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Editorial

This 24th issue (Oct.-March 2023) of the Research Journal of Arts, Management and Social Sciences is being presented to you. Here, in relation to Indian Public Services, we would like to say that administrative services are necessary for each administration because it brings maturity, stability, determination, development and certainty in the administration. The modern administrative service is developed in the context of developed and developing states in these technological form created by trained permanent officials who devote their full time and lifespan in the administration - due to which administrative services are politically neutral, fair, active, conscious of philanthropy and Responsibility is considered complete. Bureaucracy is not a hindrance in the life of a nation, as many people believe. Our nationality does not rest on political leaders and election methods, but its foundation is the bureaucracy of the country. Our country is running well, only because we have a strong and well-organized bureaucracy that is trained in a special way.

The modern version of the concept of 'bureaucracy' went into development and Max Weber liberated the word from various meanings while sociological studies of bureaucracy had stressed that bureaucracy was used to achieve the objectives or goals of an organization mandatory. In this connection, Piffner has written that bureaucracy is a systematic organization of tasks and individuals in a form that can achieve the goals of collective efforts in the most effective form. The task of running the administration of the country is a huge responsibility. It is bigger than the responsibilities that the politicians get for five years. It is therefore necessary to empower the life of a bureaucrat in such a way that his life will be free of stress and diseases, so that the nation should not be overwhelmed by its own burden. If today it has been a tragedy, the reason for this is that its infrastructure is being pulled beyond its boundaries. Our bureaucrats are being asked to do more and nonsensical work to the extent. Rather than implementing the laws, they are being asked to break them. For these reasons, the life of a bureaucrat is very challenging and filled with expectations. Changing governments in the democratic system is a natural process and it is also a fact that every government wants to keep the officers of their choice at those places which they consider important. But if the commitment of officials in this process becomes a condition to be with a government or a special person, then this situation is also of concern and also dangerous. If the commitment of bureaucracy should be against anybody then it can only be for the people of the country and its interests. It is true that the government officials have to work according to the instructions of the government, but they are also expected that if such instructions do not conform to national interest and constitutional limitations, then those who order it must be warned. The criterion for their commitment should be public interest. It is not that governments or leaders do not understand this, and the importance of this thing. It is not that governments working against this sentiment have not been exposed to its adverse consequences. But in spite of all this, they are not ready to accept that government officials can have some role in addition to their instructions.

The truth is that such conscientious officials should be encouraged. But the equation of politics is not so straightforward and simple. If the behavior and thinking of politicians could overcome the boundaries of their own interests, then there may be some changes in the situation, but today is the situation, they are not going to wake up any hope. Yes, those officers surely hope, who are honest towards their commitments for the public interest.

We have government of any party, but the officers remain there. Those who are transferred also are thrown from the same. It is not that this bureaucracy is different from the political faction, but the entire bureaucracy is indulging in factionalism. It is not so. Yes, the group of some officers is definitely involved in political factions. This proposition has also come here recently. But the basic character of bureaucracy is still largely free from political commitment.

It becomes very important that every bureaucrat is in the position of a natural and comfortable happiness within himself. As long as we are not in a state of happiness within ourselves, we have no right to touch another's life.

Hope we will get academic support from you as in the past.

Professor Akhilesh Shukla
Cheif Editor

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NGO roles in promoting restorative Juvenile justice programmes

• **Akhilesh Shukla**

Abstract- *This paper explores the extent to which non-governmental organizations are managed in the context of India. The paper is based mainly on secondary data analysis. The term child in need of care and protection is described under sub-section 14 of section 2 of the Juvenile Justice, Care and Protection of children Act, 2015. Children are the precious asset of our country and it's our responsibility to ensure that they have a safe environment to live in. The last decade has seen a huge leap in the rate of Juvenile crime in a developing country like us, India. Today, Juvenile crime is like a disease to our society which is becoming incurable. The criminal justice system of India treats everyone differently for different crimes and also gives some exceptions and leniency to some classes of people for personal reasons. These exceptions are mentioned in the Indian Penal Code. "Juvenile" has been defined differently in different Acts, but as per the latest Act. The Juvenile Justice, Care and Protection Act, juveniles are those who have not attained the age of 18 years. There is a juvenile justice system that treats juveniles differently than adults, because of our society believes that former is different from the latter, both in terms of responsibility and potential for rehabilitation.*

Keywords- *Non government organizations, Juvenile, Responsibility, Rehabilitation*

A non-governmental organization (NGO) is a legally constituted, non-governmental organization created by natural or legal persons with no participation or representation of any government. In the cases in which NGOs are funded totally or partially by governments, the NGO maintains its non-governmental status by excluding government representatives from membership in the organization. Unlike the term "intergovernmental organization", "non-governmental organization" is a term in general use but is not a legal definition. In many jurisdictions, these types of organization are defined as "civil society organizations" or referred to by other names.

Apart from "NGO", often alternative terms are used as for example: independent sector, volunteer sector, civil society, grassroots organizations, transnational social movement organizations, private voluntary organizations, self-help organizations and non-state actors (NSA's). The constitution of India envisages for Indian children a happy and healthy childhood, free of abuse and exploitation. However, the reality of daily life

• Professor, P. G. Department of Sociology, Govt. T. R. S. College, Rewa (Accreted Grade "A" by NAAC,)

for vast numbers of children is completely disconnected from this vision. In the case of juveniles facing the law enforcement machinery, the situation is even more poignant.

A brief note on India and the status of its children would necessarily give a broad framework, both to conceptualize the evolution of Integrated Child Protection Scheme of which Juvenile Justice System is an integral part] and have a critique of the same.

India has the highest number of children in the world. More than one third of the country's population is below 18 years. Approximately 40% of the total population is children. Some of the glaring realities of children in India are:

India has-

- highest rate of neo-natal deaths (around 35%) in the world
- 40% of child malnutrition in developing world
- 50% of the child mortality
- Reducing number of girls in 0-6 age group-*for every 1000 boys 927 girls*
- 46% children from ST and 38% SC out of school
- High school dropout specially among girls
- High rate of child marriage:
- 37% of literate & 51% of illiterate girls are married below 18
- 10% of literate & 15% of illiterate boys are married below 18
- Large number of child laborers
- Large number of sexually abused children

The grim situation of children in India, project a few Child Protection Issues for the Nation at large. They are:

1. Protecting children in difficult circumstances including natural disasters:
    1. Children in Need of Care and Protection
    2. Child in Conflict with Law
2. Elimination of child labour
3. Protecting children from being trafficked for commercial and sexual exploitation
4. Protecting children affected by HIV/AIDS

Generally, children in need of care and protection would refer to orphans, abandoned & destitute children, missing or run-away children, street & working children, children of sex workers, abused, tortured and exploited children, Children indulging in substance abuse, Children affected by HIV/AIDS, Children affected by natural calamities, emergencies and human made disasters, Children with disabilities, Child beggars, Children suffering from terminal/incurable disease, etc.

Methodology- This research is mainly based on secondary data analysis. Various organizational documents obtained from the selected non government organizations were reviewed and analyzed.

What are Non-Governmental Organizations- All over the globe there is an upsurge in the establishment of private, non-profit or non-governmental organizations. We are witnessing an unprecedented global associational revolution that is likely to proof significant in the twentieth century as was the rise of the nation-state in the late nineteenth century. The role of development aid in this upsurge has been phenomenal except that such developments have been affected by the absence of a generally accepted transnational or trans-historical definition of these organizations (Chimanikire, 2003).

The term NGO is broad and ambiguous. It covers a range of organisations within civil society from political action groups to sports clubs. Its clear definite still remains contested. However, it can be argued that all NGO's can be regarded as civil society organizations though not all civil society organizations are NGO's. The concept of NGO came into usage in 1945 following the establishment of the United Nations Organizations which recognized the need to give a consultative role to organisations which were neither government nor member states (Willett, 2002) NGOs take different forms and play different roles in different continents, with the NGO sector being most developed in Latin America and parts of Asia. The roots of NGOs are different according to the geographical and historical context. They have recently been regarded as part of the "third sector" or not for profit organizations. Although there is contestation of the definition of an NGO, it is widely accepted that these are organizations which pursue activities to relief the suffering, promote interests of the poor, protect environment, provide basic social services and undertake community development (Cleary, 1997).

Such organizations should have certain fundamental features which distinguish them from others (Stephenson, 2003). For such organization to be recognised as not for profit, they should satisfy the following criteria:

First, an NGO should be privately set up and sufficiently autonomous in its activity that is independent of direct government control. Secondly, an NGO should be non-profit making, which clearly defines its voluntary character. Thirdly, it is not constituted as a political party with the aim of attaining political power. Fourthly, NGO should support development that is demonstrating its public interest character (Schiavo-Campo et al 2001).

According to Turner and Hulme "NGOs are generally registered organizations, community Groups, professional associations, trade unions, cooperate Charity organizations whose aim is to improve the well Being of their members and of those areas in which they Exists" (Turner and Hulme, 1997: 200).

The World Bank on the other hand sees NGO's as private organizations that pursue activities to relief suffering, promote the interest of the poor, protect the environment, provide basic social services, or undertake community development (WB 2001). In this paper the terms non-governmental organization and not for profit organizations will be used interchangeably under the umbrella of civil society.

There are certain features which differentiate NGOs from government agencies even if they are performing similar roles. NGOs have capacity to experiment and learn from experience, linking processes to outcomes and are also able to enlist the energies and commitment of intended beneficiaries. Fowler (1988) has identified two key distinctive characteristics of NGOs.

Firstly, the relationship of the NGO with intended beneficiaries is based upon principles of voluntarism rather than those of control which is typical of government. This means that intended beneficiaries are involved in programme design and management and if this happens, the programmes stand a better chance of success as they are more likely to be relevant and attractive. (Korten, 1980: Oakley and Marsden, 1984). Secondly, it is argued that NGOs have a task oriented approach that permits them to achieve appropriate organization development, which encourages change and diversity rather than control and uniformity which may hamper progress.

The growth of this third sector is therefore informed by its comparative advantage over governments. The more specific claimed advantages of NGOs or not for profit organizations over governments include some of the following:

i) achieving the correct relationship between development processes and outcomes;
ii) reaching the poor, targeting their assistance on chosen groups;
iii) obtaining true meaningful participation of the intended beneficiaries;
iv) working with the people and then choosing the correct form of assistance for them, i.e. not being dominated by resources as the basis for the relationship;
v) being flexible and responsive to their works;
vi) working with and strengthening local institutions;
vii) achieving outcomes at less cost (Tredt, 1998:129)

It should however, be noted that although NGOs in the eyes of the International donor community are cost effective and are better placed to reach the poor, there is very little evidence that support this assertion (Robinson, 1992, Farrington and Bebbington, 1993).

Role of Ngo and Voluntary Organizations- There is a considerable scope for Non-Governmental Organizations (NGOs) and voluntary agencies to work in the field of treatment, after-care and rehabilitation of juveniles in conflict with law and the children in need of care and protection. Voluntary Organizations have been playing a very important role for the welfare and development of Social Welfare Groups viz., Persons with rehabilitation Disabilities, Juvenile Delinquents/Vagrants, Alcoholics and Drug Addicts, Sex Workers/Child Sex Workers, Working Children, Street Children, Destitute/Deserted Women and Girls in social/ moral danger, Older Persons etc. who have special problems or living in difficult situations. In handling/reforming/rehabilitating/caring these special groups, the contribution of the voluntary organizations, which are in direct contact with these target groups, have been very vital. The role of voluntary organizations has been successful in the past as;

1. effective motivators in bringing the local government and the people together in working towards the well-being of the disadvantaged and the deprived;
2. pressure groups in impressing upon the Government to extend social sanctions in favour of the deprived;
3. an effective implementing force in translating the policies and programmes of the Government into action

Non-government organisations their activities include:

- Non-formal education for the children of age group of 5-18 years;
- Saving schemes for children;
- Vocational training;
- Alternate media holding;
- Bal Sabhas;
- Creating awareness of child rights;
- Bal Mazdoor Union;
- Networking with other Non-Governmental Organisation;
- Documentation, Research and Advocacy Centre.
- Non-Formal Education
- Mid-day Meals
- Vocational Training
- Shelter Homes
- Recreation
- Health
- Rape Crisis Intervention Centre
- Aashray Adhikar Abhiyan addresses the issue of homelessness

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Employee Retention and Employee Engagement in Private University

• **Siddhi Sunil Ghag**
•• **Rajendrakumar Muljibhai Parmar**

Abstract- *In this study, the participant stated for several years, the economy has been expanding continuously, but wages have remained relatively unchanged. A pay raise is necessary for a variety of reasons. The most important is that the cost of living has been steadily rising while wages have not been increased. That is why participants have stated that they require raises in pay and a healthy working environment. Some participants have expressed a desire to shift job in order to benefit from greater opportunities for professional development and exposure. The participants in this study stated that there are many aspects of working in the organization that they enjoy, but some of their favorites include the challenges of teaching, the freedom to try new methods of teaching, and the interaction with their students. They also value their co-worker, the environment, and the freedom to express them. Participants also stated some points of improvement in organization that are thinking about the psychological perspective of employees, increase increments and rewards regularly, administrative work should be reduced.*

Keywords- *Employee Engagement, Employee Retention, Globalized economy*

Introduction- At present, India is striving to compete in a globalized economy in areas that require highly trained professionals, and thus the quality of higher education has become increasingly important. According to (Ewell, 1991) experience which students will derive from higher education is, to a large extent, dependent on the performance of faculty, both as teachers and researchers. An effective human resource management practices namely employee empowerment, Training and development, appraisal system compensation are the main factors which are suggested by (Hong, et al. 2012) essential for the success of an institute on employee retention. It has been argued by (Muhammad asif, 2004) that if the quality of the service is to be determined, then the beneficiaries have to be clearly defined in terms of their needs and expectations. The model conceptualizes faculty as customer in the education industry, and states that, similar to the concept of internal and external customers in business, there are also internal and external customers in education. An institution with talented faculties can develop a reputation for being a great place to work, with a great learning

• Master of Industrial Psychology, Department of Psychology, Parul Institute of Arts Parul University, Vadodara
•• I/C Dean & I/C Principal, ParulInstitute of Arts, Faculty of Arts, Parul University At. Po. Limda, Ta. Waghodia, Dist. Vadodara, Gujarat, India

environment where quality in education is expected. The analytical results of (Chen, et al. 2006) showed that higher education employees focus on high salaries and fair promotion systems. (Kaur, 2021)

Employee Retention- Employee retention is a process which helps to build the confidence in the employee which encourages them to remain with the organization for the long time period or until the completion of the contract with the organization. Representative retention is helpful for the both organizations as well as the employees. Workers, nowadays are with different thoughts, who have good opportunities in their hands given by another employer from a different organization, whenever they feel their future is insecure, they switch over to next job. So, it is the duty of the employer to retain their best staff, if they don't do so they may wash their hands from such skilled workers and they will be left with no good employees. According to (Krishnan, 2010) a good employer should have skills how to magnetize and retain its employees. Representative retention would require a lot of efforts, energy, and resources, but the results are worth it. (Kaur, 2021)

Reasons for Employee Retention- The challenge of keeping employees, its changing face has stumped managers and business owners alike. It is essential to manage this challenge and build a workplace that employees want to remain with and outsiders want to be hired into. Successful managers and business owners ask them these and other questions because, simply put, employee retention matters. High turnover often leaves customers and employees in the lurch. Departing employees take a great deal of knowledge with them. This lack of continuity makes it hard for the organizations to meet their goals and serve customers well. Replacing employee costs money. The cost of replacing an employee is estimated at up to twice the individual's annual salary (higher for positions based on their level within the inter-organizational hierarchy, such as middle management) and this does not even include the cost of lost knowledge. (Kaur, 2021)

The 3 R's Of Employee Retention

To keep employees and keep their satisfaction levels high, any organization needs to implement each of the three R□s of employee retention: respect, recognition, and rewards. (Kaur, 2021)

- **Respect-** Respect is esteem, special regard, or particular consideration given to people. As the pyramid shows, respect is the foundation of keeping your employees. Recognition and rewards will have little effect if you do not respect employees. (Kaur, 2021)
- **Recognition-** Recognition is defined as special notice or attention. Many problems with retention and morale occur because management is not paying attention to people's needs and reactions. (Kaur, 2021)
- **Rewards-** Rewards are the extra perks you offer beyond the basics of respect and recognition that makes it worth people's while to work hard, to care, to go beyond the call of duty. While rewards represent the smallest portion of the retention equation, they are still an important one. (Kaur, 2021)

Employee Engagement- Employee engagement refers to the employee's loyalty and commitment towards the organization and the readiness and motivation to do beyond expectations, has become a heart for the management. Employee engagement is just not job satisfaction; but it's really more than that because fully engaged employees are aggravated, motivated, committed and enthusiastic to making the organization a triumph. In the simplest way, engaged employees lead to cheerful and loyal customers who brings business over and again. Engaged employees do not only work for their own growth and polishes their knowledge, skills and abilities but these employees take positive actions those are aligned to organizational reputation and interests. Engaged employees are referred as the strategic assets of organizations. Hence, organizations wrestle to retain engaged employees. (Markos & Sridevi, 2010)

Employee Engagement Activities

- Picnic at regular intervals.
- Movies at interval of 2 months.
- A daily column, written by CEO, on the intranet with company announcements/ programs etc.
- Update via an overhead paging system, which is used to recognize employees for significant business achievements.
- Employee suggestion systems/quick responses.
- Live version of internal house magazine.
- CEO spending time in face-to-face communication with staff.
- EO based FAQ questions on company business.
- Celebration of Employees Birthday.
- Monthly Staff award.

Factors that Promote Employee Engagement- As stated earlier, William A. Kahn has discussed the essential factors that promote employee engagement. Subsequently, the literatures on the numerous factors of employee engagement have expanded. Some of the essential factors that attract, retain and motivate the most productive employees are discussed below; (Kahn, 1990, Nagesh, et.al, 2019) (Payal, 2022)

i. Opportunities for Career Development:
ii. Fair Salary Structure and Promotion Opportunities:
iii. Cultural Diversity:
iv. Transparency:
v. Autonomy:
vi. Motivation and Recognition:
vii. Communication:
viii. Cooperation and Consideration on Personal Matters:
ix. Leadership Role:

Research Methodology

Research design- In this research design there is two types of Gender (Male, Female) then there are two types of Marital status (Married, Unmarried) then there is nine type of different Age categories taken (20-25

Years, 26-30 Years, 31-35 Years, 36-40 Years, 41-45 Years, 46-50 Years, 51-57 Years, 60 & above) then is two types of Educational Qualification (Masters, Ph.D.) then there is four different type of Work Experience in Current Institute / University (0-12 Months, 13-24 Months, 3-5 Years, More than 5 Years) then there is four different type of Overall Work Experience(Less than a Year, 1-3 Years, 5-10 Years, More than 10 Years) then there are four different of Designation(Assistant Professor, HOD, Associate Professor, Professor).

Objectives of the Study- The goals of this study are as follows:

- To study the level of employee engagement in the higher educational institutions
- To research the elements that influence employee engagement
- To research the elements that influence employee retention
- To research the link between employee engagement and desire to remain at the organization.
- To research the connection between employee engagement and job happiness.

Variable under study

Independent Variable

- Age
- Gender
- Marital Status
- Educational Qualification
- Work Experience in Current Institute / University
- Overall Work Experience
- Designation

Dependent Variable

- Employee Engagement
- Employee Retention
- Job Satisfaction

Control variable

The control variable of this study is listed below:

- The data was collected from Private University.
- The data was collected only from the teaching faculties of higher education.
- The study was restricted to the city of Vadodara.
- Rapport was established with each subject in order to obtain honest and frank responses from them.
- Confidentiality was ensured to the participants by the researcher for the information given by them.
- Non- teaching staff was not included.

Hypotheses

- At higher education in private universities, employee engagement levels are much lower.

- Employee engagement and job satisfaction of the employees have a significant correlation.
- The retention of employees and employee engagement are not significantly correlated.

Population & Sample of the study- The researcher gathered information in the Gujarat state city of Vadodara. Data was gathered through face-to-face meetings with the teaching staff of a private institution. For this study, 114 teaching faculty members from a private university in Vadodara were chosen at random from a group of 114 people ranging in age from 20 to 60 and older. The data was personally gathered. Random sampling was used in this study. The data was gathered using variables such as age, gender, marital status, level of education, and employment history.**Research Tools of present study-** While developing the research design, the researcher learns about the tools that will be used for data collection. The self-created questioner was created to collect data for this study. It is a survey method study. There are 46 questions in the questioner, seven of which are demographic questions, five of which are subjective questions, and three of which are rating scale questions.

Procedure of Data Collection- The researcher gathered information in the Gujarat state city of Vadodara. Data was gathered through face-to-face meetings with the teaching staff of a private institution. For this study, 114 teaching faculty members from a private university in Vadodara were chosen at random from a group of 114 people ranging in age from 20 to 60 and older. The data was personally gathered. Random sampling was used in this study. The data was gathered using variables such as age, gender, marital status, level of education, and employment history.

The investigator planned data collection after selecting the sample and finalizing the research. The investigator obtains permission from the respective locations and develops a rapport with the subjects. The researcher then attempted to explain the significance of the study work before collecting the data and ensuring its confidentiality. A questionnaire was given to each subject. Everyone was asked to go through each statement one by one and respond in the appropriate column to each one that they thought was correct and appropriate. All subjects were informed about the study's purpose and what to expect from the questionnaire. They were instructed to keep their biases away while answering the questions. Whatever their concerns were, the investigator clarified and explained them thoroughly. There was no time pressure. Respondents were asked not to leave any questions unanswered or incomplete.

Research Instrument- A structured questionnaire was used to collect primary data from the target group. The research was carried out using a structured set of questionnaires.

The researcher created the questionnaire. The questionnaire contains 46 questions, seven of which are demographic questions, eight questions about employee engagement, thirteen questions about employee retention, and ten questions about job satisfaction. The data was collected using the questionnaire, which was designed on a 5-point Likert scale, with a total of 31 questions.

- There are eight questions in employee engagement, with the following question numbers: - 12, 13, 16, 18, 25,27,30,32
- There are thirteen questions in employee retention, with the following question numbers: - 9, 10, 11, 14, 15, 17, 19, 34, 38, 39, 41, 42,46
- There are ten questions in job satisfaction, with the following question numbers: - 21, 22, 23, 24, 26, 28, 33, 35, 36, 40
- There are three question which rating scale, with the following question numbers is: - 29, 31,43
- There are questions in subjective type, with the following question numbers: - 20,37,44,45

Statistical Data Analysis Tools- Microsoft Excel and SPSS were the programs used for this study. Descriptive statistics were used to analysis the collected data (frequency distribution, mean score, standard deviation)

There are eight sub-age groups in this study. There are 17 participants in the age group of 20-25 years old who have given their response which is containing 14.9% of the total sample. Whereas in the age group of 26-30 years old, 40 participants responded which is containing 35.1 % of the total sample. In the other age group, from 31 to 35 years old, 30 people responded which is containing 26.3% of the total sample. There are 15 participants in the fourth age group, which ranges from 36 to 40 years old, which is containing 13.2% of the total sample. There are 7 participants in the fifth age group, which ranges from 41 to 45 years old, who have given their response, which is containing 6.1% of the total sample. There are three participants in the sixth group, who are between the ages of 46 and 50, which is containing 2.6% of the total sample. In seventh group that is from 51-57 years old there is 1 participant given their response, which is containing 0.9 % of the total sample? In the eighth group, which includes people aged 60 and up, one participant responded, which is containing .9 % of the total sample. In this research there are total 114 participants which are containing 100.0 % of the total sample.

In this research there are 43 males given their responses in which is containing 37.7% of the total sample. Whereas there are 71 females given their responses in which is containing 62.3% of the total sample? In this research there are total 114 participants which are containing 100.0 % of the total sample.

