperforming and non-performing hospitals out of business. Any decrease in the volume of healthcare professionals or services cannot be permitted if human well-being is to be preserved. Over time, Health information technology has progressed from departmental solutions to enterprise-wide solutions, and from stand-alone systems that give restricted and localized answers to increasingly networked systems that offer interconnected and broad answers. The difficulty of Health information technology has also developed, from active and reactionary systems to interactive and initiative-taking systems with a greater emphasis on service delivery. Health information technology has also profited from technological improvements like database systems, complete redundancies for mission-critical systems, and the newly developing Cloud Computing platforms to deliver efficient and dependable solutions to support health care. As a result, in contrast to lifting the operational burden off healthcare practitioners' heads, it also dramatically lowers operating and repair expenses. CC also gave healthcare professionals the option of sharing some of their data with other parties including governmental organizations, health research institutions, and approved commercial entities like insurance entities and other hospitals. Patients' information is shared for a variety of reasons, all of which help to enhance the effectiveness of healthcare services. However, strong laws must be in place about who may share data and how effectively patient privacy is protected. Nevertheless, various concerns are implicated when coping with confidentiality and disclosing data, as per Kaletsch et al. The major worries are social activities where, even though the capability to continue incognito, people may accidentally uncover their individuality or private details. An additional hazard is the sale of medical data since certain private details may not be evidence sufficient to be eliminated before the sale.

Furthermore, consumers may be unable to get an unambiguous list of what was given or sold, as well as determine what private details had been contained. There's also the concern of third-party Web analytics, which

exploit whatever data is accessible on the Internet for consumer profiling and personalized promotion. In this scenario, privacy concerns emerge since such companies monitor and note individuals' online activities and activity, infringing on their confidentiality. In this study, the researcher provides an insight into "e-Health Care," which the researcher defines as "integrated Health information technology solutions offered via the Internet on a pay-per-use basis" and its ability to enhance healthcare service excellence. It is understood that e-Health Care will acquire a few of the issues that face conventional CC, as well as those that arise from the unique features and needs of health care software. Confidentiality and safety are two of the biggest significant hurdles that the use of cloud computing for health information technology must overcome. "Reliability in e-health services by people and specialists has been highlighted as one of, if not the fundamental challenges in all nations," as per the European Commission. The more delicate part of electronic health data systems is confidentiality." The researcher highlights and examines a variety of existing suggested confidentiality and safety measures in e-Health Care with this key statement. Existing remedies, for instance, have an emphasis on internet protection, accessibility restriction rules, and consumer interface safety, but not on consistency and non-repudiation, as well as availability. Despite the fact that a standard safety paradigm has been presented, the paradigm remains in the imagination seat.

1.1 The 3 Primary Fundamental Domains of Ehealth, As Per the World Health Organization Are:

The Internet and telecommunication services are used to provide healthcare knowledge to health specialists and clients.

Utilizing the potential of information technology and e-commerce to enhance public healthcare programs, such as via healthcare professional training and education.

The application of e-commerce and e-business principles in the administration of healthcare facilities.

1.2 E-Health Care Challenges

Detection of Disease at an Early Stage

Timely identification of sickness not only serves to minimize the expense of health care but also serves to save someone's life. For example, timely detection of cancer may save a person's life rather than delayed detection of the illness. Another major issue is that there is zero infrastructure in place to diagnose illness in its initial stages (Tan Jent, 2006). IHCA's "Interactive Health Communication Applications" may help solve this problem (Casey, 2014). Researcher (Iluz, 2014) proposed a technique that may be used to diagnose Parkinson's disease soon.

Utilizing the eHealth Platform to Reduce Health Care Costs

Using eHealth to cut healthcare costs is a fundamental problem (Kostkova, 2015). A component of established Health Care Systems is HIEs (Health Information Exchanges). The goal of this component is to provide users with a comprehensive perspective of their clients' therapeutic programs.

Overseeing Patient Information Efficiently in an eHealth System

Gathering, preserving, and keeping data, as well as efficiently retrieving knowledge, are all major challenges (Tan Jent, 2006). Managing an EHR (Electronic Health Record) in an appropriate manner is a major concern (Atienza, 2007). To get the most out of eHealth System implementation, defined data rules are required (WHO, "National eHealth strategy toolkit", 2012).

HSR and IT Expert Expertise are Effectively Utilized

A "Health Service Researcher" (HSR) is a key figure in the creation of an electronic health remedy. His time is valuable thus minimizing his participation in the creation of an eHealth solution is a problem. As a result, effectively merging the talents of both HSR and IT Experts to obtain optimum advantage is a huge task (Association., 2012).

Establish a relationship of trust between the HSR and the IT expert

As previously said, together with IT professionals, HSR is the major individual engaged in the creation of an eHealth solution. As a result, credibility must be developed between the HSR and the IT Professional staff; yet challenges occur when the HSR and the IT Professional engage with one another. As a result, building confidence and genuine respect between the HSR and the IT specialist staff is a significant task. (Association., 2012; Pagliari, 2007)

Patient Privacy

Client confidentiality is a difficulty in the progress of eHealth platforms (Kostkova, 2015). The researchers of (Dong, 2012) proposed 2 major confidentiality risks: imposing confidentiality and maintaining confidentiality in

the existence of others. The researchers of (ALKRAIJI, 2014) also believe that confidentiality is a major concern in GCC "Gulf Cooperation Council" nations.

To address this problem, legislative supervision is required; alternatively, opposition to the adoption of an eHealth system may arise (Ajami S, 2013). The researcher must guarantee that patients have confidence in the system and that their private details are secure (Sass M, 2011).

Data interoperability across multiple health-care settings

Interoperability of client information across various healthcare settings, such as hospitals and private clinics, is a critical problem (ALKRAIJI, 2014). Information is scattered and segregated due to a lack of interoperability, making data analysis impossible (Glaser, 2011). Because of this difficulty, data cannot be exchanged across multiple systems, which makes it difficult to achieve basic healthcare objectives (Sass M, 2011). "World Health Organization" also advised its partners to create standards for efficient knowledge flow between eHealth initiatives and healthcare providers (WHO, 2014). Storing information in a standardized format is a remedy to this challenge (Hammond WE, 2010).

Shortage of Professionals

In this multidisciplinary field, Gulf Cooperation Council nations have fewer researchers and experts (ALKRAIJI, 2014). Nevertheless, such specialists are in low supply around the globe (Qureshi, 2014). In an attempt to address this problem, an e-Capacity conference was conducted in Bellagio in 2008. (Foundation., 2010). It was determined to provide health professionals with training (both officially and informally) to improve their abilities, attitudes, and knowledge in the area of medical informatics. There is also a demand for specialist degree programs in this field. The "American Medical Informatics Association" (AMIA) has set a goal of training 10,000 health informatics (HI) specialists by 2010. (Hersh W. W. J., 2007). This organization engaged in emerging nations such as Singapore and Argentina to build a worldwide edition that was tailored to local requirements (Margolis A, 2013). Another solution is to employ mobile and telemedicine technologies to link skilled resources with the general public. It is particularly beneficial in rustic settings. In India, for example, mobile technologies are being used to evaluate for retinopathy (Murthy KR, 2012).

The Health-Care Infrastructure's Complexity

Managing the complexity of healthcare infrastructure is a major task (Nagai, 2012; ALKRAIJI, 2014). For a variety of causes, healthcare infrastructure may be complicated. Hospitals and healthcare facilities must be built in densely inhabited regions (China, India, and other emerging nations). Likewise, healthcare infrastructure in regionally scattered places is overly complicated.

Such a complicated infrastructure must be able to manage eHealth, but it is presently inadequate and poorly dispersed (Luna, 2014). There are a variety of reasons that contribute to such issues. For instance, inadequate electrical assistance (Latourette MT, 2011), low Internet connectivity quality, or non-availability (Shiferaw F, 2012). These issues are especially prevalent in remote settings (Fraser HS, 2004).

Nevertheless, as mobile phone infrastructure improves (Lewis T, 2012), there are more options to create systems with fewer resources (Barclay, E., 2009). Because of this, mobile health (a subset of the wider telemedicine discipline) may be effective in the face of a lack of infrastructure (Asangansi I, 2010). Nevertheless, these techniques may result in additional issues such as scattered data and project scalability issues.

The infrastructure of an eHealth system includes both hardware and software. It is people's good fortune that today's hardware costs are far lower than they were 40 years ago (GE., 2006). Because of the cheap cost of hardware, emerging and growing nations are in a situation to distribute low-priced computers (verbal, 2014; Igualdad, 2014; Rwanda, 2014). In aspects of software, the Open Source initiative is assisting nations with low resources. Open-Source Software includes PostgreSQL (an open-source database management system) and Open MRS (which aids in the creation of personalized electronic health records) (PostgreSQL, 2014). Many emerging nations in Africa, Asia, and Central and Latin America have introduced Open MRS (Mohammed-Rajput NA, 2011). For the most part, such projects are executed in resource-constrained nations with the support of foreign funds (Gordon AN, 2007). These projects require continuous funding, which is challenging for developing nations to get (Lewis T, 2012).

Government Policies that Support eHealth

In many parts of the globe, eHealth-friendly regulations have yet to be implemented. Since lawmakers in Japan are less familiar with the eHealth curriculum and its prospective advantages, no eHealth-friendly laws are being produced (Nagai, 2012). Correspondingly, policies in the Gulf Cooperation Council (GCC) nations are not

conducive to eHealth (ALKRAIJI, 2014). Government actions in Jordan are also unsuitable for the growth of eHealth (Matar, 2014). For improved growth and durability of eHealth Projects, an eHealth System Framework must be developed. My respected worldwide institutions, such as the “United Nations” and the “World Health Organization”, support it (Bank., 2006).

Other Issues

The researchers of (Matar, 2014) argue that individuals are averse to technological advancements, which include eHealth. The absence of ICT infrastructure, basic ICT understanding, Internet connectivity, and economic & sustainability challenges are among Ghana's major concerns (Bailey, 2015). Engaging sufferers and their families in the care of a client who is ill or in the course of rehabilitation is also a problem (Bedeley, 2014; Gard, 2012).

1.3 Benefits of E-Health Care

- E - health guarantees that information and communication technologies (ICT) are used in a cost-effective and secure manner to benefit healthcare and health-related industries.
- For optimum health care, offers instant access to client data and details.
- Minimize paperwork, repetition of expenditures, and so on, lowering healthcare costs.
- Medical mistakes are reduced, and clinical judgment-making is improved.
- The conversation is considerably simpler, and it helps to close the barrier between the client and the healthcare professional.
- Its usage allows for easy monitoring of patients' illnesses and real-time tracking of their development.
- It is the more cost-effective and time-saving method of increasing accessibility and improving care excellence.
- Patients with the ability to control their wellness can make safer health decisions.
- Monitoring track of our everyday routines, such as what we consume, our pulse rate, how much sleep we get, when to take medications, and so on, has become quite handy.
- Mobile health (mHealth), telemedicine, electronic medical or health records (eMR/eHR), telehealth, big data, wearables, and even AI are just a some of the treatments covered.
- The benefits and enthusiasm of introducing e-commerce to health care are conveyed.
- It may be utilized as responders in an urgent scenario for consultation and a smoother transfer of true knowledge.
- Can be utilized to bridge the difference between the lack of accessibility of resources and the client's ability to obtain service.
- Remote learning may also benefit from eHealth.
- In order to achieve top health purposes like “universal health coverage” (UHC) and the “Sustainable Development Goals”, eHealth is critical (SDGs).
- Improves all elements of patient care, involving security, performance, patient-centeredness, interaction, education, punctuality, efficiency, and equality to offer good healthcare.
- Improves people's health by pushing them to live healthier lives, such as increasing physical exercise, eating healthier, avoiding behavioral risks, and using preventive care more often.

1.4 Opportunities for E-Health Care

- E-Health has been widely seen as a means of significantly improving the public sector in underdeveloped nations.
- As emerging nations face health-related issues, eHealth might be a segment for the entire nation's growth.
- The strategic benefit is particularly important for underdeveloped nations, where accessibility is restricted for a variety of causes.
- E-Health devices may help to enhance the quality and effectiveness of healthcare services.

- Governments in underdeveloped countries are prioritizing eHealth to enhance the efficiency, accessibility, and capabilities of the health industry.
- Patients and physicians are urged to make effective use of eHealth technology to enhance health care.
- Even in an emergency when resources are few, eHealth may help save money.

1.5 Characteristics of E-Health

The 'e' in eHealth signifies a variety of e's that describe what eHealth is all about, not simply 'electronic.' The below ten e's represent the qualities of e-health or what e-health should consist of. The ten e's of "e-health" are as follows (adapted from Eysenbach, 2001):

Efficiency

- One of the benefits of e-health is that it improves healthcare efficiencies, lowering expenses.
- It assures healthcare efficiencies while lowering costs.
- Reducing redundant or unwanted diagnostics, lowering overhead costs in practice, and incorporating patients to improve interaction are all ways to increase efficiency.

Enhancing the Quality of Care

- Improving performance entails not just lowering expenses but also enhancing service excellence.
- By simplifying evaluations between various providers, eHealth may increase the excellence of health care.
- It will also place a premium on quality control, managing patient flows to the highest-quality vendors.

Evidence-Based

- E-health treatments should be proof-based in the sense that their worth and competency must not be assumed but should be shown via rigorous scientific testing.
- There is still a lot of development to be performed in this area.

Empowerment of Consumers and Patients

- E-Health entails increasing patients' understanding and providing them with online access to their digital data.
- This opens up fresh possibilities for patient-centered care and makes proof-based patient decision-making easier.

Encouragement

- Patient engagement is encouraged via more initiative-taking treatment.
- E-health encourages a fresh connection between the patient and the health professional, leading to a genuine organization where shared decisions are taken.

Education

- It provides a forum for both patients and clinicians to increase their understanding via the investigation of health care data.
- Via internet tools, eHealth assists doctors and consumers in their education (continuing medical education and other resources).

Enabling

- Establishment of surroundings that facilitates knowledge sharing and interaction between consumers and service providers.
- E-Health encourages a continuous exchange of knowledge and interaction across healthcare facilities.

Extension

- E-health expands the scope of healthcare options beyond their traditional limits.
- This is intended in a geographical as well as a mental meaning.
- Consumers may now get health care services from overseas providers through the internet, thanks to e-health.
- These services might vary from simple recommendations to more complex intermediations or medicines.

Ethics

- E-health introduces novel modes of patient-physician connection, as well as fresh problems and ethical concerns.
- Problems such as digital professional practice, informed permission, confidentiality, and equality are just a few instances.
- It is one of the most important concerns threatening eHealth.

Equity

- Notwithstanding a glaring divide between the "haves" and "have nots," equality is among eHealth's promises.
- One of the possibilities of e-health is that it would make health care more justifiable/fair, but there is also a significant danger that it may widen the disparity between the "haves" and the "have-nots."
- E-health is and must be available to all individuals, regardless of their age, color, sexuality, nationality, or other factors.
- Individuals with low financial circumstances, absence of expertise, and absence of accessibility to computers and the internet are unable to utilize computers effectively. As a consequence, these patient groups (who would genuinely value the most health information) are the ones who are less likely to profit from information technology advances, unless political experiments completely secure fair accessibility. Rustic vs. urban residents, affluent vs. poor, young vs. elderly, man vs. women persons, and neglected/rare vs. common ailments are all affected by the technological divide.

2. REVIEW OF LITERATURE

Based on the above-mentioned introduction about "Challenges and Opportunities with a Focus on Efficient E-Health Care: Importance in the Current Scenario," it is clear that this subject is being discussed from the point of view of a multi-level approach to reviewing and developing a conceptual framework. The following sections make up the portion of the review of literature:

- i. Importance of e-Health care in the current scenario,
- ii. Opportunities of e-Health Care,
- iii. Challenges of e-Health Care

The above three sections of the literature review give an understanding of the Challenges and opportunities with a focus to efficient E-health care: importance in the current scenario under the perspective of a meta-analysis of a review of the literature.

i. Importance of E-Health Care in the Current Scenario

E-health is a rapidly growing industry in which health experts and customers develop and search data. E-health is a term that relates to internet-based health care and information delivery with the goal of improving health services locally, regionally, and globally. E-sexual health opens up new possibilities for providing online sexual health services to people of all genders, ages, sexual orientations, and geographical locations. E-health technologies can help improve the delivery of sexual health treatments. This will enable consumers to use information technology to improve their sexual health knowledge and quality of life while also addressing some of the stigma connected with sexual diversity and sexual health circumstances. To guarantee that E-health advantages all demographic groups and the data is up to date, medically valid, and efficacious, along with preventative strategies for distinct client groups with varied requirements, a structured and concentrated strategy to investigate and the implementation of observations in practices and policies as needed (Victor Minichiello, et al., 2013). Advances in e-health and the empowered, computer-literate population are transforming healthcare delivery. This new breed of customer is steadily reinventing the physician/patient relationship by becoming participants in their health and making use of online processes, physician web pages, health portals and e-mail. Positive outcomes such as enhanced clinical decision-making, increased efficiency, and improved physician-patient communication are possible as a result of such improvements. Physicians and the organizations that assist them, on the other hand, must first grasp their position in the e-health revolution. Both must raise their knowledge of new consumers and their requirements, as well as develop particular action plans to assist them to reap the benefits of e-health. The research was assisted by the authors in completing both duties by combining timely research and suggestions (Marion J. Ball, et al., 2001).

ii. Opportunities for e-Health Care

Human beings have the fundamental right to maintain good health. It also serves as a gauge of a country's socio-economic growth. However, due to the significant rise of non-communicable illnesses, maintaining good health is becoming increasingly difficult. At the same time, we are on the cusp of a technological revolution that involves the use of high-speed internet, wireless communications and cellular technology. These technologies, together with their specific applications, are giving rise to a slew of new dimensions in the healthcare system, dubbed e-Health. Medical call centers and toll-free emergency telephone services are utilized all over the world. However, it may appear challenging at times owing to a lack of connectivity infrastructure, the newly built electronic health system may play a critical role in distant parts of growing and evolving nations. If it is integrated with the traditional medical system, e-health can be a promising way to provide public health advantages. For the design, improvement and assessment of e-Health, more strategic methods are required. The research was meant to show the current and future possibilities of e-Health in the healthcare system (Sojib Bin Zaman, et al., 2017). Information systems and online technologies have altered the quality of services and people's lifestyles in the modern-day. Among these systems and technologies, Electronic Health is a novel and efficient approach for offering medical and healthcare services in society, as well as for creating relationships between specialists, patients, and all other users of the health system. Regrettably, in spite of the fact that E-health is not a new phenomenon and has been implemented in most particular medicine fields, it is still considered outside the mainstream of the healthcare process. Emerging nations, in particular, have several challenges in the areas of healthcare and medical services, including budgetary constraints, limited resources, lack of skill, and a shortage of physicians and other healthcare workers. The relevance of e-health and related possibilities in emerging nations are discussed in this study. The authors also discussed the challenges of implementing Telemedicine in these nations. The findings had been compiled into a new model titled "e-Health Challenges in Developing Countries" and also discussed the e-Health Strategy Paradigm for Developing Nations after evaluating and categorizing assorted options. Ultimately, some of these nations' experiences in this area have been discussed (Sayed Nasir Khalifeh Soltani, et al., 2010).

iii. Challenges of e-Health Care

The discipline of eHealth "Health Informatics/Medical Informatics" is expanding globally as a result of recognition from renowned organizations such as the "World Health Organization", the Institute of Medicine in the United States, and others. This discipline is confronted with a variety of obstacles, and it is necessary to categorize the issues raised by many scholars in this sector. The goal of the research was to categorize various eHealth concerns into bigger groups. The authors also looked at previous eHealth applications to see the current trends and also identified players who are accountable for contributing to a specific eHealth problem in the study. Authors categorized these applications based on several parameters using eHealth application analysis. Different socio-economic benefits that these applications can give are identified. The authors also showed the ecosystem of an eHealth app. and made proposals for eHealth problems that are related to the IT area. Authors wrap up the talk by identifying opportunities for future study and advising researchers to focus on determining which diseases may be controlled and managed using various eHealth technologies (Qureshi, M. M., et al, 2021). In underdeveloped nations, e-Health offers immense potential to provide healthcare quality, accessibility, and cost. Bangladesh is making tremendous progress in the application of information and communication technology to healthcare, particularly e-Health. The governmental and commercial sectors have both contributed to the development of the country's eHealth infrastructure. However, no assessment of the current state of e-Health in Bangladesh has been made. The authors investigated the situation of e-Health in the public and commercial sectors, as well as the technical and management problems that e-Health initiatives face in Bangladesh, in the study. The authors' findings indicated that, while e-Health in Bangladesh is still a challenge, the challenges may be solved. Given the situation of e-Health and the issues it faced, the scope of some disciplines has to be expanded. The study's findings aid policymakers in making informed judgments on e-Health services (Md. Rakibul Hoque, et al., 2014). The goal of the study was to get a fair perspective on e-Health deployment from healthcare providers. Mixed methodological research was done on study participants who were given pretested self-administered questionnaires to obtain the needed data for case analysis at a health facility. The major point of the study was that e-Health deployment is now characterized by an elevated level of training gaps, a lack of regulatory policy, technological usage issues, and a variety of other variables. The study resulted in an integrated e-Health system with a novel information-sharing paradigm. Despite the fact that numerous opportunities exist, including stakeholder support, working e-Health model sites, the availability of e-Health training laboratories, and government endeavors to deploy E-government, many obstacles remain unsolved. To stimulate broader use of e-Health, the research advises a pre-and in-service examinable e-Health training curriculum, the introduction of an obligatory usage e-Health Policy, and overcoming data sharing problems across health care organizations (Malunga Gregory, et al., 2017).

3. OBJECTIVES

The basis of the above-prescribed introduction about “Challenges and opportunity with focus to efficient E-health care: importance in current scenario” shows that this topic is the subject of discussion from the perspective of the multi-level approach of review regarding developing a conceptual framework. The part of the review of literature is categorized into the following sections:

- i. To find out demographic profile has an impact on E-health care services.
- ii. To Analyze the Challenges and opportunities of users to have an impact on E-health care services.
- iii. To study the Challenges and opportunities with a focus on efficient E-health care.

4. Methodology: Strategy for Collection and Analysis of Data

The study is based on quantitative primary data, which was acquired via field trips in India's sample locations. The main data is acquired from 320 men and women in India's, using random sampling methodologies. In addition, the research examines the challenges and opportunities of E-health care as well as its relevance via a survey of literature as secondary data. Both primary and secondary data support the paper's goals for bettering the interpretation of results. As a result, both primary and secondary data give a better interpretation of the Challenges and opportunities with a focus on efficient E-health care: importance in current scenario.

Analytical Statistical Tools for Primary Data

Primary data is analyzed by descriptive statistics about the Challenges and opportunities with a focus to efficient E-health care: importance in current scenario, as well as the objectives of the paper, are justified by the Descriptive Statistics, Regression, Descriptive test (Table 1).

Table 1: Analytical Framework of Objectives

| Sr. N. | Objective | Used Statistical Test | Description |
|--------|---|------------------------|---|
| 1. | To find out demographic profile has an impact on E-health care services. | Descriptive Statistics | In a research study, descriptive statistics are utilized to define the primary aspects of data. |
| 2. | To Analyze the Challenges and opportunities of users to have an impact on E-health care services. | Regression | In a research study, regression is utilized to show the dependency of dependent variable on independent variable. |
| 3. | To study the Challenges and opportunities with a focus on efficient E-health care. | Descriptive | In a research study descriptive means to describe the qualitative manner. |

Therefore, the methodological framework of the study gives a way to examine the challenges and opportunities with a focus on efficient E-health care: importance in the current scenario. There are some limitations of this research due to the number of sample populations and technique of data collection because research work is mainly focused on quantitative techniques according to the nature of the study. Therefore, the objectives of this paper cover broad issues about the Challenges and opportunities with a focus to efficient E-health care: importance in current scenario.

5. RESULTS AND INTERPRETATIONS

All data were analyzed by SPSS software:

Table 2: Gender

| Gender | | | | | |
|--------|--------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Female | 148 | 46.3 | 46.3 | 46.3 |
| | Male | 172 | 53.8 | 53.8 | 100.0 |
| | Total | 320 | 100.0 | 100.0 | |

Above table 2 shows that from total 320 respondents 148 respondents are female that is 46.3% of 100% and 172 respondents are male that is 53.8% of 100%.

Table 3: Age group

| Age group | | | | | |
|-----------|------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 20–25 year | 63 | 19.7 | 19.7 | 19.7 |

| | | | | | |
|--|----------------|-----|-------|-------|-------|
| | 26–30 year | 54 | 16.9 | 16.9 | 36.6 |
| | 31-35 year | 70 | 21.9 | 21.9 | 58.4 |
| | 36-40 year | 63 | 19.7 | 19.7 | 78.1 |
| | Above 40 years | 70 | 21.9 | 21.9 | 100.0 |
| | Total | 320 | 100.0 | 100.0 | |

Above table 3 shows that from total 320 respondents 63 respondents are belongs to 20-25 year, 54 respondents are belongs to 26-30 year, 70 respondents are belongs to 31-35 year, 63 respondents are belongs to 36-40 year, 70 respondents are belongs to above 40 years.

Table 4: Model Summary

| Model Summary | | | | |
|--|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .958 ^a | .918 | .918 | 1.70233 |
| a. Predictors: (Constant), Opportunity, Challenges | | | | |

Table 4 shows that assigning numerous models in one regression command. Here, R value is 0.958 as well as R is the square root of R-Squared. The value of R-Square is .918, which means about 95.8 percent variation in the dependent variables. The value of the adjusted R Square is 0.91, it tries to give a more realistic picture of the fit of regression value to estimate the R-squared for the population. Here, E health care service is the dependent variable, and Opportunities and challenges are the predictors as independent variables.

Table 5: ANOVA

| ANOVA ^a | | | | | | |
|--|----------------|-----------|-------------|----------|----------|-------------------|
| Model | Sum of Squares | df | Mean Square | F | Sig. | |
| 1 | Regression | 10290.157 | 2 | 5145.079 | 1775.435 | .000 ^b |
| | Residual | 918.643 | 317 | 2.898 | | |
| | Total | 11208.800 | 319 | | | |
| a. Dependent Variable: E-health care service | | | | | | |
| b. Predictors: (Constant), Opportunity, Challenges | | | | | | |

Table 5 shows there are sums of squares associated with three sources of variance –Total, Model, and Residual. R-Square is obtained by dividing the regression Sum of Squares by Total Sum of Squares. Here, the values of the Sum of Squares are 10290 for regression and 918.6 for residual while the value of mean square is 5154.07 and 2.89 for regression and residual, respectively. The F-value is 105.224 and the significant value is 0.00 which is less than 0.05 which indicates that there is a significant impact of E health care services on opportunity and challenges.

Table 6: Coefficient

| Coefficients ^a | | | | | | |
|--|-----------------------------|------------|---------------------------|-------|--------|------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | | t | Sig. |
| | B | Std. Error | Beta | | | |
| 1 | (Constant) | -1.038 | .428 | | -2.424 | .016 |
| | Challenges | -.547 | .056 | -.376 | -9.678 | .000 |
| | Opportunity | 1.603 | .048 | 1.287 | 33.163 | .000 |
| a. Dependent Variable: E-health care service | | | | | | |

Table 6 shows the Coefficients table provides us with the necessary information to predict the effect of “Challenges and opportunity of users has impact on E-health care services, as well as determine whether “Challenges and opportunity of users have an impact on E-health care services” is statistically significant to the model and “E health care services” are contribute statistically significantly to the model.

$$\text{E health care service} = -1.038 + (-0.547) * \text{challenges} + 1.60 * \text{opportunity}$$

6. DISCUSSION AND CONCLUSION

It is clear that e-Health Care offers potential prospects for the healthcare business, which continues to face significant obstacles. Patient care quality and security, rapidly rising healthcare expenses, hardware expenses and restrictions, computing and access speeds, backup capacity, safety, resource scarcity, and, most notably, partnership and information sharing among health - care specialists on a regional and worldwide level are among the obstacles. As a consequence, e-Health Care may be considered a viable technique for addressing the value equivalence in the healthcare industry: "excellent quality services at the cheapest expense."

There are several benefits to using the e-Health Cloud to deliver IT solutions for the healthcare business. Here are a few examples:

- Within each company, lowering the cost of buying and sustaining IT equipment and supporting people.
- Enabling improved medical data linkage and interchange between numerous organizations and sparse geographical regions.
- Using the information warehouse to speed procedures, improve diagnosis, promote medical investigation efforts, and simplify administrative operations.
- Enhancing the health information systems' accessibility, scalability, and customization.

However, these advantages come with a hefty fee. Until the e-Health Cloud is regarded as the ideal method for healthcare providers, a number of concerns and obstacles must be solved. The primary source of worry is confidentiality and safety concerns. To date, current confidentiality and safety protections provide some assurance, but they come with exorbitant costs and many flaws and gaps. Many of these problems are being detected, and some of them have already been resolved. More work is required, nevertheless, and the author feels that establishing adequate norms and growth surroundings will aid in this endeavor. However, in order to make it true the academic community and the IT sector must set their disagreements behind and begin collaborating to develop efficient and practical answers to the concerns and problems we face today. The findings revealed that the F-value is 105.224 and the significant value is 0.00 which is less than 0.05 which indicates that there is a significant impact of E health care services on opportunity and challenges. And "Challenges and opportunity of users have an impact on E-health care services" is statistically significant to the model and "E health care services" contribute statistically significantly to the model. This paper provides a literature overview of e-Health Care concerns, emphasizing the relevance of the ideas concerned, as well as potential and difficulties. The author divided the many aspects that contribute to the expansion of e-Health Care into three categories: Significance of e-Health care in the current scenario, Opportunities of e-Health Care, Challenges of e-Health Care. This study brings up new opportunities for upcoming research in the field of e-Healthcare issues. The author suggests that IT researchers do more study on each of the problem areas raised in the challenges. An upcoming study on this topic may be used to determine which diseases can be controlled or managed using an eHealth app, as well as which eHealth challenges can be targeted. Chronic illnesses such as diabetes, heart, and cancer disease, for instance, are suitable candidates for the early detection challenge. As a result, the creation of eHealth applications to monitor and manage such illnesses aids in the early diagnosis of the eHealth problem.

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ALTRUISM: IMPACT OF CHILDREN'S LITERATURE IN COVID-ERA

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ABSTRACT

The COVID era showed many facets to the human personality and behaviour. Along with fear, uncertainty, greed, malice, stress, violence, vulnerability, etc., there was also a surprising display of human valour, bravery and selflessness. Altruism or selflessness, as it is more commonly known, is the act to promote someone else's welfare, even at a risk or cost to self. A recent study on Altruism and Egoism in Children's Literature revealed that Altruism was more prevalent in literature aimed at younger children. The fact that this revelation was found to be true across various media of communication focuses on the importance that society has placed on these motivators. In the era where COVID-19 has led to moral degradation of society, the importance of children's literature in aiding the development of morally strong individuals who grow up to be altruistic, is paramount.

Roald Dahl, J.M. Barrie, Enid Blyton, A.A. Milne, J.K. Rowling, Ruskin Bond, Lucy Maud Montgomery – are some of the writers who have produced pieces that have a profound impact on the altruistic development of children.

In this paper, we discuss the various books and stories of children's literature that have altruism as a subject matter

Keywords: COVID-19, Covid era, human behaviour, altruism, children's literature, selflessness

Altruism – Impact of Children's Literature in COVID-era

INTRODUCTION

Children and Altruism: There is a lot of research on human nature. Alfie Kohn, author of "Punished by reward", outlines several studies that tend to demonstrate that altruism and empathy - the capacity for feeling distress when we hear that someone else is in distress - is a part of our fundamental nature, and that children can be encouraged to develop this trait. He states that in the case of seeing altruism in children, it is to be questioned whether the generosity and the desire to help others is innate in children or is it highly triggered by a need to get a reward.

Three different studies found that newborn infants, hours old, tend to cry louder in response to other infant cries than in response to equally loud and sudden noises suggesting as the researcher themselves put it that we are born with a primitive pre-cursor to empathy, an inclination, innately, to be distressed by other people's distress. Other researchers found, in the 1970s that toddlers are often inclined to help in whatever way they can. Another group of research followed preschoolers around noticing that they tended to help quite a bit. One researcher, Nancy Eisenberg, wanted to know why little kids tended to help a lot to share, to care, and she asked them. And they did not respond the way they were supposed to have based on developmental theory by Kohlberg from where comes the understanding to get suggestions that children would supposedly say "I only help so that I'll avoid being punished" or "so the teacher will like me" or "so I will have a cookie tomorrow from the kid I gave one to today". They tended to respond to the question: "Why did you give him your cookie?" (in a tone often suggesting the questioner is not very swift) by saying: "because... he was hungry". This meets the basic criteria for the definition of altruism, not merely pro-social behaviour.

But when we assume the worst about human nature and about children, we tend to have children live down to our expectations and become exactly as aggressive and obnoxious and competitive and selfish as we believed they were. But when we assume better motives, when we take at least a neutral position, if not a more positive one, an auspicious circle is created, instead of a vicious circle where children often live up to our expectations.

Impact of COVID on Children

Disease outbreaks have an effect on men, women, children, the elder generally, and the specially-abled in a different way. Therefore, a person's needs, accessibility, data, and the sources they can place their trust on is different from the general group of people.

Epidemics centre around human behaviour, hence understanding the knowledge scheme and communication with communities can facilitate a significant change in behaviour. Major pandemics like COVID-19 are not saved from that.

Children, particularly the young ones, are in an exceedingly position of vulnerability throughout the pandemic. This happens as a result of, at home, they suffer with restricted social affiliation, crucial for identity and well-being at young ages, reduced physical activity, loneliness and tedium (Fegert et al., 2020; Jio et al., 2020; Loades et al., 2020), which can lead to long effects. Indeed, the mental and physical health, yet as productivity in adult life, is deeply frozen within the childhood years (Loades et al., 2020; Wang G. et al., 2020). It's additionally been incontestable that children who have not been part of the school (i.e., weekend and summer holidays) tend to own longer screen times, irregular sleep patterns and fewer favourable diets (Wang G. et al., 2020), which may be exceptionally harmful in longer run.

Altruism in Children's Literature

Children's books are different from adults' books: they are written for a different audience, with different skills, different needs, and different ways of reading; equally, children experience texts in ways which are often unknowable, but which many of us strongly suspect to be very rich and complex.

C.S. Lewis once said, "Clearly one must read every good book at least once every ten years." The categorization of books sort of restricts and limits the audience which in turn may hinder one's path to wisdom. Avoiding a book simply because it is tagged as a children's book is merely stupidity as there is a lot to gain from such treasures of knowledge. There are numerous books written for children that are equally admired by the adults. Let's take a look into these stories written for children that entertain and educate even adults, time and again.

- **'Watership Down' by Richard Adams**

The book shows a group of wild rabbits setting out on a journey into the unknown world to seek a safe haven in a try to escape the imminent human invasion. Set in the blessed rural backgroup of England Downs, "Watership Down" is a riveting story of adventure and courage. In contrast with the greed of mankind, the story of the wild rabbits who selflessly journey on to escape the invasion whilst selflessly helping each other is a good example of altruism.

- **'Matilda' by Roald Dahl**

Roald Dahl, also known as the master of children fiction, has created the unforgettable character of Matilda with a thirst for deeper knowledge. Matilda finds an ally, though disliked by many. Her search has her cross paths with many an altruist beings who are reason for her ultimate discovery.

- **'Peter Pan' by J.M.Barrie**

The story of the Peter Pan is classic by J.M. Barrie which through the ages has been imperishable. It is only when the characters being altruistic that they discover that they are able to save Neverland. Every example of selfishness is punished in the longer run.

- **'The Faraway Tree Series' by Enid Blyton**

Blyton magic, effort and imagination has been poured in making the crazy yet heart-squeezing characters of the Faraway Tree series. While hopping on the fantasy adventure journey with three little children changes our lives forever. Along with the hope that life is filled with of happy surprises, we learn a lot about human behaviour and how thinking and working for others altruistically is the true path to happiness.

- **'Judge Moody' by Megan McDonald**

Judy Moody portrays the ability to form things happen; the ignorant pre-teen woman invariably finds some way to accomplish the goals that she sets for herself. Jam-packed with life, Judy focuses on the little things which will create a giant distinction. Reading Megan McDonald's book can certainly offer you a reason to smile and understand the importance of being selfless.

- **'His Dark Material Trilogy' by Philip Pullman**

Philip Pullman conjured world when world with rattling finesse; every therefore distinct nevertheless in an elaborate way weaved descriptions creating them plausible. The book showcases fierce emotions lidded with tender fantastic thing about innocence and goodwill. Take the journey with constellation towards the aurora borealis and therefore the world on the far side.

- **'Winnie the Pooh' by A. A. Milne**

Winnie the Pooh, our loveable childhood friend- the shoat is that the thought of A. A. Milne's imagination. Even after 91 years of creation, he shows the eager smiles, the innocent efforts and therefore the fascinating tales that spoke to the soul, conveyance essential life values.

- **‘Ballet Shoes’ by Noel Streatfeild**

Instead of shying off from the cruel and unhappy truths, Ballet Shoes, a fantasy novel, knavishly exposes them. exploding excitedly, the book introduces powerful and real girls protagonists sans the promise of herculean ne plus ultra. Watch it unveil the heart of cash matters showing neatness tucked within the superficial veneer of glamour saltation and female chatter.

- **‘Harry Potter Series’ by J.K. Rowling**

Featuring ‘The boy who lived’, the Harry Potter series is well equipped with life values and exquisitely crafted characters. Every word captures the reader deeper into the trance. J K Rowling has excelled in making a parallel universe that almost all people would like we have a tendency to lived in. expecting the Hogwarts letter has become a reality for several. Descriptions stand apart so much they blur the lines between fiction and reality.

- **‘The Blue Umbrella’ by Ruskin Bond**

An elegant narrative by Ruskin Bond, “The Blue Umbrella” may be a easy tale of an innocent woman, Bina. She is kindness and nativity personified that speaks of humble origins and childlike intentions. Tho' fascinated by the umbrella, she finds it in herself to dispense with it once the requirement be. The book is absolute to transport you to the gorgeous natural beauty of Dehradun that was before it was developed.

- **‘Anne of Green Gables’ by Lucy Maud Montgomery**

“Anne of Green Gables” may be a book abundant prior to its time. Lucy Montgomery has delicately talked of gender equality through Anne, an 11-year-old orphan. Her belief in friendly relationship and therefore the necessity of fun are quite thought provoking. The book, through the character of Marilla, teaches that love will soften even the toughest of hearts. Filled with selflessness and hidden messages, the book is waiting to be scavenged once more.

- **‘Charlotte’s Web’ by E.B. White**

E. B. White’s “Charlotte’s Web” is another loveable tale of friendly relationship, helpfulness and hope. It shows however friendly relationship sprouts at the foremost unlikely places. The book fills you with the abundant required however drying compassion towards animals in our times.

- **‘A Little Princess’ by Frances Hodgson Burnett**

The production of Frances Hodgson Burnett, "A Little Princess" incorporates a lesson price revisiting to share. Once long-faced with adversities, Sara, the protagonist uses the ability of imagination to combat robust times. Let the words freshen you afresh with childhood recollections and inspiration for selflessness.

- **‘The Borrowers’ by Virgin Mary Norton**

Full of journey, action and suspense on the surface, “The Borrowers” has some unpleasant, ingrained truths to share. Off from the main focus Virgin Mary Norton addresses the problems of prejudice, category and growing up. Whereas it's extremely debatable whether or not or not the borrowers exist, the book remains a spell-bounding coming-of-age reads.

Books on Altruism and Volunteerism for Children or Young Adults

The books given below are few of the other stories from children’s literature altruism as a subject matter.

Ancona, George. **Helping Out**

Barker, Marjorie. **Magical Hands**

Christiansen, Candace. **The Mitten Tree**

Cooney, Barbara. **Miss Rumphius**

Cooper, Melrose. **I Got Community**

Cowen-Fletcher, Jane. **It Takes a Village**

Greenstein, Elaine. **Mrs. Rose's Garden**

Hazen, Barbara Shook. **Tight Times**

Hughes, Shirley. **Alfie Gives a Hand**

Hutchins, Pat. **The Doorbell Rang**

McGovern, Ann. **The Lady in the Box**

Patterson, Nancy. **The Christmas Cup**

Ransom, Candice, **The Christmas Dolls**

Rylant, Cynthia. **An Angel for Solomon Singer**

Rylant, Cynthia. **Silver Packages**

Tamar, Erika. **The Garden of Happiness**

Thomas, Shelley Moore. **Somewhere Today: A Book of Peace**

Ward, Sally. **What Goes Around Comes Around**

Williams, Vera. **Something Special for Me**

CONCLUSION

The behaviour of an individual is influenced highly by the schema of information that is built in during his/her childhood years. Any pandemic, like COVID, shows an individual's intrinsic feelings and fears along with his beliefs and thinking. All of this is influenced highly by the instruction that is given to him during his younger and formative years. The literature that is read during the childhood influences a person more than during his young adult days. The impact of reading about altruism in children's literature has definitely increased the attitude of altruistic behaviour as a grownup as evidenced during the COVID era.

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IMPACT OF E- BANKING SERVICES ON FINANCIAL PERFORMANCE OF KOTAK MAHINDRA BANK

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ABSTRACT

In today's era of business, information technology has been treated as a necessary tool in Indian banking industry. It has developed various new business models, E-banking has been developed from such an innovative phase of development. Market competitiveness increased day by day due to increase in market pressure forces, so banks are implementing various initiatives and E-banking is one of them. E-Banking is set of combination of technology in respect to banking sector. This consists of various kinds of financial services available to their loyal customers by way of various delivery channels. Customer is core part in case of financial sector such as bank etc. e-banking is mainly emphasis of loyal customer without having this, banks are not executed its services to their customers. Apparently, customers are playing a vital role in accomplishing the goal of e-banking services. This paper main focuses on the impact of e-banking services and its impact on financial performance of Kotak Mahindra Bank.

Keywords: E-Banking, Performance, Transformation, NFET, RTGS

INTRODUCTION

Banking framework is which treated as a monetary organization which is the fundamental player for creating monetary structure and strategy detailing in any nation of the world. This offers a gigantic crate of monetary administrations connected with banking to their maintain and faithful client. In 1969, Indian financial framework had seen for nationalization of banks, the public area banks significantly impact the outlook of government that have gotten a place of respect as well as monstrous development rate. In present Scenario, India is moving in the place of quickest developing economies of world because of mechanical advancement and improvement. Indian Banking System has been observers a long excursion. It has seen many changes due to mechanical as well as development. The Globalization profoundly adjusted the ongoing essence of Indian financial System from most recent couple of many years. Banks have as a rule been in front oriented of innovation that exploits improving the item and administrations and working capacity. The charge card, presentation of clearing administrations like ECS, the idea of e-banking and portable banking are the continuous developments which occurred in the section of banking. In present time, every one of the business banks in India have started the idea of various station, for example, charge cards, Mastercard, savvy card, ATMs, web Banking, Mobile financial Telephone banking, NEFT/RTGS and so on the significance of banks has improved from monetary transitional to specialist organization of different monetary administrations under one bin. Current banking not looking different devices to draws in client yet additionally make reasonable maintenance methodologies of clients as well as take upper hands against contenders.

In the present time of business, data innovation has been treated as a vital device in Indian financial industry. It has created different new plan of action, E-banking has been created from a particularly imaginative period of improvement. Market seriousness expanded step by step because of expansion in market pressure powers, so banks are carrying out different drives and E-banking is one of them. E-Banking is set of mix of innovation in regard to banking area. This comprises of different sorts of monetary administrations accessible to their steadfast clients via different conveyance channels.

In straightforward terms, E-banking implies it includes no actual trade of cash, however it's completely done electronically through the web. E-banking gives quicker conveyance of banking administrations to clients and it gives parcel advantages and banking offices to client that by sitting at home client can get to their record through web.

REVIEW OF LITERATURE

Vig, Sakshi and Gupta, Arpita and Goyal, Jugal Kishore (2022) in this study, researcher explore to examine the taking interest of customers towards online banking by evaluating the services that are mostly used by the customers during the pandemic period as well as also provide valuable suggestion that are helpful to bank for enhance their services as per user friendly in nature in context of e-banking. Survey through structured questionnaire was conducted as a sampling technique on 5 point Likert scale for collection of data from secondary sources. Karl person correlation method applied to examine the collected data. This study clearly

indicated that customers mostly used online banking services in comparison to branch banking because of saving of cost, reliability, convenience user & econ friendly system of banking.

Rizki Anugrah, Ce Mulya and Royani, Ida (2021) this study aims to ascertain the level of customer satisfaction having service innovation in context of digital banking technology, especially in case of e-banking. Research mainly focused on quantitative method as well as structured questionnaire mailed to 400 respondents, namely sukabumi city and Regency people as sample size. This study reveals that service quality & innovation displayed an R square value of 0.567 which describes that service quality and innovation showed an impact on customer satisfaction in Sukabumi City and Regency having 56.7 % responses.

R, Ajesh (2020), the present study tries to examine the level of satisfaction of customers in SBI and ICICI Bank. The study purely an exploratory in nature. Primary & secondary data have been used for this study. Primary data were collected from 60 respondents in Kottayam district of Kerala state, which comprising of 30 respondents each from SBI & ICICI Bank. Customers were selected as per convenient sampling techniques. 20 variables have been mentioned in the study for evaluating as well as examining the customer's level of satisfaction. Z-test is applied to examine the data. This study reveals that the level of customer satisfaction of ICICI is more than SBI Customers.

Sunith C K (2019) this study made an attempt to examine the customer satisfaction in E-banking services. This study specified that e-banking integrates the system which enable individual user to access their accounts, transact with good speed & procure current as well as updated information on latest products & services of financial nature through public or private network. Study reveals that customer treated as end user who experiences a product or service.

Hammoud, Jamil & Bizri, Rima & Baba, Ibrahim. (2018). This study mainly focused on examined the relationship between the areas of e-banking, service quality & customer satisfaction to ascertain that which area having more potential that strongly influence on the customer satisfaction. Data were collected through survey questionnaire which was distributed among various banking user in the Lebanese banking sector. The finding of the study depicts that reliability, efficiency and ease of use, responsiveness, communication, security and privacy, these all have made a significant impact on customer satisfaction with reliability being the dimension with the strongest impact.

Khaled Bin Amir and Dr. Hasina Sheykh (2017) this study mainly focuses on "Analysis of Customer Satisfaction on Online Banking: A Case Study on "One Bank Limited" have specified that customers are talked about their satisfaction level on online banking. E-banking service of One bank limited was quite good as well as satisfactory but customers were not aware and wiling to take this services. The satisfaction level is greater than for some parameter and remaining have less for remaining parameter. Study reveals that customer are satisfied with security as well as user friendly environment of website for the selected banks. And somewhat have natural perception with update frequency.

Reeta Clonia. (2016) this study mainly focuses on E-banking in India: Current and Future Prospects". Researcher examined that e-banking is the most current trend among the customers in the present era of globalisation through prompt as well as secured variety of financial services. The movement of traditional banking to E-Banking have been enhancing the changes in banking dealings. Indian Banking system & moreover discussed the increasing rate as well as future prospects of the E-banking services offered by the Indian banks in this regard. Economic growth as well as development of any country is mainly effected by the technological advancement in respect to banking sector of that particular country.

NEED OF THE STUDY

E-banking is changing and creating with innovation consistently. Banking customers are ready to manage services of e-banking with increasing use of internet and its enabled services. Customer is core part in case of financial sector such as bank etc. e-banking is mainly emphasis of loyal customer without having this, banks are not executed its services to their customers. Apparently, customers are playing a vital role in accomplishing the goal of e-banking services. In present time of technological advancement there is more on emphasis on the customer relation made by bank by advertising about various services that are offer to banking customers. This paper main focuses on the impact of e-banking services and its impact on financial performance of Kotak Mahindra Bank

OBJECTIVES OF THE STUDY

1. To analyse the awareness among Customers about E-banking Services of selected public and private sector banks in India.

RESEARCH METHODOLOGY

- (a) **Sources of Data:** this study mainly emphasis on primary data. This will be collected through structured questionnaire method that help to ascertain the information from the customers who are enjoying the facilities of e-banking.
- (b) **Sample Design:** In this study public sector bank and private sector are taken as sample for the study. The sample size is of 75 respondents consisting of customers who are availing of E-banking services in public sector and private sector banks.
- (c) **Tools and Techniques:** simple average and percentage method will be used to analyse the data. The data will be in tabular form for attaining the above objectives

Data Analysis and Interpretation**Table 1: Gender of Respondents**

| Gender | No of Respondents | Percentage |
|--------------|-------------------|------------|
| Male | 42 | 52.5 |
| Female | 38 | 47.5 |
| Total | 80 | 100 |

Source: Survey done by Researcher

Interpretation: The above table 1 shows that 40.0% of the respondents are female, 60 % of the respondents are male. It can be seen that that majority of the respondents are male (58.5 %).

Is there any positive relationship between e-banking and Profitability Performance?

| Level of acceptance | Frequency | Percentage | Cumulative % |
|---------------------|-----------|--------------|--------------|
| Strongly Disagree | 11 | 13.75 | 13.75 |
| Disagree | 13 | 16.25 | 30.00 |
| Undecided | 10 | 12.50 | 42.50 |
| Agree | 20 | 25.00 | 67.50 |
| Strongly Agree | 26 | 32.50 | 100 |
| Total | 80 | 100 | |

Interpretation: The table above shows that 16.25 % of the respondents Disagree and 25.00 % of the respondents agree that organizational culture has effect on employee job performance. Also, we have 12.50% of the respondents who are undecided, and 32.50 % of the respondents who strongly agree that organizational culture has effect on employee job performance.

Is there any positive relationship between e-banking and Liquidity Performance?

| Level of acceptance | Frequency | Percentage | Cumulative % |
|---------------------|-----------|------------|--------------|
| Strongly Disagree | 4 | 5.0 | 5.0 |
| Disagree | 6 | 7.5 | 12.5 |
| Undecided | 10 | 12.5 | 25 |
| Agree | 20 | 25 | 50 |
| Strongly Agree | 40 | 50 | 100 |
| Total | 80 | 100 | |

Interpretation: From the table above, 25 % of the respondents agree, 50% of the respondents strongly agree, 17.5 % of the respondents are undecided, 7.5% of the respondents disagree and 5% of the respondents strongly disagree that there is a positive relationship between organizational culture and employee job performance.

H0 There is no positive relationship between e-banking and Liquidity Performance.

| Acceptance level | Observed (O) | Expected (E) | O-E | (O-E) ² | (O-E) ² /E |
|-------------------|--------------|--------------|-----|--------------------|-----------------------|
| Strongly Disagree | 6 | 14 | -8 | 64 | 4.00 |
| Disagree | 10 | 14 | -4 | 16 | 1.14 |
| Undecided | 20 | 14 | 6 | 36 | 2.57 |
| Agree | 40 | 14 | 16 | 256 | 18.28 |
| Strongly Agree | 4 | 14 | -10 | 100 | 7.14 |
| | | | | | 33.13 |

Interpretation: As per above analysis, the calculated value of chi-square at df 4 i.e 33.13 which is greater than tabulated value i.e. 9.488. This depicts that alternative hypothesis H1 and rejects H0 which indicate a positive relationship between organizational culture and employee job Performance.

H0 There is no positive impact of e-banking and Profitability Performance of Kotak Mahindra Bank

| Acceptance level | Observed (O) | Expected (E) | O-E | (O-E) ² | (O-E) ² /E |
|--------------------------|--------------|--------------|-----|--------------------|-----------------------|
| Strongly Disagree | 11 | 14 | -3 | 9 | .64 |
| Disagree | 13 | 14 | -1 | 1 | .071 |
| Undecided | 10 | 14 | -4 | 16 | 1.14 |
| Agree | 20 | 14 | 6 | 36 | 2.57 |
| Strongly Agree | 26 | 14 | 12 | 144 | 10.28 |
| | | | | | 15.34 |

Interpretation: As per above analysis, the calculated value of chi-square at df 4 i.e 15.34 which is greater than tabulated value i.e. 9.488. This depicts that alternative hypothesis H1 and reject H0 which indicates that a positive relationship between organizational climate and employee productivity.

FINDINGS

1. The table above shows that 16.25 % of the respondents Disagree and 25.00 % of the respondents agree that organizational culture has effect on employee job performance. Also, we have 12.50% of the respondents who are undecided, and 32.50 %of the respondents who strongly agree that organizational culture has effect on employee job performance.
2. The table above shows that 16.25 % of the respondents Disagree and 25.00 % of the respondents agree that organizational culture has effect on employee job performance. Also, we have 12.50% of the respondents who are undecided, and 32.50 %of the respondents who strongly agree that organizational culture has effect on employee job performance.
3. As per above analysis, the calculated value of chi-square at df 4 i.e 33.13 which is greater than tabulated value i.e. 9.488. This depicts that alternative hypothesis H1 and rejects H0 which indicate a positive relationship between organizational culture and employee job Performance.
4. As per above analysis, the calculated value of chi-square at df 4 i.e 15.34 which is greater than tabulated value i.e. 9.488. This depicts that alternative hypothesis H1 and reject H0 which indicates that a positive relationship between organizational climate and employee productivity.

CONCLUSION

In Present scenario, banking sector provide a basket of all financial services through e-banking channels. The customer is appearing for quality services which give a satisfaction level. These suitable services are available may be enhanced to provide better satisfaction level to their loyal; customer which increase the retention level of existing as well as adding new potential customers. Indian banking system witnessed various changes have been seen in last few years. These changes do not decrease the chances of error and mistakes in respect to operational activities in banking system in India. As a result, banks need to give more attention towards services sector as well as operational activities, which makes the customer more comfort and satisfied in dealing with banking activities. This will enhance profitability as well as productivity.

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ONLINE SHOPPING BEHAVIOUR OF CUSTOMERS-PRE & POST COVID

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ABSTRACT

The Internet has already made inroads in our lives whether it is one's presence on social media, searching the internet for various information, or doing online shopping.

Online media managers, marketing managers, and other concerns are leaving no stone unturned to lure customers to their websites.

However, the sudden outbreak of pandemic covid led online marketers to rethink their strategy as it has significantly impacted the online shopping behaviour of customers.

Since this pandemic has taken everyone by surprise marketers do not want to get caught in a similar situation in the future and for that, they have already started strategizing and planning.

With new trends emerging in customer behaviour post covid marketers have to be more creative and innovative in their approach to lure the customers.

With technology at their disposal customers, today have become smarter and more proactive before he finalizes the product, hence, marketers have to be constantly on their toes to pre-empt the behavior by analyzing their past purchase behaviour.

Keywords: Covid, E-commerce, Customer Behaviour, Technology

INTRODUCTION

The world has become a global village and the internet has helped a lot in this. The free flow of information has fuelled the desire and aspirations of common people.

An E-commerce website has helped a lot in making their desires true and bringing the products and services to their doorsteps across the world. Today online shopping has not only become the medium of shopping but also the information seeking about the availability of different kinds of products and services. Online shopping had empowered customers to try and use different products and services available in the world which otherwise would have been very difficult to use.

With the outbreak of covid and subsequent restrictions on the movement of people and various activities people became more inclined to online shopping. Customers have switched from visiting supermarkets, malls, and shops to online e-commerce websites for their daily requirements to luxury products. As social distancing is becoming the norm. Traditional business has also understood the importance of going online for the benefit and growth of their business.

During the lockdown, India's top cities like Bangalore, Mumbai, and Delhi have registered a growth in online shopping by 12%, 133%, and 135% respectively ("E-commerce spends surpass pre-COVID-19 levels post lockdown in Delhi, Mumbai, Bengaluru", The Economic Times, Jul 30, 2020). pandemic has increased both penetration and growth of e-commerce which has increased to a 5% penetration rate from 3% before COVID-19 in India ("India's e-commerce penetration will double to 11 percent by 2024: Goldman Sachs", The Economic Times, Jul 27, 2020).

The pandemic has increased both the number of people purchasing online and the number of people using e-commerce for the first time (Halan, 2020). According to a UNCTAD poll from 2020, e-commerce website sales have increased as a result of the pandemic. According to the report, between March and July 2020, sales through third-party marketplaces increased by about 64%. A report by Bain & Co.(2020) predicted that the importance of e-commerce would grow as a result of consumers' need for convenience and safety.

By the financial year 2025, 300–350 million buyers may have participated in the post-pandemic period.

E-Commerce and Covid-19

The influence of the coronavirus on global e-commerce has altered the nature of business. 52 percent of consumers avoid going to congested places and brick and mortar stores, according to studies. Additionally, 36% postpone brick-and-mortar purchasing until they have the coronavirus vaccine.

The impact of COVID-19 on some products is very high, whereas it has less of an impact on other products due to the diverse ways in which the virus affects different types of products (Andrienko, 2020). People refraining from leaving their homes, avoiding social interaction, and shopping online have all increased overall e-commerce sales. For example, Walmart's food e-commerce has increased by 74 percent. Additionally, media consumption has expanded throughout this time, and Facebook and Google have updated their capabilities to allow for faster connections between more people.

The top ten retail e-commerce in a pandemic is below

Top retail e-commerce websites in pandemic

| Sr.no | Retail website | Millions |
|-------|----------------|----------|
| 1 | Amazon.com | 4059M |
| 2 | Ebay.com | 1227M |
| 3 | Rakuten.co.jp | 804M |
| 4 | Samsung.com | 648M |
| 5 | Walmart.com | 614M |
| 6 | Appel.com | 562M |
| 7 | Aliexpress.com | 532M |
| 8 | Etsy.com | 395M |
| 9 | Homedepot.com | 292M |
| 10 | Allegro.pl | 272M |

(Andrienko, 2020)

Toilet paper, disposable gloves, freezers, bidets, kettlebells, bread makers, puzzles, pelotons, coloring books, air purifiers, treadmills, stationary bikes, yoga mats, refrigerators, exercise balls, and equipment are among the most popular purchases during pandemics (Andrienko, 2020).

E-Commerce Post Covid

The emergence of covid has changed the behavior of customers and the operational capabilities of the e-commerce industry.

New trends have emerged in online shopping, customers inclination has changed due to the impact of covid.

Some of the changing trends which were evident from the studies are:

1. New Product Categories

With the emergence of the covid lifestyle of people has changed they started spending more on fitness and lifestyle products also with the time in their hand online grocery sales have hit a new height (expected to reach 14-18 % in the next five years).

Due to increased purchases of home gym equipment, recreational goods spending surged by 18%, and the furnishings and household equipment sector grew by 5.7%.

2. Lower Loyalty

As the more and more young generation is shopping online their habit of trying new things and other reasons have led to a decline in brand loyalty. In mid-2021 more than 80% of consumers reported trying new brands than their usual ones.

Seventy-five percent of consumers have tried a new shopping behavior, and most intend to continue it beyond the crisis.

Consumers who have tried a new shopping behavior since COVID-19 started¹
% of respondents



¹Q: Since the coronavirus (COVID-19) situation started (ie, in the past ~3 months), which of the following have you done? 25% consumers selected "none of these."

²Q: Which best describes whether or not you plan to continue with these shopping changes once the coronavirus (COVID-19) situation has subsided? Possible answers: "will go back to what I did before coronavirus"; "will keep doing both this and what I did before coronavirus"; "will keep doing this and NOT go back to what I did before coronavirus."

³"New shopping method" includes curbside pickup and delivery apps.

Source: McKinsey & Company COVID-19 US Consumer Pulse Survey 6/15–6/21/2020, n = 2,006, sampled and weighted to match the US general population 18+ years

3. Contactless Payment

As the world is becoming more and more digitalized, contactless payment has helped e-commerce during covid to keep its business going on.

According to eMarketer, there was a 22.2 percent year-over-year increase in proximity mobile payments worldwide in 2020.

4. Coronavirus-Friendly Deliveries

Pandemic has opened up the opportunity for those who have never tried selling online with the availability of third-party providers many restaurants, eateries, and shops have availed the opportunity for their benefit in turn strengthening e-commerce.

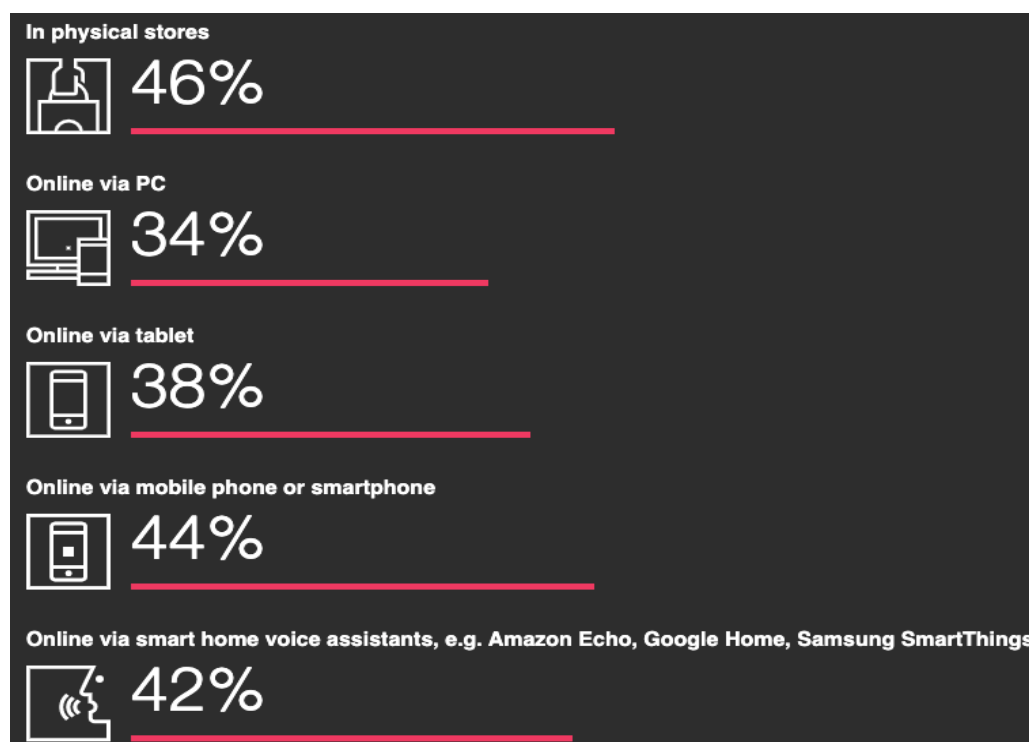
5. Social Media Shopping

Due to the increased demand for online retail, a number of social networking sites added more commerce capabilities, allowing customers of participating online retailers to browse and buy things without ever leaving the platform. These platforms are frequently tightly connected with eCommerce systems, allowing e-Commerce operators to easily promote their products their products with ease across many channels.

Social commerce accounted for 3.4 percent of all e-commerce sales in 2020, and it is anticipated that this figure will increase going forward.

The chart below illustrates their answers and shows a shift to digital and a growing trend for shopping using connected devices such as smartphones, tablets, and smart voice assistants such as Amazon Echo, Google Home, and Samsung SmartThings.

Consumer profiling by PWC shows a big shift to digital shopping Image: Pwc- Global Consumer Insights Pulse Survey - June 2021



CONCLUSION

Clearly, covid has impacted our lives and so does our behavior. During the covid e-commerce has helped all of us and because of this only we were able to sustain through the period of covid.

This dependency on e-commerce during covid has changed the habits and behavior and this is going to continue post covid as well. Marketers in E-commerce however cannot and should not become lax due to this dependency because with the changing times' customers have evolved behavior and they do not take a second to switch to the other product.

The inclusion of technology has helped e-commerce to become more efficient and smarter and because of this, it is going to be the main and preferred channel for shopping provide it keeps evolving with the ever-evolving customers' demands.

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RIGHT TO LIFE IN LABOUR JURISPRUDENCE

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ABSTRACT

The Constitution of India expressly addresses the fundamental right to life, and through judicial intervention, it inserts the phrase "right to life with dignity" through Article 21. The Supreme Court observed in Shantistar Builders V. Narayan K. Tomate (1990) 1 SCC 520. that right to life would take within its sweep right to food, the right to clothing, the right to decent environment and a reasonable accommodation to live in. The right to livelihood is discussed in Article 25 (1) of Universal Declaration of Human Rights as a human right of everyone means labour is not the exception. If the right to livelihood is not treated as part of the Constitutional right to life, the easiest way of depriving a person of his right to life would be to deprive him of his means of livelihood to the point of abrogation. Such deprivation would not only denude the life of its effective content and meaningfulness but it would make life impossible to live. But any person, who deprived of his right to livelihood except according to just and fair procedure established by law, can challenge deprivation as offending the right to life conferred by Article 21 of the Constitution of India. This right to live with human dignity enshrined in Article 21 derives its life breath from the Directive Principles of State Policy and particularly clauses (e) and (f) of Articles 39, 41 and 42 and therefore, it must include protection of the health and strength of workers, men and women and go the tender age of children against abuse, opportunities and facilities for children to develop in a healthy manner and in conditions of freedom and dignity, educational facilities, just and humane conditions of work by Article 6 (1) of the International Covenant on Economic, Social and Cultural Rights.