In this study, 67 married participants gave their responses, which are containing 58.8% of the total sample. Whereas there are 47 Unmarried participants given their responses, which are containing 41.2% of the total sample.

There are 114 total participants in this study, which is containing 100% of total sample. Out of them there are 70 participants given response has done a master, which is containing 61.4% of total sample. Whereas there are 44 participants given response has done masters, which is containing 38.6 % of total sample.

Summarizes participants work experience at their current institute or university divided into four categories. In first category, which is 0-12 Months of Work Experience in Current Institute/University, 44 participants responded, which is containing 38.6% of the total sample. In second category, which is 13-24 Months of Work Experience in Current Institute/University, 24 participants responded, which is containing 21.1 % of the total sample. In third category, which is 3-5 Years of Work Experience in Current Institute/University, 28 participants responded, which is containing 24.6% of the total sample. In fourth category, which is More than 5 Years of Work Experience in Current Institute/University, 18 participants responded, which is containing 15.8 % of the total sample.

Summarizes participants over all work experience is divided into four categories. In first category, which is Less than a Year of over all work experience, 20 participants responded, which is containing 17.5 % of the total sample. In second category, which 1-3 Years of over all work experience, 30 participants responded, which is containing 26.3 % of the total sample. In third category, which 5-10 Years of over all work experience, 34 participants responded, which is containing 29.8% of the total sample. In fourth category, which more than 10 Years of over all work experience, 30 participants responded, which is containing 26.3 % of the total sample.

Four categories of designation have been used in this research. In first category that is Assistant Professor, 98 participants have given response, which is containing 86.0% of the total sample. In second category that is HOD, 8 participants have given response, which is containing 7.0% of the total sample. In third category that is Associate Professor, 6 participants have given response, which is containing 5.3% of the total sample. In fourth category that is Professor, 2 participants have given response, which is containing 1.8 of the total sample.

According to mean score of males in employee engagement is 36.00 and standard deviation 4.811 which is greater than female that is 34.06 and standard deviation is 5.177 this shows that male do have higher employee engagement.

In mean score of females in employee retention is 46.87 and standard deviation 7.646 which is lower than male that is 49.86 and standard deviation 7.677 this shows that male has higher employee retention then female.

For job satisfaction the mean score of males is 31.79 and standard deviation is 4.823 and females is 31.80 and standard deviation is 4.904 this means there is no difference between male and female job satisfaction.

According to t-score of employee engagement among the gender is 2.031 which is significant at 0.05 level. Which means male has more employee engagement (X = 36.00) then female (X =34.06).

According to t-value of employee retention for gender is 2.017 which is significant at 0.05 level. As female has lower mean value (X = 46.87) then male (X = 49.86). Hence female do have less employee retention then male.

The t-value of job satisfaction among the gender is .013 which is not significant that means there is no difference between male and female employee.

According to mean score for married employees are 35.19 with a standard deviation of 5.206, while the mean score for unmarried employees is 34.21 with a standard deviation of 4.965, indicating that there is no difference in employee engagement between married and unmarried employees.

In employee retention the means score of unmarried employees is 46.66 and standard deviation is 8.621, while the mean score of married employees is 48.94 and standard deviation is 7.011 this means there is no difference in employee retention in married and unmarried employees.

According to the means score for married employees is 31.61 with a standard deviation of 4.758, while the mean score for unmarried employees is 32.06 with a standard deviation of 5.023, indicating that there is no difference in job satisfaction between married and unmarried employees.

According to the t-score of employee engagement of marital status is 1.018, which is not statistically significant, indicating that there is no difference between married and unmarried employees.

According to the t-score of employee retention of marital status is 1.499, which is not statistically significant, indicating that there is no difference between married and unmarried employees.

According to the t-score of job satisfaction among married and unmarried employees is -.483, which is not significant, indicating that there is no difference between married and unmarried employees.

According to the mean score of employees who studied masters in employee engagement is 33.67 and standard deviation is 5.340 which is smaller than employees who studied Ph.D. that is 36.57 and standard deviation is 4.190 this shows that employees who have studied Ph.D. has more employee engagement.

According to the mean score of employees who studied Ph.D. in employee retention is 50.32 and standard deviation is 7.652 which is greater than employees who studied masters is 46.54 and standard deviation is 7.52 this shows that employees who have studied Ph.D. has more employee retention.

According to the mean score of employees who studied masters in job satisfaction is 31.41 and standard deviation is 4.714 and employees who studied Ph.D. is 32.41 and standard deviation is 5.059 this shows there is no difference between employees who studied masters and employees who have studied Ph.D.

In the t-score of employee engagement of education qualification is -3.226 which is significant at 0.01 level. This means then employees who studied masters has lower mean value ($X = 33.67$) then employees who have studied Ph.D. ($X = 36.57$). Hence employees who studied masters has less employee engagement then employees who have studied Ph.D.

In the t-score of employee retention of education qualification is -

2.581 which is significant at 0.05 level. This means employees who have studied Ph.D. has mean value (X = 50.32) then employees who studied masters (X = 46.54). Hence employees who have studied Ph.D. has higher employee retention then employees who studied masters.

In the t-score of job satisfaction of education qualification is -1.049 which is not significant that means there is no difference between employees who studied master's and Ph.D. Anova of Age for employee engagement, employee retention and job satisfaction.

According to those who fall in age range of 51-57 years has more employee engagement and those who fall in age range of 46-50 years has lower employee engagement.

According to those who fall in age range of 60 &above years has more employee retention whereas those who fall in age range of 20-25 years has lower employee retention.

According to all the age range in job satisfaction is equal. So, there is no difference between employees age range.

In the F-score of age range in employee engagement is 1.795 which is not significant that means there is no difference between employees age range.

In the F-score of age range in employee retention is 1.928 which is not significant that means there is no difference between employees age range.

In the F-score of age range in job satisfaction 1.148 which is not significant that means there is no difference between employees age range.

According to those with more than 5 years of work experience at their current university have higher level of employee engagement? Whereas those with 3-5 Years of work experience at their current university have lower level of employee engagement.

According to those with more than 5 years of work experience at their current university have higher level of employee retention? Whereas those with 0-12 Months of work experience at their current university have lower level of employee retention.

According to there is no difference in employees work experience at their current university in job satisfaction.

In the F-score of work experience at their current university in employee engagement is .470 which is not significant that means the duration of employment there is no different in between the duration of employment.

In the F-score of work experience at their current university in employee retention is 1.268 which is not significant that means the duration of employment there is no different in between the duration of employment.

In the F-score of work experience at their current university in job satisfaction is 1.349 which is not significant that means the duration of employment there is no different in between the duration of employment.

According to those with more than 10 years of overall work experience have higher level of employee engagement. Whereas those with

Less than a Year of over all work experience have lower level of employee engagement.

According to those with Less than a Year of overall work experience has lower level of employee retention. Whereas those with More than 10 Years of overall work experience have higher level of employee retention.

There is no significance found in job satisfaction in overall work experience.

In the F-score of over all work experience in employee engagement is 3.624 which is significant at 0.05 level. This means overall work experience More than 10 Years has higher mean value (X = 37.13) then overall work experience of Less than a Year (X = 33.20). Hence employees having More than 10 Years of overall work experience has more employee engagement then employees having overall work experience of Less than a Year.

In the F-score of over all work experience in employee engagement is 3.257 which is significant at 0.05 level. This means overall work experience More than 10 Years has higher mean value (X = 48.03) then overall work experience of Less than a Year (X = 40.66). Hence employees with more than ten years of overall work experience have higher employee retention than employees with less than a year of overall work experience.

In the F-score of over all work experience in job satisfaction is .763 which is not significant. That means there is no difference in job satisfaction in overall work experience.

According to employees with the title of Professor in employee engagement have higher levels of employee engagement than those with the title of Associate Professor.

According to employees with the title of Professor in employee retention have higher levels of employee retention than those with the title of Assistant Professor.

According to, in job satisfaction there is no significance. In the F-score of designation in employee engagement is 4.741 which is significant at 0.01 level. As Associate Professor has lower mean value (X= 33.83) than Professor (X = 41.50). Hence Associate Professor has lower employee engagement than Professor.

In the F-score of designation in employee retention is 3.593 which is significant at 0.05 level. As Professor has higher mean (X = 58.50) than Assistant Professor (X = 47.19). Hence Professor has higher employee retention than Assistant Professor.

In the F-score of designation in job satisfaction is .322 which is not significant. Hence there is no difference in designation of job satisfaction.

Correlations- Employee retention is greater. If employee retention is increasing then employee engagement is also increasing. Whereas if employee engagement is increasing then employee retention is also increasing. Employee job satisfaction will be higher if employee engagement is higher.

Subjective Question Interpretation- If given an opportunity, I will move to some other institute, if yes, then what could be the possible reason?

Participants were requested to respond to this question by saying if they desire to leave the institution or not, if given the opportunity and if so, the why. Here are the replies of participants.

For several years, the economy has been expanding continuously, but wages have remained relatively unchanged. A pay raise is necessary for a variety of reasons. The most important is that the cost of living has been steadily rising while wages have not been increased. That is why participants have stated that they require raises in pay and a healthy working environment. Some participants have expressed a desire to shift job in order to benefit from greater opportunities for professional development and exposure. Individuals will feel pressured to change jobs if their current organization does not provide them with opportunities for advancement.

Employees believe that their efforts should be recognized at work. Participants have stated that they require a higher designation and a job that matches their abilities. They also responded that they are overburdened with the workload and suggested to the organization that administration work and teaching be separated. Similarly, a few participants stated that due to their current workload, they will be unable to manage their studies in this current organization.

What do you enjoy the most about working here?

Participants were asked to respond to this question by stating their favorite aspect of working in this organization.

The participants stated that there are many aspects of working in the organization that they enjoy, but some of their favorites include the challenges of teaching, the freedom to try new methods of teaching, and the interaction with their students. They also value their co-worker, the environment, and the freedom to express them.

They also enjoy the artistic freedom and the interaction with a wide range of people. They value workplace flexibility and the freedom to come and go as they please. Lastly, they value the respect and encouragement they receive from their colleagues and supervisors.

What do you suggest to organization where Improvement is needed?

Participants were asked to respond to this question by stating what are the things that they feel they think improvement is needed?

Here are the response's listed of participants:

1. Establish work-life balance and HR policies and guidelines.
2. Increase focus on teaching and instruction.
3. Be loyal and supportive to employees.
4. Promote and encourage teamwork.
5. Think about the psychological perspective of employees.
6. Allow employees to teach in their own style.
7. Increase increments and rewards regularly.
8. Be adaptable to new ideas.
9. Administrative work should be reduced.

10. Salary depending on qualification and experience.
11. Proper sitting uniform for students.
12. Increases Holidays or Saturdays off.
13. Improve timing for transport management
14. Improve work environment.
15. Maintenance is essential for each system.
16. Distribution of work to employees in accordance with their designation.
17. Course and Curriculum should be updated.
18. The website needs to run more effectively.

Is there anything else that you would like to share?

Participants were asked to share anything they wanted to say in addition to what was mentioned above in this question. The responses of the participants are listed below.

Participants acknowledged that the working environment should be pleasant and respectful of all faculties. Management should have a positive attitude towards faculty who work in a single department.

Some participants stated that this is an excellent university, while others stated that employees' working hours should be reduced. The salary should be determined by experience. Likewise, number of students should be reduced in order to ensure student quality. Other participants expressed happiness with their workplace infrastructure.

Conclusion- The summary and conclusion are essential parts of any research report or study. However, the final chapter is the most important part of the entire study. The study summary is useful in studying the research, which is especially important in the short time of the researcher's research value. It is customary to provide a brief overview of the study from beginning to end in the report.

Employee Engagement

- There is Significant Differences found between Male and Female in employee engagement. Here male has higher employee engagement than female.
- There are no significant differences in employee engagement between married and unmarried employees. According to the researcher, marital status has no effect on employee engagement.
- There is Significant Differences found between employees who studied masters and employees who studied Ph.D. in employee engagement. Here the employees who have studied Ph.D. have more employee engagement than who studied masters.
- There is Significant Differences found between employees age range in employee engagement. Here, in age range of 51-57 years has more employee engagement and those who fall in age range of 46-50 years has lower employee engagement. According to the researcher, the higher the age, the higher the level of employee engagement.
- There is Significant Differences found between employees work

experience in current university in employee engagement. According to this study higher the work experience in current university there is higher level of employee engagement then the less work experience in current university there is lower level of employee engagement.

- There is Significant Differences found between employees overall work experience in employee engagement. In this study this study higher the overall work experience there is higher level of employee engagement. Whereas less overall work experience has lower level of employee engagement, because they keep on changing their job for better opportunity.
- There is Significant Differences found between employee's designations in employee engagement. The title of Professor in employee engagement have higher levels of employee engagement than those with the title of Associate Professor.

Employee Retention

- There is Significant Differences found between Male and Female in employee retention. Here male has higher level of employee retention then female.
- There are no significant differences in employee retention between married and unmarried employees. According to the researcher, marital status has no effect on employee retention.
- There is Significant Differences found between employees who studied masters and employees who studied Ph.D. in employee retention. Here the employees who have studied Ph.D. has more employee retention than who studied masters.
- There is Significant Differences found between employees age range in employee retention. Here, in age range of 60 &above years has more employee retention and those who fall in age range of 20-25years has lower employee retention. According to the researcher, the higher the age, the higher the level of employee retention.
- There is Significant Differences found between employees work experience in current university in employee retention. According to this study higher the work experience in current university there is higher level of employee retention then the less work experience in current university there is lower level of employee retention.
- There is Significant Differences found between employees overall work experience in employee retention. In this study higher the overall work experience there is higher level of employee retention. Whereas less overall work experience has lower level of employee retention, because they keep on changing their job for better opportunity.
- There is Significant Differences found between employee's designations in employee Retention. The title of Professor in employee retention has higher levels of employee retention than those with the title of Assistant Professor.

Job Satisfaction

- There are no significant differences in job satisfaction between male and female. In this study job satisfaction has no effect on gender.
- There are no significant differences in job satisfaction between married and unmarried employees. In this study job satisfaction has no effect on marital status.
- There are no significant differences in job satisfaction between employees who studied masters and employees who have studied Ph.D. In this study job satisfaction has no effect on education qualification.
- There are no significant differences in job satisfaction between the age ranges. In this study job satisfaction has no effect on employee's age range.
- There are no significant differences in job satisfaction between employees work experience at their current university. In this study job satisfaction has no effect on employees work experience at their current university.
- There are no significant differences in job satisfaction between employees overall work experience. In this study job satisfaction has no effect on employees overall work experience.
- There are no significant differences in job satisfaction between employee's designations. In this study job satisfaction has no effect on employee's designation.

In this study, the participant stated for several years, the economy has been expanding continuously, but wages have remained relatively unchanged. A pay raise is necessary for a variety of reasons. The most important is that the cost of living has been steadily rising while wages have not been increased. That is why participants have stated that they require raises in pay and a healthy working environment. Some participants have expressed a desire to shift job in order to benefit from greater opportunities for professional development and exposure. The participants in this study stated that there are many aspects of working in the organization that they enjoy, but some of their favorites include the challenges of teaching, the freedom to try new methods of teaching, and the interaction with their students. They also value their co-worker, the environment, and the freedom to express themselves. Participants also stated some points of improvement in organization that are thinking about the psychological perspective of employees, increase increments and rewards regularly, administrative work should be reduced.

Correlation of Employee Engagement, Employee Retention and Job Satisfaction

There is positive correlation found between employee retention and employee engagement. It indicates that if there is employee retention in organization then there will be employee engagement in organization.

There is positive correlation found between employee engagement and employee retention. It indicates that if there is employee engagement in organization than there will be employee retention in organization.

There is positive correlation found between employee engagement and employee job satisfaction. If there is employee engagement in organization than there will be employee job satisfaction in organization.

Limitation of the Study

- Non- teaching staff was not included.
- The study was conducted only in Vadodara.
- Salary of the employee was not considered.
- The research was done only in private university.
- The study was not conducted in another state.

Suggestion

- The study can be done in Government University.
- The study can be conducted on Non-Teaching Faculty.
- The study can be conducted in another city of Gujrat.

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Matrimonial alliances in the novels of Manju Kapur: A study

• **Mohit Mani Tripathi**

Abstract- *Manju Kanpur an Indian novelist focuses on the condition of marriage especially of the educated girls. She in her novels like Difficult Daughters 1998, A Married Woman 2002, Home 2006, The Immigrant and Custody 2011 all focus on how marriage is very difficult for the women who are educated marriage the pivotal point around which her fictional words revolves. Kapur's every line open with a live discussion on marriage the topmost significant issue in the life of the female protagonist.*

Keywords- *Institution of marriage, position of women, gender relationships, self- deception, patriarchal system*

"Literature by women, about family, always has these larger considerations. With years of studying texts, it becomes almost second nature to look beneath the surface at social and economic forces, gender relationships and how they are played out in an arena that, in my writing, happens to be the home. But then, all sorts of things happening outside do affect what is happening inside the home. In my work, I aim to show rather than tell".

The above statement is said by Manju Kapur in an interview. Manju Kapur writes lucid conversation-driven narratives about joint families while also making sharp observations about the inconstancy of people and their relationships, as well as the subtler points of self-deception in a tradition- soaked society.

The institution of marriage and the position of women in it has been a subject of intense debate in the contemporary Indian society. There were voices which were very strong in expressing their views on marriage and spoke firmly in favor of equality between men and women. Among the many voices raised one was that of Dayanand Saraswati in the nineteenth century. In the twentieth century Indian nationalist figure like Mahatma Gandhi stands as a pioneer who was responsible for releasing women from the confide domestic space and bringing into public space, until now mostly occupied by men. An eminent Indian English novelist Manju kapur shows the impact of the ideas advocated by these two leaders relating to the question of marriage and gender equality and the myriad ways which these issues are implicated with the Intricacies of the contemporary culture.The Indian society is inherently patriarchal where a woman is given the secondary role. The modern woman does not find any sense in such self-sacrifice and yearns for self-expression, individuality and self- identity.

• Assistant Professor, Department of English. D. A.V. College, Kanpur (U.P.)

Manju Kapur's novels furnish examples of a whore range of attitudes towards the Importation of tradition. The conflict for autonomy and separate identity remains an unfinished combat. Woman under the patriarchal pressure and control were subjected to much more brunts and social ostracism. They were discriminated against and were subjugated. The life women lived and struggled under the oppressive mechanism of a closed society got reflected in her subsequent novels.

Manju Kapur is a contemporary Indian novelist in English who has carved a niche for herself with the publication of *Difficult Daughters* (1998), which won her prestigious Commonwealth Writers prize in 1998. Her widely read novels like *A Married woman* (2002), *Home* (2006), *The Immigrant* (2008), and *Custody* (2011) make her one of the foremost Indian English woman novelist of the twenty-first century.

One of the main problems for educated women is marrige. Most of their problems are related to marriage. Marriage is one of the tools for creative writer to depict the cultural ethos representing Indianness. Marriage is the pivotal point around which her fictional world revolves. Kapur's every novel opens with a live discussion on marriage the topmost significant issue in the life of the female protagonist.

Manju Kapur's first novel *Difficult Daughters* is set during India's independence struggle and is partially based on the life on Kapur's own mother Virmati. The citation attributed to Vikram Chandra on the front page, which says that this book is- "An urgent and important story about family and partitions and love". The book is mainly about putting the ghosts to rest. The sentences at the very end of the novel are- "This book waves a connection between my mother and me, each word a brick in a mansion, I made with my head and my heart. Now live in it, Mama, and leave me be. Do not haunt me anymore." (Difficult Daughters, P.280)

Thus, it is not only about difficult daughters but also about difficult mothers. About mothers who do not understand their daughters, about daughters who want to break out into new. paths. It starts very well and is quite gripping at the beginning with a daughter going on a quest to understand her mother, after the mother has died.In her quest for identity, Virmati, the central character of the novel, rebels against tradition. She is impelled by the inner urge to be loved as an individual rather than as a responsible daughter. The title of the novel Difficult Daughters is an indication to the message that a woman, who tries in search of an identity, is branded as a difficult daughter by the family and the society as well. *Difficult Daughters* is the story a young woman, named Virmati born in Amritsar into an austere and high mined household. The story tells how she is torn between family duty, the desire for education and elicit love. This is a story of sorrow, love and compromise. The major portion deals with Virmati's love-affair with Professor and rest part describes fighting struggle for freedom.

Virmati is the eldest daughter of Kasturi and Suraj Prakash. Kasturi has eleven Children. One after another she gives birth to children and thus the whole burden of household work increases over Virmati, being the eldest daughter.

"By the time Virmati was ten, she was as attuned to signs of her mother's pregnancies as Kasturi herself." *(Difficult Daughters*, P.6)

So Virmati is the mother to all her sisters and brothers. She cares for them, she bosses over them. Due to her busy routine she does not do well in her studies and fails. She falls in love with a Professor, a man who is already married. He sublets a portion of Virmati's house. Thus professor develops an intimate relationship with Virmati and decides an appropriate place for regular meeting. Here Virmati's parents decides to marry her to an engineer, Inderjeet but due to the death in his family, marriage is postponed for two years. During this period Virmati passes her FA exam and denies for marriage.

Now Kasturi has to go with Virmati to Lahore for getting her admission in RBSL college and principal assures Kasturi that there will be no problem and she has her eye fixed firmly on each one. Professor's course of meeting to Virmati has yet not stopped and during this period she becomes pregnant. She becomes restless and with the help of her room-mate Swarnlata she gets abortion.

After completing her B.T. she returns to Amritsar and she is offered the principalship of college, she joins it but in Sultanpur too Harish visits her and their meetings are observed by Lalaji. She is dismissed so she decides to go to Nariniketan but on the way she meets Harish's close friend Poet who is already aware of their intimate relationship. So he does not let her go and calls Harish. He performs all the rituals of marriage.Professor with Virmati returns home. During her conjugal life Virmati feels that it would have been better if she had not been married with Harish. After sometime she gives birth to a daughter, Ida. And at the beginning of the novel this girl Ida ponders over her mother's life.

"The one thing I had wanted was not to be like my mother".

(*Difficult Daughters*, p. 1)

"Going through the novel, it becomes clear that, "Virmati had achieved through Harish educations, work, marriage and suffering."

(*Difficult Daughters*, P. 253)

And the lesson is, "Adjust, compromise, adapt".

(*Difficult Daughters*, P. 256)

Manju Kapur's second novel *A Married Woman* is the story of Aastha, an educated upper middle class Delhi based working woman. As a girl she was brought up with large supplements of fear. She was her parents only child. Her character, her health, her marriage these were her parents burdens. In this novel marriage of a daughter is considered as a sacred duty of the parents. We have a typical declaration by the mother in the beginning of the novel : "When you are married, our responsibilities will be over. Do you know the Shastras say if parents die without getting their daughter married, they will be condemned to perpetual rebirth"? (*A Married Woman*, P. 1)

In her adolescence she falls in love with a boy of her age. In the mean time she is emotionally engaged with Rohan and they enjoy physical relationship. This relationship is finished within a few days as Rohan moves to Oxford for further studies and her marriage is settled with Hemant who belongs to a bureaucrat family and sets up a manufacturing factory for producing televisions. They have two children a girl, Anuradha, and a boy, Himanshu. After the initial years of marriage, Astha begins to find marital life oppressive and feels suffocated in the routine of repetitive responsibilities as wife and mother. Her restlessness further increases because of her insensitive indifferent and even infidel husband, who makes herlose her-self worth and her life becomes a metonymic extension of the 'migraines' which she begins to suffer frequently. Then she comes into contact with Pipeelika, the widow of the history lecturer and theatre activist Aijaz. The lesbian relationship that develops between the two fills her life with fresh air, joy and vibrant health. No more migraines, no longer the feeling of being worthless. She finds a friend to discover-

"The usual female trap, it's all right, you are not alone, we all experience it in one way or another". (*A Married Woman*, p. 217)

But Astha declines Pipees proposal to start a lasting partnership with her on the ground that she has a family and she has children. Pipee leaves for the United States for higher studies to do her Ph.D on communalism. Thus, the novel ends up with Astha as a dissatisfied married women.

"Motion of any kind was painful to her. Her mind, heart and body felt numb. She felt stretched thin, thin across the globe" (*A Married Woman*, p. 307).

Manju Kapur's third novel *Home* explores the complex terrain of the Indian family and reveals many issues that are deep rooted within the family. The revolt against the age old traditions, quest for identity, the problems of marriage and lastly the women's struggle for her survival. This is a fast moving story which makes an ordinary middle class family's life in Delhi. The main character or the patriarch of a cloth business, Banwarilal lives in New Delhi neighbourhood of Karol Bagh. Banwarilal believes in the old ways and is the firm believer of that men work out of the home, women within. Men carry forward the family line, women enable their mission. His two sons unquestioningly follow their father but their wives do not. Both brothers carry their lives as well as business according to the wishes of their father. As the time passes Banwarilal dies and the whole burden of the family comes to Yaspal, being the elder one.

As the beginning of the story Sona and Rupa both sisters are childress. Sona belongs to a rich family in comparison of her sister Rupa. After a long time Sona gives birth to Nisha a then to Raju. Nisha is physically tortured by Vicky, her cousin. She feels mentally disturbed so she is sent to Rupa's home for change. As Nisha is mangali destined to match her horoscope with a similar mangli, she should wait unless a mangli could find. Nisha meets Suresh, a student of khalsa college of engineering. After many meetings both Nisha and Suresh fall in love with each other. Her affair with Suresh comes into limelight. She has to facemany querries. But her brother Raju calls him cruder fucker. In his opinion, Nisha is not trustworthy. So, she rebels:

"Who are you to decide whether I am trustworthy"? (*Hom*e, p. 198)

This rebellious comment reflects her modernity. She wants to live on equal footing with men, creating her own identity. She refuses to admit any discrimination between men and women. Her rebellious nature arises from time to time. She says her mother:

"Who cares about castes these days? What you really want is to sell me in the market she sobbed with indignant emotion. Sell me and be done with it what are you waiting for?" (*Hom*e, p. 199)

Nisha refuses to follow the age old traditional marriage. Now Suresh vanishes from her life and there is nothing she can do. She just leaves her fate in the hands of her parents 'becoming a bird in a cage and to adjust with the idea of another man in place of Suresh. Here starts discussion on her marriage issue all world. She feels torturous about viewing process. She becomes a business woman by establishing Nisha's Creation. It brightens her future and she is married to Arvind. The purpose of this marriage for him was neither love nor any personal intention but rather a compulsion. "Arvind must marry, the old mother must have someone to look after her, it is not right the place is so empty, son is busy in the shop, someone should be there to see, notice, care and where are the children going to come from?" *(A Married Woman*, P. 322) Ten months after marriage, Nisha gives birth to twins accomplishing the purpose behind marriage. But contrary to it, she loses both her status as a decision maker and also her economic freedom along with her own Nisha's creations. *The Immigrant*, her fourth novel, in some ways observes continuity with its predecessors and in other ways breaks new ground. The novel is about an Indian immigrant couple in Canada. The novel chronicles the lives of two NRIs, Nina and Ananda, and their newly married life in 1970s Canada. Nina is a thirty-year-old English lecturer in New Delhi, living with her widowed mother and frustrated by how little life has to offer. Ananda is a dentist in Halifax, Canada. The two marry and she leaves her home and country to build a new life with him. Nina's fantasy of being mistress in her future comes to reality. But it proved to be short lived, as she finds her husband asleep in the starting of their marital life. Anand's impotence is the main cause for Nina's marital agony. Nina finds her carnal bliss with Anton, her Library Science course classmate in Halifax. This is how she renounces both the Indian institution of family and marriage. She regulates her meeting with Anton and becomes more passive towards Ananda. Within a short span, she is seduced badly by Anton. In heavy suppression, she leaves Canada for the cremation of her mother in which she finds no assistance from Ananda. Her life becomes more intolerable and she flies to university of New Brunswick for an interview. Manju Kapur summarizes the whole difference between the two in a single paragraph:

"Life was what you made of it. You could look at a glass and call it half full or half empty. You could look out of the window and see the sky or stare at the mud. How often had he heard his parents make these distinctions between types of people. Well, he knew what manner of person he was. And

Nina was definitely his opposite." (*The Immigrant* P. 327)

A marriage preceded or fractured by a heady, socially unacceptable romance has emerged time and again is Manju Kapur's fiction. It resurfaces in her latest novel, *Custody* here the subject is matrimony at its most intolerable condition followed by the emotional fall-out of a break-up on one prosperous extended Delhi family. The plot of the novel emnates from the devastating effects of divorce on different stakeholders of family - the wife, husband, children and in-laws. The narrative opens with the description of the arranged marriage between Shagun and Raman:

"Raman and Shagun's marriage had been arranged along standard lines, she the beauty, he the one with the brilliant prospects." *(Custody*, P. 14)

They live quite a happy a happy middle-class life for a few years before things get rocky. She had two lovely children and everything she wanted. Shagun falls in love with Ashok, Raman's boss and hot-shot sales executive. Only to marry with him she wants divorce from Raman and when it is denied she kidnaps the children. The battle runs to the court of justice where it is further delayed only to be settled by mutual understanding. Mean while, Arjun and Roohi, children of Shagun and Raman, suffer for no fault of theirs.The children become the pawns through which their parents unleash their fury on each other. Kapur gives us effective glimmers of insight into their young, confused minds. The novel chronicles, the various intricacies around the dissolution of a marriage and a family.

The results of marriage in kapur's novels are not all the same. The ultimate analysis reveals Kapur as a sensitive Indian English woman novelist who has grappled with the challenging lives of Indian women in the urban society. Matrimonial elitist alliances/misalliances, sometimes confining, sometimes liberating put enormous obstacles before their expleration into selfhood. Such a searching and insightful analysis of matrimonial alliances indeed becomes a remarkable feat in Indian English contemporary literature Nayantara Sahgal and Shashi Despande.

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Online learning versus classroom instruction in India

• **Ziaul Hasan Khan**

Abstract- *Online learning has had a significant impact on education in India, increasing access to education, enhancing student engagement, and improving learning outcomes. The adoption of online learning has been accelerated by the COVID-19 pandemic, and it is likely that online learning will continue to play a prominent role in education in India. However, there are still challenges to be addressed, including ensuring equitable access to online learning resources and addressing the digital divide. By addressing these challenges, India can continue to leverage the potential of online learning to transform education and improve learning outcomes.*

Key words- *Online learning, classroom instruction*

Introduction- Over the past few years, there has been a significant shift towards online learning as opposed to traditional classroom instruction. With the widespread availability of the internet and the advancement of technology, online learning has become a popular alternative to classroom instruction. However, there are still debates on which method is more effective in terms of learning outcomes, student engagement, and overall experience. In this article, we will explore the advantages and disadvantages of online learning versus classroom instruction.

Online Learning- Online learning, also known as e-learning, refers to the process of acquiring knowledge through the internet or other digital technologies. Online learning can take various forms, including video lectures, webinars, online discussions, and virtual classrooms. There are several advantages of online learning, including:

Flexibility- Online learning provides learners with the flexibility to learn at their own pace and schedule. This is particularly beneficial for individuals who have busy schedules or are working part-time or full-time.

Convenience- Online learning eliminates the need for commuting to a physical location, which saves time and money. Learners can access course materials from anywhere with an internet connection, which makes learning more accessible and convenient.

Cost-effective- Online learning is often more cost-effective than classroom instruction, as it eliminates the need for physical classrooms, textbooks, and other materials. Additionally, online courses tend to have lower tuition fees than traditional classroom-based courses.

Individualized learning: Online learning allows learners to work at their own

• Assistant Professor, Department of Teacher Education (B. Ed.), Shibli National College, Azamgarh-276001, U.P.

pace and engage with course material in a way that best suits their learning style. Learners can revisit course materials as many times as necessary, which can help reinforce learning.

Access to a global community- Online learning provides learners with access to a global community of learners, which can be beneficial for networking and collaboration.

Classroom Instruction- Classroom instruction, also known as traditional or face-to-face instruction, refers to the process of acquiring knowledge through in-person lectures, discussions, and activities. There are several advantages of classroom instruction, including:

Interpersonal interaction: Classroom instruction provides learners with the opportunity to interact with instructors and peers in real-time, which can enhance engagement and motivation.

Hands-on experience: Classroom instruction often involves hands-on experience, which can be particularly beneficial for learners in fields such as science, engineering, and medicine.

Access to resources: Classroom instruction provides learners with access to physical resources such as textbooks, labs, and libraries.

Structured learning environment: Classroom instruction provides learners with a structured learning environment, which can help them stay focused and motivated.

Immediate feedback: Classroom instruction provides learners with immediate feedback from instructors, which can be beneficial for improving learning outcomes.

Online Learning vs. Classroom Instruction:

When it comes to choosing between online learning and classroom instruction, there is no one-size-fits-all solution. The choice ultimately depends on individual preferences, learning goals, and circumstances. However, there are some factors to consider when deciding between the two methods of instruction:

Learning style: Individuals have different learning styles, and some may find online learning more effective, while others may prefer classroom instruction. For instance, individuals who learn best through hands-on experience may prefer classroom instruction, while those who prefer self-paced learning may find online learning more effective.

Time commitment: Online learning provides learners with more flexibility, as they can learn at their own pace and schedule. Classroom instruction, on the other hand, requires learners to commit to a fixed schedule, which may not be feasible for individuals with busy schedules.

Cost: Online learning is often more cost-effective than classroom instruction, as it eliminates the need for physical classrooms, textbooks, and other materials. Additionally, online courses tend to have lower tuition fees than traditional classroom-based courses.

Instructor interaction: Classroom instruction provides learners with the opportunity to interact with instructors and peers in real-time, which can enhance engagement and motivation. Online learning, on the other hand, can be isolating, as learners do not have the opportunity for immediate interaction with instructors and peers.

Technology skills: Online learning requires learners to have basic technology skills and access to a reliable internet connection. Learners who are not comfortable with technology may find online learning challenging, while those who are tech-savvy may find it more convenient.

Learning outcomes: Ultimately, the choice between online learning and classroom instruction should be based on learning outcomes. Learners should choose the method of instruction that best aligns with their learning goals and objectives.

The education sector in India has undergone a significant transformation with the advent of online learning. The COVID-19 pandemic has accelerated the adoption of online learning, which has become a popular alternative to traditional classroom-based instruction. Online learning has impacted education in India in several ways, including increasing access to education, enhancing student engagement, and improving learning outcomes. In this article, we will explore the impact of online learning on education in India, drawing upon existing literature and references.

Access to Education:

Online learning has increased access to education in India, particularly in rural and remote areas. According to a report by the National Sample Survey Organization (NSSO), the overall literacy rate in India is around 74%, with significant regional and gender disparities (NSSO, 2018). Online learning has the potential to bridge this gap by providing access to education to individuals who may not have had access otherwise.

A study by the Indian Institute of Technology (IIT) Bombay found that online learning has increased access to education in rural and remote areas (Chakraborty & Subramanian, 2020). The study found that online learning has enabled students to access high-quality educational resources and interact with expert faculty from top-tier institutions.

Enhanced Student Engagement- Online learning has also enhanced student engagement in education. A study by the National Council of Educational Research and Training (NCERT) found that online learning has increased student engagement and motivation (NCERT, 2020). The study found that online learning platforms provide a more personalized and interactive learning experience, which enhances student engagement and motivation.

Another study by the Indian Institute of Technology (IIT) Delhi found that online learning has improved student engagement and participation (Garg & Bhattacharjee, 2020). The study found that online learning platforms enable students to interact with peers and instructors in real-time, which enhances engagement and participation.

Improved Learning Outcomes- Online learning has also been shown to improve learning outcomes in India. A study by the Indian Institute of Technology (IIT) Kharagpur found that online learning has improved learning outcomes in engineering education (Dasgupta & Gupta, 2019). The study found that online learning platforms enable students to access high-quality educational resources, interact with expert faculty, and engage in hands-on learning experiences, which improve learning outcomes.

Another study by the Indian School of Business (ISB) found that online learning has improved learning outcomes in management education (Banerjee & Duflo, 2020). The study found that online learning platforms provide a more personalized and interactive learning experience, which enhances student engagement and learning outcomes.

Conclusion- Both online learning and classroom instruction have their advantages and disadvantages. Online learning provides learners with flexibility, convenience, and cost-effectiveness, while classroom instruction provides learners with interpersonal interaction, hands-on experience, and immediate feedback. Ultimately, the choice between the two methods of instruction depends on individual preferences, learning goals, and circumstances. By considering factors such as learning style, time commitment, cost, instructor interaction, technology skills, and learning outcomes, learners can make an informed decision on which method of instruction best suits their needs.

Online learning has had a significant impact on education in India, increasing access to education, enhancing student engagement, and improving learning outcomes. The adoption of online learning has been accelerated by the COVID-19 pandemic, and it is likely that online learning will continue to play a prominent role in education in India. However, there are still challenges to be addressed, including ensuring equitable access to online learning resources and addressing the digital divide. By addressing these challenges, India can continue to leverage the potential of online learning to transform education and improve learning outcomes.

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Spirituality and Burnout Effect Among Women Police Constables: A Comparative Study

• **Laxmi Dubey**
•• **Surabhi Misra**

Abstract- *The job of police constables, especially elderly women constables, is 24x7 mind occupying, exasperating and much of a stressful affair. Prolonged physical / mental stress may lead to burnouts and other psychological syndromes. Many a times, exhaustion, feeling of detachment, unexpected stressful job and personal life events become too hard to hold and thus, the factor of spirituality becomes the vital source of comfort and relief from burnouts. Present study was an attempt to throw light on the fact that monotonous, boring work situations, lack of enthusiasm and self-worth make a person burnout victim, whereas developed spirituality provides psychological support and healing from mental deviations. For this purpose, 20 women police constables of 30-40 age range and 20 women police constables of 40-50 age range were selected from the police station of Mau city of Uttar Pradesh by Purposive type of sampling. Between Group Design had been used in the study where two different groups were tested on the scales of Spirituality and Burnout. The obtained study was analysed by using t-test and Pearson 'r' statistical method. The study shows that Older Women police constables scored higher than younger constable on occupational exhaustion (EE) and their mean scores also differ significantly. Older women constables also scored higher on spirituality but the means scores between the groups doesn't differ significantly with each other. Many research findings show positive relations between spiritual practices and enhanced capabilities to face challenges of stressful life events. In this study there is no such strong positive or negative correlation found between Spirituality and Burnout scores but significant different found between women police constables of different age groups on burnout scores.*

Keyword- *burnout, spirituality, occupational exhaustion (EE), women police constables*

Introduction- Ever since it came into being, police work consistently has been regarded as a mind occupying and exasperating occupation. Police personnel work under great pressure due to societal responsibilities, high public demands, uncertain critical issues both personal and professional.

Like many countries, round the globe, number of women police recruitments are increasing day by day in India. Studies shows that women police constables undergo many psychosocial challenges and face innumerable hardships at present and professional front (Bincy Roy et.al.

• Research Scholar, CSJM University, Kanpur, (U.P.)
•• Principal, S N G P G College, Unnao, (U.P.)

2016; Raj Mahendran and Muthalagu, 2019). The strain for females in police is found to be greater than many other professionals.

Women police constables face burnout tendencies because of some unavoidable factors such as 24 hours availability with no regular holidays, irregular sleep schedules, conflicts with colleagues and seniors, insufficient facilities at workplace etc. those factors have cumulative effect on mental as well as physical health. Moreover, Indian society specifies different profession and work zones for different genders. Encroachment into each other's professional circle brings about discomfort and lack of adjustment and comparability for both (Rizvi, 2005). Another study conducted by Anupam Kulshrestha (2008) show that women police constables also undergo some health-related issues due to some infrastructural problem like long hours duties, problem of toilet, absence of creches etc. These all factors lead burnout tendencies among women police constables.

The term 'burnout' may be defined as a psychological syndrome of emotional exhaustion, depersonalization and a reduced sense of personal accomplishment that may occur among service professionals (Maslach and Jackson, 1986). Such conditions lead to disinterest, drained inner resources and feeling to stagnation (Georgina, 2013).

Burnout tendencies can be reduced to some extent by increased spiritual practices. Many studies identify it as a source of comfort and relief from strain and distress. The term 'spirituality' is a complex and multifaced concept. It carries an individualistic meaning and thus there is no universally accepted definition of the concept. As Sullivan (1993) defined spirituality as an individualistic feature which leads a person's self toward universe; Puchalski (2012) defined it as a way to find meaning and purpose in life by connecting inside to the sacred and Koening et.al. (2012) defined it as a transcendental tendency which led a person towards belief, practice and rituals related to God.

While people use many different paths to find supreme power or God. One study conducted by Akbari and Hossaini, 2018 has shown that those who are more spiritual and use their spirituality can cope up with challenges in life and also experience many benefits to their health and well-being. It has also been found directly related with psychological well-being such as satisfaction in life, happiness and moral values (Bonell et. al. 2012; Moreira Almeida et.al 2014).

Intervention result of spirituality-based tools applied on health professionals were found to be very effective to mitigate perceived stress (Oman et.al 2006). Elderly people (male/female) also get benefited from spiritual experiences to overcome with their negative feelings and helps in enhancement of positive mind set (Whitehead and Bergeman, 2012). Thus, spirituality is an effective therapeutic tool to overcome burnout tendencies among women constables. There is no such clear study which discloses the relationship between factors of burnout and spirituality and how it affects different age groups.

In accordance to this context, the present study is an attempt to assess the level of spirituality and burnout among women police constable of two different age range i.e., 30-40 years and 40-50 years.

Objectives-

- To assess the level of spirituality between women police constables of two different age range i.e., 30-40 years and 40-50 years.
- To study the level of burnout between women police constables of two different age range i.e., 30-40 years and 40-50 years.
- To find out the relationship between spirituality and burnout scores of women police constables of 30-40 years age group.
- To find out the relationship between spirituality and burnout scores of women police constables of 40-50 years age group.

Hypotheses-

- There will be significant difference on the level of spirituality between women police constables of two different age range i.e., 30-40 years and 40-50 years.
- There will be significant difference on the level of burnout between women police constables of two different age range i.e., 30-40 years and 40-50 years.
- Strong negative correlation would be found between spirituality and burnout scores of women police constables of 30-40 years age group.
- Strong negative correlation would be found between spirituality and burnout scores of women police constables of 40-50 years age group.

Variables-

Independent Variables	1. Women police constables (30- 40 years age group) 2. Women police constables (40- 50 years age group)
Dependent Variables	1. Spirituality 2. Burnout
Control Variables	1. Gender- Female 2. Age- 30-40 Years and 40-50 Years

Sample Selection- The sample for the present study comprises of 20 women police constables of 30-40 age range and 20 women police constables of 40-50 age range. Sample was selected from the police station of Mau city of Uttar Pradesh by Purposive type of sampling.

Tools-

1. Spirituality scale constructed by Dr. Collean Dalaney; consists 23 items measures the respondent's level of spirituality.
2. Burnout inventory developed by Maslach et.al., consists 9 items, measures the respondent's level of Occupational Exhaustion (EE).

Research Design- Between Group Design has been used in the present study where two different groups were tested on the scales of Spirituality and Burnout.

Analytical Strategy- The obtained study was analysed by using t-test and Pearson 'r' statistical method.

Result- Keeping in view the objectives of present study the obtained data was analysed by using t-test and Pearson 'r' values obtained on spirituality and burnout scale administered on women police constables of different age groups i.e.,30-40 years and 40-50 years have been displayed on table below: -

Table 01- Table showing t-test scores on Burnout scale between women police constables of different age groups i.e.30-40 years and 40-50 years—

Sr.no	Sample	N	M	SD	T
1	Women police constables (30-40 years age)	20	12.55	2.73	6.88 (significant at 0.01 level of significance)
2	Women police constables (40-50 years age)	20	27.85	7.69	

Table 02- Table showing t-test scores on spirituality scale between women police constables having age range from 30 – 40 years and 40 - 50 years.

Sr.no.	Sample	N	M	SD	T
1	Women police constables (30-40 years age)	20	88.75	22.79	0.0094 (Not significant at o.o1 level of significance
2	Women police constables (40-50 years age)	20	106.35	16.38	

Table 03 showing Pearson r scores calculated between spirituality and burnout scores of women police constables of 30 to 40 years

Sr. no.	Data sets	'r' values	Interpretation
1	Spirituality scores	0.2361	Low positive correlation between the groups
2	Burnout scores		

Table 04- Table showing Pearson r scores calculated between spirituality and burnout scores of women police constables of 40 to 50 years

Sr. no.	Data sets	'r' values	Interpretation
1	Spirituality scores	-0.2531	Low negative correlation between the groups
2	Burnout scores		

Discussion And Interpretation- T - test applied to assess the difference on the level of spirituality between women police constables having age range from 30 to 40 years and 40 to 50 years displayed the mean value of 88.75 and 106.35 respectively. T-test scores of 0.0094 showed non-significant difference between the groups at 0.01 level of significance. Thus, we cannot reject null hypotheses no-1 formulated earlier. It shows that spiritual belief doesn't affect differently to different age groups of women police constables. We cannot deny the fact on the basis of earlier studies that the person having high spirituality can cope up with stress and burnout tendencies very effectively. It helps them to connect with the world and lead a healthier life (Wachholtz and Rogoff, 2014).

Mean scores on burnout between women police constables having age range from 30-40 years and 40-50 years are 12.55 and 27.85 respectively. T value of 6.88 showed significant difference between the groups at 0.01 level of significance. Thus, we can reject the null hypothesis no-2 formulated earlier. On the basis of obtained scores it can be said that occupational exhaustion (EE) affects more to those women constables who have higher age group. Reason may be that older women constables feel more stagnated in a particular situation without any novelty and challenges. Younger women constables feel less monotonous and more enthusiastic in comparison to older women constables.

Pearson r statistics applied to find the correlation between the values of spirituality and burnout. Obtained r value of the women constables of 30-40 age group is 0.2361, which shows the low positive correlation between the groups. Here both the variables don't seem to be correlated in any way. Thus, research hypothesis no-3 cannot be accepted on the basis of score.

Obtained r value of the women constables of 40-50 age group is -0.2531, which shows low negative correlation between the groups. Thus, spirituality and burnout scores are negatively correlated but in a low extent. Thus, the hypothesis no-3 can't be accepted.

Spirituality has been identified in previous studies as a protective factor in coping with occupational stress or burnout. It has been demonstrated as a good predictor of Health and Wellbeing; it interrelates with every dimension of human functioning. Women police feel peaceful and equanimous towards overloaded work environment when provided spiritual practices.

Strong positive inner belief on Supreme power gives them a sense of worthiness, promotes faith, resiliency and meaningfulness among police officers. Much of police traditions and practices consist of spiritual values, such as "discipline, duty, loyalty, and patriotism". It also creats spirit that encourages commitment and collaboration (Sofinet, 2014).

Conclusion And Implication- Older Women police constables scored higher than younger constable on occupational exhaustion (EE) and their mean scores also differs significantly. Older women constables also scored higher on spirituality but the means scores between the groups doesn't differ significantly with each other. Spirituality and burnout scores are also not meaningfully correlated on different age groups of the same sample.

Thus, on the basis of obtained scores it can be concluded that women at older age due to monotonous working situations and boring life style, with not much of happening or challenging conditions in everyday life lack enthusiasm, self-worth and thus face burnout. The situation is different for younger police women as they are fuller of life, enthusiasm, ready to face challenges, take up risks and thus face less burnout.

So, there is an extensive need of spiritual training, psychological support and healing practises provided to older women constables more specifically.