Keywords: Constitution, livelihood, intervention, deprivation.

The importance of human rights implies rights for the great majority of world's population i.e. workers. The rights of workers must be seen as essential human rights issues and must be promoted through industrial jurisprudence. The concept of human rights was explained in detail starting from Right to Life. The Indian grundnorm has guaranteed human rights protection to all Indian people, regardless of religion, race, caste, sex, or place of birth. Certain fundamental rights are guaranteed to citizens in the form of inalienable positive rights under Part III of the Indian constitution. That is to say, those rights are vested in the people without prejudice, and the state does not need to do anything to enforce them. The most fundamental human right, under part III of the constitution, which is vested in a person just for being human, is the 'Right to Life.' The further extension of the right to life brought us to the 'dignity' part of it means that a human being has the right to live his or her life with dignity. The concept of dignitas hominis in classical Roman thought largely meant 'status'. Honour and respect should be accorded to someone who was worthy of that honour and respect because of a particular status that he or she had. The use of dignity in legal texts, in the sense of referring to human dignity as inherent in Man, comes in the first three decades of the 20th century. Several countries in Europe and the Americas incorporated the concept of dignity in their constitutions. The Constitution of India expressly addresses the fundamental right to life, and through judicial intervention, it inserts the phrase "right to life with dignity" through Article 21.

RIGHT TO LIFE:

The right to life is the supreme right, and is basic to all human rights. The Indian Constitution guaranteed "Right to Life" to all its citizens which mean that every person including disabled has a right to live with dignity. The Supreme Court observed in Shantistar Builders V. Narayan K. Tomate (1990) 1 SCC 520 that right to life would take within its sweep right to food, the right to clothing, the right to decent environment and a reasonable accommodation to live in.

POSITIVE CONTENT OF ARTICLE 21:

The positive content of Article 21 is that it ensures the right of every individual to live with human dignity. The negative aspect of the right to life is the "right not live" or the "right to die", particularly when life cannot be lived with dignity or when other important contents essential for the substance of life are missing from it.

NEGATIVE CONTENT OF ARTICLE 21:

The negative aspect of the right to life was examined by the Bombay High Court in *Maruti Shripati Dubal V. State of Maharashtra*, 1986 Bom.L.R.589, which declared section 309 of the Indian Penal Code as unconstitutional on the ground that it violates article 21 of the Constitution.

LIFE OF DIGNITY:

A life of dignity is every person's human right. This is true no matter where he or she lives or what his or her sex, race, or ethnic origin may be. And every woman, man, youth and child has basic needs that must be met. Justice PN Bhagwati observed in *Bandhua Mukti Morcha V. Union of India*, AIR 1984 SC 802 that it is the fundamental right to every one in this country assured under the interpretation given to Article 21 to live with human dignity and free from exploitation.

RIGHT TO LIVE WITH HUMAN DIGNITY:

This right to live with human dignity enshrined in Article 21 derives its life breath from the Directive Principles of State Policy and particularly clauses (e) and (f) of Articles 39, 41 and 42 and therefore, it must include protection of the health and strength of workers, men and women and go the tender age of children against abuse, opportunities and facilities for children to develop in an healthy manner and in conditions of freedom and dignity, educational facilities, just and humane conditions of work by Article 6 (1) of the International Covenant on Economic, Social and Cultural Rights. Chief Justice Chandrachud said in *Minerva Mills V. Union of India* (1980) 3 S.C.C. 625,660 that the dignity of the individual could be preserved through the right to liberty, equality and right to live with human dignity.

RIGHT TO LIFE AND PERSONAL LIBERTY:

Right to life and personal liberty is the vertebrae of human rights. The expansion of content and meaning of the right to life and personal liberty, contained in Article 21 of the Constitution, by the Supreme Court in the late seventies and the eighties is one of the most stunning instances of judicial creativity after the Court's formulation of the doctrine of basic structure in *Kesavanand Bharati V. Kerala A.I.R* (1973) S.C.1461. It could be asserted that judges in India not only made law but also made the Constitution. It is possible to say today, with even more justification, that the judges are really rewriting the Constitution, at least in certain vital areas.

REFORMULATION OF THE RIGHT UNDER ARTICLE 21:

The reformulation of the right under Article 21 has been achieved in stages. In the first stage, personal liberty was expanded as a multi dimensional right having interconnection with, and overlapping over, other fundamental freedoms. In the second stage the term life as referred to in Article 21 was conceptually and noticably expanded in order to broaden the humanistic range of the right.

The first stage was completed with *Maneka Gandhi V. Union of India A.I.R.* 1978 S.C.597 and the second stage was begun with *Francis Coralie Mullin V. the Administrator, Union Territory of Delhi AIR* 1981 S.C.746. After tracing the development of the right to life and personal liberty up to *Maneka Gandhi*, the Court felt that the right to life includes the right to live with human dignity and all that goes along with it, namely, the bare necessities of life such as adequate nutrition, clothing and shelter over the head and facilities for reading, writing and expressing oneself in diverse forms, freely moving about and mixing and commingling with fellow human beings. It may be mentioned here that justice Ayyangar speaking for the majority in *Kharak Singh V.Uttar Pradesh*, AIR(1963) S.C.1295 quoted and adopted the following dictum of field, J, in *Munn V. Illionis*, (1876) 94 U.S. 113,142 "By the term 'life' as here used something more is meant than mere animal existence..... By the term liberty, as used in the provision something more is meant than mere freedom from physical restraint.

RIGHT TO LIVELIHOOD

The right to livelihood is discussed in Article 25 (1) of Universal Declaration of Human Rights as a human right of everyone means labour is not the exception. It is given in Part IV of the Directive Principles of Constitution of India. However, it constitutes one of the most important aspects of life. There had been judicial vicissitude to hold that right to livelihood is a part of the right to life and personal liberty. This is evident from *Re Santa Ram AIR* 1960 S.C.932 to *Olga Tellis V. Bombay Municipal Corpn.* AIR 1986 S.C.180. In *Olga Tellis*, the Supreme Court pointed out that right to livelihood is an important facet of the right to life because no person can live without the means of living, i.e., the means of livelihood.

DEPRIVED OF RIGHT TO LIVELIHOOD

If the right to livelihood was not treated as a part of constitutional right to life, the easiest way of depriving a person of this right to life would be to deprive him of his means of livelihood to the point of abrogation. The state might not, by affirmative action, be compellable to provide adequate means of livelihood or work to

citizens. But, anyone, who is deprived of his right to livelihood except according to the procedure established by law, can challenge the deprivation as offending the right to life conferred by article 21. It is submitted that the Supreme Court rightly made explicit the nexus of right to livelihood and right to life interpreting the ambit and scope of Articles 39(a) and 41 read with Article 21 of the Constitution in *State of H.P. V Umed Ram*, AIR 1986 S.C.847. Thus, the Court has constitutionally recognised the right of livelihood as an important labour's right.

Right to livelihood is an important aspect of right to life for everyone. Therefore it is a labour right too. For millions of Indians who live below the poverty line, the right to life will be of no significance if they do not have the right to livelihood under Article 39(a) of the Constitution as the State is required to direct its policy towards securing the right to an adequate means of livelihood. The State is also expected to make effective provisions for securing the right to work through Article 41 of the Constitution and Article 43 of the Constitution ensured a decent standard of life.

CONSTITUTIONAL RIGHT

Right to livelihood, which is an important human right, has been well protected by the Courts. Right to livelihood implies right to life. If right to livelihood is not treated as a part of Constitutional right to life, then the easiest way of depriving a person of his right to life would be to deprive him of his means of livelihood. In this *Olga Tellis V. Bombay Municipal Corporation*, AIR 1986 SC 180 two groups of petitioners namely slum dwellers challenged the Municipal Corporation of Bombay on the ground of violation of their fundamental rights. The main allegation of pavement dwellers is that Municipal Corporation of Bombay had demolished their houses without notice under an arbitrary procedure prescribed by Bombay Municipal Corporation Act. However they did not claim fundamental right to live on pavements but they claimed the right to live at least to exist. Where by they prayed a declaration against proposed action. The sweep of the right to life conferred by Article 21 is wide and far reaching. It does not mean merely that life cannot be extinguished or taken away as for example; by the imposition and execution of the death sentence except, according to procedure established by law. This is but one aspect of the right to life.

An equally important facet of the right is the right to livelihood because no person can live without the means of living i.e., the means of livelihood. If the right to livelihood is not treated as part of the Constitutional right to life, the easiest way of depriving a person of his right to life would be to deprive him of his means of livelihood to the point of abrogation. Such deprivation would not only denude the life of its effective content and meaningfulness but it would make life impossible to live. And a such deprivation would not have to be in accordance with the procedure established by law, if the right to livelihood is not regarded as a part of right to life that, which alone makes it possible to live, leave aside what makes life liveable, must be deemed to be an integral component of right to life. Explaining the scope of Article 39 (a) and 41 read with Article 21 the Supreme Court pointed out that State may not by affirmative action, be compellable to provide adequate means of livelihood or work to citizens. But any person, who deprived of his right to livelihood except according to just and fair procedure established by law, can challenge deprivation as offending the right to life conferred by Article 21.

The Court held in *Bombay Hawkers Union V. Bombay Municipal Corporation* AIR 1985 SC 1209. that no one had any right to carry on a trade or business so as to cause nuisance, annoyance or inconvenience to the public, that public streets were not meant for carrying on any private trade or business, and relevant provisions of the Bombay Municipal Corporation Act, imposed only reasonable restrictions on the exercise of the right under article 19 (1)(g). However, the Court was careful not to let this ruling lead to a total negation of the right of hawkers to carry on their business. The Municipal Commissioner was directed to formulate a scheme for licensing of hawkers. The scheme prepared by the Commissioner, provided for hawking and non-hawking zones, and issue of licence for hawking was limited to the former zones. After studying the scheme the Court further directed that, (i) there should be a hawking zone for every two contiguous municipal wards; (ii) hawking should not be disallowed in hawking zones; and (iii) any alteration to the scheme should be made after consultation with affected parties and other interest groups.

Thus, though the hawkers lost their Constitutional challenge under Article 19(1)(g), their right to livelihood was protected, though curtailed to some extent, in public interest. Therefore thus the Court protected their human right i.e., right to life. Thus Supreme Court linked the right to life to right to livelihood.

JUDICIAL ACTIVISM

Shantistar Builders V. Narayan K. Tomate (1990)1 SCC 520. is another instance of judicial activism. In this case it was observed by the Supreme Court that the right to life would take within its sweep the right to food,

the right to clothing, the right to decent environment and reasonable accommodation to live in. The Court further pointed out that the difference between the needs of an animal and a human being for shelter has to be kept in view. For the animal it is the bare protection of the body for a human being it has to be a suitable accommodation which would allow him to grow in every aspect namely physical, mental and intellectual.

CONCLUSION

The positive aspect of the right to life guaranteed by Article 21 of the Constitution is right of each individual to live with human dignity, the negative aspect of the right to life is the right not live or the right to die, particularly when the life cannot be lived with dignity or when the other important contents essential for sustenance of life are missing from it.

Therefore the basic needs of the workmen are considered by the Court and protected them by observing that they are inherent in the right to life which gained a central position.

The unprecedented pandemic of its kind has indeed pushed the country to its extent and exposed the loopholes in our system. On the one hand, government is still trying to grapple with the situation, while people of the country are looking at the judiciary and constitution with an optimistic view.

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ROLE OF ICT IN DEVELOPING SKILLS AMONG LIBRARY PROFESSIONALS WITH RESPECT TO DIGITALIZATION

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ABSTRACT

The purpose of the study is to investigate the ICT skills of LIS professionals working in the universities and college libraries affiliated to the Universities of Maharashtra state and bring inferences for the betterment of the library. The present study also provided a platform to LIS professionals to find the area of focus to learn and update their ICT skills in digital environment by LIS professionals for efficient delivery of library services for the betterment of the library as a whole

INTRODUCTION

Information communication technology (ICT) enormously affects each field of the society like horticulture, wellbeing, schooling, business, enterprises, etc. Libraries are not exemption for these high-speed changes occur in the society. ICT has changed the general working of the libraries. To give important information inside limited capacity to focus time it become fundamental for libraries to embrace an ICT-based information framework and ICT foundation in early days when manual library framework was in presence, they dealt with numerous issues because of reliably developing size of information sources and absence of extra room, this has constrained libraries to take on the ICT-based library systems to defeat these troubles

Since the execution of ICT has changed the activity, capacities and administrations of the libraries, it has become imperative for the library professionals to improve their ICT education by getting new ICT abilities and information, to full the changing information need of the client local area. In this changing ICT environment, the library professionals need to get what it takes of utilizing different ICT devices, Internet and Intranet, e-assets, ICT-based administrations, operating systems, application software, library robotization software, digital library and institutional stores, data set administration and programming

ICT proficiency has become fundamental for the library professionals to take on the arising mechanical changes and full the digital information need of the clients inside limited capacity to focus time.

ICT benefits for libraries

- Information and communication technology (ICT) has brought about digital media, just as better approaches for putting away and conveying information.
- Information and communication technology (ICT) has empowered libraries to give an assortment of projects that have assisted them with smoothing out their tasks.
- It supports the expulsion of communication, geological, and time obstructions. The adequacy of libraries will keep on developing as technology advances. Aid the exchange of information to a communication organization, like the web, from any spot. It has a huge measure of search speed and usefulness. It supports the improvement of communication and participation between science, government, and instructive establishments.
- Overall library professionals have made their inventories open on the web, with online catalogue (Open Public Access Catalogue) typically accessible for finding library resources. These are valuable for finding books not accessible locally, distinguishing and choosing books for neighborhood obtaining, checking reference index subtleties, and looking through the property of periodical and monographs. Telnet, Gopher, and the World Wide Web can be generally used to get to these assets.
- Material from libraries can be taken care of into the landing page and made available to user 24/7.

PURPOSE OF THE STUDY

The purpose of the study is to assess training and development needs among library personnel with the end goal of recognizing possible issues and concerns and making necessary recommendations for their resolutions. For library personnel to cope with dynamic patterns of research, teaching and learning, there is need for appropriate training and development practice on a consistent basis. It is generally accepted that training and development has come to stay in many libraries all over the world and developing countries are no exception. Libraries have usually been viewed as custodians of books and journals for the academia but the challenge that is arising out of

globalization and information technology is that the third world academic library has to provide up-to-date information which will help the customers both now and, in the future, (Cotta-Schimberg, 2015). It is therefore appropriate for all libraries to upgrade their personnel to enable them fit into the 21st century global world. This means that there is need for adequate training and development programs in libraries. This may affect the conveyance of quality administrations, professional career development and productivity, hence the purpose for this study.

ICT Skills Among Lis Professionals

As indicated by Culshaw (2004), Information Communication Technology (ICT) is the term used to assign the expansive field incorporating regions, for example, telecommunication and systems administration information conveyance, office systems, master systems, digitization, discourse acknowledgment, hard product and delicate product, information arrangements and information framework.

The accomplishment of present-day associations principally relies on the quality and capability of the professionals. The LIS professionals make the biggest difference all the time according to the perspective of hierarchical turn of events. Likert (1967) appropriately commented that every one of the exercises of a venture are not entirely settled by people who make up the foundation. Each part of its still up in the air by the capability, inspiration and general viability of its human association.

ICTs have achieved another time of globalization of information and ability. The LIS professionals in designing schools are needed to foster ICT abilities to meet the necessities of the cutting-edge clients and perform different errands adapting up to the progressions in technological atmosphere. It is vital to guarantee that the staff can have time away from their proper obligations for both formal and casual ICT preparing.

The ICT skill of the LIS professionals refers to:

- Memberships and admittance to online diaries.
- Access and recovery of electronic information assets.
- Album ROM perusing and search administrations.
- Admittance to digital libraries and online data sets.
- Utilization of library mechanization software bundles to release the library capacities (OPAC).
- Web planning, creation and support of library site and library web journals.
- Creation and upkeep of data sets utilizing RDBMS software.
- Abilities relating to equipment and systems administration.
- Information and abilities relating to operating systems, programming dialects and other library application software.

Measurement/Evaluation Criteria to judge the ICT Literacy:

Worldwide ICT proficiency board characterizes "ICT proficiency is utilizing advanced technology, specialized devices, as well as organizations to get to, make due, coordinate, assess, and make data to work in an information society. The board's definition mirrors the idea of ICT education as a continuum, which permits the estimation of different parts of proficiency, from day-to-day existence abilities to the groundbreaking advantages of ICT capability. This definition is likewise significant in that it records five basic parts of ICT proficiency. The five parts address a bunch of abilities and information introduced in a succession that proposes expanding mental intricacy. Those five basic parts are as following:

| | |
|-------------------|---|
| Access: | Knowing about and knowing how to collect and/or retrieve information |
| Manage: | Applying an existing organizational or classification scheme |
| Integrate: | Interpreting and representing information. It involves summarizing, comparing and contrasting |
| Evaluate: | Making judgments about the quality, relevance, usefulness, or efficiency of information |
| Create: | Generating information by adapting, applying, designing, inventing, or authoring information |

CONCLUSION

In light of the current review, it very well may be summarized here that, larger part of library professionals working in college libraries in Maharashtra are ICT proficient, which is needed to perform everyday library work, yet at the same time hardly any library professionals have missed the mark on education of ICT-based instruments, assets and administrations. Notwithstanding having great proficiency level, the library professionals need to upgrade their education in different open-source library mechanization programming, computerized library programming and institutional vault programming, etc.

The existing ICT preparing and direction given by the college libraries in Maharashtra isn't completely adequate to make ICT proficiency among the library professionals. Library professionals need to go to different studios, classes, gatherings and preparing software engineers on ICT all the more as often as possible to upgrade their degree of ICT education. Library professionals need to go through different momentary PC courses to build their education and gather in performing ICT related works all the more adequately and effectively. The college library specialists need to recognize the caps of ICT in libraries and consistently endeavour to raise the degree of ICT education among the library professionals by getting sorted out in-house ICT preparing and direction developers, studios, Seminars and gatherings on ordinary stretches to upgrade the ICT proficiency of library professionals and work with the viable usage of ICT-based instruments, assets and administrations by library professionals.

The college library specialists need to recognize the advantages of ICT in libraries and consistently endeavour to raise the degree of ICT education among the library professionals by getting sorted out in-house ICT preparing and direction developers', studios, Seminars and meetings on standard spans to upgrade the ICT proficiency of library professionals and work with the compelling usage of ICT-based apparatuses, assets and administrations by library professionals.

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**THE RELATIONSHIP BETWEEN LEARNING STYLE AND SELF DIRECTED LEARNING
READINESS DURING ONLINE LEARNING FOR STUDENTS OF THE FACULTY OF MEDICINE,
UNIVERSITY OF LAMPUNG**

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ABSTRACT

The COVID-19 pandemic in Indonesia has caused changes in various aspects, one of which is education. The Indonesian government itself is trying to stop its spread, one of which is by implementing a policy of teaching and learning activities remotely or online learning. Changes in learning methods, into indirect lectures, students are required to have self directed learning readiness (SDLR). Learning style as one of the intrinsic factors plays an important role in the formation of students self directed learning readiness. This research is a comparative analytic study with a cross sectional with sampling using stratified random sampling technique. The samples used were 106 samples that met the research inclusion criteria. Furthermore, Chi square test was conducted to see the relationship between learning style and SDLR. The results of the Chi square test analysis is $p = 0.548$ ($p > 0.05$) which means H_1 is rejected and H_0 is accepted so as to produce data in the form of no relationship between learning style and self directed learning readiness. The learning style possessed by most of the respondents in this study was auditory as much as 31%. A high level of self directed learning readiness is the level possessed by most of the respondents in this study and none of the students had a low level of self-directed learning readiness.

INTRODUCTION

The COVID-19 pandemic in Indonesia has caused changes in various aspects, one of which is education. The Indonesian government itself is trying to stop its spread, one of which is by implementing a policy of teaching and learning activities from a distance or online learning. Through the Ministry of Education and Culture, the Government has prohibited universities from conducting face-to-face (conventional) lectures and ordered them to hold lectures or online learning (Kemdikbud, 2020).

With the change in lecture methods during the COVID-19 pandemic, there was a transition process from face-to-face lectures to indirect lectures experienced by students, these changes required students to be able to adapt to new learning methods. The application of the learning process using the distance method makes each student need time to adjust because they are dealing with dynamics that also affect their interest in learning (Purwanto et al., 2020).

The adaptation process of students experiencing psychological problems in changing learning methods, in indirect lectures students are required to have self-directed learning readiness. (Harsono, 2008). Student-centered learning or student-centered approach forces students to be responsible for their tasks independently so that each student will find their own learning style. (Merriam, 2001). The key to success in study and work is knowing each person's unique learning or work style, accepting one's own strengths and weaknesses and adapting as much as possible to personal preferences in each learning, study or work situation Prashin (2007).

Broadly speaking, there are two factors that affect self-directed learning readiness, namely intrinsic factors and extrinsic factors. Intrinsic factors are factors contained in the individual, namely gender, learning methods, mood, health, intelligence, and education. Extrinsic factors are factors that come from outside the individual and are influenced by the environment, namely learning time, learning place, learning motivation, and parenting patterns (Sudjana, 2005). The way of learning (learning style) as an intrinsic factor plays an important role in the formation of student self-directed learning readiness Study (Drago & Wagner, 2004) shows that students who succeed in online learning are more likely to have stronger visual and literacy learning styles. This shows that differences in learning styles and teaching methods affect a person's success in the learning process (Drago & Wagner (2004).

In distance or online lectures, the ability of students to study independently is one of the important things and the learning style applied is one of the factors supporting the success of students in learning independently. Based on research conducted by Canipe, it shows that there is no significant relationship between self-directed learning readiness and learning styles, these results occur in all types of learning styles (Canipe, 2001; Harsono, 2008). Meanwhile, according to Aljohani & Fadila, there is a positive relationship between self-directed learning readiness and learning styles, with kinesthetic learning styles having a dominant correlation with self-directed learning readiness (Aljohani & Fadila, 2018). According to Elazar, getting the results of the study there

is a significant relationship between learning styles and self-directed learning readiness (AbuAssi & Alkorashy, 2016).

METODE

This research is a quantitative research with a cross sectional approach. The research was carried out at the Faculty of Medicine, University of Lampung from December 2020 to July 2021, which is the period when distance/online learning is applied. The population in this study was divided into 4 batches (Medical Study Program 2017, 2018, 2019, 2020) with each totaling 220 people, the 2017 class as many as 182 people, the 2019 class as many as 178 people, and the 2020 class amounting to 198 people. . The sampling technique used stratified random sampling technique. This technique is used if the population has members or elements that are not homogeneous and stratified (Sugiyono, 2014). The calculation to find out the minimum sample size required is by using the sample calculation formula for descriptive data for the category of a total sample of 106 students.

Then in this study also uses the Self Directed Learning Scale (SDLRS) questionnaire. This questionnaire contains 36 questions, there are three factors that underlie Self-Directed Learning Readiness: consisting of 13 statements of self-management, 10 statements of desire to learn, and 13 statements on the control value. self using a Likert scale with a score range between 1-5. The data obtained will then be subjected to univariate analysis to determine the frequency of each variable and bivariate to examine the relationship between the two research variables, namely learning styles and self-directed learning readiness. The two scales used are nominal and ordinal categorical scales, then data analysis is carried out using the chi square test.

RESULT

Based on the research that has been done, it was found that the learning style that most students have is the auditory learning style with a total of 33 students (31%) out of a total of 106 students. Then followed by multimodal with a total of 28 students (27%) from a total of 106 students. Then the univariate analysis of self-study readiness found that the high SDLR level was the SDLR level owned by most students with a total of 60 students (69%) out of a total of 106 students, and 46 students with moderate SDLR levels (31%).

In this study, there was no low SDLR level. Then based on the data obtained, bivariate analysis was then carried out using the chi-square statistical test. The researcher decided to combine the moderate SDLR level group with the low SDLR level group into one medium and low SDLR level group. The number of groups with low SDLR levels is non-existent or zero, so they are combined with groups of moderate SDLR levels.

After all the data became categorical, then proceed with a different test using the chi square test which is presented in table 1. In table 1 the bivariate analysis test obtained a p value of 0.548 where the value is greater than sig. 0.05, it is stated that H1 is rejected, H0 is accepted, so in this study it is stated that there is no relationship between learning styles and self-directed learning readiness in online learning for students of the Faculty of Medicine, University of Lampung in 2017-2020.

Table of the relationship between Learning Style and Self-Directed Learning Readiness

| Learning Style | Self-Directed Learning Readiness | | | | Total | | p-values |
|----------------|----------------------------------|------|------------------|------|-------|------|----------|
| | high level | | Medium-Low level | | | | |
| | n | % | n | % | n | % | |
| Auditori | 17 | 16 | 16 | 15,1 | 33 | 31,1 | 0,548 |
| Visual | 11 | 10,4 | 7 | 6,6 | 18 | 17,0 | |
| Kinesthetic | 7 | 6,6 | 6 | 5,7 | 13 | 12,3 | |
| Multimodal | 19 | 17,9 | 9 | 8,5 | 28 | 26,4 | |
| Read/Write | 6 | 5,7 | 8 | 7,5 | 27 | 13,2 | |

P-value > 0,05 = Ho failed to reject

DISCUSSION

The results of this study are in line with research conducted by (Canipe, 2001) entitled "The relationship between self-directed learning and learning styles" shows that there is no significant relationship between self-directed learning readiness and learning styles, these results occur in all types of learning. The learning style studied by Canipe uses the Learning Style Inventory (LSI) learning style model, where people with a high level of self-directed learning can adapt easily so that learning style is not the main thing that affects a person's self-directed learning ability (Canipe, 2001). As Long said, self-directed learners are: independent, flexible and adaptive (Long, 1990).

In this study, there were no students with low SDLR levels, this shows that students of the Faculty of Medicine Unila class 2017-2020 as research respondents, have good self-study readiness and can learn independently and can adapt to different learning conditions both learning face-to-face and online learning. In addition, Unila Medical Faculty students have also attended the Learning Skills block in the early semester, where in the lectures they learn material about how students can study independently, face problems that will be faced while being medical students, get to know the basics of medical science, basics professionalism both as a medical student and as a professional doctor..

In distance learning activities, lectures are carried out online using various virtual classroom platforms such as Zoom, Google Meet, and others. Online distance learning is also able to foster student learning independence, learning without direct guidance from lecturers makes students independently seek information about course materials and assignments given to them. Lectures through online learning media such as Zoom are synchronous learning where learning is carried out in real time, namely learning that is carried out between lecturers and students simultaneously online and can carry out two-way communication directly and provide feedback (Muhammad Hanif Fahmi, 2020).

Distance learning using virtual classroom media can meet the learning needs of all learning styles. (1) Visual Students; displaying interesting pictures and concept maps during learning (2) Auditorial Students; repeating material that is considered important by using rhythmic voice intonation, using media in the form of video, (3) Read/Write students read the material displayed and record it Again, during online learning students can record and take pictures of the lecture material displayed, so that students easier to take notes yourself. (4) Kinesthetic Students; designing a learning model that makes students more active. Although self-study at home, practical activities are still carried out. (Drago & Wagner, 2004).

In this study, it was found that students with auditory learning styles dominate the total respondents, students who use auditory learning styles tend to be easier to digest, process, and convey information by listening directly. In addition, during the Covid-19 pandemic, online learning is more dominant in conveying information through audio, making it easier for students who have an auditory learning style to master the material. In this study, there were no students with low SDLR levels, this shows that the 2017-2020 Unila Faculty of Medicine students as research respondents, have good self-study readiness. In this study, it can be seen that the success of independent learning readiness when online learning is not influenced by the student's learning style. This can be due to learning style is a relatively fixed or consistent learning method, in accordance with what Curry L said that learning style is a characteristic of cognitive, effective, and psychosocial behavior that serves as a relatively stable indicator of how students perceive, interact and respond. learning environment (Curry L, 1981).

And self-directed learning readiness is influenced by many factors, namely intrinsic factors and extrinsic factors. SDLR intrinsic factors are gender, age, learning style, mood, health, intelligence, education, basic knowledge, level of knowledge, and socialization. The extrinsic factors are the place of study, motivation to learn, parenting styles and accessibility of learning resources. Motivation can be one of the extrinsic factors that play an important role in the formation of student SLDR. According to Lisiswanti's research, the average motivation of Unila medical students is quite high, namely five of the seven highest scales. This shows that the motivation of the students of the Faculty of Medicine, University of Lampung is high motivation, it can be interpreted that the readiness to learn of Unila medical students is more influenced by the student's learning motivation compared to the student's learning style. (Lisiswanti, 2014).

However, the results of this study contradict the research conducted by Aljohani & Fadila (8) entitled "Self-directed learning readiness and learning styles among Taibah nursing students" where they found that there was a positive relationship between self-directed learning readiness and learning styles, with kinesthetic learning style that has a dominant correlation with self-directed learning readiness (Aljohani & Fadila, 2018). This shows that there are still various research results regarding the relationship between learning styles and SDLR, differences in samples, measuring instruments, and research demographics also affect this.

CONCLUSION

Based on the results of research that has been carried out that there is no relationship between learning styles and self-directed learning readiness when applying online learning to students of the Faculty of Medicine, Unila. The learning style possessed by most of the respondents in this study is auditory and a high level of self-directed learning readiness is the level most respondents have in this study.

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SOCIAL MEDIA MAKES THINGS POSSIBLE FOR LIBRARIANS AND MODERN LIBRARIES: AN USERS IMPORTANT VIEWS

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ABSTRACTS

For library personnel and librarians, the fast growth and enhancement of social media and related technology is beneficial. Social media is today's fastest communication tool, and anybody may connect with others with a single click. At the equal time, librarians are familiar with social media and associated tools for use of their respective libraries. Librarians use social media to create a virtual platform for interacting with users, which enables them attain their target market and clients. Librarians utilise social media to communicate with library patrons and sell their resources and services.

Keywords: Social Media Library, Librarian, Digitalization, ICT, Library Network

INTRODUCTION

The age of today's virtual global has modified the path of humans' personal and collective thinking and the considering service carriers. The rapid development of records and communicate generation and associated equipment have changed the pleasant of existence of human beings. ICT has time and again revaluated social media and different comparable communication media. In the early days of computer systems and the internet, people notion it turned into the finest use of their life work, but inside the early days of social media, they noticed a large change in the way people engage. Attaching, sharing, and receiving data from one side of the stadium is simple thanks to social media.

Although this verbal exchange medium has modified the attitudes, questioning and emotions of worldwide provider providers. Many factors influence library usage of social media, librarians believe that social media is the greatest way to communicate with library customers, as well. In addition to these records, librarians confront other problems and difficulties while accessing their library's social media accounts.

These challenges and issues must be solved in order for libraries to utilise social media more effectively and reliably. Librarians utilise social media to share information with knowledgeable patrons. This article discusses several elements of social media, including as use, factors and issues, and library challenges.

It recounted that social media placed a cease to discrimination against communication from the network by supplying access to the educational network and informing them approximately the provision of library resources and offerings at domestic. Furthermore, social media provides librarians with technology that enables them to sell their sources and offers to their target audience with ease. LIS professionals utilise social media sites like LinkedIn, Myspace, net.2.0, blogs, WhatsApp, QQ, and Web Chat to communicate with their clients and advertise their goods. Using Twitter, librarians may build a network of patrons who can use library resources and services. In addition, librarians attempt to address the needs of library users by using an acceptable and realistic approach to discussion.

As a result of library customers being directed to library resources and services through social media, the number of libraries has increased across the globe. Librarians have mastered the art of using social media to further their careers. In addition, in recent times social networking web sites cater to the wishes of librarians geared up for the upcoming demanding situations in their discipline.

Librarians should acquire the abilities and information to improve library customers to satisfy their future desires and aspirations. Social networking technologies create a virtual environment that adjustments the way librarians and librarians interact. In addition, inside the cutting-edge generation of social media usage, librarians are well aware of the wishes of library customers.

The usage and acceptance of social media via libraries, on the other hand, is crucial in resolving short-term problems and demanding circumstances. Facebook is the most popular community amongst librarians, accompanied with the aid of Twitter and blogs.

Social Website

In these days's statistics explosion generation, we've encountered the way of questioning and taking into account humans. Everyone runs after records, but they do no longer know how to acquire it and percentage it with each other at a time. In addition to these records, the modern generation of facts ICT and related assistive gadgets has modified the position of the facts professional. Furthermore, ICT has made significant progress in developing

social networkingsites for transmitting information from one point to another. "Social media may possibly have begun with the invention of the telegraph that united America in the 1840s," according to Wikipedia (2019). Social media creates some surroundings in which all people can get right of entry to, share and disseminate facts.