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A Study on Opinion of Employees Regarding Employeee Welfare Schemes in Sbi and Axis Bank of Ranchi District

• **Amar Nath**

Abstract- *The present paper seeks to find out the opinions of the employees on employee welfare practices within the SBI and Axis bank of Ranchi district.Welfare is an important measure for improving the morale of the employees. The Overall efficiency of the employee highly depends on the benefits provided by the company and ithelps to increase the efficiency of the employee The employee welfare measures also have animpacts on the health and mental efficiency of the employee and contribute for higher productivity. The employees from banks were the individual respondents for the study. SPSS was used to interpret and analyze the data.*

Keywords*- Welfare, Efficiency, Performance,opinion .*

Intoduction- Employees invest a large portion of the vital energy of their life in work place, remembering organizations become there home away from home. Workers, Shareholders, Creditors, Suppliers, Government and different partners impact authoritative adequacy. Partners arvital for an association, well in the event that they are to be organized clearly workers without a doubt top the rundown. Bringing a look into their development and improvement in different circles they do their best however the associations are capable in fulfilling the workers are an unavoidable issue. It very well may be said that the achievement of an organization relies upon the nature of individuals in the organization and their assurance to enable the organization to develop the objective way. Since whatever course that association takes relies upon people.

Review of Literature- express that welfare measure is a procedure of perceiving the one-of-a-kind spot of the worker in the general public and doing good, holding and spurring workers and working up the local reputation of the organization. Welfare refers to enriching the life of the employees by employers, trade unions, and governmental and non-governmental agencies. The study was made to inform the management about the areas/ causes of displeasure among the workers and enable the management to take necessary actions to avoid such displeasure and help to improve their productivity**.**

The study has made an attempt to recognize welfare measures and satisfaction level of employees about the welfare measures adopted at VST Tillers Tractors Limited, Bangalore.The essential point of representative

• Director, M/S Ajay Enterprises, Ranchi

welfare is to enhance the life of workers by giving them not too bad and amiable workplace. The main aim of the welfare measures is to make the life of the workers worth living.The Welfare measures are more important for every employee. The present study reveals that most of the employees are aware about the facilities provided by the company and satisfied**.** in the investigation recognized that the rate of truancy had been decreased, all things considered, by giving lodging, wellbeing and family care,canteen,educational and preparing office and arrangement of welfare exercises. He additionally expressed this guideline for fruitful usage of work welfare exercises is only an expansion of vote based qualities in an industrialized society in a study identified that the rate of absenteeism had been gone low level by providing them welfare facilities as such as housing, health and family care, canteenfacility, educational and training facility. A near examination of welfare measures out in the public and private sector found that a workers' welfare office is the key measurement to smooth employee-employer relationship**.**

Objective of the research- To Study the opinion of the employees on employee welfare practices within the SBI and Axis. Bank of Ranchi district

Hypothesis of the research

H01: There is no significant difference between the opinions of the employees on employee welfare practices within the selected banks. (SBI and AxisBank)

Ha1: There is a significant difference between the opinions of the employees on employee welfare practices within the selected banks. (SBI and AxisBank).

Research methodology

Target Population- The inspecting plan for the examination has been readied relying upon the foundation of the investigation. The models on which inspecting was directed are as per the following:

Target population or universe	:	Employees of SBI and Axis bank.
Inspecting method	:	Convenience Sampling
Sample size	:	400
Territory of survey	:	Ranchi district

Sample Design- The final study was led on representatives of Private Sector Banks and Public Sector Banks expressed underneath of Ranchi district. Important information has been gathered through poll filled from 400 respondents. The respondents have been chosen by comfort inspecting. The division of the information accumulation was on the accompanying premise:

Private and Public Sector Bank

Private Sector Bank (Axis bank)	200
Public Sector Bank (SBI)	200

- 88 SBI branches in Ranchi District
- 13 Axis Bank Branches in Ranchi District

Auxiliary information has been gathered from company's site, industry reports, related writing in books and diaries, both national and universal. Examination of information the information has been broke down utilizing IBM SPSS 22 Statistical programming.

Research Instrument

Summated Scale- Also known as Likert scale is developed by Rensis Likert. Here the actual respondents are asked to react on series of questions. Questionaires have 5 options ranging from strongly agree to strongly disagree. The respondents indicate his /her agreements or disagreement, each view has been. assigned a numerical value and the total value of the respondent is calculated by adding their score.

Data was collected from bank employees for measuring Employee Welfare and for ascertaining their perception of job performance. A structured questionnaire having two parts I and II was used for collecting respondent data. Part I dealt with the demographic profile of the respondent while Part II had questions for recording responses on Employee welfare. The gathered information was sorted out in the required shape and dissected to receive the outcomes in return.

Types of Questionnaires- In the present study, closed-ended restricted questionnaire has been used to collect meaningful data. The questionnaire consists of two sections:

1. Section – A: Demographic Information

2. Section – B: Questions Based on the Study

For scaling the questionnaire, 5-point likert scaling technique has been used. A likert scale is a psychometric scale generally unclear in research that utilises questionnaires. It is the most largely used methodology, such that the expression is repeatedly applies interchangeably with rating scale. Scale used in present survey:

1 = Strongly agree, 2 = Agree, 3 = Do not know4 = Slightly disagree, 5 = Disagree- In the present study, closed-ended restricted questionnaire has been used to collect meaningful data. From the Employees of SBI and Axis Bank,primary data has been collected through questionnaires.

Rank analysis of variables used in the study: -SBI

S. N	Statement	Strongly agree (5)	Agree (4)	Don't know (3)	Slightly disagree (2)	Disagree (1)	Weighted mean	Rank	Total
1.	I feel I am being paid a fair amount for the work I do.	7	111	34	14	34	42.86	13	200
2.	When I do a good job, I receive the recognition for it.	8	112	50	23	5	45.9	8	200
3.	Those who perform well in the job stand fair chance of being promoted.	7	114	49	49	6	46.3	7	200
4.	I feel Motivated in doing my job.	12	111	30	40	7	48.06	4	200
5.	Relationship between Employee and management.	7	106	33	33	7	42.06	14	200
6.	Employees feel stressed at workplace.	30	96	34	33	7	40.6	15	200

7.	Stress affects the working efficiency of employees.	41	91	21	23	3	45.6	9	200
8.	Grievance redressal system of the organization is very affective.	8	95	57	35	5	44.4	11	200
9.	Employee Social welfare (Recreational activities) are timely provided.	30	124	20	4	22	49.06	3	200
10.	Employee Economic services (incentives, bonus, pension, insurance, rewards)	40	122	25	13	0	52.6	1	200
11.	Working atmosphere in the organization is very encouraging.	13	100	48	7	32	43.66	12	200
12.	Employee participation in decision making.	19	98	59	22	2	47.33	5	200
13.	Training as a part of organizational strategy	35	123	16	25	1	51.06	2	200
14.	Overtime allowance to the employees, as per the performanc e of the employees.	11	41	25	73	50	32.66	16	200
15	Employee retention is affected by employee welfare practices	11	93	80	3	13	45.73	10	200
16	My job is enjoyable	13	102	45	33	7	47.2	6	200

Rank analysis of variables used in the study –Axis Bank

S. N	Statement	Strongly agree (5)	Agree (4)	Don't know (3)	Slightly disagree (2)	Disagre e (1)	Weighted mean	Rank	Total
1.	I feel I am being paid a fair amount for the work I do.	36	123	24	4	13	51.00	6	200
2.	When I do a good job, I receive the recognition for it.	40	115	30	15	3	52.2	4	200
3.	Those who perform well in the job stand fair chance of being promoted.	23	113	36	23	5	48.4	12	200
4.	I feel Motivated in doing my job.	31	100	37	22	11	45.04	15	200
5.	Relationship between Employee and management.	15	112	56	26	5	49.86	8	200
6.	Employees feel stressed at workplace.	54	86	34	16	10	50.53	7	200
7.	Stress affects the working efficiency of employees.	60	112	28	12	9	57.26	1	200
8.	Grievance re dressal system of the organization is very affective.	40	91	45	10	14	48.86	10	200

Comparative evaluation of Weighted mean of SBI & Axis bank

S.no.	Variables	SBI	Axis bank	Result
		Weighted mean	Weighted mean	
1.	I feel I am being paid a fair amount for the work I do.	43.2	51.00	Axis bank
2.	When I do a good job, I receive the recognitio n for it.	45.9	52.2	Axis bank
3.	Those who perform well in the job stand fair chance of being promoted.	46.2	48.4	Axis bank
4.	I feel Motivated in doing my job.	48.06.	45.4	SBI
5.	Relationship between Employee and management.	42.06	49.86	Axis bank
6.	Employees feel stressed at workplace.	40.6	50.53	Axis bank
7.	Stress affects the working efficiency of employees.	45.6	57.26	Axis bank
8.	Grievance redressal system of the organization is very affective.	44.4	48.86	Axis bank
9.	Employee Social welfare (Recreational activities) are timely provided	**49 .06**	**56.26**	**Axis bank**
10.	Employee Economic services (incentives, bonus, pension, insurance, rewards)	**52.6**	**51.33**	**SBI**
11.	Working atmosphere in the organization i s very encouraging.	**43.66**	**47.4**	**Axis bank**
12.	Employee participation in decision making.	**47.3**	**49.7**	**Axis bank**
13.	Training as a part of organizational strategy	**51.06**	**56.13**	**Axis bank**
14.	Overtime allowance to the employees, as per the performance of the employees.	**32.66**	**39.0**	**Axis bank**
15.	Employee retention is affected by employee welfare practices	**45.73**	**48.53**	**Axis bank**
16.	My job is enjoyable	47.2	45.4	SBI

Chi – Square Test for Goodness of Fit- Chi-square test has been developed by Karl Pearson in 1900; it is a statistical procedure of testing the significance between experimental values and theoretical values which have been obtained. Chi-square test is denoted by **'X^2'**. Chi-square test is applicable to the data which has been obtained through counting and not on the data which has been collected through continuous scale measurements. **Chi-Square goodness of fit** test is a non-parametric test that is used to find out how the observed value of a given phenomena is significantly different from the expected value. ... Then the numbers of points that fall into the interval are compared, with the expected numbers of points in each interval.In Chi-Square goodness of fit test, the term goodness of fit is used to compare the observed sample distribution with the expected probability distribution.

Interpretation of Chi-Square Test for goodness of fit-

H_{02}: There is no significant difference between the opinions of the employees on employee welfare practices within the selected bank.

H_{a2}: There is a significant difference between the opinions of the employees on employee welfare practices within the selected bank.

Chi square goodness of fit

BANK	SBI			AXIS BANK		
	CHI-SQUARE	DF	ASYMP.SIG	CHI-SQUARE	DF	ASYMP.SIG
I feel I am being paid a fair amount for the work I do.	171.950	4	.000	229.650	4	.000
When I do a good job, I receive the recognition for it.	195.250	4	.000	193.250	4	.000
Those who perform well in the job stand fair chance of being promoted.	202.400	4	.000	178.700	4	.000
I feel Motivated in doing my job.	175.350	4	.000	126.650	4	.000
Relationship between Employee and management	165.800	4	.000	159.200	4	.000
Employees feel stressed at workplace	109.000	4	.000	96.600	4	.000
Stress affects the working efficiency of employees	132.950	4	.000	214.400	4	.000
Grievance redressal system of th e organization is very affective.	138.250	4	.000	105.050	4	.000
Employee Social welfare (Recreational activities)	229.400	4	.000	231.600	4	.000
Employee Economic service (incentives, bonus, pension, insurance, rewards) s	145.560	4	.000	147.850	4	.000
Working atmosphere in the organization is very encouraging.	176.750	4	.000	126.850	4	.000
Employee participation in decision making	148.350	4	.000	140.000	4	.000
Training as a part of organizational strategy	230.900	4	.000	222.000	4	.000
Overtime allo wance to the employees, as per the performance of the employees	55.300	4	.000	21.650	4	.000
Employee retention is affected by employee welfare practices.	183.700	4	.000	158.400	4	.000
My job is enjoyable	143.400	4	.000	125.350	4	.000

Data Inference- In all the cases under this study alternative hypothesis isaccepted as significance that is Asymp. Sig. (2-sided) is less than 0.05, which reflects significant difference between the opinions of the employees regarding employee welfare practices within the selected banks, hence it has been concluded that the employees of both the banks are highly satisfied with the available employee welfare practices which has been offered to these employees by the respective banks i.e., SBI & Axis Bank.

Conclusion- This study has made a methodological research of employee welfare practices and its availability for employees of both SBI and Axis Bank. This study gives the following conclusions-

Banks are providing superior employee welfare facilities to its employees, whether it is a private sector banks or public sector banks. Employees of public sector banks are more satisfied than private sector banks as far as welfare practices are concerned. A direct and positive correlation has been observed in the study between employee welfare facilities and employees job satisfaction.

The chapter on Research Methodology emphasizes on research problems, research gap, hypotheses, review of literature, related articles, significance of study, objectives of study, scope of study, universe of study, sources of data, limitations of study, variables in the study, tools and techniques used for hypothesis testing. Tools and techniques used in the present study include Reliability of the data, Normality Test, Mann – Whitney Test, Chi – Square Test, and Factor Analysis Test. This chapter also throws light on the various methods which have been used in this research study.

The chapter on Data Analysis & Interpretation puts forth the most important and detailed aspect of the study. The chapter includes various tables, charts and inferences prepared on the basis of the data collected through questionnaire. Various tests have been applied for the purpose of testing the hypotheses and to judge whether the hypotheses is being accepted or rejected. Factor analysis has also been used to reduce the number of variables and divide them into a set three to five component factors.

The final chapter on Conclusion has sub-parts i.e. findings, recommendation, limitations, scope for further research. The main substance of this chapter has been drawn out on the study conducted, its findings and limitations and lays a foundation for further research to be conducted in the related field.

Findings-

1. The research shows that majority of employees who are working in SBI are males (79%) and majority of employees working in Axis Bank are males (69.5%). Hence, it can be said that percentage of males working in banks are more in comparison to females in case of both the banks.
2. It has been depicted that majority of employees working in SBIare between the age group of 26-35 yearsyears and below, whereas majority of employees in Axis Bank falls between the age group of

26 – 35 years. Hence, we can say that young people are attracted more towards public sector banks.

3. Majority of employees of both SBI and Axis Bank have an experience of more than 5 years.
4. From the data it has been interpreted that **59.5** employees from Axis bank have agreed and strongly agreed and **79.5%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that they feel being paid a fair amount for the work they do.
5. From the above data it has been interpreted that **77.5%** employees from Axis bank have agreed and strongly agreed and **60%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that when they do a good job, they receive the recognition for it as compared to SBI employee.
6. From the above data it has been interpreted that **68%** employees from Axis bank have agreed and strongly agreed and **60.5%%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that those who perform well in the job stand fair chance of being promoted.
7. From the above data it has been interpreted that **65.5%** employees from SBI have agreed and strongly agreed and **56.1%** employees from Axis bank have agreed and strongly agreed. So, it can be concluded that majority of employees from SBI bank believe that they feel sense of pride in doing their job.
8. From the above data it has been interpreted that **63.5%** employees from Axis bank have agreed and strongly agreed and **56.5%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that they feel that the Relationship between Employee and management is good.
9. From the above data it has been interpreted that **70%** employees from Axis bank have agreed and strongly agreed and **63%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that they feel stressed at workplace.
10. From the above data it has been interpreted that **86%** employees from Axis bank have agreed and strongly agreed and **66%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that stress affects their working efficiency.
11. From the above table it has been analysed and portrayed that maximum number of employees from both the selected banks feel that the grievance redressal system of their banks was very effective. In SBI, **51.5%** of employees have either strongly agreed or agreed, whereas **66%** employees in Axis bank have either agreed or strongly

agreed. Hence, we can say that the employees of Axis Bank are more satisfied than the employees of SBI.

12. From the above data established the fact that maximum employees of both the selected banks have agreed that the health services provided to them in the bank are satisfactory. **90%** of Axis bank employees have agreed. **77%** of SBI employees have also agreed on this aspect.
13. From the above table it has been analysed and portrayed that maximum number of employees from both the selected banks feel that the. retirement benefits& insurance schemes are given Hence, we can say that the employees of SBI are more satisfied than the employees of Axis bank.
14. From the above data it has been interpreted that **64%** employees from Axis bank have agreed and strongly agreed and **56.5%%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that working atmosphere in the organization is very encouraging.
15. From the above data it has been interpreted that **60%** employees from Axis bank have agreed and strongly agreed and **58.5%%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that their participation in decision making is very encouraging
16. From the above data it has been interpreted that **90%** employees from Axis bank have agreed and strongly agreed and **78.5%%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that there training as a part of organizational strategy is better than SBI.
17. From the above data it has been concluded that maximum number of employees from both the banks have either strongly disagreed or disagreed with the overtime allowance offered to the employees on the basis of their performance, i.e., 61% employees from SBI and 43% employees from AXIS bank. So, it can be inferred that the overtime allowances offered to the employees are poorer in case of SBI in comparison to AXIS bank.
18. From the above data it has been interpreted that **62%** employees from Axis bank have agreed and strongly agreed and **52%** employees from SBI have agreed and strongly agreed. So, it can be concluded that majority of employees from Axis bank believe that employee welfare practices played a very important role in influencing their decision to remain working with the organization.
19. From the above data it has been concluded that maximum number of employees from both the banks have either strongly agreed or agreed with the Axis bank is 63%, in comparison with 57.5 of SBI.Axis bank has edge over the SBI,in case of being job is enjoyable in nature.
20. . Chi – Square test is a tool which helps in testing the significance value of experimental values and theoretical value. Here

hypothesis is accepted as the significance values is less than 0.05 in all the cases, which denotes that there is a significant difference in the opinion of the employees of both the banks regarding employee welfare practices.

21. Chi square goodnesss of fit-In all the cases under this study alternative hypothesis isaccepted as significance that is Asymp. Sig. (2-sided) is less than 0.05, which reflects significant difference between the opinions of the employees regarding employee welfare practices within the selected banks, hence it has been concluded that the employees of both the banks are highly satisfied with the available employee welfare practices which has been offered to these employees by the respective banks i.e., SBI & Axis Bank.

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Child Labourers as Rag Pickers in India: A Sociological Investigation

• Preeti Dwivedi

Abstract- *Child labourers as rag pickers are gradually increasing in India showing an unfortunate scenario of any country. Shoulders on which school bags should be carried instead of sacks of garbage refrain them right to education. Such type of occupation makes them more prone to different health hazardous ailments. With keeping concerns of child labourers as rag pickers the present study make an effort to access their working conditions and exploitation due to such occupation. The present study also explores their personal behaviour and perceptions towards rag picking. For the same study 50 child rag pickers were selected for collecting information through purposive random sampling method from Kanpur city for collecting information. Result of the study shows that garbage picking harms children in all ways related to physically, mentally and emotionally. These innocent children who should spend more and more time studying and with their peers, most of the time they work for hours to earn their livelihood. Government and non - government agencies should educate these children and develop their personality in the best way. These agencies also make efforts to make these children free from drug addiction with the help of drug de - addiction centres by various. So that these children can become the best youth of tomorrow and society can develop in the positive way.*

Keywords- *Child Labourers, School bags, Occupation.*

Rag pickers refers to the people who collect rags or waste or recyclable materials from roadsides, market places, a pile of waste dumping places in urban areas and sold them for money for their livelihood. In developing country like India more cases of children below 18 years are gradually increasing who are engaged in waste or garbage picking. In these countries industrialization is increasing continuously without using proper recyclable method of solid industrial waste (Furedy, 1990). Thus, in developing countries a greater number of children are engaged in such type of neglected sector with their family members (Krishna and Chaurasia, 2016). Children involved in rag picking are a worst form of child labour where children engaged themselves in a job or occupation which make them prone to different health hazardous diseases (WHO, 1988; Krishna and Chaurasia, 2016). Still less research work has been undertaken investigating

• Assistant Professor, Department of Sociology, Mahila Mahavidyalaya (P.G.) College Kanpur (U.P.)

the health risks involved in such type of work of rag picking (Kungnulskiti, 1991; Parasuramalu, 1993). It is very unfortunate that children who should spend time in school or with their play - mates spend more and more time in handling the garbage and keep their life busy with such type of risk prone job or occupation (Caroline, 1996). Rag pickers, on the one hand, are victims of many serious diseases due to their exposure with various pathogens during garbage picking, on the other hand they are also at equal risk of being pinched by many sharp and hazardous objects during picking of waste (Krishna and Chaurasia, 2016). In the same way the danger of being bitten by various stray animals like dogs or pigs remains the same (Krishna and Chaurasia, 2016).

Police harassment and negligence of people are severely faced by these children tremendously (Krishna and Chaurasia, 2016). Thus, garbage picker children experience different physical, emotional and economic as well as sexual form of exploitation (Sekar and Kavitha, 2015). Different life-threatening difficulties and exploitation in childhood make their life tough there after they involve in different anti - social activities like stealing, drug abuse, pick - pocketing and prostitution (Pathwary et al, 2012; Bala and Singh,2019). More frequency of children involved in anti - social activities as through picking of waste they are unable to fulfil even basic needs of life thus their involvement can be easily seen in different anti-social activities to make money without efforts and hard work (Rauf et al, 2013).

Hard work demands a healthy diet, but in case of children involved in rag picking they cannot take a nutritious diet due to their lower economic conditions. Hence to fulfil the energy of the body they seek for something else such as different illegal substances like narcotics and alcohol (Bala and Singh, 2019). Different illegal substances are consumed by child rag pickers e.g., marijuana, methamphetamines and ecstasy (Mathus, 2009). Smoking, chewing tobacco and alcohol consumption are most popular sources of enjoyment for garbage pickers (Yang, 2016).

Above review of literatures show that rag pickers children experience different life-threatening difficulties and exploitation. This is a worse form of child labour in any country. Considering all above issues present study has following objectives-

- To access the socio - economic status of child rag pickers
- To investigate the working conditions and exploitation of child rag pickers.
- To investigate personal behaviour and perceptions of child rag pickers.

Methodology- For the same study 50 child rag pickers were selected for collecting information through purposive random sampling method from Kanpur city for collecting information. An interview schedule having both open and closed ended questions was framed for data collection. Collected data were tabulated and analysed.

Result and Discussion- Age-wise data shows that 28% of the respondents have age between 6-12 years while majority of the respondents (72%) of rag pickers are teen agers between 13-18. Youth who is the backbone of the development of the country, but in such a situation we can see that these teenagers struggle hard for their livelihood by picking up garbage. This condition is a matter of great misfortune for a country.

Respondents' household conditions are classified in Table-1

Table 01

Types of Households	No of respondents
Muddy House.	18(36) *
Hut with thatched roof.	17(34)
House with tin shade.	7 (14)
House made with tarpaulin and plastic cover	8 (16)
Total	**50(100)**

**percentage in parentheses*

Analysis of data associated to house of rag pickers' children show that 36% of them were living in muddy house (36%) than Hut with thatched roof (34%). 16% of the respondents were living in houses made with tarpaulin and plastic cover (16%).

When the respondents were asked to talked about how many rooms are in their house and whether they are ventilated, then 60% of them said that they have only one room house, while 40% live in two room house but everyone said that the room is not ventilated at all. Respondents also told that they fetch drinking water from government tap or hand pump as there is neither tap nor hand pump in the house.

All the respondents lack materialistic comfort items like refrigerator, washing machine etc. Only 28% of the respondents said that they have TV which gives them some entertainment.

Caste - wise distribution of data are shown in Table-2.

Caste-category.	Number of respondents
OBC.	18 (36)*
SC.	25(50)
ST.	7(14)
Total	**50 (100)**

Table 02

*percentage in parentheses

Caste wise distribution of data shows that half of the children rag pickers belong to scheduled caste (50%) than Other Backward Caste (36%). Data associated to educational status of the respondents are shown in Table-3.

Table - 03

Educational level	No. of respondents
Illiterate.	28(56)*
Primary.	18(36)
Middle school	3(6)
High school.	01(2)
Total	**50 (100)**

**Percentage in parentheses*

Table -3 shows that more than half of the respondents (56%) are illiterate. On the other hand, 36% of the respondents are primary educated.

26% of the respondents were found to have school dropout. These respondents said that their parents had enrolled them in the school, but due to financial constraints most of them started the work of collecting garbage with their parents and thus left school.

Thus, from the above analysis, it is known that the children who pick up garbage come from very low socio - economic status. Due to the weak financial condition of the family, these children have to work as a waste picker, which is the worst type of child labour.

When rag pickers children were asked about the working hours, then about 60% of them said that they work for about 8 to 10 hours daily while about 40% of the children simply said that their daily working hours are around 6 to 8 hours. In this way, in the present study the working hour of any child has not been found to be less than 6 hours. When rag pickers children were asked whether they use any safety measures like hand gloves, sticks etc while picking up garbage, most of them (67%) answered no. Because of this, many children get injured by sharp objects while picking up garbage. Despite being injured, no proper treatment is given to them.

It was also told by garbage pickers children that many times during the work they got injured by stray animals like dogs, pigs etc. Picking garbage from the garbage heap is also risky for the health of the children. Because children stay in the dirty place most of the time and pick up the messy garbage by hand. When children were asked about their health-related problems in the last six months, then about 80% of the children replied that they had something health related issues during the last six months like jaundice, typhoid, dysentery, viral fever etc.

Intoxication tendencies have also been observed in rag pickers children. When the children were asked whether they had consumed any kind of intoxicant, then about 65% of the children gave their answer yes. In most of the cases, alcohol, cigarettes and inhalants are most commonly used by these children. 10% of children admitted to using drugs.

All the children accepted that the work of rag picker brings inferiority in them but they have no other option to make a living. 40% of the children said that they want to study but due to weak financial condition in the house they help the family and bear the financial burden and thus are unable to go to school.

Conclusion- From the analysis of above facts, it is found that garbage picking by children is a worst type of child labour. It harms children in all ways related to physically, mentally and emotionally. It is unfortunate that the shoulders on which the school bag should be carried are the sacks of garbage and those who should spend more and more time studying and with their peers, most of the time they work for hours to earn their livelihood. At its root is the spread of poverty and unemployment in the country. In this order government and non - government agencies should come forward. The work of rag picking, which is the only means of livelihood by these children for their family, slowly kills their childhood. Government and non - government agencies should educate these children and develop their personality in the best way. Children who have became addicted to drugs; efforts should be made to make these children free from drug addiction with the help of drug de - addiction centres by various non-government agencies. So that these children can become the best youth of tomorrow and contribute to development our society in positive way.

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"A Study of Psychological and Emotional Wellbeing of College Students Using and not using Dating Apps"

• Divya George
•• Rajendrakumar Muljibhai Parmar

Abstract- *India is an Asian country with a rich culture and customs. These two factors of hears touched every aspect of Indian society and always influenced people's behavior. This was also used by Native Americans when dating. Young people have changed their relationship habits. Due to modernization and digitization, parental involvement is decreasing. However, due to India's strong culture and customs, dating norms haven't changed much. Indian parents don't like dating because they like to arrange marriages. We meet and chat a few times before we get married. Parents in India these days invite their children out on dates to find their own partners.*

Keywords- *Culture, Custom, Society, Behavior*

Introduction- Indian single men have it easier than women. Men face less criticism and judgment. The Indian single woman became the gossip of the town, while others believed there was something wrong with her. She was anti-social and unable to compromise with others. In addition, they would be perceived as in constant financial difficulty. One -night stands, short relationships without commitment or feelings, are becoming more common.

Young people will find it exciting and rewarding, but older people will find it exciting. This culture is gaining popularity because Indians, especially women, find it less stressful to be in a temporary relationship that doesn't affect their future.

Modernity and technology are definitely present in Indian culture today. Teenagers are heavily using social media to date on online dating apps. There are several dating sites in India. Finding a partner on dating sites is becoming a way of life in modern India.

This study focused on investigating the psychological and emotional well-being of college students using dating apps and explored the impact of these apps on the psychological and emotional well-being of college students. This may include assessment factors such as stress levels, self-esteem, body image, and relationship satisfaction. The study can also examine the types of dating apps used and how often they are used. In addition, the study can examine correlations between dating app use and

• Master of Clinical Psychology, Department of Psychology, Parul Institute of Arts Parul University, Vadodara
•• I/C Dean & I/C Principal, ParulInstitute of Arts, Faculty of Arts, Parul University At. Po. Limda, Ta. Waghodia, Dist. Vadodara, Gujarat, India

other factors such as social media use and academic performance. This study may collect data through a combination of surveys, interviews, and behavioral observations, and may include a diverse sample of college students to capture the complexities of the relationship between dating app use and mental health. Can. Overall, this study aims to provide insight into how dating apps affect the psychological and emotional well-being of college students and how it can be improved.

1.1 Online Dating- Online dating is a way for people to meet and connect with others, and it has many technical features that enhance the user experience to make the app unique. They are similar to traditional social media apps in that they serve a purpose (Matt Fry).

Online dating is a unique concept that addresses dating outside the traditional realm that many students and parents grow up with. It can be defined as a technology that enables the technology was developed with the goal of enabling people to form personal, romantic, or sexual relationships with partners who have similar interests. Many users want a personalized experience, and it's easy to give them exactly what Matt Fry said.

The ability to expand your social network for both friendships and romantic partners, the ability to control the risks of dating and the pace of relationship building, and the ability to learn more about your partner are the main benefits of online dating. Is reported to carry its own set of risks, including widespread deception, financial exploitation by fraudsters, and unwanted electronic sexual assault (Vandeweerd, C., 2016).

There are many variables as some young adults switch from using apps occasionally. The technology was developed with the goal of enabling people to form personal, romantic, or sexual relationships with partners who have similar interests. Many users want a personalized experience. With the goal of keeping users using the app, this is something that can provide users with what they want immediately after downloading the app. According to Matt Fry, just because greeting cards have been exchanged doesn't mean the romance, dating and matching business is still booming.

In fact, not only is the dating industry thriving, but he is also one of the biggest adopters of the latest technological innovations of our time. Market analysis of the online dating industry has begun over the past five years and it's time to dig deeper into the technology behind modern love (Atal Bansal, 2020), in his Forbes post.

"No message is returned in 50% of online matches" (Constantin, 2020).

1.3. Online dating in India- A country where weddings have traditionally been and continue to be arranged by parents and relatives. However, with the introduction of dating apps, the Indian matchmaking process has undergone significant shift. The youths do not want to rely on their family to find them a good companion; instead, they use dating apps to locate their partners.

The Indian dating app industry is dominated by two apps: Bumble and Tinder. Although both applications are imported from the United States, they have 'Indianite their market presence by identifying and appropriating aspects of Indian culture.

All brands investigate various thoughts or beliefs about what dating stands for or signifies. Their techniques to communicating their points of view to the public differ as well.

By integrating the value and meaning of dating with various concepts, dating apps are transforming society and providing a place for dating as a worthwhile pastime for the youths. Dating as a place to practice "consent," dating as a source of emotional support, Serious dating, NOT casual dating, and dating as a gateway to experiencing passionate love the way you want it...these are all various aspects of dating.

1.5. Motivation to use online dating apps- Online dating has become increasingly popular in recent years, with millions of people using dating apps and websites to find partners. There are several motivations and reasons for using online dating, including:

1. Convenience: Online dating provides a convenient way to meet new people without having to leave your home or go to social events.
2. Accessibility: Online dating gives you access to a larger pool of potential partners, allowing you to find people you might otherwise never have met.
3. Time-saving: With online dating, people can quickly filter through a large number of profiles to find someone who matches their preferences, saving time and effort compared to traditional dating methods.
4. Anonymity: Online dating allows people to remain anonymous, which can be appealing for those who are shy or have concerns about privacy.
5. Comfort: Online dating can be less intimidating than traditional dating, as it allows people to get to know one another before meeting in person.
6. Compatibility: Online dating sites often use algorithms to match people based on shared interests, values, and personality traits. This will increase your chances of finding a compatible partner.
7. Personal growth: Online dating can be a way for people to challenge themselves and try new experiences, leading to personal growth and self-discovery.
8. Fun: Many people use online dating as a way to have fun and meet new people, with no expectations of finding a serious relationship

   In summary, online dating offers many benefits and motivations for those seeking love, companionship, and personal growth. Online dating has become a popular and effective way for people to connect with others, whether because to conclude by providing recommendations for policy makers and singles who want to make the most of online dating; effort (Finkel et al., 2012).

1.6. Booming effect of Covid on dating application- Dating apps saw a huge spike in usage during the COVID-19 pandemic. With lockdowns, social distancing measures, and more people working from home, many are turning to online dating to connect with others, relies on technology to meet potential partners.

One of the biggest effects of the pandemic on dating apps has been an increase in the number of users. Many people who may have been hesitant to use dating apps before the pandemic are now using them to find love and companionship. This has led to a surge in the number of people signing up for dating apps, as well as an increase in the amount of time people spend on these apps.

Another effect of the pandemic on dating apps has been a shift towards virtual dating. With physical meetups being more difficult, many people are now relying on video calls and other virtual communication tools to get to know their potential partners. This has led to a new level of creativity in online dating, as people are looking for ways to make virtual dating feel more personal and meaningful.

The pandemic has also changed people's dating priorities. With so much uncertainty in the world, many people are looking for stability and security in their relationships. This has led to a rise in more serious relationships formed through dating apps, as people are seeking partners who can provide support and comfort in these challenging times.

In addition to these changes, the pandemic has also had an impact on the business model of dating apps. With so many people now relying on these apps to connect with others, companies have been able to increase their revenue through advertising and premium features. This has led to a boom in the online dating industry, as companies have been able to capitalize on the increased demand for their services.

The COVID-19 pandemic has had a major impact on the world of dating apps. As more people rely on technology to connect with others, the use of these apps has skyrocketed and become an essential part of people's lives. While the pandemic has brought many challenges, it has also created new opportunities for growth and innovation in the online dating industry), online dating apps have become a great way to connect with new people and gain some valuethrough their use. Normality creates opportunities to interact with others. However, it can be argued that online dating is not for everyone.

1.7. Psychological wellbeing- Psychological wellbeing refers to a state of being where an individual experiences positive emotion, has fulfilling relationships, and a sense of purpose and meaning in life. It is a state of mind where one is able to manage stress and cope with daily challenges. The concept of psychological wellbeing has been widely studied and various theories and frameworks have been developed to understand it.

One of the best-known frameworks for mental health is the PERMA model of positive emotions, commitment, relationships, meaning, and achievement. This model suggests that these five factors are important components of psychological well-being and can be cultivated through deliberate effort.

Positive Emotions refers to experiencing positive feelings and emotions such as happiness, joy, and contentment. Engagement refers to being fully engaged in an activity that is fun and meaningful. Relationships refer to strong, collaborative connections with others. Purpose relates to purpose and direction in life, and achievement relates to a sense of accomplishment and skill acquisition. Psychosocial refers to needs that are psychological in nature but interact with social variables (Sumter et al., 2017).

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A. Psychological wellbeing on college students using dating apps- Dating apps have become increasingly popular among college students as a way to find romantic partners. While these apps can provide some benefits, such as increasing social opportunities and allowing users to control the pace of their relationships, they can also have negative impacts on psychological wellbeing. Here are some of the key ways that dating apps can affect college students-

1. Increased feelings of loneliness and social isolation: Using dating apps increases feelings of loneliness and social isolation, especially if users spend a lot of time swiping profiles and not actually meeting people in person. may lead to
2. Decreased self-esteem and body image concerns: Seeing countless profiles of seemingly perfect people on dating apps can lead to feelings of inadequacy and body image concerns, especially for users who are already struggling with these issues
3. Increased anxiety and stress: The pressure to constantly be "on" and attractive to others on dating apps can lead to increased anxiety and stress, particularly for users who are already struggling with these emotions.
4. Decreased attention to other areas of life: Spending a lot of time on dating apps can take away from other areas of life, such as academics, friends, and hobbies, leading to decreased wellbeing and satisfaction in other areas of life.
5. Negative impacts on relationships: Dating apps can lead to negative impacts on relationships, including decreased trust and communication, and increased feelings of jealousy and insecurity.

   Overall, dating apps can have a significant impact on the mental health of college students.

1.8. Emotional Wellbeing- Emotional well-being refers to an individual's overall psychological and emotional state, characterized by feelings of happiness, contentment, and satisfaction. Emotional well-being is important because it affects one's overall quality of life and contributes to physical health, relationships, and work performance. Here are a few key elements of emotional well-being:

Positive emotions: People with high levels of emotional well-being experience positive emotions more frequently and for longer periods of time than those with low levels of emotional well-being.

Resilience- The ability to bounce back from challenges, setbacks, and stress is an important aspect of emotional well-being.

Gratitude- Expressing gratitude and appreciation for the good things in life can help enhance emotional well-being.

Purpose- Having a sense of purpose and meaning in life can contribute to emotional well-being.

Social connections: Strong social connections, including relationships with friends, family, and community, are crucial for emotional well-being

Mindfulness- Being present in the present moment and paying attention to your thoughts and feelings can increase your emotional well-being.

A. Emotional wellbeing in college students- Emotional well-being is a crucial aspect of a person's life, especially during college when students are navigating through various physical, emotional and social changes. With the advent of technology and dating apps, the way people form romantic relationships has significantly changed. While these apps have made it easier for people to connect, they have also raised concerns about their impact on emotional well-being, particularly in college students.

Research shows that using dating apps can lead to anxiety, depression, and low self-esteem. The constant comparisons and self-evaluations that come with swiping and matching can create feelings of pressure and anxiety. Fear of rejection and constant conflict with an endless stream of potential partners can lead to feelings of inadequacy and self-doubt. Instead, they are often casual and fleeting encounters, which can also lead to a distorted view of relationships and intimacy.

Moreover, dating apps can also lead to increased feelings of loneliness and social isolation. While they provide a means of connecting with others, they can also create a false sense of connection and substitute real-life social interactions. This can lead to a disconnection from one's community and result in feelings of loneliness and lack of belonging.

On the other hand, some studies have shown that the use of dating apps can have positive effects on emotional well-being. For instance, they can provide a sense of empowerment and control to people who might have difficulty forming relationships in real life. Additionally, dating apps can provide a platform for individuals to explore their sexuality and identity, which can lead to increased self-acceptance and confidence.

In conclusion, the impact of dating apps on emotional well-being varies from person to person and depends on various factors such as individual personality, social support network, and personal beliefs. It is important for college students to be aware of dating app use and the negative effects it can have on their emotional well-being. If so, you should seek help from a friend, family member, or mental health professional.

1.8 Pros of online dating- Online dating has become increasingly popular in recent years and offers several advantages over traditional dating methods.

1. Greater Access to Potential Partners- Online dating apps allow individuals to connect with more potential partners than they would normally meet in person, according to a Pew Research Center study , "Nearly 6 in 10 Americans (59%) say online dating is a great way to meet people" (Smith & Anderson, 2016).
2nd More Efficient and Convenient: Online dating apps allow individuals to quickly and easily narrow down potential partners based on their preferences, making the process more efficient and convenient. According to a study by Rosenfeld and Thomas (2012), online dating has become her second most common way heterosexual couples meet.
3. Greater Control of the Dating Process: Online dating apps give users more control over the dating process, allowing them to communicate with potential partners at their own pace and choose who they meet in person. Will be According to a Statista study, "57% of online dating participants said they rated their experience as very or very positive" (Duggan, 2020).
4. Access to a wider range of potential partners: Online dating apps can help you meet people you wouldn't otherwise meet, such as people who live in different geographies or have different backgrounds and interests. You can connect people with potential partners. A study by Gibbs et al. (2014) found that online dating "makes it easier to explore different options and improves the chances of finding a compatible partner.

1.9. Cons of dating apps

- Increased risk of deception and misrepresentation.
- Limited information and superficial connections.
- Increased risk of online harassment and abuse.
- Limited opportunities for meaningful interactions.
- Increased risk of addiction and negative psychological effects.
- Increased risk of safety concerns and scams.

1.10. Future of online dating apps- The future of online dating apps is likely to see continued growth and evolution as technology continues to advance. Here are some potential developments:

1. Increased use of Artificial Intelligence and machine learning: Online dating apps will likely incorporate more AI and machine learning technologies to enhance the user experience and matchmaking algorithms. This will likely lead to better and more personalized matches based on a user's preferences, behavior and history.
2. Virtual and augmented reality integration: Virtual and augmented reality technology may be used in the future to create a more immersive and interactive dating experience. For example, virtual dates or augmented reality games could be used to help break the ice between two potential partners.
3. More emphasis on safety and privacy: With concerns over data privacy and safety, online dating apps will likely prioritize the protection of user data and the implementation of robust security measures.
4. Greater focus on mental health: Online dating can be stressful and have negative effects on mental health. Future dating apps may

place greater emphasis on addressing these concerns through features such as stress-management tools and mental health resources.

Research Methodology- The current study aims to examine the relationship between the psychological and emotional health status of college students who use dating apps and those who do not. This study seeks to investigate whether there is a link between dating app use and psychological and emotional health. The study also compares the emotional health of men and women and the psychological health of both genders.

In addition, this study examines the emotional health of dating app users and non-users to determine if there are significant differences in emotional state. In addition, we also compare the psychological well-being of dating app users and non-users to assess significant differences between the two groups.

These findings from this study could help in understanding the impact of dating apps on students' mental health and emotional wellbeing. The results could provide insights into the positive and negative effects of using dating apps and how they may impact students' mental and emotional health differently.

Variables

- Independent variables: College Students
- Dependent variable: Psychological Wellbeing and Emotional Wellbeing

Method / Conceptual Design

However, empirical testing of proposed hypotheses depends on:

a) Selection of appropriate samples

b) Tools used for data collection

c) Methods and procedures for drawing conclusions

Tools and methods used and the procedures used in conducting the reported studies. This chapter contains the following descriptions:

a) Samples

b) Tests and Tools

c) Procedures

Sample- A total of 141 college participants were obtained using a convenient (non-probabilistic) sampling technique. This was the most cost and time saving sampling method. The sample consisted of 73 males and 68 females aged 18 to 24 years. Attention is also paid to usage patterns. H. Weekly, biweekly, monthly, etc. All participants were from different urban settlements across India, ranging from middle class and above. All participants also had reasonable skills in understanding, reading, and speaking English.

Inclusion-Exclusion Criteria

The following are the sample's inclusion criteria:

1. All participants must be between the ages of 18 to 24.
2. Participants must be Indians residing in the country.
3. Participants must be from the middle or upper socioeconomic level.

4. Participants must be able to comprehend and write English fluently.

The sample's exclusion criteria are as follows:

1. Individuals under the age of 18 or above the age of 24 are ineligible.
2. People who are not Indians.
3. Individuals with rural residence and those with socioeconomic status lower than middle-class

Were excluded.

Tools and Test- In this study, two questionnaires were utilized along with a demographic form. All the forms were as follows:

a. Socio-demographic Form- The socio-demographic form included questions regarding participants' name, age, and gender, place of residence, socioeconomic status, occupation, and English proficiency. The purpose of the socio demographic questionnaire was to determine whether participants met the study inclusion criteria.

b. Emotional wellness assessment- Emotional wellness assessment is a tool that helps individuals to evaluate their emotional well-being and identify areas of strengths and weaknesses. This assessment usually consists of a series of 10 questions that are designed to measure different aspects of emotional wellness such as self-awareness, self-regulation, social skills, empathy, and overall satisfaction with life.

c. **The Psychological Well-Being Scale-** The Psychological Well-Being Scale developed by Ryff and Keyes in 1995, is a widely used assessment tool for measuring psychological well-being. The scale consists of 18 questions designed to measure your well-being across six dimensions.

Autonomy, personal growth, self-acceptance, good relationships with others, purpose in life, control over the environment. It was built.

This scale was used in his MIDUS II study, a longitudinal study of middle-aged development in the United States. In this study, participants were asked to answer 18 questions on a scale of 1 to 6. 1 indicates strongly disagree, 6 indicates strongly agree.

Overall, the Mental Wellbeing Scale is a useful tool for assessing various aspects of mental wellbeing. By measuring these six dimensions, this scale can provide insight into how people are coping with challenges and whether they feel meaningful and satisfied in their lives.

Procedure- Permission to conduct this study was originally obtained from Parul University, Vadodara. All participants were asked to participate voluntarily and confidentiality was assured. Consent was obtained from all participants before testing continued.

The two scales, Emotional wellness assessment and Psychological Well-Being Scale (PWB) were compiled into a single questionnaire containing into 28 questions and made into a Google form to begin with the data collection. Participants were between the age group 18 to 24 who were given the questionnaire along with a consent form which included that all the information was entitled for research purposes only. Scoring of the questionnaires was then carried out according to the test manuals.

Statistical Analysis- A data analysis approach used to investigate a hypothesis using the SPSS software. Here is a breakdown of the different components:

Descriptive analysis- This refers to the process of summarizing and describing the main characteristics of the data, such as the mean (average), standard deviation (measure of variability), skewness (measure of symmetry) and kurtosis (measure of peakiness') of the variables. Descriptive statistics provide an overview of the data and can help identify potential outliers or unusual patterns.

Hypothesis test- It is a statistical approach used to determine if there is a significant relationship or difference between two variables. The goal in this case is to test a hypothesis, a statement that suggests a particular relationship between variables of interest.

Correlation method- This is a statistical technique used to measure the strength and direction of association between two variables. Correlation coefficients range from -1 to +1, with a value of 0 indicating no correlation and higher absolute values indicating stronger correlation

Correlation test- This refers to the actual statistical test performed to determine the correlation coefficient and its associated p-value. The p-value represents the probability of randomly picking an observed correlation coefficient, and values below a certain threshold (such as 0.05) indicate a significant correlation.

Overall, the approach described in the statement involves conducting descriptive analysis to obtain summary statistics and using correlation analysis to test a hypothesis by assessing the relationship between two variables.

Results and Interpretation- The purpose of this study is to understand the relationship between emotional and psychological well-being in college students who use and do not use dating apps. The survey will be conducted on people between the ages of 18 and her 24. Pearson's correlation coefficient was used to determine the degree of association between emotional and psychological well-being. In addition, a t-test was performed to determine whether there was a significant difference in the emotional and psychological health scores of male and female participants.

The study also compared emotional and psychological health scores between dating app users and non-users. A t-test is used to determine if the results between these two groups are significantly different. This study provides insight into the impact of dating apps on the emotional and psychological well-being of college students.

Overall, this study aims to understand the relationship between the emotional and psychological well-being of college students who use dating apps and to identify gender- or use-related differences. The findings of the study may influence future research on the impact of dating apps on mental health and well-being. The results of the study are presented according to the objectives and hypotheses in the next section.

Descriptive Analysis- The nature and distribution of scores of samples on the variables under study Psychological Wellbeing and Emotional wellbeing were analyzed. The means, standard deviations and distribution of

Emotional wellbeing on the variable Psychological Wellbeing was computed and pictorially presented through tables as shown in the subsequent sections.

Socio-demographic Characteristics of Participants (N = 141)- Various socio demographic data were included, such as age, gender, and dating app usage, to gain a more comprehensive understanding of the participants' sociodemographic background.

The data represents the frequency distribution of ages for a certain population. The sample includes individuals ranging from 18 to 24 years old. The highest frequency is observed for 19 and 24 years old, with 30 individuals in each age group, representing 21.3% of the sample. The age group with the lowest frequency is 22 years old, with only 12 individuals, representing 8.5% of the sample. The remaining age groups have a frequency ranging from 13 to 26 individuals, representing between 9.2% and 18.4% of the sample. Overall, the sample appears to be relatively evenly distributed across the age groups, with a slightly higher frequency in the 19 and 24 age groups.

The data presented in the table shows the frequency and percentage distribution of gender among a sample size of 141 individuals. Out of the total sample, 51.8% or 73 individuals identified as male, while 48.2% or 68 individuals identified as female.