Many social networks have also been created, some of which are highly popular in the industry, including as Facebook, Twitter, YouTube, WeChat, Instagram, QQ, QZone, Weibo, Twitter, Tumblr, Telegram, Baidu Tieba, LinkedIn, LINE, Social Snapchat, Pinterest, and Viber. Such media have developed a valuable platform that allows people to have access to and share their data with others through the internet. By boosting their ability to build appropriate interactions between library personnel and library users, social media allows librarians to assist librarians and their readers. Librarians may develop accounts on social media sites like Facebook to expand their library's resources and services. Facebook provides a platform for businesses to sell their products and services effectively and accurately.

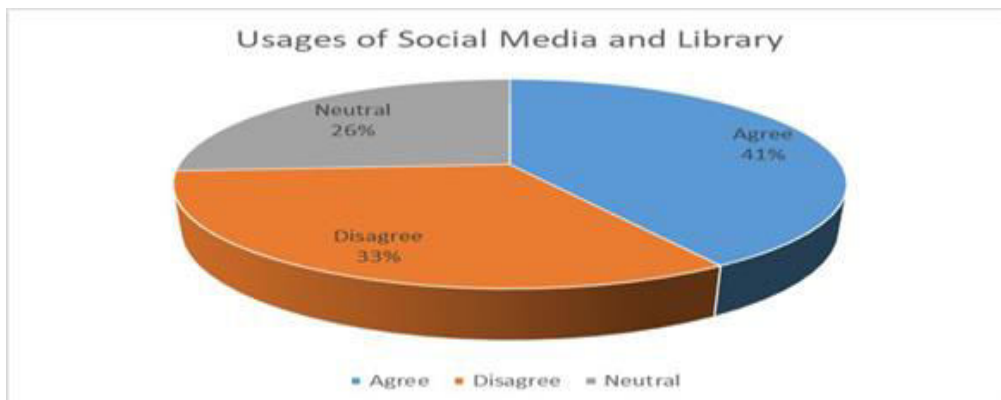
Similarly, Twitter plays an important role in enhancing library resources and services. Social media is a low-cost way to sell library assets and services in today's cutting-edge ICT era. Furthermore, social media plays an important role in sharing information and thoughts about the library, connecting with unique activities, and providing a positive service environment for library customers.

Library resources and services may be sold on Facebook, which is a low-cost marketing channel for library goods and services. In addition, Facebook facilitates library group of workers sell their products and boom potential users' get right of entry to their assets and services.

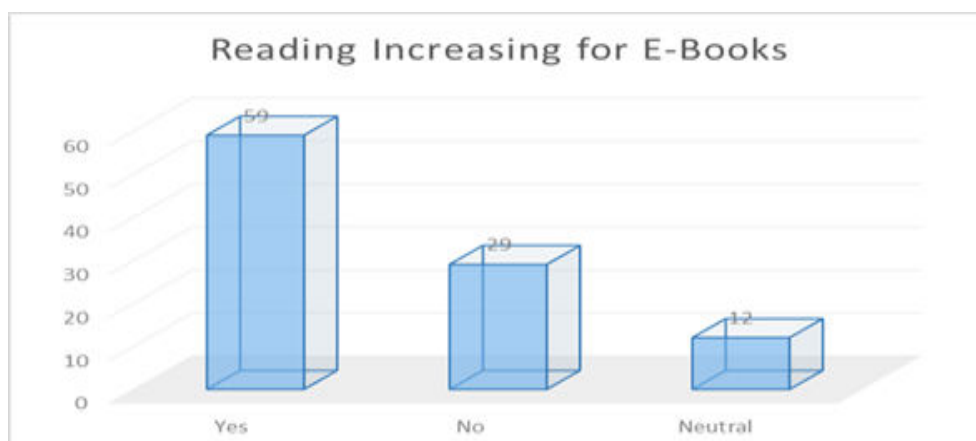
Definition of Social Media

1. Social media is a set of web-based organisations that allow people to communicate with each other over the internet. Online forums, wikis, and websites containing user-generated material are all included in this category (UGC).
2. A computer or mobile phone may be used to connect to the Internet, where users can chat and share information.

INTERPRETATION



When we asked above sample questions to library users then above responses are received agree is 41%, disagree is 33% and not to say is 26% respectively. Usages of social media are increased in modern ICT age and library according to social media library users activated in various types of social media.



When we asked above sample questions to library users then above responses are received Yes is 59%, No is 29% and Neutral is 12% respectively. Reading is increased in time of modern ICT period but social media supported to various type of reading facility like articles, papers, newspapers, research papers, informative articles and so on.

In India's southern-southern university libraries, he talked about librarians' awareness of the use of social media for informal clinical communication. To collect data, the author employed survey and questionnaire methodologies, as well as descriptive research tactics. Researchers looked at the impact of social networking sites on archives and data centres. They concentrate on cutting-edge advancements in library and information centre information exchange. They found that today each library is attached to specific kinds of social media to widen the distance between the library and the users. Social media networks such as Facebook and Twitter were highlighted, such as Facebook and Twitter. Studied social networking generation within the virtual surroundings: its capacity implications for libraries. He looks at social networking tools that enable library patrons to easily engage with other library patrons, allowing them to connect with the arena through the Internet. He researched numerous social software program and their utility within the library, but in the long run, the writer found that Web 2.0 turned into the correct social software program for the library to have interaction with its users.

The usage of social networking websites by libraries to connect with users was investigated. They discovered that social networking sites' reputation is rising at an alarming pace. Apart from these records, they similarly state that library customers have very little involvement with social networking web sites. They explored the sharing, dissemination, exchange and collection of understanding and facts on some of the most important social networking websites along with Facebook, Twitter and Weibo. They used a combined method to finish the direction. Studied using social media for professional development by means of librarians in India. This questionnaire is used to accumulate data from users of online social networks inclusive of Facebook, wikis and Podcasts. He concluded that most librarians in India are interested in expert improvement through social media.

Factors inside the Library Utilization of Social Media

In order to reach out to new customers and consumers, social media plays a crucial role. In the last 4 or 5 years, a huge amount of facts has moved from one pole of the arena to another. One of the most popular options of this century, social media, is quickly developing. Millions of data are communicated in real time on a single channel with one individual at a time. Libraries employ social media to cater to their patrons' needs.

In libraries, social media has become one of the most useful tools for disseminating information in a short amount of time. There are many functions for assembly the desires of library users, so that you can help them reach new customers. In addition, he discusses social media about growing a photograph of the library and modernizing the library.

He noted that social media is a generation or tool that allows things, making it a tremendous source for sharing and retrieving information. Facebook is a superb tool for creating a positive influence on SMEs and for building excellent connections with their non-monetary performance. Using social media to connect with library users is an excellent approach to gather data. Furthermore, social media has had a significant influence on libraries. In order to reach out to prospective library users, LIS professionals know how to make effective use of social media. In libraries and data centres, social media has a huge impact on increasing library items and sources.

CONCLUSION

All of the library's users may now be found on a single social networking site, allowing them to share their views and opinions on relevant and specific information. In addition, social media offers a variety of area for librarians to create digital environments to improve library provider transport. Users of Social Media at the Library Other.

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COLLEGE READINESS IN LIVING THE VUCA ERA THROUGH TRANSFORMATION DIGITAL 4.0 BASED ON MATRIX IMPORTANCE PERFORMANCE ANALYSIS RESULTS

Bambang P. Hediono, Drs. M Parnamawa P and Dr. J. Ellyawati

ABSTRACT

Universities face an era that is changing rapidly, full of uncertainty and very complex, often referred to as the VUCA era, VUCA is an acronym for Volatility, Uncertainty, Complexity and Ambiguity. One of the main causes is the occurrence of digital transformation that makes operations up to organizational governance institutions. This is exacerbated by the occurrence of a pandemic due to covid 19. Institutions, especially universities, must be able to change themselves in the service of implementing education.

The research aims to identify and develop the extent to which a university, namely Duta Wacana Christian University, is ready to undergo changes due to digital transformation. Evaluation is done by using Matrix Importance-Performance Analysis.

The variables evaluated include leadership, human resources and the readiness of facilities and infrastructure. The evaluation was carried out by paying attention to the response to the readiness of these variables as announced by the university leadership, as well as paying attention to the steps in developing a digital business from Sugiarsono. The evaluation results show that there are several variables that need to be developed because they are not in line with the expectations set by the leadership

Keywords: VUCA, digital transformation, Matrix Importance-Performance

INTRODUCTION

Changes in the business world that is growing rapidly today greatly affect the existence of the organization. The main changes that occur are often referred to as VUCA as an abbreviation of Volatility, Uncertainty, Complexity and Ambiguity. The word VUCA was first used by the US Army War College to describe the fragile nature of Afghanistan and Iraq after the Cold War (Lawrence, 2013. Kingsinger, 2012). But finally, profit-oriented companies to education also use this term.

According to (Pramudianto, 2020, p. 3-7) this VUCA analysis is very meaningful, especially when the changes that occur are very disruptive, changing or even destroying or replacing the existing organizational structure. VUCA is closely related to the perspective of a leader or someone in seeing the situation when making decisions related to management functions such as making plans, mitigating risks, encouraging change, and solving problems. Thus VUCA has an important role in improving the quality of life of companies that face uncertainty in the business world, especially in the disruptive era in the era of digital transformation as it is today.

According to (Rimita, 2019) another driver of disruptive VUCA is the advancement of information technology, both devices and systems. Often this change in information technology is referred to as the era of digital transformation, both operational and device. This changes the management of businesses and organizations. Digitizing this information can help make decisions faster, create a leaner and more efficient organization, a simpler organizational structure, better collaboration with other organizations, improve management processes, change leadership processes and provide flexibility and different ways of communication.

In the current pandemic period where transmission between humans through droplets has affected interactions between humans. So that physical activity becomes very reduced sharply even rarely occurs. At a time like that all the wheels of the organization including education changed completely in carrying out its activities. Novianti (2020) To solve this problem, communication through the network is the solution, both in the form of e-learning, webinars, and e-meetings and all organizations must adapt to utilizing digital facilities. For this reason, all institutions must be able to adapt and adapt to the digital transformation that occurs.

The results of research conducted on the leadership's view of the readiness of higher education institutions in facing the VUCA era which is influenced by digital transformation shows that there are several variables that have not been felt optimally by their employees. The evaluated variables include leadership variables, human resources and facilities and infrastructure, consisting of 25 measuring variables. Leadership is the first and main factor in determining organizational readiness in determining the direction and strategy to face the increasingly disrupted VUCA era due to technological transformation in the form of digitalization. Human Resources are elements of implementation as well as input of information on the needs of changes in organizational

management, while facilities and infrastructure are supporters for the creation of an ecosystem with a digital feel.

2. Theoretical Framework and Literature Review

Theoretically Lawrence (2013) says that the role of higher education leadership must exceed traditional functions in anticipating current changes, such as identifying opportunities, developing strategic plans, motivating and directing subordinates, managing risks, solving problems and making effective decisions. This needs to change the way of thinking, where currently a college leader must make decisions more quickly, and the ability to process a lot of information in a short time. To help overcome these problems, must be able to identify VUCA problems and how to overcome them as follows:

Tabel 1: Pola VUCA Prime Pattern

| VUCA | Definition | Coping Effectively |
|--------------------|--|---|
| Volatile | Volatile Unstable and unpredictable patterns | - Vision - Agility - Understanding |
| Uncertainty | Lack of knowledge of cause and effect not understood | Uncertainty Understanding/ Understanding of information |
| Complexity | Difficult to understand the causes and mitigating factors | - Clarify/clarity -Restructurisation |
| Ambiguity | Lack of basic rules of the game of cause and effect are not understood | -Agility/ of experimentation |

Furthermore, in theory, Gafurov 2020 makes a list of infrastructure management objects in universities in times of change that need to be complemented by the concept of cultural values, investments, translations, additions that allow changing the infrastructure management process and the introduction of new concepts of infrastructure logic, as follows:

University Resource Transformation List

| Traditional University Resource List | Change University Resource List |
|---|--|
| Resource management: Infrastructure: - campus, building, structure, building; - service and communication lines; - equipment and materials; - teachers and researchers; - information resources and services; - other infrastructure facilities. | Manage access to university infrastructure objects: Infrastructure: - campus, building, structure, building; - service and communication lines; - equipment and materials; - teachers and researchers; - information resources and services; - other infrastructure facilities. |
| | + cultural values; + investment (ability to mobilize resources for project implementation); + translation (the ability to turn scientific and scientific educational competencies into scalable projects in the real sector); + quality of life and personality development stakeholders (students, teachers and researchers). The effectiveness of the modern university is determined by its role in advanced scientific research, education |

Source: Gafurov 2020

2.1 Stages in Preparing for Digitalization in the VUCA Era

From the research conducted by Sugiarsono, (2017) on CEOs of large companies in Indonesia, which was written in SWA magazine, it was found that a company and organization has stages in preparing themselves to enter the digital era as follows:

Table 3: Steps in developing a Digital Business

The steps in this phasing are the basis for compiling the questionnaire variables in this study by combining the strategies set by the university leadership at the Duta Wacana Christian University in dealing with digital transformation in the VUCA era.

2.2 UKDW Leadership Strategy in Dealing with Digital Transformation in the VUCA Era.

A. Strategy) in dealing with the era of digital transformation that occurred during the VUCA period so that UKDW is successful and able to survive in rapidly changing changes is to determine

- 1) Vision: meaning that UKDW must still have a clear vision, which is likened to a clear direction of travel.
- 2) Understanding: meaning that UKDW must understand and evaluate continuously the direction of development of the world of higher education which is changing rapidly. If you understand then you can give the right response.
- 3) Collaboration: meaning that UKDW cannot cope with the flow and impact of this change by relying on its own strength. We must work with stakeholders and many parties to achieve mutual progress.
- 4) Adaptation: meaning that UKDW must be willing to adapt and change. The organization is made to be as lean as possible and the mechanism of its work as simple as possible. It is necessary to remove the barriers that slow down performance and hinder teamwork

B Strategy in preparing the leadership under it, including HR in each unit to be able to support what is the leader's grand strategy, is to prepare HR as follows:

- 1). **Caring:** an effort to really pay attention to the quality of human resources. If the Lecturer's career path is clear enough according to his academic position, then we must also be able to develop a clear career path for the students. Continuous efforts are needed to pay more attention to comfort, welfare and cohesiveness in working at UKDW.
- 2). **Capability:** efforts to continuously improve the ability (capability) of each employee, both lecturers and staff, either through education (advanced studies), training, certification, retreats and others.
- 3). **Collaboration:** we want performance not to rely on individual abilities but also collegial, not working alone but together supporting each other.

C The strategy in adjusting existing facilities and infrastructure so that UKDW's goals are achieved in the VUCA era during the digital transformation period is to create programs:

- 1) Provide good internet network infrastructure (LAN, WIFI) and adequate work equipment (computer, LCD projector, etc.) in the workplace environment on campus
- 2) Develop an integrated information system to facilitate university governance for both academic management, finance, human resources and infrastructure.
- 3) Develop the Institute for Academic Development and Learning Innovation (LPAIP) which is responsible for developing various additional facilities for online learning, both the Learning Management System (LMS) and its digital resources (together with the Library).

2.3 VUCA Era

According to Bennett (2014) in the world of VUCA, both experts and executives say that the main activities built by the planned organization from determining the vision to implementation are useless because of the occurrence of VUCA. VUCA makes situations change rapidly and even unpredictably, so that what has been drafted becomes inappropriate because the environment and technology have changed everything quickly. When managers do not have the ability to predict well the changes that occur, their business can be threatened. Organizations become obsolete. This will weaken the capability and confidence of a leader. For this reason, leaders are required to be able to identify any changes in each situation, so that they are able to efficiently allocate existing strengths, both human resources and finances to save the organization.

2.4 Digital Transformation

J Loonam (2018) explains that digital transformation is a process that uses existing digital technology such as mobile computing technology, cloud computing, which is integrated with all systems in an organization. Meanwhile, B. Hinings (2018) describes digital transformation as the result of the use of a combination of digital innovations that are produced so as to provide changes to processes, values, structures, positions or ecosystems in the environment both inside and outside the organization. Furthermore, in a literature study conducted by R Morakanyane (2017) explained that digital transformation is a process of change that is based on the power of digital technology in generating or changing operational processes or business processes as well as the experience of organizational implementers so as to produce new value.

2.5 Digital Transformation in Higher Education

According to Korsakova T (2019) In the 21st century universities cannot survive if they do not change because the modern world is facing a level of change that tends to be infinite, while the phase of change takes place quickly without any time frame. This leads to the fact that universities cannot be complacent and must change. Universities that cannot build new organizational ties can be lost forever. The direction of development that meets the new requirements of the modern world is to the people, processes, technologies, structures and systems that are compatible with the university. In the face of dynamic conditions of change and world uncertainty, the university's vision must be based on a comparison of the university's internal world with current realities.

2.6. Human Resources the Key to Change

According to Zvorni, 2016 Companies can improve their business performance, increase revenue and reduce costs by improving information technology (IT) capabilities. On the other hand, there is increasing importance of human resource management (HR) practices related to IT utilization for enterprise business performance in a rapidly changing knowledge-based economy. For this reason, it is necessary to analyze the relationship between IT capabilities, HR capabilities, and company performance. This needs to be considered because IT capabilities to some extent determine an organization's business performance but play a more important role in improving HR capabilities.

3. RESEARCH METHOD

3.1. Research Data Collection Method

A. Research Objects and Locations

The object of the research is the employee at Duta Wacana Christian University, Yogyakarta. The respondents studied were UKDW employees from various units and faculties, especially those working in the administration field.

B. Data Requirements

The data needed includes data consisting of 9 stages towards digitalization 4.0 in the VUCA era which is collaborated with UKDW leadership strategies to face digital transformation and then grouped into 3 main variables, namely: leadership and management, human resources and supporting equipment in the form of

facilities and infrastructure. Each of these variables contains the attributes of questions resulting from observations at the universities studied

C. Data Collection Techniques

To obtain research data, questionnaires and direct interviews with the UKDW Chancellor were used. The results of the interview with the UKDW Chancellor to find out the ideal conditions expected in dealing with the VUCA situation, especially in the era of digital transformation. The results of collecting interview data became the basis for compiling a questionnaire which was combined with the existing data acquisition. Preparation of preliminary questionnaire based on the three components above. Each of these main variables is translated into several attribute questions that have been adapted to the circumstances of the universities studied. Determination of the scale for the questionnaire that uses a Likert scale, the Likert scale is a measurement scale that can be used to show employee responses to the characteristics studied.

D. Variable Operational Definition

1. Observation Variables

The variables that were observed in this study were Leadership Factors, Human Resources and Facilities and Infrastructure as supporting factors, including 9 main variables as follows: (Sugiasono, 2017, 38)

- a. Visionary leadership mindset, supportive of digitalization readiness (digital ready)
- b. Ensure that the direction of digital unit development is in line with the institution's development strategy
- c. There is a culture and practice of innovation
- d. Execution of programs that, if necessary, collaborate with competent parties in the digital field
- e. There are executable, dynamic and flexible development programs
- f. HR/special team for digital units who are competent with a high level of readiness
- g. Synergistic collaboration between unit team members and other fields within the institution
- h. Physical facilities and infrastructure and ecosystems that support digital transformation
- i. Seminars and workshops for competency enhancement

Furthermore, from the 9 main observations, a questionnaire was made covering leadership, human resources and supporting facilities

2. RESEARCH INSTRUMENTS

Sugiyono's research instrument (2018, 102) is a tool made to collect and process various data in research. This research was conducted by involving a survey, for that the instrument made was a questionnaire containing questions and answers that were suitable for research

In total there are 25 questions about HR, Leadership and Supporting Facilities identified from the literature on 9 steps of institutional readiness to enter digital transformation. The questionnaire was prepared using a five-point Likert scale to measure the variables of importance with scores (1 = very unimportant, up to 5 = very important) and performance variables with scores (1 = very dissatisfied to 5 = very satisfied) associated with each variable question

3.2. Data Analyst Method

In conducting data analysis, validity and reliability tests were first carried out (Glen 2016) on the research instruments to be used, including

A. Importance Performance Analysis (IPA)

The use of the Importance-Performance Analysis method in this study is to measure the level of trust (satisfaction) of employees on the readiness of leaders to enter the Vuca Era, shown in the quadrants in the Importance-Performance Matrix map. In this method (Nugraha 2014) it is necessary to measure the level of conformity to find out how much employees feel confident (satisfied) with the performance of the leadership, and how much the leadership understands what employees want for the performance they are doing. The formula used is as follows:

$$Tki = \frac{Xi}{Yi} * 100\%$$

Where

$$X = \frac{\sum_{i=1}^n x_i}{k}$$

Tki = Level of conformity of respondents.

Xi = The average score of the leader's performance appraisal.

After measuring the level of conformity, the next step is to make a map of the importance-performance position which is a shape divided into four quadrants bounded by two perpendicular intersecting lines. Yi = Average of employee expectation assessment.

$$X = \frac{\sum_{i=1}^n x_i}{k} \quad y = \frac{\sum_{i=1}^n y_i}{y}$$

Where:

X = Average of the average performance level scores of all attributes.

Y = Average of the average score of the expectation level of all attributes.

k = Number of attributes that affect satisfaction.

Furthermore, the horizontal axis (X) will be filled by the score of the level of employee perception of readiness/performance or the institution, while the vertical axis (Y) will be filled by the score of the level of importance/expectation of an attribute. In simple terms the formula used for each attribute is:

$$X = \sum x_i / n \quad Y = \sum y_i / n$$

Where:

X = Average score of perception,

Y = Average Expected Score,

n = Number of Respondents

D. Matrix Analysis of Importance and Performance

According to (Ormanovi, 2017) the importance-performance analysis (importance-performance analysis) can be used to rank the various elements (attributes) of a collection of services and identify the necessary actions.

In the Importance-Performance Analysis, mapping is carried out into 4 quadrants for all variables that affect service quality. The division of quadrants in the Importance-Performance Analysis can be explained as follows

a.. Quadrant 1 Focus here (Concentrate Here)

Is an area that contains factors that are considered important by employees, and factors that are considered to be in accordance with what they feel so that the level of satisfaction is relatively higher. The variables included in this quadrant must be maintained because all these variables make the institution considered to have an advantage in the eyes of the employees.

b. Quadrant 2 Upgrade (Keep Up The Good Work)

Is an area that contains factors that are considered important by employees, but in reality these factors are not in accordance with employee performance expectations (the level of satisfaction obtained is still low). The variables that fall into this quadrant must be increased.

c. Quadrant 3 Low Priority (Low Priority)

Is an area that contains factors that are considered less important by employees, and in fact their performance is also not too special. The increase in the variables included in this quadrant can be reconsidered because its effect on the benefits felt by employees is very small.

d. Quadrant 4 Possible Overkill (Possibly Overkill)

Is an area that contains factors that are considered less important by employees, and are felt to be too excessive. The variables included in this quadrant can be reduced so that the institution can be more efficient in living in the VUCA era.

4.1 Calculation Results from Importance Performance Analysis

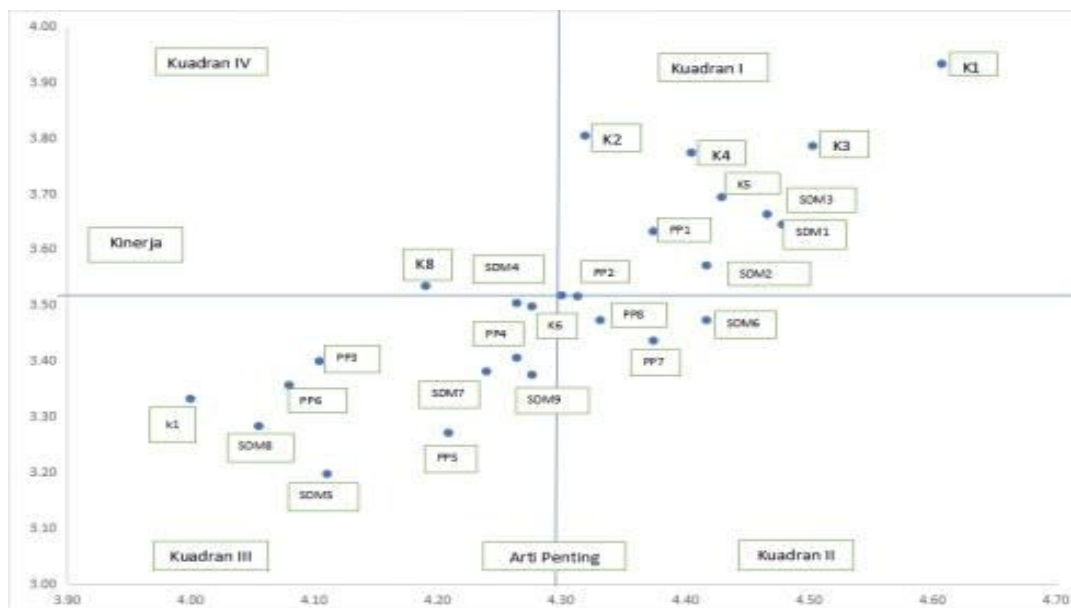
From the results of the calculations carried out on the Importance-Performance Analysis, the average score of the significance and performance expectations is obtained as follows:

Table 8: Average Score Attribute Importance and Performance

| Indicator/Questionnaire | Importance | Performance | Gap |
|-------------------------|------------|-------------|-------|
| AK1 | 4.61 | 3.93 | -0.68 |
| AK2 | 4.32 | 3.80 | -0.52 |
| AK3 | 4.50 | 3.79 | -0.71 |
| AK4 | 4.40 | 3.77 | -0.63 |
| AK5 | 4.43 | 3.69 | -0.74 |
| AK6 | 4.28 | 3.50 | -0.78 |
| AK7 | 4.00 | 3.33 | -0.67 |
| AK8 | 4.19 | 3.53 | -0.66 |
| ASDM1 | 4.48 | 3.64 | -0.84 |
| ASDM2 | 4.42 | 3.57 | -0.85 |
| ASDM3 | 4.47 | 3.66 | -0.81 |
| ASDM4 | 4.26 | 3.50 | -0.76 |
| ASDM5 | 4.11 | 3.20 | -0.91 |
| ASDM6 | 4.42 | 3.47 | -0.95 |
| ASDM7 | 4.24 | 3.38 | -0.86 |
| ASDM8 | 4.06 | 3.28 | -0.78 |
| ASDM9 | 4.28 | 3.37 | -0.91 |
| APP1 | 4.37 | 3.63 | -0.74 |
| APP2 | 4.31 | 3.52 | -0.79 |
| APP3 | 4.10 | 3.40 | -0.70 |
| APP4 | 4.26 | 3.40 | -0.86 |
| APP5 | 4.21 | 3.27 | -0.94 |
| APP6 | 4.08 | 3.36 | -0.72 |
| APP7 | 4.37 | 3.44 | -0.93 |
| APP8 | 4.33 | 3.47 | -0.86 |
| Avg | 4.30 | 3.52 | -0.78 |

Source of Calculation results

From the average perception and expectation value of each indicator/attribute this value will be used to determine the location of each attribute on the Cartesian Importance Performance Analysis (IPA) diagram. The boundary line in the Cartesian diagram is taken from the average value (mean) seen from all indicators, namely 4.30 for the perception of the level of importance and 3.52 for the perception of performance. The line will limit each quadrant and form a 4-sided quadrant. The results are as follows:



Based on Figure 1, it can be seen the quadrant of the results of the Importance Performance Analysis where the results show:

In Quadrant I: Focus (Concentrate here)

Here shows the results that can be considered satisfying the desires of the respondents, where out of 10 attributes both in terms of importance and in terms of performance can meet the expectations of respondents.

Table 9: Attribute Grouping in Quadrant I

| | Indicators/Attributes | AP | K | Gap |
|--------------|---|------|------|-------|
| K1 | Leaders have foresight on how to deal with digital transformation in the VUCA era (Visionary) | 4.61 | 3.93 | -0.68 |
| K2 | Leaders have prepared digital activities in running their organizations (Digital ready) | 4.32 | 3.80 | -0.52 |
| K3 | Leaders always support the activities of employees who want to progress (supportive) | 4.50 | 3.79 | -0.71 |
| K4 | Leaders carry out digital development in line with the organization's grand strategy | 4.40 | 3.77 | -0.63 |
| K5 | Leaders develop a culture of openness to support digital innovation (open innovation) | 4.43 | 3.69 | -0.74 |
| SDM 1 | A special team for digital units is formed with human resources whose expertise is in accordance with their field | 4.48 | 3.64 | -0.84 |
| SDM 2 | HR in a special digital unit team has a high readiness to carry out digital operations (digital – readiness) | 4.42 | 3.57 | -0.85 |
| SDM 3 | HR in a special team for digital units has competence in digital management | 4.47 | 3.66 | -0.81 |
| PP1 | Universities have provided physical infrastructure that supports the digitization process | 4.37 | 3.63 | -0.74 |
| PP2 | Universities have prepared an environment (ecosystem) that supports digital culture | 4.31 | 3.52 | -0.79 |

In this quadrant, it is generally perceived that both leadership and human resources have been well prepared. In addition, facilities and infrastructure as well as the environment have also been provided to create support for the implementation of digital work. For this reason, the leadership must focus and continue to improve the quality of work in this quadrant.

In Quadrant II: Keep Up the Good Work

There are 3 indicators in the area that contain factors that are considered important by employees, but in reality these factors are not in accordance with employee performance expectations (the level of satisfaction obtained is still low). The variables that fall into this quadrant must be increased.

Table 10: Attribute Grouping in Quadrant II Low Priority III (Low Priority)

| | Indikator/Atribut | AP | K | Gap |
|--------------|--|------|------|-------|
| SDM 6 | Universities make preparations for planned HR capacity building | 4.42 | 3.47 | -0.95 |
| PP7 | Communication in the VUCA era is made easier Efficient (not complicated) | 4.37 | 3.44 | -0.93 |
| PP8 | Adequate technology and support networks have been provided for digitization in the VUCA era | 4.33 | 3.47 | -0.86 |

Here it is called Low priority. Of the 11 attributes of the question are considered not so important and it turns out that their performance does not meet the expectations of the respondents.

Table 11: Attribute Grouping in Quadrant III

| | Indikator/Atribut | AP | K | Gap |
|--------------|---|------|------|-------|
| K6 | The leadership always invites discussions for digital development at university | 4.28 | 3.50 | -0.78 |
| K7 | Leaders prepare new startup-style programs | 4.00 | 3.33 | -0.67 |
| SDM 5 | HR is always involved to conduct studies and comparative studies to institutions that have carried out digital programs > 5 years | 4.11 | 3.20 | -0.91 |
| SDM | HR competencies are always improved through seminars on | 4.24 | 3.38 | - |

| | | | | |
|-------|---|------|------|-------|
| 7 | the latest things in the field of digitalization in the rapidly growing VUCA era | | | ,0,86 |
| SDM 8 | Organizing regular workshops to improve competence | 4.06 | 3.28 | -0.78 |
| SDM 9 | Program for mindset change about the need to change due to VUCA challenges held for all staff | 4.28 | 3.37 | 0,91 |
| PP3 | Prepare space and dynamic room design | 4.10 | 3.40 | -0.70 |
| PP4 | Adequate facilities for all elements of employees for digital work | 4.26 | 3.40 | -0,86 |
| PP5 | There are clear operational instructions in carrying out the digitization program in each unit. | 4.21 | 3.27 | -0,94 |
| PP6 | Changes to a lean and efficient organizational structure | 4.08 | 3.36 | -0,72 |

In this quadra contains factors that are considered less important by employees, and in fact their performance is also not too special. The increase in the variables included in this quadrant can be reconsidered because its effect on the benefits felt by employees is very small.

In Quadrant IV: Possible Overkill

There are 2 indicators in this quadrant that contain factors that are considered less important by employees, but are felt to be excessive. The variables included in this quadrant can be reduced so that the institution can be more efficient in living in the VUCA era.

Table 12: Attribute Grouping in Quadrant IV

| | Indikator/Atribut | AP | K | Gap |
|------|---|------|------|------|
| K8 | Leaders have implemented and always prepare programs that are dynamic and flexible | 4.19 | 3.53 | 0.66 |
| SDM4 | The Special Team for digital units always accompanies the digitization process in each unit and section | 4.26 | 3.50 | 0,76 |

Here it can be interpreted that the attributes above are not so important and even though the performance is quite good. However. The digital Special Team needs to always accompany and even need to explore the expected needs in each unit, so that it can be input for leaders to make decisions on making programs needed by the unit.

4.4 Respondent Satisfaction Index

The Respondent Satisfaction Index is used to determine the average level of satisfaction of respondents with the efforts of leaders in preparing themselves to face digital transformation.

- Calculates the maximum total value of the Importance attribute times the maximum value of the performance attribute times the number of attributes (NTmax)

$$5 \times 5 \times 25 = 625$$

- Calculate the lowest value of the importance attribute times the minimum value of the performance attribute times the number of attributes (NTmin)

$$1 \times 1 \times 25 = 25$$

- Calculates the distance (scale) between values in the Ns attribute:

$$(625-25)/5 = 120$$

| STP | TP | CP | P | SP | |
|-----|-----|-----|-----|-----|-----|
| 25 | 145 | 265 | 385 | 505 | 625 |

- Calculating the level of satisfaction with organizational performance based on respondents' perceptions:
- Calculating the Weighting Factor (WF) which is calculating the average value of importance and the average expectation or performance of all attributes
- Calculating Weight Score (WS) by multiplying each attribute from WF
- Calculating the Total Weight (WT) by adding up the WS of all the attributes the results obtained are 381.5

These results indicate that the level of satisfaction is between the 265-385 scale, which means that it is 61, 04%, namely in the Quite Satisfied position approaching Satisfied.

4.5 Gap Analysis

Based on the results of the analysis of data processing by conducting a gap analysis, the data in Table 4.5 shows that all indicator variables get negative values. This shows that the expectations for significance are not being met. The highest gap above 0.90 is in 5 indicators, namely:

Table 13: Highest Gap Analysis

| Indikator/ | | Arti Penting | Kinerja | Gap |
|--------------|---|--------------|---------|-------|
| ASDM6 | Universities make preparations for planned HR capacity building | 4.42 | 3.47 | -0.95 |
| APP5 | There are clear operational instructions in carrying out the digitization program in each unit. | 4.21 | 3.27 | -0.94 |
| APP7 | Communication in the VUCA era is made easier Efficient (not complicated) | 4.37 | 3.44 | -0.93 |
| ASDM9 | Program for changing the mindset (mindset) about the need to change due to the VUCA challenge is held for all staff | 4.28 | 3.37 | -0.91 |
| ASDM5 | HR is always involved to conduct studies and comparative studies to institutions that have carried out digital programs > 5 years | 4.11 | 3.20 | -0.91 |

The five attributes need attention if it turns out that they are needed according to the location of the IPA quadrant.

5 Conclusions and Implications for Higher Education

5.1 CONCLUSION

Based on research activities and findings, the following are the conclusions of this study:

1. When viewed from the side between the level of interest and the expectations of the respondents that the level of expectations is only fulfilled by only 61.04%. For this reason, it is necessary to improve some of the existing attributes because it is felt that there are still shortcomings.
2. Based on the calculations carried out using the Importance-Performance Analysis Matrix and associated with the existing gap analysis, conclusions are drawn:
 - a. In quadrant 2 of the existing attributes, especially for SDM1, SDM2, SDM3 with the highest gap value in quadrant 2, it needs to be further improved by increasing the readiness, competence and expertise of the digital Special Team. For example, by sending them to school or participating in various trainings.
 - b. In Quadrant 3 for SDM5, SDM9 and PP5 have a very high gap. For this reason, it is necessary to increase knowledge for employees related to conducting comparative studies, as well as to change the mindset of employees to find out their strengths and weaknesses. Regarding the organizational structure, it needs to be reviewed by utilizing existing digitization.
 - c. In Quadrant 4, both HR6, PP7 and PP8 really need attention which is felt to be very lacking in the expectations of respondents, namely the preparation of planned HR, effective communication and development of adequate digital infrastructure.

3. Research Implications for Universities

Taking into account what the UKDW Chancellor said about the university's strategy to face the VUCA era, the implications of this research for the university involve 3 things, namely in terms of leadership, human resources and facilities and infrastructure. This is done by comparing the strategy set by the university leadership with the performance results based on the views of the respondents.

A. Implications from the Leadership Side.

The results of the study stated that the leadership's visionary view was indeed needed by respondents or employees who stated that this had been carried out well and could be understood by UK Duta Wacana employees, it was proven that the score was 3.93 above the average answer which was only 3.52. The socialization and internalization of the vision have been going well. This needs to be maintained so that the leadership's vision can continue to run according to changing needs.

In addition, something quite positive that can be felt is that the leadership has run many program activities that are carried out digitally. Of course this is very helpful for the efficiency of the work of employees. Likewise, the feeling that a culture of openness to employees' ideas in developing digital activities in the unit is very well supported so that many innovations can be carried out.

However, what employees feel is lacking even though they feel important is the openness to hold discussions about digital development in universities together. This can happen because all ideas have been supported but are collectively judged to be lacking. It could be that the digitization program is not integrated. For this reason, even though there are various ideas that are supported, joint discussions must be carried out so that the program can be well integrated. That is why it is related to whether the leadership has implemented the program flexibly and dynamically, it feels like it is going well, but because it is not integrated, it is considered not important.

B. Implications in Terms of Human Resources

The university has developed a strategy to increase the capacity of human resources in a planned and sustainable manner through education and training. Although this is considered important by respondents, according to them, the implementation is still felt to be lacking. What is also lacking is the lack of knowledge of employees in knowing the progress of other universities in the implementation of digitalization, for that they really need comparative studies according to their service units. Universities are also required to provide opportunities for employees to be able to attend seminars in order to know the development of digitalization today. Thus, this will help change the mindset (mindset) of employees to change to face the challenges of digitalization independently without being forced and directed.

What is positive and must be maintained is that the existing human resources are in accordance with their capabilities and have the willingness to assist units for assistance needs in studying new programs that must be implemented. The special team has a pretty good performance in its service.

C. Implications in the Field of Facilities and Infrastructure

The thing that needs to be considered in terms of facilities and infrastructure is that the communication created needs to be improved by utilizing digital facilities. Because this is still felt by respondents to be lacking, even though by utilizing digital means of communication it should be smoother and more efficient. Universities need to create an effective communication system, among others, by improving a leaner and more efficient organizational structure. What is also lacking is technology and support networks. For this reason, the university needs to conduct an in-depth evaluation of what is felt to be lacking. Is the bandwidth whether the equipment and network are not appropriate.

What is quite positive is that physically, the facilities and infrastructure have been well provided, besides that an environment that supports digital culture has been formed. That's why respondents feel that there are no problems with the room, work facilities and operational instructions are adequate. However, communication and support networks have not been adequate.

5.2 Limitations and Suggestions of the Research

Based on the results of the research that can be done, there are several limitations and suggestions can be submitted:

1. Universities need to pay more attention to the development of human resources, especially by opening the mind set of their employees in living in the current digital era.
2. By using the IPA approach and the gap approach between Importance (expectations) and Performance, there are differences in results. For this reason, it is necessary to carry out further in-depth research by sharpening questions so that they can be explored more deeply the problems that need to be solved at this university.
3. In selecting respondents, there is no distinction between educative and non-educational staff, so the acceptance level of the two cannot be seen. For this reason, it can be deepened if further research will be carried out.
4. Basically digital transformation is not only in the system but also in the person, the weakness in this study does not show that there is a transformation of the person. Further research can be carried out specifically to find out the extent to which the transformation of individuals in it occurs.

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A STUDY OF IMPACTS OF COVID-19 ON NETC FASTAG SYSTEM

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ABSTRACT

The National Payments Corporation of India (NPCI) created the National Electronic Toll Collection (NETC) initiative to satisfy the Indian market's electronic tolling needs. It provides an interoperable toll payment system across the country, as well as clearing house services for settlement & dispute resolution. As it relates to the (NETC) system, interoperability refers to a set of procedures, business regulations, and technological requirements that allow customers to be using their FASTAG as a payment mechanism on any toll plaza, regardless of who owns the toll plaza. FASTAG is a gadget that uses Radio Frequency Identification (RFID) technology to allow drivers to pay tolls while on the road. FASTAG (RFID TAG) is fitted to the vehicle's windscreen and allows customers to make toll payments directly from their FASTAG-linked account. FASTAG provides the advantage of cashless payment, as well as other advantages like fuel & time savings because the consumer does not have to stop just at the toll plaza.

Keywords: NETC, FAST TAG, Cashless, Transaction and Payment.

INTRODUCTION:

FASTAG is a passive RFID tag that allows users to pay tolls directly from their associated current account. It is attached to the vehicle's windscreen and allows the client to drive past toll plazas without stopping to pay tolls. The toll fare is taken straight from the customer's associated account. FASTAG is likewise vehicle-specific, & once attached to a vehicle, it can't be removed. The (NETC) National Electronic Toll Collection Member Banks can sell you a FASTAG. If a FASTAG is connected to a prepaid account, it must be recharged/topped up according to the customer's use. The FASTAG is banned at the toll plaza if the consumer does not keep an appropriate balance. In this case, if the client passes through the toll plaza without recharging, he/she will be unable to use NETC services & will be forced to pay the toll charge in cash.

The (NETC) System's goals are as follows

To build a hybrid, interoperable ecology

- Gives a secure, interoperable traditional architecture that may be utilized throughout the United States.

Simple & robust Framework

- It improves transaction processing transparency & efficiency.
- Payments in the retail sector are being digitized.
- Reducing traffic congestion around toll plazas will help to reduce pollution.

To contribute to the Government of India's sub-goal

- Payments in the retail sector are being digitized.
- Reducing traffic congestion around toll plazas will help to reduce pollution.
- Reduce your gasoline usage.

NETC System Features & Functions

Interoperability

The National Electronic Toll Collection NETC ecosystem supports various issuers and acquirers, which means that a tag issued by any member bank is accepted safely and securely at all toll plazas (under the NETC program) bought by any member bank.

Choosing the payment instrument for the transaction

The consumer can connect their FASTAG to a current account and a prepaid account using the Issuer member banks' offerings. It is not necessary to have an existing connection with the issuer bank to create a prepaid account.

Tag Issuance

Member banks that have been approved for the National Electronic Toll Collection (NETC) Program can issue them. Issuing Banks issue FASTAG, and banks impose a predetermined deposit or recharge value threshold

limitation according to their internal policies. Under the (NETC) initiative, the system is interoperable, and the same FASTAG may be used at any toll plazas.

Cashless Payment

While the car is in motion, FASTAG allows for electronic toll payments. The (DIP) is the govt of India's flagship initiative, to transform India into a digitally empowered society or information economy. Digital India's stated goals is to be paperless, faceless, & cashless. Various types of digital payments are provided to promote cashless transactions and turn India into a cash-less society.

Save Time and Fuel

By utilizing the FASTAG, customers may travel without stopping at toll plazas, reducing congestion at plazas, conserving fuel, & cutting travel time.

Online FASTAG Account Reload

Customers may top up their FASTAG account using UPI, Credit Card, Debit Card, NEFT/ RTGS on the issuing member banks' portal.

Recharge FASTAG Instantly Online

FASTag has become one of the most crucial items for everyone who travels interstate regularly or even sometimes. Whether you're driving a personal or commercial vehicle, having a FASTAG is now required, or you'll have to pay an extra fee in addition to your toll. However, after you've purchased a FASTAG and had it placed in your car, you'll need to recharge it to pass through the FASTAG toll plaza without paying a toll. Paytm has therefore introduced the FASTAG online recharge service.

Procedure for recharging the FASTAG

Paytm allows you to recharge your FASTAG at any time and from anywhere. When you travel through a FASTAG toll lane, the toll tax is taken from your FASTAG account, which is powered by Radio Frequency Identification (RFID). As you recharge your FASTAG the money is put into your account and can be withdrawn when you pass through the FASTAG toll lines.

A toll plaza cans FASTAG recharge

No, you must recharge your FASTAG ahead of time to avoid problems at the toll booths. If you pay tolls offline, you will be charged double the amount.

Advantages of FASTAG

The government has made FASTAG necessary for a variety of reasons. Both the govt and the passenger's benefit from these reasons. Let's have a look at some of them:

Saves time

At toll plazas, you won't have to reduce your vehicle's speed because of FASTAG technology. Your fuel and time will be saved since you won't have to stop at the toll gates.

Avoids traffic jams

At toll plazas, there is practically no congestion or traffic jam because traffic does not have to stop and slow down.

Eliminates cash payments

When traveling by road state to another, toll plazas are common. You can enjoy the convenience of electronic payment and a fully stress-free driving experience during your travel by letting FASTAG handle all of your toll payments.

Tracks your toll expenses

FASTAG also makes it easy to keep track of all of your toll costs. If you utilize Paytm to make FASTAG payments, you'll get regular in-app alerts and SMSs whenever you make payment. You may also keep track of your spending in your Paytm passbook.

Saves the environment

In the long run, the FASTAG plant benefits the environment by reducing the usage of paper and gasoline.

Offers monthly travel pass

Normal passengers can apply to have their regular monthly passes converted to FASTAG passes. Corporates & fleet owners can apply for the same through an online process.

Easy online recharge

Paytm does not need you to recharge your FASTAG on your phone, which is something that other e-wallets let you accomplish in a matter of minutes. All you require is some money in your Paytm wallet, and the toll tax will be debited from your account as soon as you pass through a toll plaza.

Regular Notifications

You will be automatically alerted of all transactions & toll deductions after integrating your FASTAG accounts with the Paytm mobile application. This will allow you to keep track of how much money you spend at toll booths during your trip.

Long-term validity

A FASTAG has a 5-year validity period. This means you may keep using your FASTAG for a total of 5 years without needing to re-register it.

Simple registration process

The procedure of obtaining a FASTAG is straightforward and quick. All you have to do is go to the FASTAG official website. Enter any of the following information: Customer ID, Wallet ID, and Vehicle ID by clicking on either 'Retail Login' or 'Corporate Login'. After that, you must create a password & save the information for future use. More information is available [here](#).

Convenience to Drivers/Consumers

When using the computerized system, one advantage of using FASTAG is that you will not have to wait in line for very long. Time is of the essence, & both ends are saving time. Customers will be at ease & will be able to do business on the roadway without experiencing any delays or inconvenience. This approach will also eliminate traffic jams and delays, which are the main source of inconvenience for everyone.

Safer and More Secure Payment System

The fact that money is transferred to the proper authorities ensures that fair practices are followed when it comes to tax payment & collection. Both the payer and the payee organization benefit from this method. People must pay the correct amount, not more than the taxable amount at the plaza. The system includes a secure invoicing procedure in which the payer receives notifications to his registered telephone number & associated bank account.

Protection against Crime and Mishaps

The digital system can't be beaten and is less likely to fail. When a client passes through a toll plaza just on the highway, the ETC system saves all vehicle information on the server. A car can be quickly traced in the event of a crime or an accident, and more information can be retrieved faster.

All-round Savings

Saving your money and resources also saves money and resources for the government. There will be the lowest amount of fuel use if there are no lengthy cues. Customers would be able to save more gasoline while maintaining their mileage. Less gasoline use will also save money for the government. According to sources, customers would receive payback in the form of a discount of up to 2.5 percent for every purchase made with FASTAG.

Reduces the cost of manpower

Because everything would be automated, businesses will be able to save money by reducing the expense of labor engaged in various plaza lanes. The authorities will not be involved in cash processing or management, which should reduce the number of human errors or labor hours. This technique will result in a framework that is both simple and reliable.

Tolling Practice

Because everything would be automated, businesses will be able to save money by reducing the expense of labor engaged in various plaza lanes. The authorities will not be involved in cash processing or management, which should reduce the number of human errors or labor hours. This technique will result in a framework that is both simple and reliable.

Demand Management

To reduce pressure on the transport system by encouraging more people to utilize public transit and carpool. Vehicles, for ex, are taxed to enter central London, England, as a means of limiting demand in the area.

Congestion Management

To set a price for a restricted amount of road space that is proportional to demand. The toll in this application rises in proportion to the amount of traffic. Drivers are unaware of the expenses they impose on others as a result of congestion they produce in the absence of such pricing. Each level increases the effectiveness of the system while simultaneously increasing its complexity. Before each step can be implemented, certain prerequisites must be met. Only the initial two options, corridor tolling or cordon tolling, have been extensively adopted, with ETC being a need for moving on to the next two phases. The third step is now being pilot investigated in a select region (more on that later), and the last level, an integrated system, is still in the works.

Corridor Tolling

The most prevalent type of tolling is when a car is charged a fee to utilize a certain stretch of road or bridge. This category also includes (HOT) lanes, which are allocated for multi-passengers, but which single-occupant cars can use provided they pay a toll. The toll's primary goal is to recoup the costs of construction and operation of the facility. Although most systems are incorporating ORT, simplicity may be as simple as having the motorist stop and pay cash on arrival. However, as compared to other non-tolled routes, the corridor is such to be underutilized and may not be able to reduce congestion in an area. Users must feel obligated to pay if the route is to be unshared to those who pay; else, users will not be sensible of driven to pay, and the function will not generate enough income. **Area-wide Mileage Tolling**

This is a system in which automobiles are taxed depending on their VMT (vehicle miles traveled). The German truck toll system, for example, requires all trucks to pay tolls depending on the isolation they travel inside Germany. In few ways, this system is similar to the US fuel tax in that every vehicle pay depending on the number of kilometers traveled. The main goal is to produce income for the transport structure or, to a reduced extent, to control how much people drive. The complexity of distance-based tolling is rather significant, and it necessitates consistent application throughout a large region as well as cross-border interoperability.

Integrated System Management

Demand for transport would be regulated by information in this futuristic design, with consumers having a variety of modes & routes to choose from, as well as a variety of methods to pay for a journey. The price would incentivize the most efficient mode of transportation, while the marketplace would drive capacity provision. Although very complicated technologies, such as roadside vehicle-to-traveler communications, will be necessary, system utilization is predicted to be extremely efficient. Market flexibility and information availability are two factors that must be met. ETC's Advantages and Disadvantages Electronic tolling is becoming the predominant method of collecting tolls. Sections 2 & 3 will go into the specifics of ETC technology. Here, the advantages and disadvantages are discussed.

Impact of Covid-19 on the Digital Toll Road Payment System

COVID-19's spread has emerged one of the most serious risks to the world's economy and financial institutions. India, like many other countries across the world, has enforced a national lockdown to combat the effects of a coronavirus pandemic, restricting population mobility, banning public places and transportation, and advising people to stay indoors and work from home. The consequent economic disruption is significant, with both large and small enterprises seeing significant short-term activity decreases. The financial forecast for the digital payment sector is similar, thus it is projected to follow a similar path, at least in the medium term, because economic growth is anticipated to be severely hampered. The industry's steadiness or innovative potential, on the other hand, will be critical in reconstructing the economy under the new normal.

Business Impact

The negative impacts of the COVID-19 outbreak are wreaking havoc on India's economy, with auto, retail, airline, and hotel industries taking the brunt of the losses. As a result, the fast-growing payment systems business has suffered, as it is intricately related to the aforementioned industries. Closed stores, travel limitations, and less discretionary consumer spending are all hurting digital payments (on dining out, and entertainment). Additionally, because of the temporary suspension of boundaries, cross-border transactions, whether B2B or C2B, have fallen dramatically, resulting in limited commodity movement. International remittances have also been impacted, and they have decreased. Consumers have been urged by the finance minister and the CEO of India (NPC) to use digital payments more regularly to remove the need for cash. In modern times, digital payments, which were once a convenience, have come to be a requirement. It is presently too early to decide the long-term influence of COVID-19 on digital payments because the bulk of the industries that contribute to digital payments are quiet in flow.

Sectorial Impact

Depending on their exposure to diverse industries, payment players will be affected in different ways. This assessment was made with a six-month timeline in mind for these industries, based on how and when an epidemic is contained:

Table 1.1 - Sectorial Impact

| Sector | Remarks |
|--|---|
| Govt | Payments involving the govt(s) would rise in two ways: first, the government's financial assistance via (DBT) (G2P); and second, contributions to government programs such as PM CARES and PMNRF. P2G would help to boost the number of digital transactions. |
| Aviation | Due to the prospect of higher reimbursement and chargebacks, if flights are cancelled beyond the board, an acquirer with big disclosure to the aviation sector is in danger. |
| E-commerce (essentials) | Due to the lockdown, players that specialize in the online sale of necessities have noticed an increase in transactions. In light of the current circumstances, payment processors with exposure to such shops stand to benefit. |
| Tourism and hospitality | Acquirers with significant exposure to the hospitality industry may encounter challenges since the total shutdown severely inhibits business. |
| Healthcare/pharma | Due to the COVID-19 epidemic, payment players in healthcare will witness a boost in digital payments. |
| Electronics and consumer durables | Because of the disruption in supply chains, or demand, payment businesses with customers in the electronics or consumer durables market will see a drop in volume. |
| Domestic remittances | Restaurants and hotels have suffered significant losses as a result of the shutdown. For many, the peak season has been impeded by travel restrictions. As a result, payment volumes will suffer. |
| Hotels and restaurants | Restaurants & hotels have suffered significant losses due to the shutdown. For many, the busy season has been made difficult by travel restrictions. As a result, payment volume will be harmed. |
| Education Tech | The closure and lockdown of schools & educational institutions have benefited EdTech enterprises since the demand for their services has increased thanks to online payments. |
| Retail stores are available in person (non-essential) | Physical non-essential retail has also suffered as a result of pressurized closures, which has proceeded in a depletion of revenue. Payment providers will experience a significant drop in these types of transactions. |
| Insurance | Insurers have experienced an increase in electronic payments as a result of the COVID-19 epidemic, as new or renewal insurance payments are done online. |
| E-commerce is a type of electronic commerce (non-essentials) | Non-essential e-commerce enterprises would suffer as a result of the lockdown, as they will prioritize basics over non-essentials owing to the restricted delivery bandwidth. |
| Telecom | Transactions such as payments and recharge will also migrate to digital channels, which would benefit telecom providers. Furthermore, the increase in transactions will be fueled by the increased need for broadband internet services. |
| Capital loans for small or medium enterprises | Working cash may dry up for many participants as a result of temporary company closures, affecting repayments and raising the risk of (NPAs). |
| Retail stores are available in person (essentials) | Concerns about the virus spreading through the exchanging of real cash have led to an upsurge in digital transactions at local food stores. Payment gamers who are exposed to this category will benefit. |
| Cross-border payments | As supply-side uncertainty, plant closures, and business obstacles influence cross-border commerce, payment businesses with extensive cross-border activities will be harmed. |
| International remittances | International remittances will decline as Indians' incomes in other countries suffer. |
| Fees for payment – card schemes | The implementation of major card networks' new interchange fee framework has been postponed. Rates will be reduced in areas like real estate or automobiles, but fees would be raised in growing industries like e-commerce or mobile ordering. For card systems, overall network rates would be reduced. |

Impact on Payment Categories

Payment systems are dependable and long-lasting, as well as the general public has a high level of confidence in them. However, due to the lockout and closure of businesses, total transaction volumes have been reduced. The influence of the Coronavirus disease epidemic on many payment sections is examined in this section.

Table 1.2 - Impact on Payment Categories

| Payment Category | Relative Impact | Remarks |
|------------------------|------------------|--|
| Payment infrastructure | UPI | P2P & P2M payment transactions are the mainstays of UPI. Due to concerns about virus transmission via currency, P2M UPI transactions for important services are expected to rise. |
| | IMPS | As financial transfers move to digital channels, the IMPS service will witness an increase in activity. |
| | BBPS | People are using BBPS to pay bills because there are no tangible options, resulting in an increased number of transactions. |
| | NETC | Due to travel limitations, the NETC program, which permits FASTag toll payments, may be harmed. |
| Issuance | Cards | Concerns about the virus spreading through physical money exchange will drive up online card transactions. |
| | Wallets | Due to the lockdown and aversion to transferring currency, wallets will see increasing traction for P2P transactions, bill payments, or P2M payments for important services. Some wallet players, on the other hand, have raised their fees. |
| | Bank accounts | As consumers replace cash with digital transfers, fund transfers to or from bank accounts are set to increase. |
| Acquiring | ATM | As a result of a lockout, ATM transactions are expected to decline. In comparison to the past, less money will be required. |
| | PoS | Transactions at PoS terminals at retailers selling necessary commodities will increase, while those at most other places will decrease. |
| | Payment gateways | As more transactions go online, payment gateways will experience an increase in volume. They can also partner with small businesses that offer necessities and are looking to create an internet presence. |

CONCLUSIONS

It has been observed that the number of users paying tolls in fee plazas along national roads using the FASTAG method is not rising at the expected rate. This encourages people to pay in cash, which worsens traffic congestion at toll booths the government noted. Many toll plazas also have designated FASTAG lanes, and if any means of transport move into one without a tag, a consequences equal to the toll is included to the charges. It has been decided that all lanes at the charging plazas shall be formally declared as FAS Tag lanes, the letter stated.

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EFFECT OF GREEN TECHNOLOGY ON AUTOMOBILE MANUFACTURING INDUSTRIES AND ITS CLIENTS

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ABSTRACT

Green technology innovation aims to achieve long-term sustainable development; produce economic, environmental, and social benefits; save resources and energy; and eliminate or reduce environmental pollution. Air pollution has become one of the largest concerns the world is dealing with, especially India which happens to have some of the cities with the worst air pollution in the world. For this reason, car manufacturers are largely investing in the development of more efficient and eco-friendly products. This has led to the global automotive industry to scramble to develop vehicles that can run on alternative fuel and improve the existing ICE (internal combustion engine) to produce lesser emissions. India too is set to raise its standards when it comes to automobile emissions leaping from the existing BS-IV norms to BS-VI starting 1st April 2020. This paper examines the green operations initiatives in the automobile industry in Indian context documented in the environmental reports to understand the customer perception towards purchasing green vehicles.

Keywords: Indian Automotive, Green Technology, Automobile Industry.

INTRODUCTION

Green tech—or green technology—is an umbrella term that describes the use of technology and science to reduce human impacts on the natural environment. Green Technology involves different exercises incorporate statistical surveying to recognize the market and target portion for the green item, concentrate the purchasers mindfulness, disposition and conduct in regards to the green items, situating and making brand picture of the items and building up a green marketing blend program. It is reported that, approximately two million people worldwide die from air pollution each year. According to data collected by the WHO from nearly 1,100 cities across 91 countries, elevated level of fine particle pollution, which could cause heart diseases, lung cancer, asthma and acute lower respiratory infections, are common across many urban areas, with some cities registering pollution levels 15 times as much as the WHO guidelines. India is one of the most vibrant and largest economies in the world and will continue to be so for the next two decades. The Indian economy has been growing between 7 to 8% a year since long and is likely to grow for the next two decades. India is likely to have a GDP of USD 4 trillion and a population of 1.5 billion by 2030. The trend of economic growth is a good sign for the developing country like India. However, India would face major challenges includes rising consumption and demand for energy, increasing greenhouse gas emissions; and constraints on critical natural resources such as land, water and oil along with the growth and development. Enormous economic and population growth worldwide in the second half of the twentieth century have threatened the health of the planet – ozone depletion, climate change, depletion of forest cover, fouling of natural resources, and extensive loss of biodiversity and natural habitats.

AUTOMOBILE INDUSTRY AND GREEN TECHNOLOGIES:

Many leading economies have recently launched policy initiatives to promote electro mobility. E-mobility presupposes innovations that are both radical and systemic, as new charging infrastructure, new mobility concepts and new interfaces with the energy system are needed. The paradigm shift affects an industry that is the backbone of manufacturing in many countries. Policymakers therefore need to strike a difficult balance between competing objectives: to mitigate climate change, reduce urban air pollution, enhance energy security and strengthen the competitiveness of national auto industries. Also, they need to ensure that investments in new vehicles, more efficient batteries and public charging infrastructures are undertaken simultaneously and in a coordinated way. China, France, Germany and India deal with these challenges differently. It traces policy differences back to initial industry characteristics, specific political priorities and patterns of economic governance. The automobile constitutes an industrial product that engenders both considerable economic wealth creation and serious burdens to the natural environment governments worldwide regard the capacity of the auto industry to generate jobs as a political asset to be preserved, they have also pressured car manufacturers to improve environmental performance. The industry has responded to stricter governmental regulations, voluntary agreement and collaborative R & D initiatives by seeking to adopt cleaner manufacturing technologies and investigating in environment-related research. In addition, competitive pressures ensure that every major high-volume car manufacturer is working towards increased levels of resource productivity.

Though Service sector in India has major contribution in GDP, Automobile industry has its own consistent growth and has managed to retain its contribution in GDP. The Indian Automobile and its ancillary industry have emerged as a fastest developing sector of the Indian Manufacturing industry. It is estimated that India would become one of the top five auto component economies by 2025. Continued high level growth of the Indian economy and automobile sector, is must for improving the lives of millions of Indians. However, with growth also comes the responsibility of meeting the associated challenges of fast depletion of traditional energy sources, rising energy costs, increasing oil import bill and the impact of mobility on the environment. In recent era the automobile sector has been one of the major reasons behind global warming due to its high carbon emissions. On this backdrop it has become necessary to initiate and implement green marketing practices in Automobile and ancillary industries in order to reduce its harmful impact on environment. The Automotive Industry globally is one of the largest industries and because of its deep forward and backward linkages with the rest of the industry; it has as strong multiplier effect and is one of the major drivers for economic growth. This sector is important for economic growth and development because of its high contribution to the national GDP, employment generation and it meets the needs of the logistics and transportation industry, which is the life line of the economy. The growth of the auto industry which, at present, contributes 22% to the manufacturing GDP will be critical for realizing the target, envisaged in the new Manufacturing Policy, of increasing the share of manufacturing in overall economy to 25% by 2022.(NEMM 2020).

India became the fifth largest auto market in 2019 with sales reaching to 3.81 million units. It was the seventh largest manufacturer of commercial vehicles in 2019. The two wheelers segment dominates the market in terms of volume owing to a growing middle class and a young population. Moreover, the growing interest of the companies in exploring the rural markets further aided the growth of the sector. India is also a prominent auto exporter and has strong export growth expectations for the near future. In addition, several initiatives by the Government of India and major automobile players in the Indian market is expected to make India a leader in the two-wheeler and four-wheeler market in the world by 2020.

COVID-19 will present significant demand and supply-side challenges to India's transport and sectors in the short and medium terms. India's transport sector can save 1.7 gigatonnes of cumulative carbon dioxide emissions and avoid about 600million tonnes of oil equivalent in fuel demand by 2030 through shared, electric, and connected passenger mobility and cost-effective, clean, and optimized freight transport (see Appendix for more details). Significant savings are also achievable in the power sector through the adoption of renewable energy, energy storage, efficiency, and flexibility.

In the transport sector, major opportunities include making public transport safe, enhancing and expanding non-motorized transport infrastructure, reducing vehicle kilometers travelled through work- from-home where possible, supporting national strategies to adopt electric vehicles in the freight and passenger segments, and making India an automotive export hub.

Over the past five years, India has launched new efforts to advance its transition to clean energy and mobility, including its nationally determined contribution to install 500 GW of renewable energy capacity by 2028 and the Faster Adoption and Manufacturing of Electric Vehicles (FAME) II scheme (Exhibit 2) to support the adoption of 7,000 electric buses, 5 lakh electric three-wheelers, 55,000 electric passenger cars, and 10 lakh electric two-wheelers. Considering this momentum, how can India continue to advance its clean energy agenda in the aftermath of COVID-19, when priorities of economic recovery and health will take the front seat?

Auto sales could decrease by as much as 45 percent in the financial year 2020–21. EV production could be affected in the short term due to lower demand and supply-chain disruptions with BNEF estimating an 18 percent decrease in global EV sales in 2020. However, their forecast also mentions that countries like India, where EV adoption has been slower, could see well than average EV sales in the medium term if governments and early adopters continue to lead on procurement. The EV market may experience other shifts. For example, there is an expectation of demand for more affordable EV products. This potential shift in consumer preferences may affect manufacturers' investment and production decisions. Ultimately, resuming production levels for conventional vehicles and EVs will depend on demand revival, supply-chain reactivation, and access to the labor force.

The Government of India and the India Automotive Industry has a vision-The Automotive Mission Plan (AMP) 2016-26 which provides vision on where vehicles, auto components and tractor industry should reach over the next 10 years in terms of size, contribution to India's GDP and global footprint in technology, competitiveness and capabilities. AMP(2006-16) has been successful which made India not only an automobile producing hub but also a designing and development hub. The Indian automotive industry aims to be among

the top 3 of the world in engineering, manufacture and export of vehicles and auto components, growing in value to over 12% of India's GDP, and generating an additional 65 million jobs. The Indian automotive sector is likely to contribute in excess of 12% of the country's GDP and comprise more than 40% of the manufacturing sector. It will boost Micro, Small and Medium industries of the country across multiple sectors. It intends to make the Indian automotive industry a significant contributor to the "Skill India" programme and make it one of the largest job creating engines in the Indian economy.