This table presents the results of a survey of the frequency of specific activities in a sample of 141 respondents. There are five answer options: "Daily", "Weekly", "Fortnightly", "Monthly" and "Never". The Frequency column shows the number of respondents who chose each answer option, and the Percentage column shows the percentage of the overall sample that chose each option. The Valid Percentage column excludes missing or invalid responses from percentage calculations. The Cumulative Percentage column lists the cumulative percentage of respondents for each answer choice, starting from the top. From this table, we can see that the most common answer is "not at all", chosen by 46.8% of her respondents. “Weekly” was the second most popular answer, chosen by 18.4% of respondents. “Once a month” was the third most popular option, chosen by 14.9% of respondents. 12.8% answered “daily” and 7.1% answered “every other week”.

Gender Differences in Emotional Wellbeing- The data shows the emotional wellbeing scores for males and females, along with measures of variability and statistical analysis. The mean emotional wellbeing score for males is 14.30136986, with a standard deviation of 3.369326225. The mean emotional wellbeing score for females is 11.86764706, with a standard deviation of 3.780959413. This indicates that the emotional wellbeing scores for males and females are moderately dispersed around their respective means.

The measures of kurtosis and skewness provide additional information about the distribution of the emotional wellbeing scores for males and females. Kurtosis is a measure of how "spiky" a distribution is, with a value of 3 indicating a normal distribution. In this case, male kurtosis is 3.483271725, suggesting that the distribution is a little more cusped than usual. The kurtosis for females is -0.394111622, indicating that the distribution is a little flatter than usual. Skewness is a measure of the symmetry of the distribution, with a value of 0 indicating perfect symmetry. In this case, the skewness for males is -0.998676889, which suggests that the distribution is negatively skewed, with more scores to the right of the mean. The skewness for females is 0.156892208, which suggests that the distribution is approximately symmetrical.

Overall, the data suggests that there is a difference in emotional wellbeing scores between males and females, with males reporting higher emotional wellbeing scores on average. The measures of variability and statistical analysis provide additional insights into the distribution of scores and the significance of the difference between males and females.

Gender differences psychological Wellbeing of males and females

T-Test- Two-Sample Assuming Unequal Variances

The data compares the psychological wellbeing scores for males and females, including measures of central tendency, variability, and statistical analysis. The mean psychological wellbeing score for males is 49.46 with a standard deviation of 16.89. The mean psychological wellbeing score for females is 53.75, with a standard deviation of 16.50. These values suggest that the psychological wellbeing scores for males and females are somewhat dispersed around their respective means.

Kurtosis and skewness measures provide additional information about the distribution of psychological health scores. The kurtosis value for males is 5.40, indicating a more pronounced distribution than usual. The kurtosis value for female is 2.68 for her, indicating a slightly more peaked distribution than the normal distribution. The skewness value for males is 1.273, indicating that the distribution is positively skewed, with many values to the left of the mean. The skew value for females is 0.49, suggesting that the distribution is slightly positively skewed. A t-test is used to determine whether there is a statistically significant difference between men's and women's mental well-being scores. The t-statistic is -1.52 and the p-value is 0.13. This indicates that there is no statistically significant difference between men's and women's mental well-being scores and that the difference is likely due to chance. The p-value is greater than the significance level of 0.05, indicating weak evidence for the null hypothesis of no difference. In summary, the data suggest that there are no statistically significant differences in mental health ratings between men and women. However, measures of central tendency, variability, and distribution characteristics provide additional insight into the nature of psychological well-being scores in men and women. It is important to note that these results are specific to the population or sample studied and may not be generalizable to other populations.

Emotional wellbeing of users and non- users- The emotional well-being of two groups of individuals: users and non-users. The mean emotional well-being score for users is 13.11, and for non-users, it is 13.14. The standard deviation of emotional well-being scores is 3.55 for users and 3.91 for non-users. Both groups' emotional well-being scores have different shapes of distribution, as shown by the difference in their skewness and kurtosis values.

A two-sample t-test under the unequal variance assumption is performed to determine whether there is a statistically significant difference between emotional health ratings of users and non-users. The t-statistic is -0.04, indicating no significant difference in emotional health scores between the two groups. The one-sided p-value is 0.48, which is above the significance level of 0.05. Therefore, we can conclude that the null hypothesis (no significant difference in emotional well-being ratings between users and non-users) is not rejected. Overall, the analysis shows that there is no significant difference in emotional well-being scores between users and non-users. However, further investigation and analysis may be necessary to understand the reasons behind this lack of difference and identify other factors that may affect emotional well-being.

Comparison Psychological wellbeing of users- The data presented compares the psychological health scores of two groups: users and non-users. The mean psychological health score of the user group is 48.91, while the non-user group has a higher mean score of 53.16. The standard deviation of the user group is 15.61, which is slightly lower than the non-user group's standard deviation of 17.36. The skewness value of both groups indicates a slight positive skew, with the non-user group being more skewed than the user group. The kurtosis value of the user group is negative, indicating a flatter distribution, while the non-user group has a higher kurtosis value, indicating a more peaked distribution.

The t-test results show that the psychological health scores of the two groups are not significantly different, as the calculated t-statistic (-1.51) is lower than the critical t-value (1.98). Significance level 0.05.The one-sided p-value is 0.067 and the two-sided p-value is 0.135, both of which exceed the significance level of 0.05, indicating that we do not reject the null hypothesis that there is no significant difference in the user's psychological tendency. I'm here. Health Ratings and Non-Users. Overall, the results suggest that using or not using a particular product or service does not significantly affect psychological health scores.

Correlations between emotional wellbeing and psychological wellbeing

		Emotional Well-Being	Psychological Well-Being
Emotional Well-Being	Pearson Correlation	1	-.421**
	Sig. (2-tailed)		.000
	N	141	141
Psychological Well - Being	Pearson Correlation	-.421**	1
	Sig. (2-tailed)	.000	
	N	141	141

Correlations

This table shows a correlation analysis between emotional and psychological well-being based on a sample of 141 people. The Pearson correlation coefficient between the two variables is -0.421** (negative correlation), indicating a moderate to strong relationship between emotional and psychological well-being.

The Sig. (two-sided) value for both variables is 0.000, below the traditional significance level of 0.05, indicating that the correlation between emotional and psychological well-being is statistically significant. Suggesting.

In conclusion, this analysis suggests that emotional and psychological health is negatively correlated. That is, as one variable increases, the other tends to decrease. However, it is important to note that correlation does not imply causation and further research is needed to establish a causal relationship between these two variables.

Discussion- The current study aimed to investigate the effects of dating app use on the emotional and mental health of young people. Additionally, complementary goals focus on gender differences in emotional and mental health. A review of the literature also showed no significant gender differences in emotional and mental health, although some domains showed some degree of bias. This chapter details the results of the statistical analyses (both descriptive and inferential) used in the study. Each section begins with a brief overview of the results of the statistical analysis, followed by a discussion in the context of previous results and theoretical perspectives.

Descriptive Analysis of Emotional Wellbeing of users and non-users- The Descriptive Analysis for Emotional Wellbeing contrasts users with non-users. The mean emotional well-being score for users is 13.11, whereas it is 13.14 for non-users. The standard deviation for users is 3.55 and for non-users is 3.91. The kurtosis value for users is -0.48 and 0.70 for non-users, showing that the data for users is somewhat flatter than the data for non-users. The skewness for users is 0.04 and -0.60 for non-users, showing that the data for users is almost symmetric while the data for non-users is somewhat skewed to the left. The t-test with unequal variances reveals that the difference in emotional well-being between users and non-users is not statistically significant. According to the descriptive analysis, there appears to be minimal variation in emotional well-being.

The psychological well-being of users and non-users- Users have a mean psychological well-being score of 48.91, whereas non-users have a score of 53.16. The standard deviation for users is 15.61, whereas the standard deviation for non-users is 17.36. The kurtosis value for users is -0.38 and for non-users is 4.89, showing that user data is somewhat flatter than non-user data. The skewness for users is -0.22 and 1.33 for non-users, showing that data for users is almost symmetric while data for non-users is strongly positively skewed. The difference in psychological well-being between users and non-users is statistically significant, according to the t-test with unequal variances.

According to the findings, there is a statistically significant difference in psychological well-being between users and non-users. Non-users had a higher mean psychological well-being score.

Inferential Analysis

Independent Samples t-test

Variations in Emotional Wellbeing by Gender The data contrasts male and female emotional well-being levels. Males have a mean emotional well-being score of 14.30, indicating that they scored higher on the emotional well-being scale than females, who had a mean score of 11.87. The difference in means is 2.43, which is fairly large. Males had a standard deviation of 3.36, showing that their emotional well-being scores vary. Females had a standard deviation of 3.78, showing that there is some fluctuation in their emotional well-being ratings, although it is slightly higher than that of males. Males have a kurtosis value of 3.48, suggesting that the data is more peaked than the normal distribution, whereas females have a kurtosis value of 0.

Gender Differences in psychological wellbeing- In this study, we compare male and female psychological well-being ratings. Males have a mean score of 49.47, while females have a score of 53.75. The standard deviation for males is 16.89 and for females is 16.50, indicating that there is considerable variation in the scores but that the difference between the two groups is not statistically significant.

Kurtosis is a measure of distribution shape. Males have a kurtosis of 5.41 while females have a kurtosis of 2.68. This suggests that male data is more peaked than female data. In other words, guys' psychological well-being ratings are more concentrated around the mean than girls.

Correlational Analysis- The presented correlation study includes the two variables Emotional Well-Being and Psychological Well-Being and is based on a sample of 141 people. The Pearson correlation coefficient is a statistical metric that displays the degree and direction of a linear relationship between two variables. In this scenario, the Pearson correlation coefficient between Emotional Well-Being and Psychological Well-Being is -.421**.

A negative correlation indicates that when the value of one variable rises, the value of the other variable falls. In this situation, a negative correlation value of -.421** indicates that while Emotional Well-Being grows, Psychological Well-Being falls, and vice versa. The negative correlation shows that the two variables are negatively connected. The magnitude of the link between the two variables may be used to estimate its strength.

Implications of the study

College students who use dating apps should be aware of the possible detrimental impacts on their mental health and take precautions to regulate their use.

Dating app developers should think about include tools that encourage body acceptance and discourage unhealthy behaviors.

Dating app developers should strengthen their safety features and educate their customers on how to keep safe while using their services.

To help alleviate some of the negative impacts on mental health and wellness, dating app developers should consider advertising the social advantages of their services.

Should be aware of the possible harmful impacts of dating apps on mental health and to take actions to prevent these effects.

Limitations of this study

Self-selection bias: Because the study only includes college students who are willing to participate, it may not be representative of the full population of college students who use dating apps.

Data acquired from the study may rely on self-reported data from participants, which may be influenced by social desirability bias.

Cultural variations may influence how college students use dating apps as well as their emotional and psychological well-being, limiting the findings' generalizability to other cultures or demographics.

The study's sample size may be small, making it difficult to draw findings that are generalizable to a wider group of college students.

Design with a cross-section: Many research on this topic has a cross-sectional design, which means that data is collected at a single moment in time. This can make determining causation or whether changes in emotional and psychological well-being are related to dating app use or other causes challenging.

Suggestions for future study- Future research might look at a variety of facets of these phenomena. Studies might look into the link between dating app use and self-esteem, anxiety, sadness, and loneliness, for example. Furthermore, research might look at the influence of dating apps on students' social contacts, such as the quality and number of face-to-face interactions with others. In addition, studies might be conducted to determine if dating app users are more or less prone to participate in dangerous behaviors such as unprotected sex or substance misuse. Lastly, studies on online dating violence may be conducted. Researchers might obtain a better grasp of the complicated links between dating app use and the emotional and psychological well-being of college students by investigating these and ~~other related concerns.~~

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The Agricultural Finance in India

• Aashutosh Sharma

Abstract- *The accelerating pace of climate change population growth and changing dietary preferences, global pandemic and conflicts have threatened food security and the development of agri- food sector they but tremendous pressure to shift the policy focus to the development of a more sustainable and resilient agriculture in the world in India banks and financial institutions land to agriculture sector but it expands to providing various services to the farmers particularly to the small and marginal farmers , banks have established credit counselling centers to help farmers understand the details of financial support provided by banks and the various government sponsored schemes and the benefits available to them under those schemes.As a result of limited financial resources, agriculture has been plagued by a lack of profitability. Diverse policy initiatives have been made to improve access to finance, including: Affordability has always been an issue for policymakers in India, and it will continue to be. As the title suggests, the aim of this study is to explore the requirements and policy interventions in the domains of farm financing.*

Keywords- *Climate change, population growth, development, agri-food, providing various services, marginal farmers, financial institutions, sustainable, profitability and policy interventions.*

Introduction- The agriculture sector in India is one of labour force with such a large percentage of the population employed in agriculture or allied sectors, agricultural finance plays a significant role in supporting activities related to farming and other allied aspects such as production or processing and marketing of produce. Finance is regarded to be one of the riskiest industries since it requires a large amount of money at every level, and good planning is necessary to generate that money as well. Financing agriculture requires long-term planning, and the Indian banking industry strongly encourages agricultural financing, which allows farmers to perform tasks efficiently without any hindrances. Agricultural finance was examined at both the micro and macro levels. Different techniques of raising money for the agricultural sector are covered under macro finance. It's also involved in the lending process, as well as the laws, regulations, monitoring, and dominance of various agricultural credit establishments. Consequently, macro-finance is used to fund farming at the collective level. Agricultural financing is the study of how credit offers funding and liquidity to farm borrowers. It's also known as the research of monetary intermediaries that provide loan funds to agriculture, as well as the monetary markets where these intermediaries receive their loan in a place funds. Due to the advent of

• Research Scholar, Kalinga University, Raipur (C.G.)

capital-intensive agricultural technology, farm financing has become a critical input. So that their farm holdings may be more productive, farmers require finance. When it comes to farming in India, the results are often poor and unreliable. Low and unpredictable returns characterize Indian agriculture in general. An external source of capital will be necessary to stop the viscous circle of poor returns on savings and low returns on investments. External finance for farmers is a must in order to reduce the occurrence of negative returns, inadequate savings, minimal investment, and unsatisfactory returns.

The sources of agricultural finance in the country are broadly classified as institutional and non-institutional sources.

Objectives of the Study- The following are the objectives of the study:

(1) To study the features of Agricultural Finance in India.

(2) To examine the requirements and relevance of Agriculture Finances.

(3) To analyze the Agriculture Finance policies in India.

(4) Progress of kisan credit card scheme in India from 2001 to 2011

(5) To give suggestions for further research.

Research Methodology- The article is based on the secondary data compiled from diverse sources of Agricultural finance, journals, newspapers and relevant websites etc. The data were compiled from the Agricultural Statistics the Department of Agriculture and Co-operation, Ministry of Agriculture, Government of India (GOI), Reports on Currency and Finance, published by Reserve Bank of India (RBI) and various annual reports of National Bank for Agriculture and Rural Development (NABARD).

- **Institutional source of Agricultural finance in India-**
  - **Co-operative Societies-** Cooperative societies offer the least expensive loans for agriculture and related activities primary agricultural co-operative societies (PACS) are among the oldest forms of agri-finance in India and provide short- and medium-term loans for agricultural activities long term loans are provided by primary co-operative agriculture and rural development bank (PCARDBs).
  - **Land development banks-** Among various sources of agricultural finance in India are land development banks also called land mortgage banks they are registered under the co-operative societies Act in some states, they are known as agricultural and rural development banks (ARDBs) these banks offer long term loans with land as collateral.
  - **Commercial banks-** Commercial banks also offer credit to farmers in need of financial support scheduled commercial banks offer loans to farmers for buying farm equipment and costs related to activities after harvest.

Some commercial banks are as under -

- **State bank of India-** Offers loans for mechanization of farms the fund from these loans can be used to purchase combine harvesters, tractors and install drip irrigation. Moreover, loans for activities related to dairy, poultry or fisheries can also be availed credit can be taken against warehouse receipts.

- **HDFC Bank-** The purpose of these loans varies across a broad spectrum starting from installation of orchards and plantations to promotion of commercial horticulture and production of field crops.
- **Allahabad Bank Agricultural loans-** Bank offers the kisan credit card under its AKSHAY krishi scheme and just like state bank of India, Allahabad bank offer other services like warehouse receipt financing, debt swapping scheme, construction of rural godowns etc.
- **Bank of Baroda-** Bank of Baroda offers loans to purchase tractors and heavy machinery needed for day-to-day operations moreover Bank of Baroda also offers working capital and funds required for either sitting up units, or running units occupied with dairy, pig farm, poultry, sericulture, rearing of sheep and goat etc.
- **Punjab national Bank-** Bank avail loans for the establishment of biogas unit, develop wastelands, setup minor irrigation apparatus etc. also offers kisan credit card, debt swapping etc.
- **Axis bank Agricultural loans-** Axis bank Offer loans for tractors, warehouse receipt financing, loans for developing rural godowns and many more also offers a product known as contract farming where in loan agreements are were between farmers and corporates.

Regional Rural Banks- One of the essential sources of farm finance is regional rural banks which are scheduled commercial banks owned by government they were setup in 1975 on the recommendation of Narasimhan working group and followed by regional rural banks ACT 1976.

Microfinance- Micro finance is another option that farmers who don't have access to credit via banks and financial institutions or those who don't have adequate collateral can fall back on micro finance involves small loans with no collateral and it is provided by microfinance Institutions (MFIs).

NBFC (non- banking financial companies)- The NBFC backed by online and easy to use app based platforms on NBFC takes banking and credit to those farmers not touched by mainstream banking.

NABARD (National bank for agricultural and rural development)- NABARD offers refinance to regional rural banks, state co-operative banks, district central co-operative banks and state governments as well

Schemes related to Agricultural loans as followers –

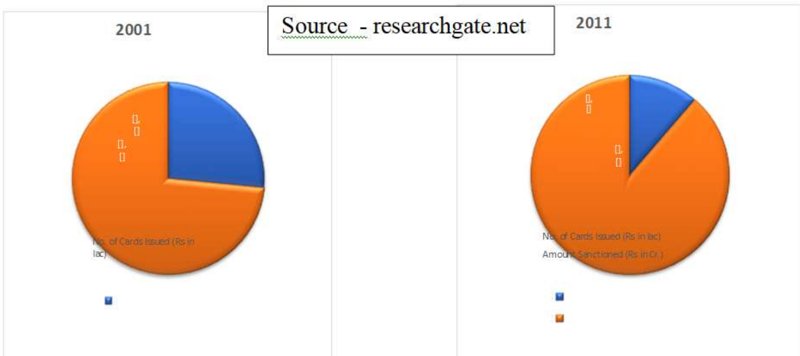
- Kisan credit card scheme
- Dairy Entrepreneurship development scheme.
- Rural godowns
- Loans against warehouse receipts.
- Solar schemes
- Non-Institutional sources of Agricultural finance in India-
- Money lenders, Agents, Traders and land lards

Money lenders have for decades served as the source for many agricultural families in India's rural credit landscape. However the interest rates are high and money lenders have in many instances pushed families into a debt trap.

Relatives and Friends- Although relatives can prove to be of help they may help us in case of financial emergencies and not frequently although non institutional sources of farm income have been available for decades, now interest rates are high and there is a lack of proper documentation.

Progress of kisan credit card scheme in India from 2001 to 2011

Year	No of Cards Issued (in lac)	Amount Sanctioned (Rs in Cr.)
2001	93.41	25858
2011	117.60	91680



Prerequisite for Agriculture Finance- Following the pre-requisite for agricultural finance:

Where agriculture's production is still poor owing to financial limitations, the necessity for financing for agriculture cannot be overstated. Agricultural productivity is a major issue when it becomes unavailable; this is also a problematic when it is available but in such a manner that it causes more misery in the near future. Any type of economic activity necessitates the use of funds and it has to regulate the growth of economic activities and making sure it works effectively. Finance is the catalyst for this outcome. The demand for various forms of agricultural financing, on the other hand, may be divided into the following categories.

New Agricultural Policy- The Indian agriculture industry is likewise on the eve of a new era. The government's flagship agro-based strategy empowers producers to maximize their goods to anyone else and elsewhere if they chose. Landowners will need to embrace latest techniques to deliver up with shifting market trends and market information. The government's ambitious agricultural reform programme, which is now executed in three laws, might be a new method of connecting food manufacturers and customers. All three proposals would try to eliminate redundancies via financial intermediation and enable producers and consumers to continue trading.

Agricultural Reforms

The Three Agri Reforms- The government proposed three agro reform legislation such as Farmers' Produce Trade and Commerce (Promotion and Facilitation), the Farmers' (Empowerment and Protection) Price

Assuranceand Farm Services Agreement, and the Essential Commodities (Amendment) Act.

The Farmers' Produce Trade and Commerce Bill, 2020:To make matters worse for farmers in India, they are now required to sell only to state legislature license holders and are prohibited from selling outside of APMC-approved marketplaces. As a result of different APMC laws established by state governments, the free movement of agricultural trade among states is hampered. The draft policy seeks to make by which farm owners and dealers get the autonomy to distribute and purchase goods as they see appropriate, allowing for more financially lucrative rates to be achieved via competitors, e-commerce platforms boosting effectual, open and barrier-free interstate and intra - state commerce. With this measure, the tight-lipped agricultural markets of the country will undergo a sea change. Producers will be able to take advantage of new options while reducing marketing costs and receiving better prices. As a result, farm owners in excess areas would be likely to access higher costs, while consumers living in deficit areas would be able to enjoy lower rates.

Conclusion- As per World Bank demand for food will increase by 10% by 2050, at least $80 billion annual investment will be needed to meet this demand.our work in agriculture finance helps clients provide market based financial services, and fund long term and green investment to support sustainable agriculture and agri-food value chains.Agriculture development is intertwined with economic growth. According to the World Bank, agriculture accounts for roughly 15 percent of India's Gross Domestic Product (GDP). It is impossible to overstate the relevance of long-term finance in agriculture today. Futureprospects for agricultural financing in India are bright due to the rapid industrialization of agriculture in India. Financial aspects of India's farm industry are examined by agricultural finance experts in order to better understand and analyze their financial implications. Farming has a financial component, which includes the production of agricultural products and the sale thereof. This has been crucial for India's growth strategy and poverty reduction because agriculture accounts for 22 percent of India's gross domestic product and employs roughly 65 percent of the country's rura1 labour force. Farming's success is dependent on a variety of factors such as loan availability in a timely manner as well as credit cost, as well as changes to the credit delivery system. Government of India and Reserve Bank of India (RBI) have played a significant part in building a wide-ranging institutional structure for ministering to the rising credit facilities of the sector, recognizing agriculture's importance in India's development plan. As the agricultural sector's needs change, India's agricultural loan rules are periodically revised. India's food grain output is self-sufficient in part because of agricultural financing.