Electric Vehicles: It also includes vision on new technologies like electric vehicles and associated infrastructure with new fuel-efficiency regulations. Considering the recent slowdown in the automobile sector, rigorous implementation of the above automotive plan is expected to improve the overall scenario in the industry.

The **electric cars** available in India are:

- Hyundai Kona Electric
- Mahindra e-Verito
- Mahindra e2o
- MG ZS EV
- Tata Tigor EV 2019 (Only for Commercial purpose)
- Tata Nexon EV 2020
- Mercedes Benz EQC (launch around the corner)

ISRO has tested a solar-powered hybrid car - modified Maruti Omni with a solar panel platform installed on top of the car. The installation of this solar platform on the car has been rated "awful" for its design. The Hyundai Kona electric has the highest range of 452(as per ARAI) km in a single charge among the electric cars available in India.

Motorcycle

The following companies have launched **electric motorcycles** in India:

- Revolt Motors (RV400 & RV300)
- Tork Motors (to be launched)
- Emflux Motors (to be launched)
- Ultraviolette Automotive

Scooters

- Ather Energy
- Bajaj Chetak (Currently available in Pune and Bangalore)
- TVS iQube (Currently available in Bangalore)
- Hero Electric Photon 48V
- Rubies*
- Evolet Pony
- Omjay Eeve

The following companies have launched **electric auto rickshaws** in India:

- MAuto Electric Mobility (First in India to introduce Retrofit EV Vehicles in Auto rickshaw category)
- Entice Impex Pvt Ltd (Gatti E-rickshaw)
- Oculus Auto
- Mahindra
- Kerala Neem G from Kerala Automobiles Limited

REVIEW OF LITERATURE

Gerbis (2010), although the industry continues to grow with technological advance, hybrid cars still constitute a very small percentage of the automobiles manufactured and sold worldwide. He clarifies that hybrid cars cover much more distance and are also more fuel efficient than traditional cars but, in terms of repair and maintenance they tend to cost more than their counterparts. Various campaigns encourage adopting the hybrid trend, particularly in countries with air pollution problems and also attract much more clientele by proposing several advantages of possessing a hybrid vehicle such as fuel economy. Even now in the automobile industry there are not enough hybrid vehicles on the market as manufacturers do not currently produce and commercialize a variety of such cars as these vehicles are not in a sufficient amount to allow economies of scale to reduce their prices.

Ganpaty Ramaswamy(2011), explained that consumer satisfaction is affected by consumer preference. Customers may modify their behavior with time if their expectations are not met with. Hence it is very crucial for firms to maintain a better service quality and proper performance.

Selvakumar & Ramesh Pandi (2011) explain that only incorporating green products and services does not suffice green marketing. It should include the activities that inculcate an eco friendly attitude within the end users so that environmental safety is not harmed.

According to **Joseph & Rupali korlekar(2012)**, there is a scope for in-depth studies on green marketing to be conducted in developing countries like India, not only on understanding consumers' perception but to study the detailed profile of such consumers who have a more positive attitude towards green marketing and green product.

Chen (2013) studied green purchase intention Comparing with Collectivistic (Chinese) and Individualistic (American) Consumers in Shanghai, China. The results indicated that there existed a significance relationship between environmental knowledge, attitudes, environmental concern and social influence and green purchase intention and there is a significant difference between the collectivistic (Chinese) and the individualistic (American) consumers with respect to environmental knowledge, attitudes, social influence and green purchase intention except environmental concern.

According to **Ansar (2015)** developed framework to look at the Impact of Green Marketing on Consumer Purchase Intention (Socio-demographic variables, Price, Environmental advertisement and Ecological packaging) with Green Purchase Intention. The study showed of those variables Positive and significant correlation is found to have positive association with Green purchase intention.

For **Edmunds (2017)**, a vehicle is a hybrid if it utilizes more than one engine to achieve motion. He also stated that hybrids are habitually modified conventional vehicles that utilize electric charges to collect and recycle the energy, which is wasted in standard cars.

Surpreet Kaur(2018), On the basis of study it can be concluded that if proper drivers are used then the customer's interest can be channelized towards the products which are presumed to be environmentally safe.

Anusua,Saha,Ravindra Hewa Kurupugge (2019) in their research paper entitled, 'Determinants of consumer awareness of Green Products: A study of consumers of super markets', concluded that, "Social value of consumers are considered as the main determinant of consumer awareness towards green products. They had reviewed the knowledge level of consumers about green products by geographical region so that it will help the policy makers, suppliers, producers, marketers and other relevant parties to stimulate the demand, according to the knowledge of consumers"

ASHA P and Rathiha R (2020) in an article, 'Consumer awareness towards green products' had found out that, "there is a lack of awareness regarding the availability of eco-friendly products. They suggested the companies which are manufacturing green products to focus on advertising eco-friendly branding, instore displays and pamphlets. They further suggested the promotional campaign to promote the use of eco-friendly products. They also added that the marketer should target the middle age and senior citizens for purchase of eco-friendly products through their integrated marketing communication activities"

Sukharev(2020) Green technology follows the ecological principle and the law of ecological economy, considers the saving of resources and energy in the process of innovation, avoids, eliminates or reduces the pollution and damage to the ecological environment in the process of innovation, and maintains the minimum ecological negative effect in technological innovation. Green technology innovation aims to achieve long-term sustainable development; produce economic, environmental, and social benefits; save resources and energy; and eliminate or reduce environmental pollution and degradation.

Arywidodo, Nabshia Anshul Wahid (2021) ' Green innovative products and it's effect on environmental , ' The presence of green innovative product (GIP) is observed to influence consumers' purchasing decisions as they become more ecologically aware of the effects caused by conventional products' consumption to the environment. This article reviews the concept behind GIP and its effect on consumer's behavior. The article focuses on the meaning and classification of GIP and on how it affects consumer's behavior in terms of their satisfaction, environmental attitude and also purchase.

STATEMENT OF THE PROBLEM

Green technology has become an important strategic tool that companies operating in the automobile sector are using increasingly to differentiate themselves from their competitors. Automobile companies are utilizing various green practices and not only saving cost but creating environment conscious brand image for itself increasing its competitiveness in the market. The main focus is on saving energy and water and reduces amounts of wastes generated and CO2 emission. Post industrialization, automotive sector has been the main source of employment and economic growth as well as the major polluters of the environment. Car manufacturing companies have been since then trying various innovative ways to control their environmental impact through eco-friendly design, efficient production systems, eco-friendly materials for car components, fuel efficient engines etc. The study focused on the various green marketing initiatives adopted by leading automobile players in Indian market environment and to understand the customer perception towards purchasing green vehicles.

RESEARCH GAPS

Although many studies in the area of green marketing have looked into consumers' attitudes none of the studies has addressed the impact of social influences pertaining to consumers' buying behavior toward green innovative vehicles. Hence on the basis of the background of this research gap, this study will address social influences to investigate how they can affect consumers' buying behavior toward green innovative automobiles. This study differentiates from other studies by using consumers' knowledge about environmental issues and environmental concerns to predict consumers' attitudes, then; social influences would be introduced to test how their impact could influence other consumers' susceptibility by mediating between the independent variables and consumers' purchasing behavior toward green innovative automobile (dependent variable)

The concern for the environment has increased significantly during the past decades and at the same time people's values and attitudes towards nature have changed substantially. As far as the automobile Industry is concerned and that also the passenger cars many research results have shown that environmental awareness has more to do with the customer attitudes and values. In other words there is lack of involvement of the customer in greening the earth.

Vehicular pollution is a bigger threat to human health than any other type of air pollution because this pollution exists at that level from where humans use air to breath. Rapid increase in the number of personal cars is the major cause of deteriorated air quality in the metro and non metro in India. Cars have two opposite personalities. One is friendly and attractive the other is destructive and lethal. The desire to own a car is linked to pleasure, social status, convenience and freedom. There is a strong need for a joint effort of car manufacturers, the marketers, the government, the car customers and all the stake holders in the system to control and reduce the ever increasing problem of pollution and its impact on the earth. . Resulting recommendations of the current study would be significant in bridging the literature gap.

RESEARCH OBJECTIVES

The understanding of consumer behavior is important for any business activity and more over if the product is to deal with the environment. The research will focus primarily on ascertaining the links between customer's beliefs, knowledge, attitude, and vehicle purchase behavior as well as preference of the customers given to the environment while buying the car. This research study will try to understand the customer behavior towards the green vehicles

This study sought to establish the consumer awareness and its influence on buying behavior. In order to achieve this aim, the following sub-objectives will be look at more closely:

- To study the awareness about green technologies amongst the customer in the various age groups and in various geographical areas regarding their understanding about green automobile (scooters and cars used for personal use) only).
- To examine the various factors contributing to buying behavior of green consumers regarding green innovative automobile (scooters and cars used for personal use only).

- To study the impact of green technologies on consumer buying behavior.

RESEARCH METHODOLOGY

The study will be based on both primary and secondary data. A well-structured questionnaire will be prepared for the collection of primary data. The Secondary data will be collected from various journals and websites. The study will be based on convenience sampling technique to find out the factors influencing consumption pattern of green innovative automobiles among consumers. The data will be entered into Statistical Package of Social Science. Based on a sample that will be appropriate as per the study, a questionnaire will be developed and a factor and cluster analyses would be run to identify the components driving consumers' purchasing habits. These are performance, functionality, eco-sustainability and brand appeal. Then, each component will be evaluated for car manufacturers' brands.

SCOPE OF THE STUDY:

The study focuses to understand level of awareness of customers about environment-friendly initiatives of automobile companies and their perceptions toward buying the green vehicles. The present study has been conducted covering respondents of Delhi NCR. The study is limited to electric vehicles (scooters and cars used for personal use) only. The study may be helpful to the automobile companies, marketers and retailers to work out a good green marketing campaign for their products, after understanding the level of awareness and perception of consumers on green initiatives of automobile companies. Indian automobile companies have started green marketing practices in recent times. There are many barriers in implementing green marketing practices in automobile industry in India. The study focuses to probe the level of awareness of customers about green marketing initiatives of automobile players and their perceptions towards purchasing green vehicles. The study on green marketing strategies adopted by automobile industries in India has been conducted covering respondents of Trivandrum city. The study is limited to eco-friendly cars only. The study may be helpful to the automobile companies, marketers and retailers to work out a good green marketing campaign for their vehicles, after understanding the level of awareness and perception of consumers on green initiatives of automobile companies. The population of the study was identified from Delhi. A sample of 50 customers has been selected from the population using the techniques of "Convenience Sampling".

METHODOLOGY:**Sampling techniques**

This study will adopt the non-probability sampling technique. Hence, the research will be based on the convenient and purposive non-probability sampling. This will help achieve the purpose of the study. The study will attempt the convenient sampling because; questionnaires will be administered to the respondents who are ready and willing to answer.

The study is based on both primary as well as secondary data. Primary data collected through online questionnaire using Google docs was designed and its link was send to 50 respondents residing in Trivandrum city. Secondary data were collected by conducting a comprehensive literature survey of text books, national and international referred journals, magazines, newspapers, government publications, websites etc...

Green Initiatives of Automobile Sector:

Indian Automobile industry is one of the most promising and booming sector but at the juncture with the rising concerns regarding climate and the pollution levels, "Going Green" is the future of this industry. In recent decades, many automobile companies have embarked on green technology initiatives to gain competitive advantage in the global market. Several famous automobile manufacturers such as Toyota, Volkswagen (VW), Honda, Ford, Mahindra & Mahindra, GM, Hindustan Motors and Maruti are in close competition with each other in producing green cars. India's largest car producer Maruti Suzuki India Ltd., as a part of its corporate social responsibility has delivered the eco-friendly hybrid cars. Toyota's is the leader of green car market, rest are Mitsubishi electric car, Ford's escape and hybrid vehicles, Honda Civic & Accord cars, Chevrolet's Civic car, Nissan's leaf, Volkswagen's Jetta Hybrid cars etc. Reva motors has also promoted REVA India electric car. For example, Honda has been proactive in acquiring environmental management ISO 14001 certification for its production and other facilities. Honda has Green Purchasing Guidelines, and is working with its suppliers to maximize procurement of materials and parts with minimal environmental impact. Good Green Dealer Certification is awarded to dealers that comply with environmental regulations and Best Green Dealer certification is awarded to dealers that have improved their environmental practices. These are some green initiatives taken by renowned automobile companies all over the world. However, adoption of green technologies as well as marketing strategy in Indian automobile industry is in a nascent stage.

Various green initiatives have been taken in the automobile sector are as follows:

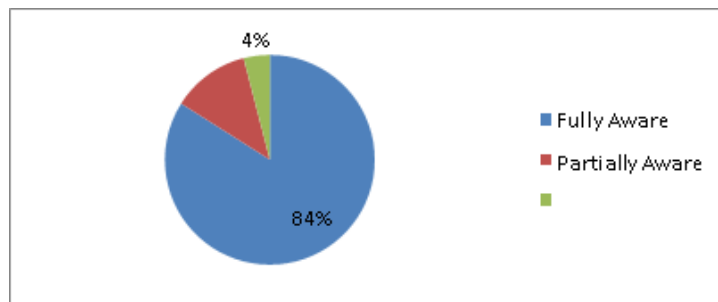
- India may opt for Euro VI emission levels in 2017, skipping Euro V. As of now, Euro IV emission levels are applicable in 13 major cities of India and rest of the country has Euro III norms. By 2012, entire country is supposed to have uniform Emission levels of Euro IV for vehicles. Introduction of new norms depends on improvement in vehicle engine technology and availability of cleaner fuel by petroleum companies. It is estimated that similar amount will be required to meet Euro VI norms.
- The phasing out of 2 stroke engine for two wheelers, the stoppage of production of Maruti 800 & introduction of electronic controls have been due to the regulations related to vehicular emissions.
- The Toyota Prius is the world's top selling hybrid car, with cumulative global sales of over 3 million units by June 2013.
- Many cars have entered in the market based on the concept of green marketing and include hybrid electric vehicles, plug- in hybrid electric vehicles, battery electric vehicles, compressed- air vehicles, hydrogen and fuel- cell vehicles, neat ethanol vehicles, flexible- fuel vehicles, natural gas vehicles, clean diesel vehicles, and some sources also include vehicles using blends of bio diesel and ethanol fuel or gasohol.
- In FY2020, the total electric passenger vehicles sales increased to 3,600 units. The growth is due to the government announcement of the FAME-II (Faster Adoption and Manufacturing of Electric Vehicles) policy.

Challenges in implementing green technology:

The cost related to technology and infrastructure in Electric Vehicle implementation is high. EVs are costlier than gasoline-powered vehicles. The battery is considered the most important part of an EV as it provides power to the vehicle. The battery of an EV needs frequent charging, which calls for additional equipment such as electric chargers. Hence, the cost of battery, charger, and installation gets added to the cost of an EV. All these factors make an EV costlier than traditional ICE vehicles. Hence, the high cost of EVs is the biggest challenge faced by Electronic Vehicle manufacturers. Favorable government policies and subsidies will boost the Electronic Vehicle market. However, stringent rules for the installation of charging stations and the high cost of Electronic Vehicles pose a challenge to the growth of the market.

ANALYSIS AND FINDINGS

Awareness about Green vehicles



Source: Primary Data

Out of 50 respondents were surveyed for analyzing the impact of green marketing on consumer's buying behavior with respect to Automobile sector. Out of the respondents surveyed 84 per cent were fully aware about green vehicles and environmental benefits, 12 per cent respondents were partially aware of that and 4 per cent respondents were totally unaware about the green cars. Thus it can be inferred that out of the respondents surveyed, larger section of respondents were knowledgeable about green vehicles.

People Concern of Green Cars

| Options | Percentage |
|--|------------|
| Concerned about the environment and are green supporters. | 76% |
| Not concerned about the environment so not ready to prefer green vehicles. | 20% |
| Unaware about the environmental concerns. | 4% |

Source: Primary Data

Above Table indicates the concern of green cars among respondents. Out of the aware groups, the respondents were further distributed according to their concerns towards environment. The majority of respondents i.e. 76

per cent are green supporters as they are concerned about the environment and aware about the environmental issues and 20 per cent respondents are not concerned about the green factor and don't take green automobiles in their choice while taking purchase decision. There were 4 per cent respondents who are not at all aware about the environmental concerns.

The parameters for purchase of Green cars

| Factors | Mean |
|-------------------------------|------|
| Government policies | 3.27 |
| Positive environmental effect | 3.70 |
| Marketing Effectiveness | 2.54 |
| Innovative trends | 3.59 |
| Performance attributes | 3.53 |
| Financial benefits | 4.01 |
| Charging infrastructure | 1.97 |

Source: Primary Data

From the analysis of factors encouraging purchase of green cars it was inferred that respondents pay the attention to the financial benefits, performance attributes government policies and environmental awareness more. Low mean value of marketing effectiveness indicates that the marketing strategies of automobile companies are not effective. The low mean value of charging infrastructure shows that the charging infrastructure of electric cars is inadequate. Respondents are aware about the positive environmental benefits of green cars.

It can be seen that the highest barrier to purchase green cars by the respondents were high cost. Purchasing power plays an important role in determining the selection of green cars. Cost is regarded as the main potential barrier to adopting sustainable practices. (Millar and Russell, 2011). The second highest barrier is lack of understanding and knowledge about the green technology. It might be due to sustainable manufacturing seen as a relatively new concept especially in the developing country. Less mileage is also considered as the major obstacle in buying behavior of green cars and the rest of the factors are related to doubts about efficiency, maintenance, availability of service centers and fuel stations in Trivandrum for these cars. These cars are not in customer's choice because of less trendy and some resistance to change.

SUGGESTIONS & CONCLUSIONS

To identify know the effect of green marketing practices of automobile manufacturing companies on consumers, it is imperative and important for the researcher to know how "Green" the consumers are in terms of their knowledge, their attitudes and behavior. Environmental attitude or green attitude is identified as the judgment of an individual towards the protection and promotion of the environment. It has always been believed by consumer behavior scientists that an individual's actions or behavior can be predicted by their attitudes.

Research and in-depth study was carried out to understand the awareness, attitude and behavior of consumers in terms of environment more specifically related to automobile sectors and the findings of the same are discussed in the subsequent paragraphs. It has been easily observed that consumers (car owners) are aware that, vehicle emissions are the largest contributor to pollution and auto fuel is the main reason of emission. Further to this, they are also aware that, CNG is the most environment friendly auto fuel. Most of the car owners are aware of the term 'Global Warming' but very few are aware of the term 'Green Marketing'.

It can be concluded that, people are discussing about the Global Warming in different forums, but Green Marketing being the new concept has not been known to many. Further to this, most of the car consumers feel four wheelers available in our country are not environmental friendly and companies charge exorbitant prices for environment friendly cars and only few consumers believe that, automobile companies follow green practices. The awareness level on all attributes relating to green marketing is relatively high. The awareness levels across the age groups are significantly different on certain statements.

On September 20, millions of protesters all around the world took to the streets to demand climate justice for our future generations. In Delhi, one of the most polluted cities in the world, thousands of protesters asked their national leaders for "Eco, not Ego". Reducing tailpipe emissions from urban transportation is critical to address climate change. According to the international council for clean transportation, an estimated 74,000 premature deaths were attributable to air pollution from transportation tailpipe emissions in India in 2015. electric vehicle promise zero tailpipe emissions and a reduction in air pollution in cities. The Indian government has created momentum through its faster adoption and manufacturing of hybrid & electric Vehicles schemes that encourage

and mandates the adoption of green vehicles with a goal reaching 30 per cent by 2030. This study confirms that Green Marketing strategies implemented by car manufacturers successfully raised the awareness of consumers on sustainability issues. However, the gap separating recognition of the issue from enactment of environmentally friendly consumption is still to be filled. It is possible to identify gaps. The lack of proper communication is the main cause of the misunderstanding about going green. From the study it is inferred that many respondents do not have a real awareness of the green vehicle. The green cause seem to be a universal common factor for every car manufacturer, they need to use the right tools to fill these gaps. Only firms ready to accept the current challenge will be able to face the crisis and catch the opportunities generated by market pressure in terms of green demand.

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THE EXISTING SCENARIO OF DISABLED IN INDIA APROPOS OF MANIPUR

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ABSTRACT

India is a democratic country. Democracy ensures equality of opportunity to all for full-flowering of inherent potentialities of each individual to contribute to uplift the nation. Article 45 of the Indian constitution envisages the provision of universal elementary education for ages 6-14. Every person including the disabled has his life and liberty guaranteed under Article 21 of the Constitution. As per the Census 2011, the differently abled population in India is 26.8 million. In percentage terms, this stands at 2.21 %. There has been a marginal increase in the differently-abled people in India, with the figure rising from 21.9 million in 2001 to 26.8 million over the period of 10 years. Among the State and Union territories, Sikkim has the highest prevalence of disability. 2.98% of the total population of Sikkim has been reported as disabled. Daman & Diu (0.9%) reported the lowest prevalence of disability. In terms of population, Uttar Pradesh has highest number of disability i.e. 4157514 and Lakshadweep has lowest no of disability i.e. 1615. Among disabled population in the age group 5-19 years, total number of 1753737 persons with disability never attended educational institutions. In Manipur, 3409 people with disabilities never attended educational institutions under the age group of 5-19 years. A glance into the social scenario, even in the 21st century, reveals the fact that considerable number of children with disabilities are deprived many facilities. If no adequate provision for the education of deprived is being made heart and soul, their potentialities will remain undeveloped and merely go a waste resulting in sheer non-utilization of human resources. The main aim of this article is to investigate the present scenario of persons with disabilities in India with special reference to Manipur.

INTRODUCTION:

The Declaration of the Rights of Disabled persons was a declaration of the General Assembly of the United Nations made on 9 Dec 1975. It is the 3447th resolution made by the Assembly. The disabled person shall enjoy all rights contained in this declaration without distinction or discrimination. Disabled persons have inherent rights to respect for their human dignity and, irrespective of the origin, nature, and seriousness of their handicaps and disabilities, have the same Fundamental Rights. Disabled persons have the same civil and political rights as other human beings. Disabled persons are entitled to the measures designed to enable them to become as self-reliant as possible. Disabled persons have the right to economic and social security, including the right, according to their capabilities, to secure and retain employment or to engage in a useful, productive, and remunerative occupation and to join trade unions. Disabled persons have the right to live with their families or with foster parents and to participate in all social, creative, or recreational activities. Disabled persons shall be protected against all exploitation and treatment of a discriminatory, abusive, or degrading nature.

The Convention on the Rights of Disabilities is an international human rights treaty of the United Nations intended to protect the Rights and dignity of persons with disabilities. Parties to the convention are required to promote, protect and ensure the full enjoyment of human rights by persons with disabilities and ensure that they enjoy full equality under the law. In the charter of the United Nations, it is proclaimed that the inherent dignity and worth and the equal and inalienable rights of all members of the human family are the foundation of freedom, justice, and peace in the world. Similarly, the United Nations Universal declaration of human rights and its international covenants on Economic, Social, and cultural rights, It is supposed that the convention would make a significant contribution to redressing the profound social disadvantage of persons with disabilities and promote their participation in the civil, political, economic, social, and cultural spheres with equal opportunities in both developing and developed countries. The convention on the Rights of Persons with disabilities deals with matters such as general principles on the basis of which the rights of the disabled persons are to be promoted and protected and the obligations that have been undertaken by the State parties to adopt measures. The protocol has been added to the present convention authorizing the Committee on the Person with Disabilities to receive and consider communications from or on behalf of individuals or groups of individuals who claim to be victims of a violation by a State party of the provisions of the present convention.

Efficacy of education system of a country greatly depends on policies and programme of the government. The constitution gave the citizens of India the power to choose their own government and pave the way for democracy. India is a democratic country. Democracy ensures equality of opportunity to all for full-flowering of inherent potentialities of each individual to contribute to uplift the nation. Article 45 of the Indian constitution envisages the provision of universal elementary education for ages 6-14. The Constitution (Eighty-

sixth Amendment) Act, 2002 inserted Article 21-A in the Constitution of India to provide free and compulsory education of all children in the age group of six to fourteen years as a Fundamental Right in such a manner as the State may, by law, determine. Every person including the disabled has his life and liberty guaranteed under Article 21 of the Constitution. The Kothari Commission (1964–66), the first education commission of independent India, observed: “the education of the handicapped children should be an inseparable part of the education system.” The commission recommended experimentation with integrated programmes in order to bring as many children as possible into these programmes (Alur, 2002). According to National Policy on Education 1986, the education of children with motor handicaps and other mild handicaps will be common with that of the others wherever it is feasible. In each district headquarters, special schools will be set up for severely handicapped children. Disabled will be given suitable vocational training to enable them live with courage and confidence. Voluntary organizations will be encouraged to take efforts for the education of the disabled. Elementary teachers training programme will be so designed to enable the teachers to deal with disabled in the classroom.

In the 1970s, the government launched the Centrally Sponsored Scheme of Integrated Education for Disabled Children (IEDC). The scheme aimed at providing educational opportunities to learners with disabilities in regular schools, and to facilitate their achievement and retention. The objective was to integrate children with disabilities in the general community at all levels as equal partners to prepare them for normal development and to enable them to face life with courage and confidence. A cardinal feature of the scheme was the liaison between regular and special schools to reinforce the integration process. Meanwhile, the National Council of Educational Research and Training (NCERT) joined hands with UNICEF and launched Project Integrated Education for 6 Disabled Children (PIED) in the year 1987, to strengthen the integration of learners with disabilities into regular schools. An external evaluation of this project in 1994 showed that not only did the enrollment of learners with disabilities increase considerably, but the retention rate among disabled children was also much higher than the other children in the same blocks. In 1997 IEDC was amalgamated with other major basic education projects like the DPEP (Chadha, 2002) and the Sarva Shiksha Abhiyan (SSA) (Department of Elementary Education, 2000).

In India, a Learner with Special Educational Needs (SEN) is defined variously in different documents. District Primary Education Programme (DPEP) document is defined as a child with disability namely; visual, hearing, locomotor, and intellectual (DPEP, 2001). The country report in the NCERT/UNESCO regional workshop report titled Assessment of needs for Inclusive Education: Report of the First Regional Workshop for SAARC Countries (2000), states that SEN goes beyond physical disability. It also refers to, the large proportion of children in the school age belonging to the groups of child labour are street children, victims of natural catastrophes and social conflicts, and those in extreme social and economic deprivation. These children constitute the bulk of dropouts from the school system (pg.58). According to the International Standard Classification of Education (ISCED-97) (UNESCO, 1997), the term Special Needs Education (SNE) means educational intervention and support designed to address SEN. The term “SNE” has come into use as a replacement for the term “Special Education”.

The earlier term was mainly understood to refer to the education of children with disabilities that takes place in special schools or institutions distinct from and outside of the institutions of the regular school and university system. In many countries today a large proportion of disabled children are in fact educated in institutions under the regular system. Moreover, the concept of children with SEN extends beyond those who may be included in handicapped categories to cover those who are failing in school, for a wide variety of reasons that are known to be likely impediments to a child’s optimal progress. Whether or not this more broadly defined group of children is in need of additional support, depends on the extent to which schools need to adapt their curriculum, teaching, and organisation and/or to provide additional human or material resources so as to stimulate efficient and effective learning for these pupils.

According to The national policy for people with disabilities 2006, the disabled are a valuable human resource and they can lead a better life if given with equal opportunities. This policy talks about providing equity, freedom, justice and dignity of all the individuals with disability. This policy mainly focuses on rehabilitation of women and children with disabilities, providing barrier free environment, social security and encouraging research. It also focuses on prevention of disabilities, improving rehabilitation services, issue of disability certificates, promoting NGO’s, enhancing the opportunities for disabled in the field of sports, recreation and cultural life, and making amendments to the existing acts dealing with the persons with disability.

OBJECTIVE OF THE STUDY:

- i) To find out disabled children attending educational institution and non attending educational institution in the age group 5-19 years.
- ii) To ascertain the state with the highest number of disabled people in India.
- iii) To examine recognized disability across Manipur by type and gender.
- iv) To investigate people with a recognized disability across urban and rural in Manipur by gender.

Table No. 1: Disabled population in India according to 2011 census

| State/UT | Number of Disabled | Total Population | % disabled total population |
|---------------------------|--------------------|-------------------|-----------------------------|
| INDIA | 26814994 | 1210854977 | 2.21 |
| Jammu & Kashmir | 361153 | 12541302 | 2.88 |
| Himachal Pradesh | 155316 | 6864602 | 2.26 |
| Punjab | 654063 | 27743338 | 2.36 |
| Chandigarh | 14796 | 1055450 | 1.4 |
| Uttarakhand | 185272 | 10086292 | 1.84 |
| Haryana | 546374 | 25351462 | 2.16 |
| NCT of Delhi | 234882 | 16787941 | 1.4 |
| Rajasthan | 1563694 | 68548437 | 2.28 |
| Uttar Pradesh | 4157514 | 199812341 | 2.08 |
| Bihar | 2331009 | 104099452 | 2.24 |
| Sikkim | 18187 | 610577 | 2.98 |
| Arunachal Pradesh | 26734 | 1383727 | 1.93 |
| Nagaland | 29631 | 1978502 | 1.5 |
| Manipur | 58547 | 2855794 | 2.05 |
| Mizoram | 15160 | 1097206 | 1.38 |
| Tripura | 64346 | 3673917 | 1.75 |
| Meghalaya | 44317 | 2966889 | 1.49 |
| Assam | 480065 | 31205576 | 1.54 |
| West Bengal | 2017406 | 91276115 | 2.21 |
| Jharkhand | 769980 | 32988134 | 2.33 |
| Odisha | 1244402 | 41974218 | 2.96 |
| Chhattisgarh | 624937 | 25545198 | 2.45 |
| Madhya Pradesh | 1551931 | 72626809 | 2.14 |
| Gujarat | 1092302 | 60439692 | 1.81 |
| Daman & Diu | 2196 | 243247 | 0.9 |
| Dadra & Nagar Haveli | 3294 | 343709 | 0.96 |
| Maharashtra | 2963392 | 112374333 | 2.64 |
| Andhra Pradesh | 2266607 | 84580777 | 2.68 |
| Karnataka | 1324205 | 61095297 | 2.17 |
| Goa | 33012 | 1458545 | 2.26 |
| Lakshadweep | 1615 | 64473 | 2.5 |
| Kerala | 761843 | 33406061 | 2.28 |
| Tamil Nadu | 1179963 | 72147030 | 1.64 |
| Puducherry | 30189 | 1247953 | 2.42 |
| Andaman & Nicobar Islands | 6660 | 380581 | 1.75 |

Source: Persons with Disabilities (Divyangjan) in India - A Statistical Profile: 2021

DISCUSSION:

From the above Table No. 1, it is observed that Uttar Pradesh has highest number of disabilities with 4157514 persons; Lakshadweep has the least number of disabilities with 1615 persons among the States and Union territories of India. In percentage, Sikkim has the highest number; out of 610577 people in the state, 18187 persons are disabled with a percentage of 2.29. Daman and Diu has the least number of persons with disability with 0.9 percent of the total population.

Table 2: Disabled Population in Age 5-19 Attending/Not Attending Educational Institution by Sex (Census of India-2011)

| AreaName | Totaldisabledpopulation | | | Attendingeducationalinstitution | | | NotAttendingeducationalinstitution | | | | | |
|-------------------|-------------------------|---------|---------|---------------------------------|---------|---------|------------------------------------|--------|---------|--------------------------|--------|---------|
| | | | | | | | Attendededucational | | | Neverattendededucational | | |
| | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females |
| INDIA | 6572999 | 3692554 | 2880445 | 4021301 | 2280040 | 1741261 | 797961 | 455491 | 342470 | 1753737 | 957023 | 796714 |
| Jammu & Kashmir | 83657 | 46654 | 37003 | 51004 | 29413 | 21591 | 5577 | 3265 | 2312 | 27076 | 13976 | 13100 |
| Himachal Pradesh | 26737 | 15262 | 11475 | 18112 | 10355 | 7757 | 2792 | 1611 | 1181 | 5833 | 3296 | 2537 |
| Punjab | 145063 | 84779 | 60284 | 87363 | 50171 | 37192 | 19249 | 11252 | 7997 | 38451 | 23356 | 15095 |
| Chandigarh | 3517 | 2083 | 1434 | 2223 | 1315 | 908 | 279 | 170 | 109 | 1015 | 598 | 417 |
| Uttarakhand | 44487 | 25303 | 19184 | 27542 | 15582 | 11960 | 5164 | 2995 | 2169 | 11781 | 6726 | 5055 |
| Haryana | 122451 | 72571 | 49880 | 78490 | 46261 | 32229 | 12362 | 7401 | 4961 | 31599 | 18909 | 12690 |
| Nctofdelhi | 52330 | 30965 | 21365 | 30414 | 17777 | 12637 | 5067 | 3094 | 1973 | 16849 | 10094 | 6755 |
| Rajasthan | 306750 | 181780 | 124970 | 171895 | 105412 | 66483 | 38463 | 22593 | 15870 | 96392 | 53775 | 42617 |
| Uttar Pradesh | 1288308 | 721695 | 566613 | 762506 | 425574 | 336932 | 151578 | 89562 | 62016 | 374224 | 206559 | 167665 |
| Bihar | 746709 | 420220 | 326489 | 436526 | 248841 | 187685 | 57540 | 35869 | 21671 | 252643 | 135510 | 117133 |
| Sikkim | 2730 | 1440 | 1290 | 1816 | 944 | 872 | 293 | 162 | 131 | 621 | 334 | 287 |
| Arunachal Pradesh | 7108 | 3732 | 3376 | 4401 | 2314 | 2087 | 346 | 188 | 158 | 2361 | 1230 | 1131 |
| Nagaland | 6568 | 3582 | 2986 | 3338 | 1847 | 1491 | 676 | 364 | 312 | 2554 | 1371 | 1183 |
| Manipur | 14490 | 7596 | 6894 | 10057 | 5309 | 4748 | 1024 | 515 | 509 | 3409 | 1772 | 1637 |
| Mizoram | 3207 | 1784 | 1423 | 1835 | 1028 | 807 | 370 | 201 | 169 | 1002 | 555 | 447 |
| Tripura | 13878 | 7723 | 6155 | 8620 | 4832 | 3788 | 1662 | 913 | 749 | 3596 | 1978 | 1618 |
| Meghalaya | 14083 | 7557 | 6526 | 7953 | 4148 | 3805 | 1149 | 645 | 504 | 4981 | 2764 | 2217 |

Source:Persons with Disabilities (Divyangjan) in India - A Statistical Profile: 2021

Contd.../-

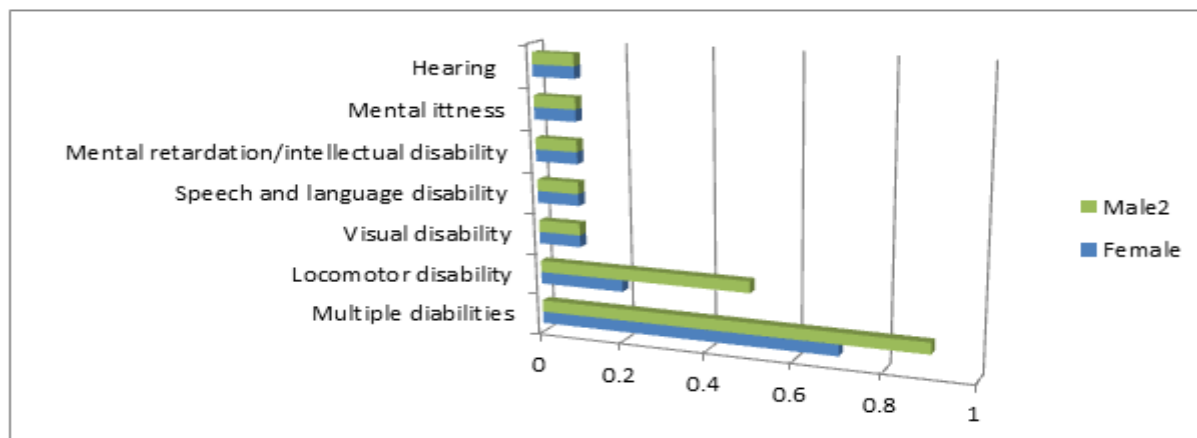
| Area Name | Total disabled population | | | Attending educational institution | | | Not Attending educational institution | | | | | |
|---------------------------|---------------------------|--------|---------|-----------------------------------|--------|---------|---------------------------------------|-------|---------|----------------------------|-------|---------|
| | | | | | | | Attended educational | | | Never attended educational | | |
| | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females |
| Assam | 111892 | 61231 | 50661 | 57226 | 31193 | 26033 | 13939 | 8101 | 5838 | 40727 | 21937 | 18790 |
| West Bengal | 466051 | 258515 | 207536 | 266335 | 146987 | 119348 | 66530 | 38236 | 28294 | 133186 | 73292 | 59894 |
| Jharkhand | 212197 | 116405 | 95792 | 126759 | 71192 | 55567 | 19475 | 11428 | 8047 | 65963 | 33785 | 32178 |
| Odisha | 271142 | 149233 | 121909 | 158221 | 89435 | 68786 | 44721 | 24510 | 20211 | 68200 | 35288 | 32912 |
| Chhattisgarh | 131122 | 72400 | 58722 | 78175 | 44360 | 33815 | 17804 | 9814 | 7990 | 35143 | 18226 | 16917 |
| Madhya Pradesh | 389139 | 221012 | 168127 | 249007 | 140675 | 108332 | 50177 | 29995 | 20182 | 89955 | 50342 | 39613 |
| Gujarat | 263954 | 151804 | 112150 | 165297 | 97409 | 67888 | 41754 | 22803 | 18951 | 56903 | 31592 | 25311 |
| Daman & Diu | 431 | 279 | 152 | 192 | 111 | 81 | 91 | 70 | 21 | 148 | 98 | 50 |
| Dadra & Nagarhaveli | 939 | 550 | 389 | 562 | 333 | 229 | 89 | 63 | 26 | 288 | 154 | 134 |
| Maharashtra | 684328 | 386064 | 298264 | 481101 | 274538 | 206563 | 85926 | 47383 | 38543 | 117301 | 64143 | 53158 |
| Andhra Pradesh | 473372 | 257708 | 215664 | 291343 | 162559 | 128784 | 59041 | 30692 | 28349 | 122988 | 64457 | 58531 |
| Karnataka | 330781 | 182062 | 148719 | 207779 | 116346 | 91433 | 51395 | 27744 | 23651 | 71607 | 37972 | 33635 |
| Goa | 5051 | 2755 | 2296 | 3705 | 2022 | 1683 | 472 | 272 | 200 | 874 | 461 | 413 |
| Lakshadweep | 338 | 174 | 164 | 235 | 116 | 119 | 28 | 19 | 9 | 75 | 39 | 36 |
| Kerala | 104418 | 59546 | 44872 | 76394 | 43826 | 32568 | 9323 | 5167 | 4156 | 18701 | 10553 | 8148 |
| Tamil Nadu | 239756 | 134692 | 105064 | 150883 | 85562 | 65321 | 32879 | 17986 | 14893 | 55994 | 31144 | 24850 |
| Puducherry | 4711 | 2700 | 2011 | 3123 | 1792 | 1331 | 577 | 325 | 252 | 1011 | 583 | 428 |
| Andaman & Nicobar Islands | 1304 | 698 | 606 | 869 | 461 | 408 | 149 | 83 | 66 | 286 | 154 | 132 |

Source:Persons with Disabilities (Divyangjan) in India - A Statistical Profile: 2021

DISCUSSION:

Table No.2 shows that 6572999 persons with disabilities in the age group of 5-19 are living in India. Out of 6572999 persons, 1753737 persons never attended educational institutions. 797961 persons with disabilities attended educational institutions in India.

Table No. 3: People with a recognized disability across Manipur in India in 2018, by type and gender

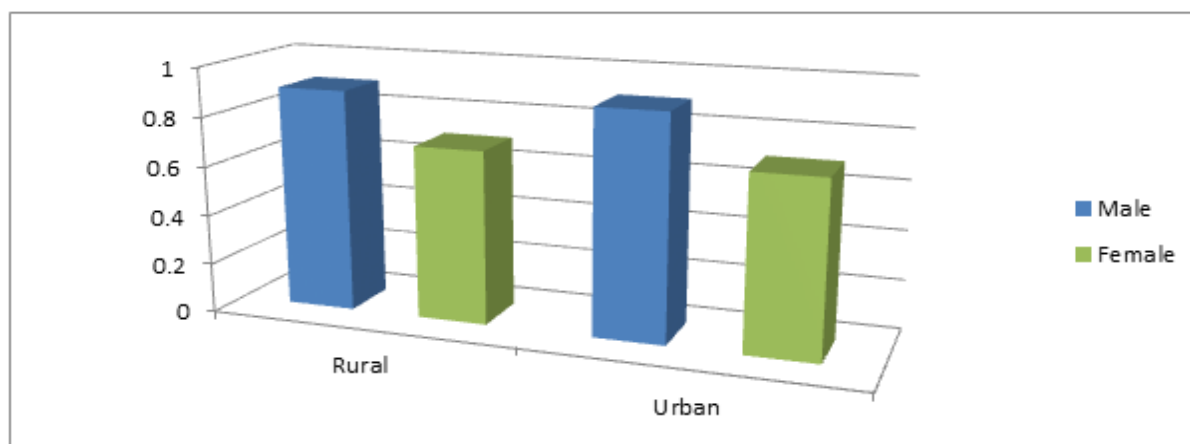


Source: Statista 2022

Discussion:

From table no.3, it is found that males were the highest for multiple disabilities at 0.9 percent, followed by locomotor disability at 0.5 percent in Manipur in 2018. According to the 76th round of the NSO survey conducted between July and December 2018, a higher percentage of disabled men than disabled women were present in India.

Table No.4: People with a recognized disability across urban and rural Manipur in India in 2018, by gender



Source: Statista 2022

DISCUSSION:

Table 4 shows that according to the 76th round of the NSO survey conducted between July and December 2018, a higher percentage of disabled men than disabled women were present in Manipur. The state of Manipur had an equal share of males with disability in its urban and rural areas at 0.9 percent.

Scenario of Disable in Manipur

The Central and state governments have launched various schemes for the welfare of persons with disabilities and enacted laws to ensure they enjoy their rights and integrated into society. But the benefits of the government schemes have reached only a few persons with disabilities in Manipur. There are 54,110 persons with disabilities in the state as per the Census report 2011. Out of it, the number of persons with disabilities cardholders or identity certificates issued to them by the state Social Welfare Department is only around 25,000. The identification card is considered an essential document for persons with disabilities to avail any kind of benefits provided by the government. But the number of PWD cardholders is less than 50 per cent of its total population as per the data released by the Social Welfare Department. The number of PWD cardholders availing the benefit of welfare schemes is even less. The major reasons cited being inaccessibility, discrimination and lack of awareness. The Chief Minister's Shotharabasingi Tengbang (CMST) scheme launched by the present state government is one of the schemes implemented by the Social Welfare Department. Under the CMST, there are five sub-schemes. Out of it, three are being implemented by the department. They are caregiver allowance to persons with disabilities with high support needs, scholarships to students with disability and free travel, and concessions to persons with disabilities. The department is also executing the Central government schemes such as unemployment allowance to the educated unemployed persons with disabilities and marriage incentive award. As per the Social Welfare Department report, only 5,207 persons with disabilities are availing of the benefits of caregiver allowance to persons with disabilities, which is Rs 1,500 per month. Only 110 PWDs received the scholarship during the academic session 2019-2020, and 2,500 differently abled persons availed of the opportunity of free travel and concession schemes. And, only 156 PWDs could enjoy unemployment allowance to the educated unemployed PWD, an amount of Rs 400 to Rs 1,000 per month in 2019-2020.

Under a marriage incentive award of Rs 30,000, one-time assistance was given to all 45 PWDs (the maximum limit earmarked for this scheme is 45 per the Central government's norm).

When queried, the deputy director, the Disabled Department of Social Welfare, Langpoklakpam Dhaneshwor told that the department is taking up various measures to increase the number of beneficiaries of the schemes. The department is conducting awareness programs on the necessity of having a PWD card and about the schemes as well. But enrolment for PWDs cards and applications for the schemes is still very low, he said, adding that to scale up this number requires support and corporation from society.

The deputy director said that the first and foremost step to be taken to enhance the number of beneficiaries of government welfare schemes for PWD is to integrate them into society. However less attention and discrimination by society has discouraged them from enjoying their rights and benefit even after they aware of it, he said. Mentioning the programme to increase PWD cards, the deputy director informed that unlike the previous manual system, the state government has simplified the process for registration of PWD cards. Since June 2019, the department has rolled out Unique Disability Identification for Persons with Disabilities (UDID) policy. Through this Central government policy, applicants can apply through online with a single document for verification. Though the policy was started in 2019, due to the COVID-19 pandemic, the number of PWD cards issued is only 1,600. Despite this, the card has become a mandatory identification to access various benefits for PWDs. The state will continue to use manual PWDs card issued by the department for time being. Considering the challenges faced by PWDs while accessing the Internet to register their UDID, the department has opened a counter for registration every Thursday. Besides this, the department is planning to conduct a mass campaign from place to place to make sure that no PWD is left out. Already 14 specialist doctors from the Jawaharlal Nehru Institute of Medical Sciences (JNIMS) in Imphal were nominated by the state government to take part in the mass campaign to give approval certificate of disability. To increase the level of integration or inclusion of differently abled-person in the society, the state government is also going to implement a similar provision of the Central Government where 5 per cent reservation for PWDs is earmarked for any kind of poverty alleviation or welfare scheme. "PWD are usually bestowed with some extra-ordinary qualities or talents. However, the attitude showed to them by society has made them remain in closed door. Nevertheless, society has seen some changes gradually as people started realizing the significance of treating PWD equally".

CONCLUSION

As per the Census 2011, the differently abled population in India is 26.8 million. In percentage terms, this stands at 2.21 %. There has been a marginal increase in the differently-abled people in India, with the figure rising from 21.9 million in 2001 to 26.8 million over the period of 10 years. Among the State and Union territories, Sikkim has the highest prevalence of disability. 2.98% of the total population of Sikkim has been reported as disabled. Daman & Diu (0.9%) reported the lowest prevalence of disability. Among disabled population in the age group 5-19 years, total number of 1753737 persons with disability never attended educational institutions. In Manipur, 3409 people with disabilities never attended educational institutions under the age group of 5-19 years. A glance into the social scenario, even in the 21st century, reveals the fact that considerable number of children with disabilities are deprived many facilities. If no adequate provision for the education of deprived is being made heart and soul, their potentialities will remain undeveloped and merely go a waste resulting in sheer non-utilization of human resources.

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TREND OF INTERNAL MIGRATION IN INDIA DURING THE PERIOD OF 1991 TO 2011

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ABSTRACT

Migration is a very common demographic phenomenon in a country. It indicates the change of residence from one place to another. It is an important factor of demography of any area. Migration is related with lots of socio-economic and political factors. Owing to uneven pattern of development people from developing and underdeveloped country tend to migrate towards the developed section of the world, demonstrating a higher rate of immigration in those regions. India is a country having 45 crore migrants as per 2011 census. In the previous census of 2001, the migration was 31 crores. Internal migration is one of the many different types of migrations. It represents relocation of people within the territory of a certain nation. It includes the inter-state, inter-district, inter-block, a migration that happens inside the barbed fences within the international border. Due to various socio-economic conditions, regional differences, internal migration has increased in every possible nation in this terra. In India the trend of internal migration accelerated to almost double from the census years of 1991 to 2001. Short-term migration has also increased 10% from 1991 to 2001. Interestingly the rate of migration of the female population is higher than that of the men and unexpectedly rural to rural migration has been recorded higher than usually expected rural to urban migration. However, the trend of internal migration in India is very much uncanny and interesting that highlight the equation of different socio-economic, ethnic characteristics of the country.

Keywords: - Migration, Immigration, Internal-migration, Development, Socio-economic factor

INTRODUCTION: -

Migration is one the prominent demographic determinants of a country. As definition of migration, it is a permanent and semipermanent change of residence of people (Husain, 2011). On the basis of time, distance and nature of location it is divided into different categories. Temporary and permanent migration are the two different migrations classified on the basis of time. Based on distance migration can be classified as long and short migration. Based on nature migrations can be internal and external kind. As per the reports of World Bank India is a highly populated country homing 138 crore people. Hence internal migration is a sheer fact with such demographic feature.

INTERNAL AND EXTERNAL MIGRATION: -

When people are relocates their habitat from one place to another inside the border of the country, is called internal migration. There are various sub types of this type of migration: -

- i) Inter-state migration: - Migration within different states or province of any nation. In such kind of migration people crossed the state boundary and relocate at some other state of that very country.
- ii) Intra-state migration: -. When people are move one place to another within a state, such type of migration is called intra-state migration.
- iii) Inter-district migration: - When people move from one district to another district inside the state boundary or provincial boundary, such type of migration is called inter-district migration.
- iv) Inter-block migration: - Such type of migration happens between the CD block in a district.

Migration can be between different regions as per the trend of development.

- a) Rural to rural migration (Migration from one rural area to another rural area)
- b) Rural to urban migration (Migration from one rural area to urban area)
- c) Urban to urban migration (Migration from one urban area to another area)
- d) Urban to rural migration (Migration from urban to rural)

The external migration is another kind of migration where people tend to shift from one territory nation to another one. This is also termed as international migration. Here people literally cross the border of one country relocating to another country.

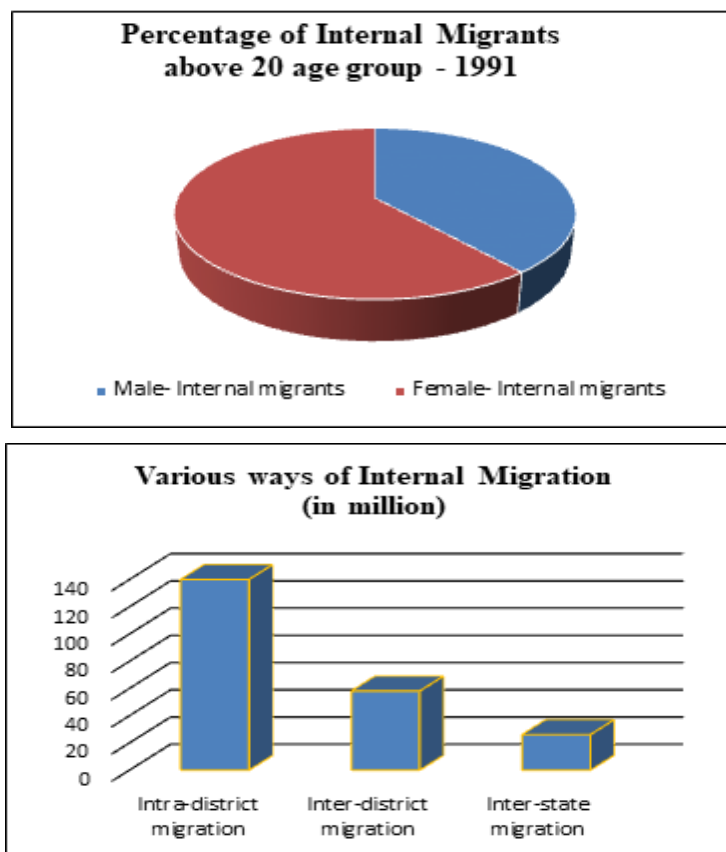
There are different factors that dictate the pattern of migration. This includes different natural factors such as natural disaster like flood, draught, cyclone, earthquake, volcano, forest fire, tsunami, landslide etc. This also

includes other natural factors like food crisis, water crisis, famine, land degradation etc. The Socio-economic factors include economic disparities, medical issues, communal disharmony, medical issue, problems in transportation and communication etc.

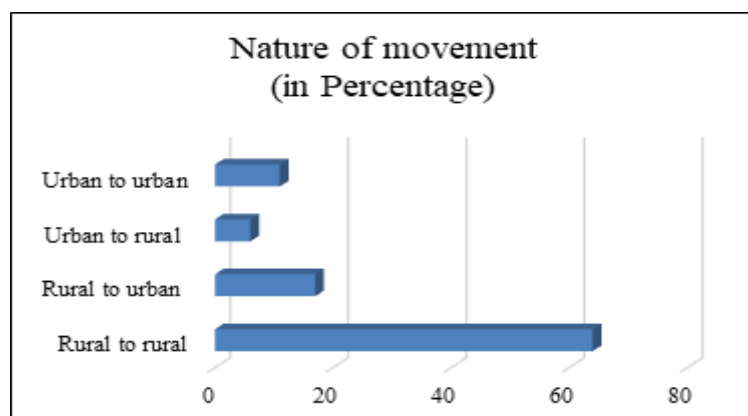
Thus, there can be different factor that would pull people towards a certain place such like peace, comfort, shelter, economic availability etc. Again, there can be factors that would push people away to other places. This includes different factors mentioned above that would cause disharmony in the life of people.

Internal Migration in 1991

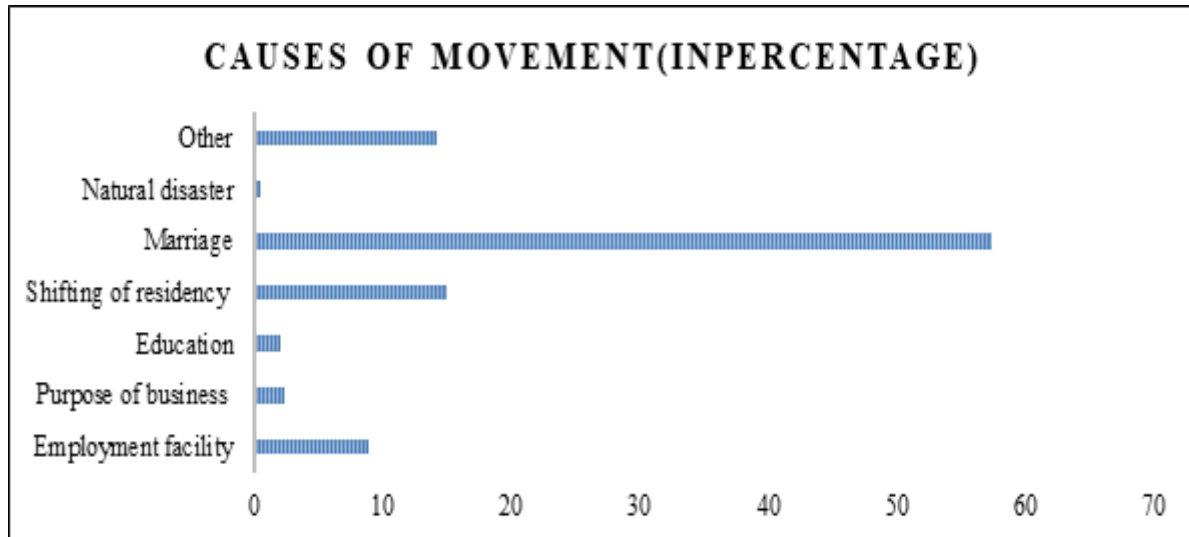
As per report of 1991 census; total percentage of internal migration was 27% which is almost 226million of population. As report shows that female migration percentage is greater than that of male. The internal age-sex migration report shows that in the age group of 20 above where 23.3% male and 36.4% female has moved from one place to another. As the report of internal migration; 140 million populations migrated within district as intra-district migration with 58 million was inter-district and 26 million inter-state migration.



The nature of internal movement of population according to census year 1991 was, rural to rural 64%, rural to urban 17%, urban to rural 6% and urban to urban 11%. Sex wise movement was like; rural-to-rural male was 43.6% and female was 72.3% , in rural to urban male migration was 30% and female was 13.2%. In urban to rural migration; male migration was 7.5% and female was 5.4% and in urban-to-urban movement 18.9% was male and 9% was female.



The reasons of internal migration as per record of 1991 were mainly employment, business, education purpose, change of residence, natural disaster, and marriage etc. 8.8% migration was related to employment facility and for purpose of business 2.3% population has internally migrated. Educational migration was 2%. The second highest cause was shifting of permanent residency from one place to another, it was almost 15% of overall migration and highest percentage of migration has happened due to marriage, it was almost 57.3%.



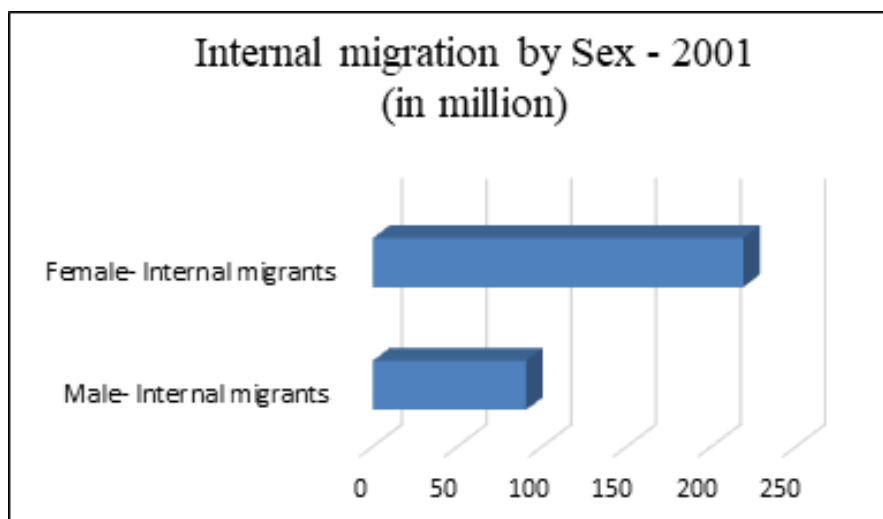
According to state wise internal migration statistics, highest in-migration was found in Maharashtra having more than 41 lakhs, second was Delhi 33 lakhs, third highest in-migration was found in Madhya Pradesh which was 25 lakhs and fourth was West Bengal with 20 lakhs. Whereas minimum in-migration was found in Mizoram (9882), Manipur (15034), Sikkim (23319).

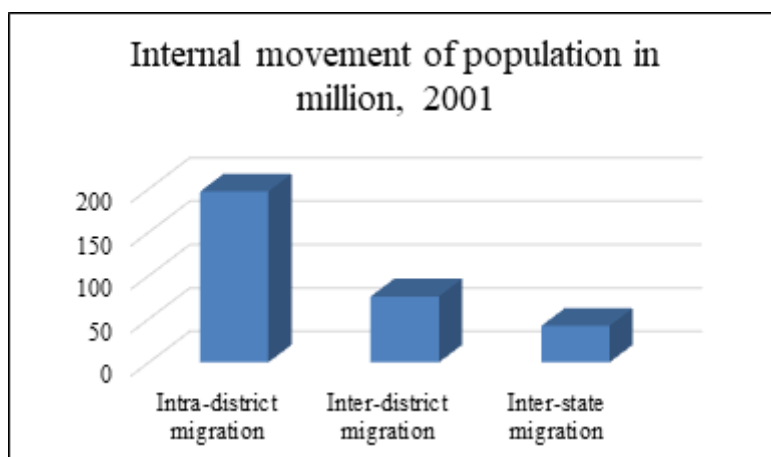
As status of out migration, highest out going population is found in Uttar Pradesh almost 58 lakhs, Delhi 57 lakhs, Assam 35 lakhs, Bihar 30 lakhs and minimum out migration is found in Nagaland (24201), Mizoram (28326), Sikkim and Arunachal Pradesh.

If we see the amount of the internal-migration of 1981 report, the migration was approximately 20 crores and in 1991 it has increased 3 crores. Which means almost 23 crores was total migration of 1991 which happened through different sectors like inter-district, intra-district, and inter-state. In case on inter-district, in 1981 it was 4.64 crore, intra-district migration was 13.1 crore and inter-state migration was 2.41 crore. In 1991 inter-district migration was 5.88 crore, intra-district migration was 14.01 crore and inter-state migration was 2.67 crore.

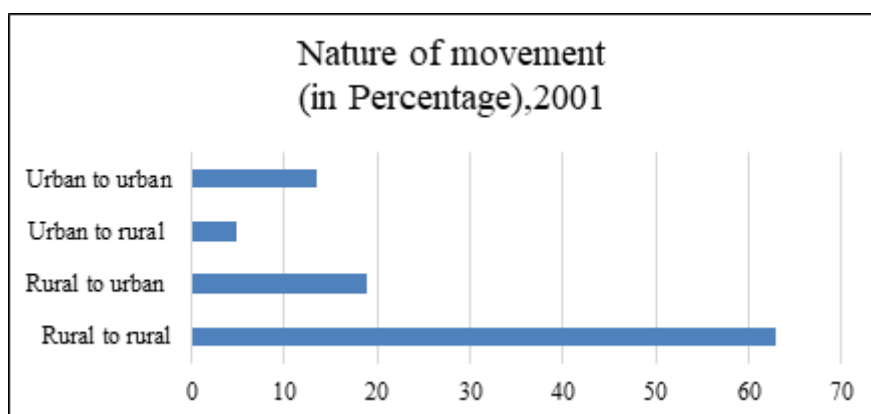
Internal Migration in 2001

According to report of Indian census 2001, the total percentage of internal migration was 30.1% which is almost 309.4 million of population. As usual female migration percentage is greater than that of male. As 'census 2001' report 90.7 million were male migrant whereas female migrants were 218.7 million. As the report of internal migration, 196 million population migrated within district as intra-district migration 75.9 million was inter-district migrant and 41.9 million was inter-state migrant.

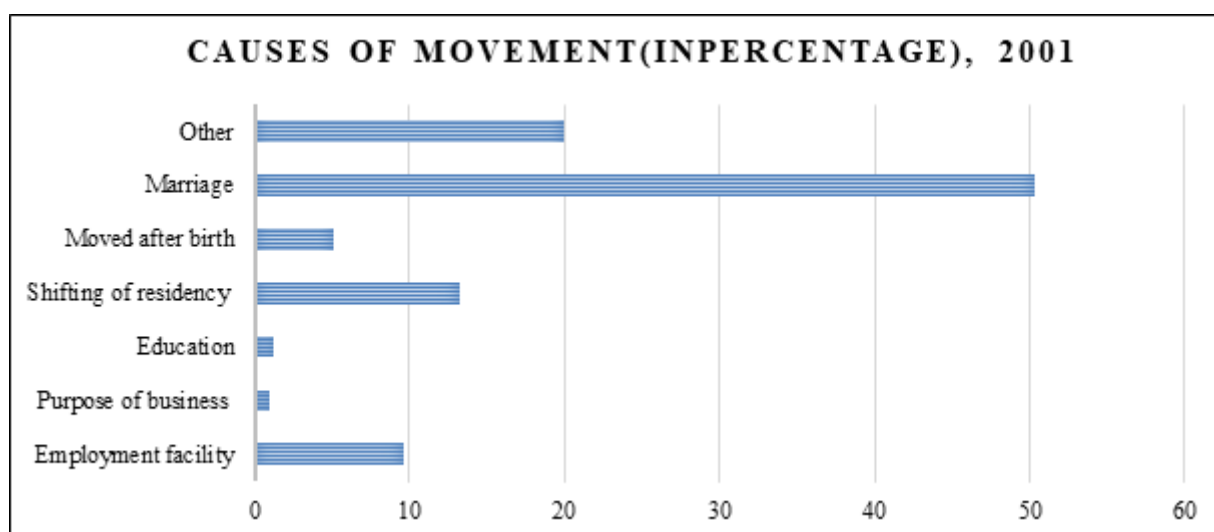




The nature of internal movement of population as census year 2001 like, rural to rural was 63%, rural to urban was 19% and urban to rural 5% and urban to urban 13%. Sex wise movement was, in rural-to-rural male migrants were 36.4% and female was 72.3%. In rural to urban male migration was 34.2 % and female migration was 13.5%, and urban to rural migration, male migration was 6.3% and female migration 4.2 % and in urban-to-urban movement 23% was male and 10 % was female migration.



The reasons of internal migration as per record of 2001 were employment, business, education purpose, change of residence, natural disaster, and marriage etc. 9.5 % migration was related to employment facility, for purpose of business 0.9 % population has internally migrated. Educational migration was 1.1 %. The second highest cause was shifting of permanent residency from one place to another, it was almost 13.2% of overall migration and highest percentage of migration was happened due to marriage, it was almost 50.3%.