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Factors Responsible for Discontentment of Customers with the Services Provided by Banks in Bhojpur District of Bihar

• **Abhishek Kumar Gupta**
•• **Jawahar Lal**

Abstract- *Any business or service provider can compete and emerged as a successful business or service provider, in this keen era of competition, only after working on their weak points and after eliminating their weaknesses. Bank provide different types of services in the form of primary functions, agency functions and general utility functions. Apart from these services, bank provides their customers different amenities and convenience either within the bank premises or via online mode. But in providing basic facilities and other amenities and convenience to their customers, many banks have been found improper which results in dis-satisfaction of customers with services provided by banks. This study was focused on finding out the service factors on which bank fails to satisfy their customers. The study was based on primary data which was collected, from Bhojpur district of the state of Bihar, on convenience sampling method. The data has been analysed using SPSS 25 with the application of Kendall's Coefficient of Concordance, a non-parametric version of ANOVA with repeated measures. The result of this study shows that customers of banks were highly dis-satisfied with the inconvenience of handicapped customers within bank premises.*

Keywords- Bank*, Services, Inconvenience, Discontentment, Kendall's Rank Test*

Introduction- Any business or service provider can compete and emerged as a successful business or service provider, in this keen era of competition, only after working on their weak points and after eliminating their weaknesses. Bank, a service provider, provides different type of services like- primary functions in the form of receiving of deposit and advancement of loan, agency functions in the form of making payment and receiving money on behalf of its customers, general utility function like- locker facility and other different financial services. Along with the above stated functions, a bank needs to provide some other facilities/services in bank premises as well as via online mode to its customers. The banking services includes money deposits, withdrawals, saving account management, providing financial products and services, loan and account pay services, bill pay etc. Apart from this, bank provides their customers- some basic facilities

• Research Scholar, Department of Commerce and Business Management, Veer Kunwar Singh University, Ara, (Bihar)
•• Vice Chancellor, Tilka Manjhi Bhagalpur University, Bhagalpur (Bihar)

within bank premises as well as via online mode like- drinking water and clean washroom facility, convenient deposit and withdrawal facility with separate queue for male and female customers, providing different transaction options and delivery of promised services on time, responding customer's query via online and offline mode, providing some basic facilities to physically handicapped customers, rectification of complaints on time, providing sufficient security guards within bank premises, providing suggestion to their customers regarding suitable banking products and policies for them, behaving politely with the customers within bank premises or on call in case of online query etc. More or less a bank can make a space in its customer's mind by facilitating the above-mentioned services. But it was found that many banks are unable to provide these services in a proper way or they used to lack on some basic important points, which results in discontentment of the customers with service quality provided by banks. This study aims at finding out, on the basis of perception of customers and with the help of observation of researcher as well, the basic and lacking point of banks in providing services. This study will help bank as well as Government in making policies and taking decisions related to banks for improving service quality.

Review of literature-

(Islam & Ali, 2011) in this paper, the author has found that satisfaction of customer and reputation of bank leads greater loyalty. Again in **(Lohani & Bhatia, 2012),** it was found that reliability, responsiveness and assurance are the most important factors of service quality and customer satisfaction. In next study **(Okoe, Adjei, & Osarenkhoe, 2013),** authors assured that although the service quality is a necessary but it is not a sufficient condition for maintaining strong relationship with customers. In another study **(Kamble, Dhume, Raut, & Chaudhuri , 2013)** which was a comparative study between private and public bank, reveals that customers of both the private and public sector bank differs in terms of their service quality perception. In next study, **(Rather, 2013)**, author has found that in customer's mind, both private and public banks are equal in terms of providing service quality. Moreover, public sector banks also provide new innovative services and products to their customers. **(Dash, Parwez, & Parwez, 2013)** in their study found that private banks are also not in very good position in terms of providing service quality and they suggested that these banks also need to work on their different weak dimensions. In the next paper, **(Adil & Khan, 2013)** has tried to find relationship between service quality and recommendation about bank where they concluded that reliability and empathy are highest contributors in recommendation about bank. As per the study of next authors **(Jha, Sureka, & Shitika, 2014),** convenience is the most important dimension of service quality, followed by responsiveness and accessibility. In the next study **(Poranki, 2015),** the author concluded that Assurance, Reliability, Empathy and Responsiveness have no significant effect on customer satisfaction. An study of **(Jatav & Mittal, 2015),** shows that service quality is the most impacting factor to customer satisfaction. And the reason behind lower service quality among banks in India is the factors which are related to tangibility and responsiveness. **(Meher & Gupta, 2020)** in this paper author has tried to know the impact of digital banking in the growth of MSMEs in Bihar and concluded that it is difficult to quantify the contribution of digital banking in the growth MSMEs but it facilitates MSMEs to manage the various business activities. **(Gupta & Lal, 2021)** in this paper author has tried to know the perception of customers regarding service quality provided by banks and found that perception of the customers towards service quality of banks have decreased after covid as compared to before covid.

After studying the existing literature related to service quality of banks and hurdles related to banking service quality, it was found very few research was done in the state of Bihar and it was almost zero in case of Bhojpur district. On this basis, this study was found a novel work in the state of Bihar.

Objective of the study- This study aims at finding out the various factors which are responsible for discontentment of customers with the services provided by banks, so that after finding out those reasons bank can improve its services for better customer satisfaction.

Hypothesis of the study-

H_{OA}: All the factors are equally responsible for discontentment of customers with the services provided by banks.

Research methodology- This study is Empirical in nature. The data used in this study are basically of primary nature. This data has been collected with the help of questionnaire on a likert scale of 1 to 7, where 1 means Highly dis-satisfied, 2 means dis-satisfied, 3 means dis-satisfied upto some extent, 4 means neither dis-satisfied nor satisfied, 5 means satisfied upto some extent, 6 means satisfied and 7 means highly satisfied. The questionnaire contains the questions related to the factors which are responsible for the discontentment of the customers with the services provided by the banks. For data collection, Bhojpur district was classified into three sub-division, namely Ara-sadar, Piro and Jagdishpur. Thereafter, from each sub-division certain block has been picked on the basis of maximum population which are as under- from Ara-sadar 4 blocks were picked which are Ara, Barhara, Koilwar and Sandesh. In the same way, from Piro Sub-division, 2 block were picked i.e., Piro and Tarari block and from Jagdishpur sub-division also 2 blocks were picked i.e. Jagdishpur and Bihiya. It was decided to collect 60 responses from each block, so that to achieve targeted data from 480 respondents (60 responses X 8 blocks). The actual data collection was total 497 responses which were analysed using different statistical tools to find out the results.

The questionnaire involves the block of the respondents and their responses towards the factors responsible for the discontentment of the customers.

Need of the study- Banking sector is the back bone of every country's economy. And India is not an exception also. Banking services are provided by Indian banking system in all over the country through retail banking to its customers. Banks provide different services to its customers in the form of primary functions (receiving deposit and advancing loan), Agency functions (making and receiving payment on behalf of customers), general utility functions (locker facility and financial advice) etc. Apart from the above mentioned services, banks have to provide some facilities to their customers in bank premises, as well as via online mode also. Quality of banking services depends upon what kind of facilities and convenience are provided by the banks to their customers. But it has been found that many of the banks are lacking on providing some basic facilities to their customers also. This study aims at finding out those factors which are responsible for the discontentment of the customers with the services provided by the banks. By finding out those factors, banks may improve their lacking points and improve their quality of services as well. The reason of selecting Bhojpur district for the study is that Bhojpur district is one of the 38 districts of Bihar. In this district varieties of respondents (educated and uneducated as well as rural and urban) are available as compared to other districts of the state of Bihar. The study on banks of this district may give an unbiased result about banks.

Limitation of the study-

1. This study is limited to the Bhojpur district of Bihar only.
2. The data were collected from only 8 blocks out of 14 blocks of Bhojpur district of Bihar.
3. The data were collected from the customers of all the nationalised banks only.

Data analysis and interpretation

Table 01
Discontentment with bank building, insufficient equipment and employees

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	13	10	12	16	7	3	4	65
• Barhara	3	20	9	15	5	4	4	60
• Bihiya	11	8	12	13	19	3	6	72
• Jagdishpur	5	9	13	12	12	4	5	60
• Koilwar	7	8	13	12	7	8	5	60
• Piro	7	7	15	10	12	4	5	60
• Sandesh	9	12	5	18	5	4	7	60
• Tarari	7	16	3	14	8	8	4	60
Total	**62**	**90**	**82**	**110**	**75**	**38**	**40**	**497**

The above table shows the responses of the respondents upon dissatisfaction with bank building, equipment required for daily work in bank and availability of employees in bank. Here 62 out of 497 respondents are highly unsatisfied with the building of bank premises, unavailability of working equipment and shortage of employees in bank premises also. Next 90 respondents have rated 2 which reflects they are unsatisfied with the above-mentioned requirements. Another 82 respondents have rated 3 on the scale which shows they are unsatisfied upto some extent with the bank building, insufficient equipment and shortage of employees in bank. These responses from the respondents of Bhojpur district is due to the reason that many banks of Bhojpur district have less sitting capacity of customers, old building as well as many ATMs of banks within bank premises were not in working condition. The shortage of bank employees can also be seen in the bank premises of Bhojpur district of Bihar.

Table 02
Discontentment with unavailability of ATMs and water & washroom facility in bank

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	12	7	21	11	6	4	4	65
• Barhara	8	8	17	6	11	6	4	60
• Bihiya	8	12	9	16	15	2	10	72
• Jagdishpur	10	8	11	9	12	4	6	60
• Koilwar	7	8	14	7	9	11	4	60
• Piro	13	12	4	8	8	9	6	60
• Sandesh	8	7	17	12	10	3	3	60
• Tarari	15	6	10	8	10	6	5	60
Total	**81**	**68**	**103**	**77**	**81**	**45**	**42**	**497**

Many of the banks of Bhojpur district of Bihar has availability of ATMs and Passbook printing machine within the bank premises. Only some selected banks has self-passbook printing machine and ATMs within bank premises. If we talk about water and washroom facility within the bank, these facilities are available within the premises but washroom was situated at such place in the premises that customers are not allowed to go there due to security reasons. Same was the condition with facility of water. Drinking water was available within the premises but it was placed at such place that customers can't see it. However, only in some branches of SBI, these facilities were proper and placed in front of the eyes. The above table shows the responses of the respondents which reflects 81 respondents are highly unsatisfied, 68 respondents are unsatisfied and 103 respondents are dis-satisfied upto some extent with facility of ATMs and water and washroom facility within the bank.

Table 03
Discontentment with deposit & withdrawal and working condition of ATM

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	11	9	21	13	5	3	3	65
• Barhara	5	3	30	5	14	2	1	60
• Bihiya	5	5	18	13	22	3	6	72
• Jagdishpur	4	7	21	12	7	4	5	60
• Koilwar	7	5	22	8	14	2	2	60
• Piro	5	5	19	6	20	1	4	60
• Sandesh	5	4	15	15	12	5	4	60
• Tarari	8	4	24	7	15	1	1	60
Total	**50**	**42**	**170**	**79**	**109**	**21**	**26**	**497**

The above table shows the discontentment of the customers with deposit & withdrawal and working condition of ATM within bank premises. When we talk about the dis-satisfaction with deposit and withdrawal, the reason behind it is long queue of deposit and withdrawal. Customers have to wait for a long time for a normal transaction. Same was the case with queue of updating passbooks. Here also customers have to wait for a long time, since most of the blocks of Bhojpur district are rural areas and senior citizens of these areas don't know how to use mobile banking as well. On the other hand, working condition of ATMs and self-passbook update machine is also found not working in many ATMs. The above table reflects that out of 497 respondents, 50 respondents are highly unsatisfied, 42 respondents are unsatisfied and 170 respondents are dis-satisfied upto some extent with the long queue of deposit and withdrawal and working condition of ATM (specially, self-passbook printing machine) within bank.

Table 04
Discontentment with unavailability of transaction options and delivery of Promised services

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	9	14	12	16	7	5	2	65
• Barhara	1	11	12	22	9	3	2	60
• Bihiya	6	13	13	13	18	7	2	72
• Jagdishpur	6	9	12	15	8	7	3	60
• Koilwar	4	10	12	15	9	7	3	60
• Piro	5	15	12	13	9	5	1	60
• Sandesh	6	7	10	12	17	5	3	60
• Tarari	5	16	8	13	13	2	3	60
Total	**42**	**95**	**91**	**119**	**90**	**41**	**19**	**497**

In the above table, respondents were asked about how much they are satisfied with the availability of transaction options and delivery of promised services by bank staff. The above table shows that out of 497 respondents, 42 were rated 1 which shows these respondents are highly dis-satisfied with the delivery of promised services and unavailability of transaction options in bank. Next 95 respondents have rated 2 on the scale which shows they are unsatisfied with less transaction options and delivery of promised services. Another 91 respondents have rated 3 on the scale which reflects these respondents are dis-satisfied upto some extent with the above services. Afresh 119 respondents have rated 4 on the scale of 1 to 7 which shows these respondents are neither highly dis-satisfied nor highly satisfied with the less availability of transaction options and delivery of promised services.

Table 05
Discontentment with responses of the staffs on offline and online query

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	8	15	14	11	9	5	3	65
• Barhara	3	10	15	10	11	8	3	60
• Bihiya	3	13	12	12	19	6	7	72
• Jagdishpur	3	12	11	12	11	6	5	60
• Koilwar	5	8	16	9	7	13	2	60
• Piro	3	19	11	7	8	7	5	60
• Sandesh	3	12	11	10	18	4	2	60
• Tarari	5	12	10	13	10	7	3	60
Total	**33**	**101**	**100**	**84**	**93**	**56**	**30**	**497**

In the above table, respondents were asked about how was the behaviour of the bank staff when they make any query via online or offline mode. Discussion with customers in bank premises while collecting data reveals that customers are not so much satisfied with the bank staff. As per them, sometime bank staffs behave rude when they are asked any question or problem. As per this perception they have rated their experience in such manner- out of 497 respondents, 33 have rated 1 on the scale which shows these respondents are highly dis-satisfied with the bank staffs for online and offline query. Another 101 respondents have rated 2 on the scale which shows these respondents are unsatisfied with the experience of query with banks. Afresh 100 respondents have rated 3 on the scale showing they are unsatisfied upto some extent. However, 84 respondents have rated 4 on the scale of 1 to 7 which shows these respondents are neither satisfied nor dis-satisfied with their query experience with the bank.

Table 06
Discontentment with facility for Handicapped customers

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	bank	5	6	7	
• Ara Sadar	11	17	14	9	6	5	3	65
• Barhara	3	11	21	9	7	7	2	60
• Bihiya	5	12	14	12	19	8	2	72
• Jagdishpur	4	12	19	13	5	6	1	60
• Koilwar	12	7	11	11	7	8	4	60
• Piro	6	12	19	9	6	7	1	60
• Sandesh	7	8	12	13	10	9	1	60
• Tarari	10	9	15	9	6	8	3	60
Total	**58**	**88**	**125**	**85**	**66**	**58**	**17**	**497**

Customers are treated as God by the any business or service provider and banking sector is not different in this case also. It may possible that customer may be a person who is differently abled (physically handicapped) and for this type of customers responsibility of any service provider like banks increases. Banks or any service provider should make some services available for these type of customers like- special stairs for PH, bank building should be on the ground floor, if possible, special chairs or sitting availability, convenient toilets etc. While collecting data, discussion with customers and physical verification by the researcher reveals that except few banks, all the banks are situated at 1st floor of any building which is quite inconvenient for PH customers. There was no facility for PH to go on 1st floor of bank building. Inside the bank premises also, there were no special sitting facility for PHs. Only few banks have special toilets for PHs. Due to this type of facility, maximum respondents have given unsatisfied rating to facility for handicapped customers. Here, out of 497 respondents, 58 have rated 1 on the scale which shows they are highly dis-satisfied with the facility for handicapped customers. Next, 88 have rated 2 on the scale which shows that these customers are not satisfied with it. Another 125 respondents have rated 3 on the scale, which shows these respondents are neither highly unsatisfied nor highly satisfied with the facility available for handicapped customers.

Table 07
Discontentment with rectification of complaints and maintenance of equipment and ATMs

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	9	12	19	8	5	3	9	65
• Barhara	11	4	12	6	13	7	7	60
• Bihiya	8	10	7	11	20	12	4	72
• Jagdishpur	5	12	11	10	13	6	3	60
• Koilwar	14	6	11	9	8	7	5	60
• Piro	13	10	5	10	8	7	7	60
• Sandesh	6	7	10	7	5	15	10	60
• Tarari	10	5	13	10	9	8	5	60
Total	**76**	**66**	**88**	**71**	**81**	**65**	**50**	**497**

Sometimes, banking customers have some problems related to their bank account, cheque-book, amount deduction in the form of various expenses, misplace of cards, no working of ATM etc. In these situations, customer have to talk with bank personnel either within the bank premises or on call and they are in need of rectification of that problem. In such a situation, bank personnel need to go through with the problem of the customer and rectify it or suggest them for any procedure. In the above table, respondents were asked about how much they are satisfied with the rectification of complaints of the customers. On the above question, 76 out of 497 respondents have rated 1 on the scale which shows these respondents are highly dis-satisfied with the service of rectification of complaints of the customers. Next 66 respondents have rated 2 on the scale which shows these respondents are also not satisfied with this service. Another 88 respondents have rated 3 on the scale which shows respondents are not satisfied upto some extent with the service of rectification of complaints of the customer.

Table 08
Discontentment with insufficient security guards and feeling of insecurity

Name of Blocks	Rating from pro1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	12	15	17	7	3	6	5	65
• Barhara	2	6	11	17	10	6	8	60
• Bihiya	8	15	16	12	10	7	4	72
• Jagdishpur	7	12	16	14	5	4	2	60
• Koilwar	7	11	11	10	7	8	6	60
• Piro	5	17	14	14	6	1	3	60
• Sandesh	7	5	13	6	6	15	8	60
• Tarari	6	10	12	11	10	7	4	60
Total	**54**	**91**	**110**	**91**	**57**	**54**	**40**	**497**

It is the duty of the banks to provide sufficient number of security guards within the bank premises and make customers feel secure while they are doing different transactions within the bank premises. While collecting the data it was found by the researcher that in approx. all the banks only 1 security guard is available for guarding of bank premises which is not so sufficient for security purpose. While communicating with the available guard, it was found that they also feel that at least 2 guards should must be there in the premises. In above table, out of 497, 54 respondents have rated 1 on the scale which shows these respondents were highly dis-satisfied with the low availability of security guards within bank. Another 91 respondents have rated 2 on the scale which shows these respondents were dis-satisfied with the low availability of security guards. Next 110 respondents have rated 3 on the scale which shows these respondents were not satisfied upto some extent with the low availability of security guards.

Table 09
Discontentment with no suggestion regarding banking products and policies

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	10	9	15	12	3	4	12	65
• Barhara	3	7	11	13	3	8	15	60
• Bihiya	5	6	10	17	7	7	20	72
• Jagdishpur	6	3	13	13	4	6	15	60
• Koilwar	4	3	17	12	3	10	11	60
• Piro	9	6	14	6	6	7	12	60
• Sandesh	3	3	10	13	4	4	23	60
• Tarari	7	3	13	17	4	5	11	60
Total	**47**	**40**	**103**	**103**	**34**	**51**	**119**	**497**

A bank should make aware their customers about different banking products and policies so that they can choose best suitable product and policies for them. Many private banks have adopted this policy to make their customers and other people aware about their different banking products and policies. In approx. all the banks of Bhojpur district of Bihar, banking products and policies were advertised in the bank premises in the form of posters and banners only. The above table shows that out of 497 respondents, 47 were rated 1 on the scale which shows these respondents are highly dis-satisfied with the no suggestion about banking products and policies. Another 40 respondents are dis-satisfied with the same and have rated 2 on the scale. Next, 103 out of 497 respondents have rated 3 on the scale which shows these respondents are not satisfied upto some extent with no suggestion regarding banking products and policies.

Table 10

Discontentment with unpolite behaviour of bank employees

Name of Blocks	Rating from 1 to 7							Total
	1	2	3	4	5	6	7	
• Ara Sadar	11	9	17	10	5	8	5	65
• Barhara	11	5	10	13	9	11	1	60
• Bihiya	10	8	10	13	10	7	14	72
• Jagdishpur	8	4	14	16	6	5	7	60
• Koilwar	10	8	8	10	11	9	4	60
• Piro	16	5	7	9	11	4	8	60
• Sandesh	8	1	12	15	3	11	10	60
• Tarari	9	7	9	14	8	10	3	60
Total	**83**	**47**	**87**	**100**	**63**	**65**	**52**	**497**

In the above table, respondents were asked about behaviour of the bank employee while solving their problem. 83 out of 497 respondents have rated 1 on the scale of 1 to 7 which shows these respondents are highly unsatisfied with the behaviour of bank employees while solving customer's problem. Next 47 respondents have rated 2 on the scale which shows dis-satisfaction of customers with behaviour of bank employees. Afresh 87 respondents have rated 3 on the scale indicating these respondents are dis-satisfied upto some extent with the unpolite behaviour of bank employees.

Hypothesis Testing (A)

H_{OA}: All the factors are equally responsible for discontentment of customers with the services provided by banks.

The data related to the factors responsible for discontentment of customers with the services provided by the banks in Bhojpur district of Bihar is collected on a likert scale of 1 to 7 where 1 means highly unsatisfied and 7 means highly satisfied.

To check whether all the factors are equally responsible or not for discontentment of customers with the services provided by banks in Bhojpur district of Bihar, ANOVA with repeated measures can be used. Since, ANOVA with repeated measures is a parametric test, hence before applying this test we have to check the normality test of the data.

Test of Normality

Factors responsible for discontentment	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
1. Discontentment with bank building, insufficient equipment and employees	.132	497	.000	.937	497	.000
2. Discontentment with unavailability of ATMs and water & washroom facility in bank	.146	497	.000	.916	497	.000
3. Discontentment with deposit & withdrawal and work ing condition of ATM	.175	497	.000	.939	497	.000
4. Discontentment with unavailability of transaction options and delivery of Promised services	.141	497	.000	.951	497	.000
5. Discontentment with responses of the staffs on offline and online query	.160	497	.000	.941	497	.000
6. Discontentment with facility for Handicapped customers	.130	497	.000	.932	497	.000
7. Discontentment with rectification of complaints and maintenance of equipment and ATMs	.129	497	.000	.929	497	.000
8. Discontentment with insufficient security guards and feeling of insecurity	.145	497	.000	.939	497	.000
9. Discontentment with no suggestion regarding banking products and policies	.136	497	.000	.935	497	.000
10. Discontentment with unpolite behaviour of bank employees	.140	497	.000	.938	497	.000
a. Lilliefors Significance Correction						

Source: Author's computation through SPSS 25

In the above table, the result of Kolmogorov-Smirnov and Shapiro-Wilk Test, it is found that the data related with the factors responsible for the discontentment of customers with the services provided by banks in the Bhojpur district of Bihar is not normally distributed. Hence, it is not possible to apply ANOVA with repeated measures (a parametric test) here. Therefore, in order to check whether all the factors are equally responsible for discontentment of customers with the service quality provided by banks in Bhojpur district of Bihar, Kendall's Coefficient of Concordance, a non-parametric version of ANOVA with repeated measures has been applied.

Application of Kendall's Coefficient of Concordance

Mean Ranks

Factors responsible for discontentment	Mean Rank
1. Discontentment with bank building, insufficient equipment and employees	**5.32**
2. Discontentment with unavailability of ATMs and water & washroom facility in bank	**5.14**
3. Discontentment with deposit & withdrawal and working condition of ATM	**5.43**
4. Discontentment with unavailability of transaction options and delivery of Promised services	**5.33**
5. Discontentment with responses of the staffs on offline and online query	**5.82**
6. Discontentment with facility for Handicapped customers	**5.09**
7. Discontentment with rectification of complaints and maintenance of equipment and ATMs	**5.90**
8. Discontentment with insufficient security guards and feeling of insecurity	**5.43**
9. Discontentment with no suggestion regarding banking products and policies	**5.67**
10. Discontentment with unpolite behaviour of bank employees	**5.86**

Source: Author's computation through SPSS 25

Test Statistics Kendall's Coefficient of Concordance

• N	497
• Kendall's W[a]	.012
• Chi-Square	55.777
• Df	9'
• Asymp. Sig.	.000
a. Kendall's Coefficient of Concordance	

Source: Author's computation through SPSS 25

The result after application of Kendall's Coefficient of Concordance reveals that the significance value is less than 0.05 so it can be concluded by this significance value that all the factors are not equally responsible for discontentment of customers with the services provided by banks in Bhojpur district of Bihar.