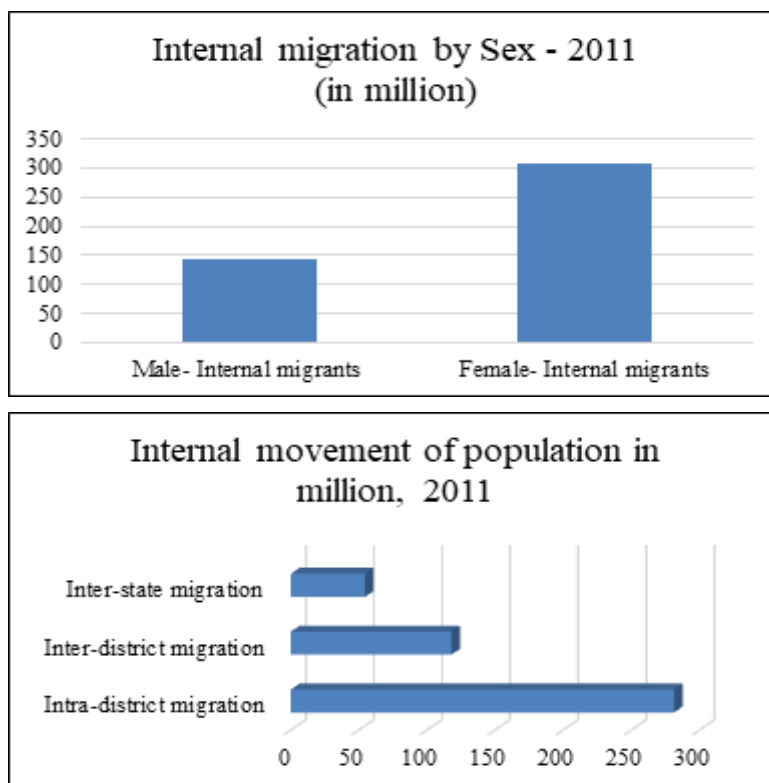
According to state wise internal migration statistics, highest in-migration was found in census report 2001 Maharashtra having more than 73 lakhs, second was Delhi 53 and third highest in-migration was found in Uttar Pradesh 28 lakhs and fourth was Haryana with 27 lakhs and at fifth position West Bengal 23 lakhs. Whereas minimum in-migration was found in Manipur (14743), Mizoram (35293), Sikkim (46033).

As status of out migration, highest out going population is found in Uttar Pradesh almost 92.5 lakhs, Rajasthan 26 lakhs, Maharashtra 21 lakhs and minimum out migration is found in Sikkim (14819), Arunachal Pradesh (22802), Mizoram (37993), Meghalaya (50852), Manipur (5903).

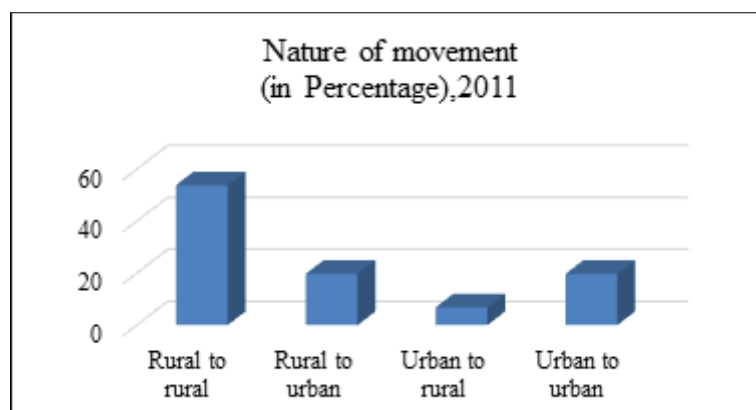
If we see the amount of the internal-migration of 1991 report, it was approximately. 22.6 crores and in 2001 it has increased to 8.3 crores, means it reached almost 30.9 crores in different sectors like inter-district, intra-district, and inter-state. In case on inter-district, in 1991 it was 5.88 crore, intra-district migration was 14.01 crore and inter-state migration was 2.67 crore, where as in 2001 inter-district migration was 7.59 crore, intra-district migration 19.68 crore and inter-state migration 4.19 crore.

Internal Migration in 2011

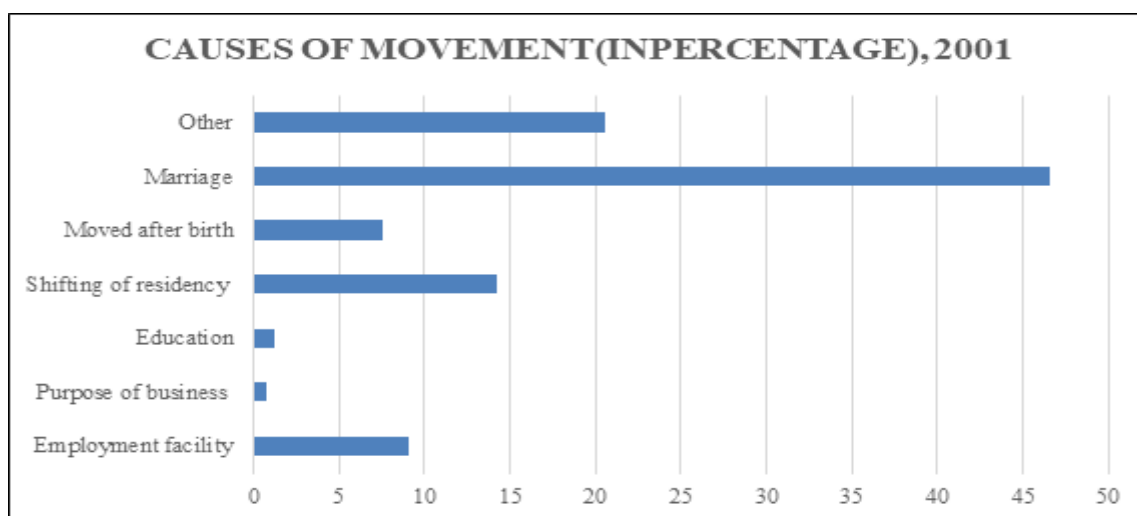
According to report of Indian census 2011, there total percentage of internal migration was 37.2% which is almost 449.9 million of population. As usual female migration percentage is greater than that of male. As 'census 2011' report 143.5 million male migrant whereas female migrants were 306.4 million. As the report of internal migration; 281 million population has migrated within district as intra-district migration and 117.9 million was a inter-district and 54.4million was inter-state migration.



The nature of internal movement of population as census year 2011 was, rural to rural (53.8%), rural to urban (19.7%), urban to rural (6.8%) and urban to urban (19.7%). Sex wise movement was, in rural-to-rural male migration was 31.3% and female migration was 63.3% and in rural to urban male migration was 30.1 % and female migration was 15.3%, and urban to rural migration, male was 8.6% and female 6 % and in urban-to-urban movement 29.9 % for male and 15.4 % for female.



The reasons of internal migration as per record of 2011 census were employment, business, education purpose, change of residence, natural disaster, and marriage etc. 9.1 % migration was related to employment facility, for purpose of business 0.8 % population has internally migrated. Educational migration was 1.2 %. The second highest cause was shifting of permanent residency from one place to another, it was almost 14.2% of overall migration and highest percentage of migration was happened due to marriage, it was almost 46.6 %.



According to state wise internal migration statistics, highest in-migration was found in census report 2001 Maharashtra having more than 90.8 lakhs, second was Delhi 63 and third highest in-migration was found in Uttar Pradesh 40.6 lakhs and fourth was Gujrat with 39 lakhs and at fifth position Haryana 36 lakhs. Whereas minimum in-migration was found in Manipur (20100), Mizoram (41380), Sikkim (61163).

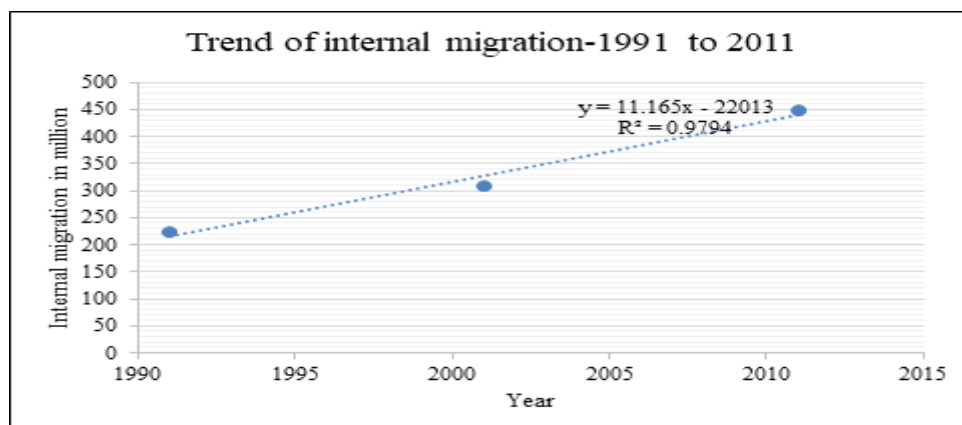
As status of out migration, highest out going population is found in Uttar Pradesh almost 1.23 crore, Bihar 74.5 lakhs, Rajasthan 37.57 lakhs, Maharashtra 30.68 lakhs and minimum out migration is found in Sikkim (21459), Mizoram (30365), Arunachal Pradesh (37368), Nagaland (45734), Meghalaya (70268), Manipur (75751).

If we see the amount of the internal-migration of 2001 report, there was approximately 30.9 crores and in 2011 it has increased 14.09 crores, means it reached almost 44.99 crores. In different sectors like inter-district, intra-district, and inter-state has also increased. In case of inter-district, in 2001 it was 7.59 crore, intra-district migration was 19.68 crore and inter-state migration was 4.19 crore, where as in 2011 inter-district migration has increased to 11.79 crore, intra-district migration 28.12 crore and inter-state migration 5.44 crore.

Trend of migration from 1991 to 2011

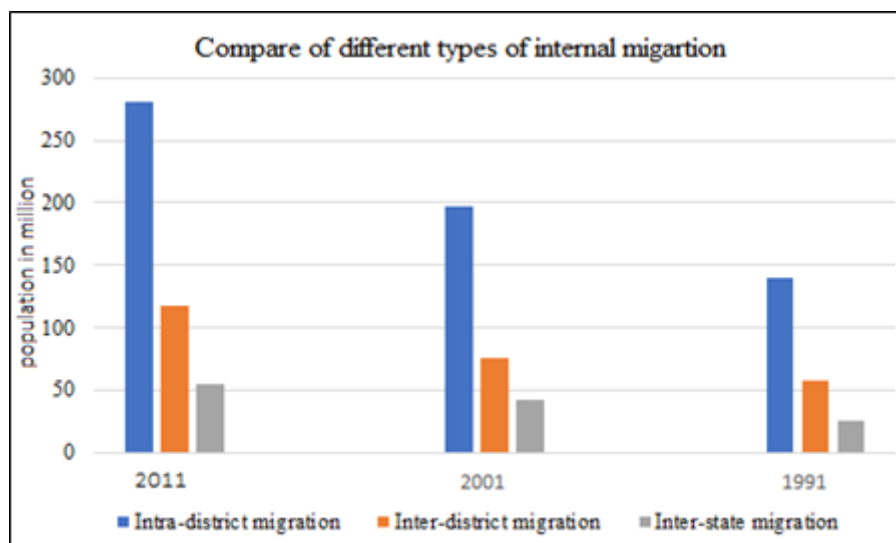
Above discussion showing that Indian demography has largely influenced by internal migration. There each ten years census report giving a clear image of this issue. In the report of 1991 there, internal migration was 226 million which is already increased from the data of census year 1981. On the other hand, census year 2001 presenting that, total internal migration is 309.4 million and according to 2011 census report total internal migration was 449.9 million. So, in general 1991 to 2001 internal migration has increased approximately. 83.4 million and between 2001 to 2011, there increased internal migration is 140.5 million (14 crores approx.).

So, during this 30 years period of India, there 1991 census to 2011 census, total growth of internal migration is 223.9 million (approx. 22 crore). So average growth per year 7.5 million which is approx. 75 lakhs/year.



The trend of internal migration represented that, there first ten years means 1991 to 2001, it has increased 83.6 million and the second ten years means 2001 to 2011 it was increased almost 140.5 million. So, rate of increase showing that the period of 2001 to 2011, where internal migration reached almost double than 1991 to 2001.

In the different types of internal migration like intra-district, inter-district, and inter-state, their highest growth of internal migration is happened by intra-district movement. There the increasing trend of intra-district movement between 1991 to 2001 was 56.4 million and 2001 to 2011 it was approx. 84.4 million. Another two has also increased but their trends are not so high, between 1991 to 2001 inter-district movement increased 17.1 million and 2001 to 2011 it has increased 42 million. Rate of increase in intra-district migration has shown that its growth rate is also high, but inter-state migration trend is not that high between 1991 to 2001 migration growth was 15.2 million and their down trend was discovered between 2001 to 2011. So, the trend of internal migration is very high and it shows a high steep trend line from the year 1991 to 2011.



CONCLUSION

Internal migration is one of the prominent reasons for increasing and decreasing number of the population of different states. Some of the state there in-migration rate is very high like Maharashtra, Delhi, Uttar Pradesh, Gujrat, West Bengal, which has increased its existing population and creates infrastructural pressure. In the metropolitan area like Kolkata, Delhi, Chennai etc. their regular high traffic and water problems, short supply of electricity, settlement problems etc. are caused by high in-migration. In the case of internal migration, as maximum has a common thought like that the employment or job facility etc. These are the major factor but the data shows that marriage related migration is highest category of internal movement and overall data shows that the female migration rate is maximum than male. There another short distance migration rate is very high. Rural to rural migration is greater than rural to urban. Some states in India indeed face a serious demographic and infrastructural problem due to high rate of internal migration. Public facilities, developmental trend, better educational and employment structure is always an important pull factor that influence migration of a certain place.

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PRE- AND POST COVID ACCEPTANCE OF ZOOM PLATFORM BY UNDERGRADUATE STUDENTS

Mrs Annamma Santosh and Dr. Faiyyaz Shaikh

ABSTRACT

In today's date stress has been an integral part of life because there are many things which act as a stress catalyzer. Covid-19 has caused significant distress around the globe. It is not limited to adults only, but stress is increasingly affecting children of all age group. Proper management of stress is really very difficult as parents don't have enough time to properly look after their children. Generally, people have a common mind-set that stress is only caused by a sad happening, but the truth is that stress can occur through a good experience as well. As far as stress for students are concerned, there are plenty of reasons which can cause stress in a student's life, some of these are; mismatch between the student and the teacher which can raise tension and cause stress. Lack of much family attention has also been a reason why it attacks to all students. Children generally don't take care of their eating habits as a result of which they are more prone towards to stress. In addition to that the other reason of stress is insufficient sleep is a common cause and students all across the world are getting affected by stress because of it. Stress management among students is a hit-or-miss matter. In order to tackle the horrible matter most of the educational institute schedule optional stress management classes, but students often lack the time to attend. An attempt is done through this paper to know the impact of stress among students and the necessity of managing it in order to make the learning effective..

Keywords- Stress Management, Health, COVID-19, Stress level, pandemic.

INTRODUCTION

COVID-19 entered into our lives at the end of 2019 in the whole world threatening the health of countless people and reached pandemic status as well. Since December 2019, there has been an outbreak of pneumonia of an unknown aetiology that was first reported in Wuhan, Hubei Province, China (Wang et al. 2020). Following the outbreak, a novel coronavirus, SARS-CoV-2, was identified as the causative virus for the pandemic in China and other parts of the world by the World Health Organization (WHO). On March 11, 2020 (WHO) declared Covid19 as a pandemic. Covid-19 has affected more than 4.5 million peoples worldwide (WHO, 2020). This new pandemic condition is fearful and stressful for everyone due to the mortality rate of COVID-19 and associated factors like economic instability, unemployment, stress, anxiety and insecurity. As the COVID-19 pandemic and its far-reaching implications continue to unfold globally and in our community, it's normal for people to experience a wide range of thoughts, feelings and reactions. Thus the main aim of this this paper is to know the impact of stress among students and the necessity of managing it in order to make the learning effective We have to understand that pandemic is not just medical condition, it affects the population in social, emotional and psychological way also. The idea of being alone and wear masks is related to anxiety, sleep disturbances, panic, stress and other kind of mental illness. Due to this pandemic outbreak, lot of students developed psychological problems that are affecting learner's not only academics but all over personality (WHO, 2020). Countries worldwide implemented strict precautions on its citizens in an attempt to control the spread. The country switched its in person educational system to virtual learning, closing public places of aggregation and invoking travel bans. Most stressing is quarantine. The Centers for Disease Control and Prevention (CDC) defines "quarantine as separating and restricting the movement of people who have been exposed to a contagious disease to see if they then become ill" (CDC, Report, 2020). Living in quarantine period which is also known as lockdown can be great mental toll for everyone. Quarantine affects mainly three components of mental health i.e. autonomy, competency and connectedness. People feel isolated as they get cut off by meeting their friends and perform their daily routine. A recent study on "the psychological impact of quarantine and how to reduce it" by Samantha K Brooks showed that how COVID-19 is affecting people who are in lockdown. People mostly experienced fear, sadness, numbness, insomnia, confusion, anger, post-traumatic stress symptoms, depressive symptoms, low mood, stress, emotional disturbance, irritability and emotional exhaustion. Some of evidence proves that these consequences can be longer term also (Brooks et al, 2020). Stress is overtaking each and every problem..

RESEARCH METHODOLOGY:

RESEARCH APPROACH:-Quantitative Research Approach

RESEARCH DESIGN:-Pre experimental one group pre-test, post-test research design.

POPULATION:-In this study population consist of Gulf Indian high school Dubai .

SAMPLING TECHNIQUE:-Non probability non convenient sampling technique.

Percentage and Frequency-They are most frequent way to represent statistics.

- **ANOVA:-**It is statistical method in which variation in set of observation is divided into distinct components.

SAMPLE SIZE:-It comprises of 500 students studying in School

INCLUSION CRITERIA FOR SAMPLING:

- (1) Students who are available at time of data collection.
- (2) Students who are willing to participate in study.
- (3) Students who are able to read write and understand English language.

EXCLUSION CRITERIA FOR SAMPLING:

- (1) Students who are suffering from any mental illness or chronic illness.
- (2) Students who are not present at time of any of test may be pre or post test.

WITHDRAWAL CRITERIA FOR SAMPLING:

- (1) Students who want to withdraw from study.

STATISTICAL TECHNIQUE

Required permission from authorities will be taken before study. Then samples will be selected as per inclusion criteria. Analysis of data is based on objectives of study.

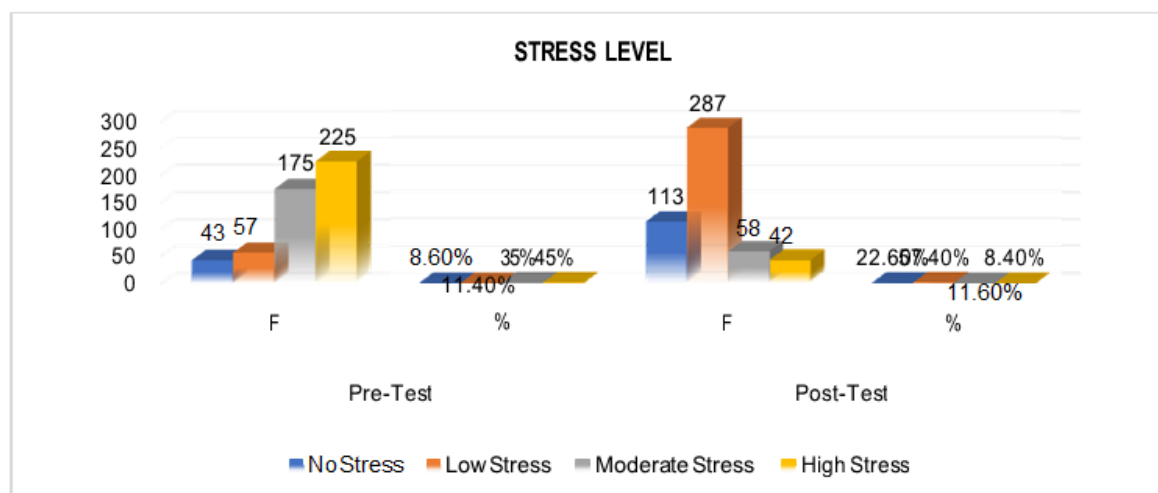
The data will be analyzed as following:

- 1] Demographic of subjects will be analyzed using frequency and percentage.
- 2] Pre-test and post-test knowledge scores will be analyzed using frequency and percentage, Mean and standard deviation.
- 3] Effectiveness of Zoom meetings on level of stress will be analyzed by using descriptive and inferential statistical methods. Paired 't' test by measuring significant difference between pre-test and post-test scores.
- 4] Using SPSS software version 23

RESULT AND DISCUSSION

Knowledge Scores of Pre-test and Post-test based on Level of Stress and depression to Zoom meeting

| STRESS LEVEL | Pre-Test | | Post-Test | |
|-----------------|----------|--------|-----------|--------|
| | F | % | F | % |
| No Stress | 43 | 08.60% | 113 | 22.60% |
| Low Stress | 57 | 11.40% | 287 | 57.40% |
| Moderate Stress | 175 | 35% | 58 | 11.6% |
| High Stress | 225 | 45% | 42 | 08.40% |
| Total | 500 | % | 500 | % |



Tab. and graph states about stress level while Zoom meetings students in which maximum observed in higher stress I.e. 45% in pre test which decreased upto 08.40% in post test whereas lower stress observed in post test i.e. 57.40% and no stress were observed as 22.60%.

Comparison of Means Scores of Level of Stress between Pre-test and Post-test

| Group | Pre test | Post test |
|----------------|----------|-----------|
| SD | 8.229 | 11.768 |
| t-value | 1.176 | |
| Df | 28 | |
| Sig (2 tailed) | 0.251 | |

CONCLUSION

COVID-19 affected everyone at global level. Previously 100 years ago this lockdown was implemented to fight with Spanish Flu. Now in this COVID-19 people are also feeling tired and anxiety due to lockdown. Students are facing loss in their studies. These all things lead to cause disturbance in their mental state. The conclusion of the study is that students are having the stress level at severe level and by the increasing days stress level is also increasing. Students are also using the coping strategies like yoga, exercise, diversion therapy such as spending time with family and watching television. Academic, environmental, social and health problems all play an important role in the development of stress. Academic factors are the most important stressors; hence the need for specific and targeted measures to decrease substantially the burden of stress on the students. Teaching techniques and college environments should be adapted to the needs of the students. The productive utilization of existing student welfare systems, development of more 'student-friendly' environments and regular periodic extracurricular activities with universal participation can prove to be useful stress-busters. Similarly, students living in hostels were observed to be prone to develop stress; thus, a periodic review of hostels, with feedback from the students, should be conducted and the complaints of students should be promptly addressed. The majority of students were in favour of stress management education being included in the curriculum, and hence steps should be taken for its incorporation. Health is a major concern of students, and therefore the promotion of healthy dietary and lifestyle habits should be encouraged. Additionally, teachers, parents and even students themselves should be aware that undue expectations about academic achievement can lead to stress. Finally, regular study habits and adequate preparation can help students to avoid stress and make their learning effective.

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ASSESSMENT OF CVD RELATED RISK FACTORS IN JAGDALPUR BASTAR DISTRICT
CHATTISSGARH

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ABSTRACT

Introduction: Cardiovascular diseases (CVDs) are the leading cause of death worldwide. Coronary heart disease, cerebrovascular disease, rheumatic heart disease, and other illnesses are among the category of heart and blood vessel disorders known as CVDs. Indians have greater rates of CVD risk factors than people from other ethnic groups, especially at younger ages, including abdominal obesity, hypertension, and diabetes. Over the past 25 years, India's prevalence rates for CVD risk factors have been rising quickly.

Method: The participants were locals of Chhattisgarh's Jagdalpur, in the Bastar district. There were 98 participants in total for this study. The trial ran from February 2021 to December 2021 for a full calendar year. Before taking part, each subject gave their written informed consent. Information was gathered via a questionnaire. People with atherosclerotic diseases such as coronary heart disease, stroke, or other were disqualified. The statistical programme SPSS version 16 was used to conduct the statistical analysis for this investigation.

Result: The number of subjects with smoking was 53 and without smoking were 45. The number of subjects with tobacco chewing were 70 and without tobacco chewing 28. The number of subjects with alcohol consumption was 40 and without alcohol were 58. The number of subjects with obese was 34 and without obese were 64.

Conclusion: According to these health outcomes, the tribal population's position shows that the region is at risk for CVDs. By identifying the risk variables; community-level prevention and intervention programmes might be put in place to treat common disorders among the tribal population.

Keywords: Cardiovascular Diseases, Risk Factors, Non Communicable Diseases.

INTRODUCTION

The non-communicable diseases are increasingly outpacing the communicable diseases as the world enters a moment of epidemiological transformation. This phenomenon is visible not just in wealthy nations but also in underdeveloped nations like India. The World Health Organization (WHO) has identified cardiovascular diseases (CVDs) as one of the main non-communicable illnesses and a significant public health issue (WHO).¹

In India, CVDs are the main contributor to NCDs. India, a nation with great diversity, has a wide range of NCD prevalence and risk factors. Studies comparing CVD risk variables in urban and rural settings have found considerable variations. In the context of India, tribal populations, which are confined to rural areas, are linked to poverty, illiteracy, and malnutrition. They are therefore thought to be immune to NCDs, which are diseases that are caused by a bad lifestyle. Since NCDs are now a major public health concern, it is crucial to monitor the risk factors linked to CVDs, a major cause of NCDs, in tribal communities in order to establish prevention strategies and put control plans into place.²

Heart attack, stroke, peripheral vascular disease, and hypertension are the four basic types of cardiovascular disorders (CVDs). The third most prevalent cause of death worldwide, heart attacks (ischemic heart disorders) alone account for 21.6 million disability-adjusted life years. The major cause of death in urban populations, CVDs, is well-known. However, over time, CVDs also have a substantial impact on mortality in India's rural areas. This obvious shift can be the result of ongoing social and economic change. Atherosclerosis starts in childhood and worsens in maturity as a result of numerous coronary risk factors, as is now widely accepted. Diet rich in salt and saturated fatty acids, physical inactivity, stress, and alcohol are known risk factors for CVDs.³

Unhealthy food, inactivity, cigarette use, and problematic alcohol use are the main behavioral risk factors for heart disease and stroke. Individuals may experience the effects of behavioral risk factors like elevated blood pressure, elevated blood glucose, elevated blood lipids, and overweight and obesity. These "intermediate risks variables" can be assessed in primary care settings and point to an elevated risks of consequences such heart attack, stroke, and heart failure.⁴

India is currently experiencing a demographic and nutritional transformation, as evidenced by the country's underlying population increase and rising burden of chronic diseases. Obesity, diabetes, and cardiovascular disease have all been linked to a lack of physical exercise and the prevalence of these diseases rises when this risk factor is combined with an unhealthy diet. Therefore, information on activity levels and dietary patterns of various communities must be compiled with particular attention to the environmental and sociocultural contexts of each community in order to build successful NCD prevention health initiatives.⁵

METHOD

This investigation was cross-sectional and observational in nature. Participants were the people living in Jagdalpur, Bastar district, Chhattisgarh. Total number of participants in this study was 98. Total numbers of wards in Jagdalpur are 40. Out of these 40 wards, 5 wards are selected by using simple random sampling. Both male and female participants were included in this study. The study duration was for a period of 1 year from Feb 2021 to Dec 2021. All participants provided written informed consent before participating. Questionnaire was used to obtain data on age, lifestyle, socioeconomic status, education, and occupation. Numerous anthropometric and physiological measurements were also made along with investigations. Fasting Blood sugar was measured by glucometer. The relationship between age, gender, and behavioral characteristics and the numerous health conditions associated with CVDs was examined using logistic regression.

INCLUSION CRITERIA:

- Both males and females sex were included.
- Patients who gave consent and were cooperative were included in the study.

EXCLUSION CRITERIA:

- Individuals with confirmed coronary heart disease, stroke or other atherosclerotic diseases were excluded.
- Pregnant women,
- People with disabilities in the target age range.

STATISTICAL ANALYSIS

Age, gender, alcohol use, smoking, physical activity, and other independent variables were all evaluated simultaneously using multivariate logistic regression analysis to determine their impact on hypertension, obesity and increased FBG (Fasting Blood Sugar). Statistical analysis for this study was done by using statistical software SPSS version 16.

RESULT:

TABLE 1: AGE AND SEX DISTRIBUTION OF STUDY SUBJECTS

| AGE | MALES | FEMALES |
|----------------|-------|---------|
| 25– 34YEARS | 08 | 06 |
| 35– 44 YEARS | 12 | 10 |
| ABOVE 45 YEARS | 30 | 32 |
| TOTAL | 50 | 48 |

Table 1 shows age and sex distribution of the study subjects. The total number of subjects was 98. Out of 98 subjects, 50 were males and 48 were females. From age group 25 to 34 years, the numbers of males were 8 and females were 6. From age group 35 to 44 years, the numbers of males were 12 and females were 10. From age group of above 45, the number of males was 30 and females were 32.

TABLE 2: DISEASES ASSOCIATED WITH CVD

| DISEASES | YES | NO |
|-------------------|-----|----|
| HYPERTENSION | 62 | 36 |
| DIABETES MELLITUS | 48 | 50 |
| STROKE | 18 | 80 |

Table 2 shows the diseases associated with CVD. Number of subjects with hypertension was 62 and without hypertension were 36. Numbers of subjects with diabetes mellitus were 48 and without diabetes were 50. Number of subjects with stroke was 18 and without stroke were 80.

TABLE 3: DISTRIBUTION OF RISK FACTORS OF CVD AMONG STUDY SUBJECTS

| RISK FACTORS OF CVD | YES | NO |
|---------------------|-----|----|
| SMOKING | 53 | 45 |

| | | |
|---------------------|----|----|
| TOBACCO CHEWING | 70 | 28 |
| ALCOHOL CONSUMPTION | 40 | 58 |
| OBESITY | 34 | 64 |

Table 3 shows the distribution of risk factors of CVD among study subjects. The number of subjects with smoking was 53 and without smoking were 45. The number of subjects with tobacco chewing were 70 and without tobacco chewing 28. The number of subjects with alcohol consumption was 40 and without alcohol were 58. The number of subjects with obese was 34 and without obese were 64.

DISCUSSION

Kandpal's study focused on a tribal group with a gender split of 36% men and 64% women. All of the participants in our current study are at least 20 years old, with 33.3% of the men and 66.7% of the women being males. According to a study by Bhagyalaxmi on the prevalence of NCD risk factors in a Gujarati district, 10% of the study participants were skilled workers. In our analysis, skilled labor made up 14% of the workforce. Kandpal on Rang Bhotias revealed that 37.5% of respondents drank alcohol; of these, 78.8% of men and 14.1% of women were found to be alcohol consumers.⁶

Alcoholic cardiomyopathy (ACM) is a disorder with toxic origins that gradually alters the heart's structure and function, similar to idiopathic dilated cardiomyopathy (DCM). People that drink alcohol more than 80 grammes per day for at least five years run the risk of developing ACM and heart failure (HF). Despite identical drinking rates, developing nations like India have more issues with alcohol abuse than developed nations. Indigenous people have been found to misuse alcohol at a disproportionately high rate throughout the world, and they also carry a disproportionately high burden of diseases linked to alcohol abuse.⁷

In addition to DM, smoking increases the risk of macro- and micro vascular problems, which raises cardiovascular morbidity and mortality rates. Additionally, it was mentioned that smoking raises the likelihood of developing DM. In a follow-up analysis of an Asian cohort, it was discovered that smokers had an identical risk of death from all causes as well as blood glucose elevations of an average of 41 mg/dL for the cohort as a whole and 68 mg/dL for diabetes specifically. Smoking was found to significantly alter insulin sensitivity in people with non-insulin-dependent diabetes.⁸

The majority of the population studied had LDL-C and triglyceride levels that were within the desired range, as well as extremely elevated mean levels of HDL-cholesterol. The frequency of hypercholesterolemia (TC > 240 mg/dL), which was found in 20.4% of the population, was higher than that observed in other Brazilian populations, such as in a study about the Brazilian capitals, where the overall frequency of hypercholesterolemia was 8.8%. The 51.6% prevalence discovered in this study, while taking into account TC values larger than 200 mg/dL, was higher than the 40% prevalence discovered in the city of Porto Alegre and the 36.7% prevalence discovered in the city of Salvador.⁹

It is uncommon to find data on people's awareness of the risk factors for diabetes, cardiovascular disease, and its consequences. The link between knowledge of risk factors for diabetes/CVD and complications of diabetes in people with pre-existing conditions or who are at risk and those who were risk-free is a new finding for developed countries. The findings show that participants at higher risk for CVD, who were more frequently male and older than 55, had less knowledge of the risk factors for diabetes and CVD. Older age, being a man, and having high blood pressure or a high risk of developing diabetes were related with having less knowledge of CVD and diabetes risk factors.¹⁰


CONCLUSION

Unhealthy eating, inactivity, usage of tobacco products and abusing alcohol are the main behavioural risk factors for heart disease and stroke. Individuals may experience elevated blood pressure, elevated blood glucose, elevated blood lipids, as well as overweight and obesity as a result of behavioral risk factors. The position of the tribal population in terms of these health outcomes suggests that the area is vulnerable to CVDs. By identifying the risk factors, prevention and treatment intervention programs could be implemented at the community level, reducing common disorders among the tribal people.

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