Conclusion- The above observation and result of the hypothesis testing shows that discontentment with facility for handicapped customers is the biggest factor among the other factors responsible for discontentment of the customers with the services provided by banks. The reason behind discontentment of customers with this factor is that in all the eight selected blocks, the premises of banks were situated on first floor of the buildings and no any specific facility was available there for the handicapped customers. However, in very few bank premises, facilities like sitting facilities and washroom for differently abled persons were available but not in all banks. The second most important factor for discontentment with service quality of banks is unavailability of ATMs within bank premises and unavailability of water & washroom facility within bank premises. It was found that within bank premises ATMs were present but not in proper working condition. In case of water facility, water & washroom was available within bank premises but it was placed on such a place which was beyond the reach of customers. In many banks, washroom was constructed at such a place that one has to go through abandoned areas of banks, so it was not permissible for customers to use washroom generally. Next most important factor for discontentment of customers is improper bank building, scarcity of equipment and employees. Another next important factor which is responsible of discontentment is unavailability of some transaction options like preparing draft with different bank account and lacking in delivery of promised services on time. The next reason for discontentment is unavailability of separate queue of male and female customers and long queue for deposits and withdrawal within bank premises as well as availability of insufficient security guards. In approx. all the banks it was found that only one security guard is available in every premises, which, from security point of view, is not looking feasible. Another reason for discontentment is that customers feel that they are not being made aware by the banks about banking products and policies. As per respondents, banks only provide information through posters and advertisement within bank premises. Another reason for discontentment is the way of responding and unpolite behaviour of bank staffs with queries of customers, either online oroffline. The least responsible factor for discontentment is rectification of complaints and maintenance of equipment and ATMs. These are the reasons which are responsible for discontentment of customers with service quality provided by banks. The Government and banks can improve the quality of services of banks by making policies after taking, these points, into consideration.

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Impact of HR Practices on Organizational Performance in Madhya Pradesh

• **Amit K. Srivastava**
•• **Ghanshyam Raysen**

Abstract- *The aim of this study to find the impact of human resource management practices on organizational performance of businesses located in Madhya Pradesh. The research analyzed by applying quantitative method, I applied a structured survey as tool of this research. The findings showed that there is a positive relationship between human resource management practices and organizational performance. In my study, I have found the limitations, for instance the measurement of applying few of human resource management practices in order to measure organizational performance. Future studies can enhance the above research limitations and foresee a much-detailed research study of the relation between human resource management practice by taking more practices intro consideration in order to measure and assess organizational performance.*

Keywords: - *Human resource management, Organizational Performance.*

Introduction- Lately it has become a shared belief that human resource management practices are the main basis of maintainable competitive advantage and achievement. Human Resources Management practices highlight the significance of the organizational outcome and achievement. Though, Human resources Management practices have been defied to establish the value of its purposes in demonstrating its influence on an organization achievement, decreasing cost and increasing the quality and adding value to the organization and customers. The associations between Human Resources Management practices and organizational performance have been an intensely debated topic. As (Hamid, et al. 2017), appealed; earlier examiners examined the association between Human Resources Management practices and performance and were created on a theory that practices of human resource management may commonly be practical in order to aid performance. It is clear that organizational performance and human resource management practices are strong-minded by worker achievement and outcome. If firms implement suitable human resources management practices, they could influence significantly on organizational outcome and achievement. This study investigates the relations hip between human resource management practices and organizational performance in Madhya Pradesh.

• Director, I. M. E Ghaziabad
•• Ph.D. Scholar, Mewar University

Research problem- Today's economy crisis in India has forced business owners to re-evaluate all aspects of their operations. Internal systems are reviewed, inventory controls are implemented, sales and marketing strategies are revised and overall productivity is analyzed. Many companies overlook one of the largest components of their organization-their human capital. Evaluating human resource practices is essential to the infrastructure, productivity and future success of the company. Therefore, currently many organizations are lacking from re-evaluating their human resource management practices.

Purpose of the study- The purpose of this study is to examine the impact of human resource management practices (training, development, recruitment, selection and compensation) on organizational performance in Madhya Pradesh.

Research questions-

RQ1/ What are the main human resource management practices that contribute in improving organizational performance?

RQ2/ which human resource management practices will have more effect on organizational performance comparing with other practices?

Research objectives-

1. To examine the essential human resource practices that influence organizational performance in Madhya Pradesh.
2. To investigate which human resource management practices will have greater impact on organizational performance

Literature Review- The concept of human resource Human Resource is the most vital resource for any businesses and it is the as set of accomplishing the best organizational objectives. HRM is the way toward overseeing individuals of businesses with an individual approach. HR way to deal with labor empowers the supervisor to see the general population as a critical as set. HRM is to draw in, hold and add to investor es teem out the 'human resource' parts of an administration imaginative Human Resource Management rehearses position including human as set arranging, work examination, are required to be actualized (Ghalayini, 2017). At the present time, human resource management practices are including; training and development, orientation, compensation, recruitment and selection. Human Resource Management is the way toward getting, preparing, evaluating, and repaying workers, and keeping up work relations, wellbeing and security, and reasonableness concerns (Brito & Oliveira, 2016).

Human resource practices- According to Brito& Oliveira, (2016), training and development are the formal and efficient alteration of conduct through realizing which happens because of training, direction, improvement and arranged experience. Furthermore, according to Alami, et al. (2015), t raining and development can be at work or off the activity relying upon the need being referred to. Suitable preparing is required for different needs, for example, to take care of correlated issues, to help performance, and furthermore for pers is tent advancement of human as set.

Recruitment and selecting are the procedure to completely fill the offered work positions in adequate number and characteristics of the candidates, and in addition to meet the desires and necessities of the business (Nasiri, 2017). This includes two interrelated procedures, Recruitment and s electing are the way toward creating a pool of proficient individuals to apply for work to a business whiles determination is the procedure by which particular instruments are utilized to look over a pool of candidates' people most appropriate for the activity contemplating administration objectives and lawful prerequisites (Singh & Kas s a, 2016).

Compensation is a procedure of giving financial incentive to representatives to the work they performed. Pay can be utilized to procure gifted representatives, remunerate the performance, and empower organization dedication by decrease turnover. Compensation is a worker's bas e wages, which can be a yearly pay or time-bas ed compensation, in addition to any performance bas ed pay a representative gets, for example, benefit s haring rewards. Representative remuneration assumes such a key part since it is at the core of the work relations h Ip, being of basic significance to the two workers and managers (Trehan & Setia, 2014). Organizational performance.

Performance management and estimation frameworks created as methods for checking and keeping up hierarchical control, which is the way toward guaranteeing that a business seeks after activity designs that prompt the accomplishment of general objectives and destinations (Hamid, et al. 2017). Businesses have a critical part in our everyday lives and in this manner, effective businesses s peak to a key element for creating countries. In this manner, numerous business analysts consider businesses and foundations like a motor in deciding the financial, social and political advance (Yılmaz & Bulut,2015). According to Liu, (2016), stated that trust that the performance comprises in achieving the objectives that were given to you in joining of big business orientations". Performance isn't a goal reality, holding up some place to be estimated and evaluated, however a socially built reality that exists in individuals' psyches, on the off chance that it exists some place (Abou-Moghli, & Abo-Rumman, 2012). Relations hip between HRM and organizational performance

Organizational performance is a standout amongst the most factors that effect on the performance of the business. The effective business comprehends the significance of HR as a basic factor specifically influences and contributes on the performance (Opoku & Arthur, 2015). There is a positive connection between business performance and representative advancement. Performance programs have effect on this relationship. Performance programs incorporate the motivator's designs, criticism system (Richman, 2015). Mutua, et al. (2012), showed that HRM rehearses progress authoritative effectiveness and performance by drawing in, distinguishing, and keeping workers with learning, aptitudes, and capacities, and getting them to conduct in the way that will bolster the mis s ion and points of the business.

Methodology

Research design- A research design can be defined as "a proposal for carrying out research with full control on variables that might match with the results". Riff, et al. (2014) explained a research design as "an idea that clarifies where, when and how information is to be gathered and analyzed". The author implemented quantitative method to find the relationship between human resource practices and organizational performance in Madhya Pradesh. The quantitative method comes from the confidence that individual phenomena and factors in individual behavior could be researched empirically as well as this method has been selected as an effective method. Quantitative study employs as table scheme that classifies and arranges in the questions to be answered and a comprehensive technique of gathering information and analysis (Hoy, et al. 2015).

Sample- This study had chosen survey research, to analyze the relations hip between human resource practices and organizational performance in Madhya Pradesh. The author applied a structured survey as tool of this research.

Instruments- The survey is designed in multiple choice questions, where the participants had a chance to choose from different scales, the Likert scale was us ed in the questionnaire. The Likert scale ranged from 1 which stated for strongly disagree to 5 which stated for strongly agree, however the questionnaire adapted from different academic sources.

Parameters		Frequency	Percentage
Gender	Male	52	70.8
	Female	21	27.2
Age	20-30	5	6.6
	30-40	12	17.3
	40-50	24	34.2
	50-60	23	32.0
	60+	6	10.9
Marital Status	Single	15	18.7
	Married	37	52.5
	Widowed	7	7.5
	Divorced	8	13.7
	Separated	5	6.6
Academic Qualification	High School	3	4.6
	Institute	15	21.5
	Bachelor degree	33	46.9
	Master degree	14	17.3
	Doctorate degree	5	6.6
Occupation	Employed	30	42.7
	Self-employed	6	10.9
	full time student	14	17.1
	Jobless	4	3.2
	Retired	16	20.1

The Table (1) illustrates the demographic information for the participants contributed in this research, the results of demographic information analysis demonstrate that 51 (71.8%) of participants in this study are male and 20 (28.2%) of participants in this study are female. Moreover, when it comes to guest's age contributed in this research, the results showed that 4 (5.6%) of participants are aged between 20 years old and 30 years old,13(18.3%) of participants are aged between 30 years old and 40 y ears old, 25 (35.2%) of participants are aged between 40 years old and 50 years old, 22 (31.0%) of participants are aged between 50 years old and 60 years old and 7 (9.9%) of participants are aged between 50 years old and 60 years old. When it comes to participants' marital status who visited business , the results showed that 14(19.7%) of s ingle participants visited business and contributed in this study, 38 (53.5%) of married participants visited business and contributed in this study, 6 (8.5%) of widowed participants visited business and contributed in this study, 9 (12.7%) of divorced participants visited business and contributed in this study, and 4 (5.6%) of separated participants visited business and contributed in this study. When it comes to participants' academic qualification contributed in this research, the results showed that 4(5.6%) of high school graduated participants visited business and contributed in this research, 16 (22.5%) of institute graduated participants visited business and contributed in this res earch,34 (47.9%) of institute graduated participants visited business and contributed in this res earch,13(18.3%) of master degree graduated participants visited business and contributed in this research, and 4 (5.6%) of doctorate degree graduated participants visited business and contributed in this research. When it comes to participants ' occupation visited business and contributed in this research, the results showed that 3(4.2%) of participants are jobless who visited and contributed in this study, 7 (9.9%) of participants are self- employed who visited and contributed in this s tudy,15 (21.1%) of participants are student who visited and contributed in this s tudy,31 (43.7%) of participants are employed who visited and contributed in this study,15 (21.1%) of participants are retired who visited and contributed in this study.

I used reliability to measure all questions that have been us ed to test the relationship between human resource management practices and organizational performance. The results showed that the alpha for all 12 questions =.753, I concluded that all 12 questions are reliable to measure this study. Also I used reliability study for each question individually, the results showed that the alpha for question one (Human resource management at Business is implementing recruitment process effectively) =.756, the alpha for question two (Human resource management at Business is providing training effectively) =.727, the alpha for question three (Human resource management at Business is conducting effective interview and background check for candidates) =.726, the alpha for question four (Human resource management at Business is implementing compensation system successfully), the alpha for question four (Human resource management at Business is implementing compensation system successfully) =.724, the alpha for question five (Human resource management at Business arranges work shop and orientation for employees) =.761, the alpha for questions ix (Human resource management at

Business is implementing compensation system success fully) =.710, the alpha for question one for organizational performance (Business is determining departmental objectives) =.732, the alpha for question two for organizational performance (Business is aligning individual goal with business vis ion and mis s ion to enhance performance) =.738, the alpha for question three for organizational performance (The managers' success in improving commitment to meeting the s et objectives) =.774, the alpha for question four for organizational performance (The efficiency in providing incessant direction and follow up to attain organizational objectives) =.721, the alpha for question five for organizational performance (The efficacy in assessment practice) =.723, the alpha for question five for organizational performance (The success in communication of employee accomplishments after the assessment practice) =.736.

I used descriptive analysis to measure the relationship between human resource management practices and organizational performance at Business in Madhya Pradesh. The results showed the followings : regarding question one (Human resource management at Business is implementing recruitment process effectively) only one guest strongly disagree, 3 participants dis agreed, 12 participants neither disagree nor agree, 41 participants agreed and 14 participants strongly agreed, regarding question two (Human resource management at Business is providing training effectively) only two participants strongly disagree, 4 participants dis agreed, 13 participants neither disagree nor agree, 30 participants agreed and 22 participants strongly agreed, regarding question three (Human resource management at Business is conducting effective interview and background check for candidates) only four participants strongly disagree, five participants dis agreed, nine participants neither disagree nor agree, 30 participants agreed and 23 participants strongly agreed, regarding question four (Human resource management at Business is implementing staff promotion system effectively) only three participants strongly dis agree, two participants dis agreed, 11 participants neither disagree nor agree, 30 participants agreed and 25 participants strongly agreed, regarding question five (Human resource management at Business arranges workshop and orientation for employees) only three participants strongly disagree, six participants dis agreed, 14 participants neither disagree nor agree, 32 participants agreed and 16 participants strongly agreed, regarding question six (Human resource management at Business is implementing compensation system successfully) only five participants strongly dis agree, six participants dis agreed, 17 participants neither disagree nor agree, 26 participants agreed and 17 participants strongly agreed, regarding question seven (Business is determining departmental objectives) only three participants strongly disagree, five participants dis agreed, nine participants neither disagree nor agree, 31 participants agreed and 23 participants strongly agreed, regarding question eight (Business is aligning individual goal with business's vision and mission to enhance performance) only three participant strongly disagree, two participants dis agreed, nine participants neither disagree nor agree, 29 participants agreed and 28 participants strongly agreed, regarding question nine (The managers' success in improving commitment to meeting the set objectives) only two participants strongly dis agree, five participants dis agreed,12 participants neither disagree nor agree, 33 participants agreed and 19 participants strongly agreed, regarding question ten (The efficiency in providing incessant direction and follow up to attain organizational objectives) only four participants strongly disagree, four participants dis agreed,16 participants neither disagree nor agree, 28 participants agreed and 19 participants strongly agreed, regarding question eleven (The efficacy in assessment practice) only four participants strongly disagree, six participants dis agreed,10 participants neither disagree nor agree, 29 participants agreed and 22 participants strongly agreed, and finally regarding question twelve (The success in communication of employee accomplishments after the assessment practice) only two participants strongly dis agree, two participants dis agreed, nine participants neither disagree nor agree, 29 participants agreed and 29 participants strongly agreed.

Conclusion- I have demonstrated and clarified that human resource management practices and its relationship with organizational performance in Business located in Madhya Pradesh. My prospect is that some variables will impulse for a steady modify in the way business currently consider human resource management practices. Among these elements are the recruitment, selection, compensation, job description and interview. According to my analysis, I have found that Human resource management at Business is implementing recruitment process effectively, Human resource management at Business is providing training effectively, Human resource management at Business is conducting effective interview and background check for candidates, Human resource management at Business is implementing staff promotion system effectively, Human resource management at Business arranges work shop and orientation for employees and finally Human resource management at Business is implementing compensation system successfully.

Limitations- In my study, I have found the limitations, for instance the measurement of applying few of human resource management practices in order to measure organizational performance at Business in Madhya Pradesh.

Suggestions- Future studies can enhance the above research limitations and foresee a much-detailed research study of the relation between human resource management practices by taking more practices intro consideration in order to measure and asses s organizational performance.

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A Study on Individual Financial Literacy and Financial Behaviour

• **Mukesh Kumar**

Abstract- *Financial literacy has been recognized as a key skill for individuals who are embedded in an increasingly complex financial scenario. Financial literacy helps individuals make more assertive and efficient decisions in the monetary context of their lives. This paper measures the level of financial literacy of individuals and analyses the relationship between financial literacy and financial behaviour. The results of the research show that individuals have a reasonable level of financial literacy. On analysing financial behaviour of individuals, it was found most of them exhibited moderately positive financial behaviour. It is also observed that financial literacy can enhance people's skills and abilities to make more informed choices and ultimately lead to a positive financial behaviour. Thus, one can conclude that increasing the level of financial education stimulates wise economic behaviour.*

Keywords- *basic financial literacy, advanced financial literacy, financial behaviour.*

Introduction "Money is one form of power. But what is more powerful is financial education"

- Robert Kiyosaki

Financial Literacy is the ability to understand how money works in the world and take an informed as well as a judicious decision with regard to all financial activities. A person who is financially literate knows how to earn, manage and invest money. He is familiar with financial products and applies his knowledge to make the best use of them. Recent developments have made financial education and awareness increasingly important for financial wellbeing.

The information available on consumer financial literacy shows that individuals generally lack an adequate financial background or understanding to navigate today's complex market, but unfortunately, they also generally believe that they are far more financially literate than is really the case. The level of financial literacy tends to vary according to education and income levels, but the evidence shows that highly educated consumers with high incomes can be just as ignorant about financial issues as less educated, lower income consumers.

The objective of this paper is to attempt to understand the level of financial literacy of individuals. The relationship between financial literacy and financial behaviour is also studied. Although several studies have been

• Research Scholar, P.G. Department of Commerce and Business Management Veer Kunwar Singh University, Ara, Bihar

conducted in the subject of financial literacy but not manhave considered impact of financial literacy on financial behaviour. This paper helps to fill this gap.

Review of Literature

Studies by the OECD (2005) and Lusardi and Mitchell (2007) reviewed international evidence on financial literacy and found that financial illiteracy is common in many developed countries such as Australia, Japan, and Korea, as well as developed countries in Europe. These findings are similar to those of Christelis, Jappelli, and Padula (2006) who found that most respondents in Europe score low on financial literacy scales. Financial Literacy and Behaviour Several studies showed that financial literacy is positively related to self- beneficial financial behaviour. Hilgert, Hogarth, and Beverly (2003) added financial behaviour and financial literacy questions to the nationwide Survey of Consumer Finances. They formed a Financial Practices Index based upon behaviour in four variables: cash-flow management, credit management, savings, and investment practices.

Padula (2006) who found that most respondents in Europe score low on financial literacy scales. Financial Literacy and Behaviour Several studies showed that financial literacy is positively related to self-beneficial financial behaviour. Hilgert, Hogarth, and Beverly (2003) added financial behaviour and financial literacy questions to the nationwide Survey of Consumer Finances. They formed a Financial Practices Index based upon behaviour in four variables: cash-flow management, credit management, savings, and investment practices. Comparing the results of this index with scores on the financial literacy quiz, they found that those who were more financially literate had higher Financial Practices Index scores, indicating that financial knowledge is related to financial behaviour.

Maarten van Rooij, Annamaria Lusardi, Rob Alessie- To understand financial literacy and its relation to financial decision making it is essential to measure numeracy and basic knowledge related to the working of inflation and interest rates as well as to measure advanced financial knowledge related to financial market instruments like stocks, bonds and mutual funds. The study showed that those who have low financial literacy are significantly less likely to invest in stocks.

Objectives- The main objectives of the paper are as follows-

1. To measure the level of financial literacy. This is done by measuring both basic and advanced financial literacy.
2. To measure financial behavior.
3. To analyze the relationship between financial literacy and financial behavior.

Data And Methodology- For the purpose of the study convenience sampling was followed and 100 responses were collected. The study uses questionnaire method of data collection. The questionnaire consisted of three parts: the first part covers demographic information, the second part aims at measuring the level of financial literacy and the third part aims to analyze the financial behavior of the respondents. Cronbach's alpha test was administered to assess the reliability of the questionnaire. The result of the reliability coefficient (alpha) was 0.730.

Analysis And Results

Overall literacy- To test the level of literacy of the respondents, 20 questions were asked to assess their knowledge on various concepts like simple interest, compounding, time value of money, inflation, credit purchase, savings interest, diversification, stock markets, bonds, debentures, mutual funds and loan financing. For each of the questions three options (Yes / No / Don't know) were given to the respondents. The answers given by the respondents were evaluated for each of the questions and categorized into 'correct answers', 'incorrect answers' and 'don't know'

An item wise analysis was conducted for each of the questions on knowledge. More than 80% of the respondents were well aware about the concept of simple interest, inflation, stock price fluctuations, credit cards and savings account interest as they have answered the questions on the above concepts correctly. The respondents had a reasonably good score of for concepts such as stock market functions, mutual fund, stock & bond risk factors, diversification and loan financing by answering them correctly. It is observed that most don't have knowledge about bond / debenture prices and credit purchasing power.

To obtain an overall score on financial literacy for each respondent, the 'correct'answers given by the respondents for each of the question is considered. It can be summarized that the overall mean score of the respondents for 'correct' answer was 14.43 and SD was 4.02. The minimum score was 2 and maximum was 20. It is found that 64% of the respondents have a fairly reasonable overall financial literacy score as they have answered more than two thirds of the questions correctly. 3% of the respondents have answered less than one third of thequestions correctly and have a low overall financial literacy and 33% of the respondents have moderate financial literacy as they have answered 7 to 13 questions correctly.

For a deeper analysis the questions were categorized into two groups (basic literacy and advanced literacy). The first group consists of questions which capture people's capacity to handle basic financial literacy concepts such as simple interest, compounding, time value of money, inflation, credit purchase and savings interest. The second group is intended to capture sophisticated or advanced financial literacy concepts such as risk / return, difference between stocks and bonds, functioning of the stock market, relationship between bond prices and interest rates, working of mutual funds, risk diversification and loan financing.

Basic literacy- The mean score of the respondents for basic literacy was 5.97 and SD was 1.50. 75% of the respondents have a score higher than the mean value. This shows that majority of the respondents are well aware of basic literacy concepts. Further the respondents were grouped into three categories – those with low, moderate and high level of knowledge. It is observed that 68% of the respondents fall into the 'high' category and have answered 6 or more questions correctly from a total of 8. 31% of the respondents fall in the moderate segment by having given 3 to 5 correct answers and just 1% of the respondents fall in the low basic literacy segment with a maximum score of just 2 correct answers.

With respect to individual questions on basic literacy more than 80% of the people have got questions on simple interest, inflation, credit cards and savings interest rate correct. However only 44% were aware of the concept of how credit purchase affects purchasing power. 60% to 70% of them were well informed about time value of money.

Advanced literacy- Mean score of the respondents for advanced literacy is 8.46 with a SD of 2.95. Questions on stock markets, bonds, debentures, mutual funds, diversification and loan financing were asked to test the level of advanced literacy among respondents. A similar analysis as that of basic literacy was performed and the scores of the respondents in this group were also categorized into low, moderate and high level. The results show that 58% of the respondents fall into the high category and have answered 9 or more out of 12 questions correctly. 29% of the respondents are in the moderate literacy level by giving between 5 to 8 correct answers. 13% of the respondents belong to the low advanced literacy segment.In the advanced literacy segment for 7 out of 12 questions more than 75% of the respondents gave correct answers. A large number of respondents were not aware of bond prices as only 35% gave the 'correct' answer. For the question on comparison between stocks & bonds and stocks & mutual funds, number of respondents who opted 'don't know' is higher than those who gave the wrong answer.

Financial Behaviour- In this section a set of 22 questions on a 5 point scale is used to study the financial behaviour of the individual. A It is found that 25% of the respondents have low or negative financial behaviour, 48.2% of the respondents show moderately positive financial behaviour and 26.8% of them exhibit highly desirable behaviour.

Financial behaviour includes elements such as managing personal expenses, debt management, long term planning, emergency and risk management and advice seeking.

Behaviour Factors	Mean	SD
Debt management	19.23	4.70
Personal financial management	22.63	4.61
Long term planning	24.07	7.04
Emergency and risk planning	10.92	2.87
Advice seeking	10.49	2.69
Overall behavior	87.33	19.16

Debt Management- It considers dimensions such as payment of bills like rent, insurance premium, electricity, credit card etc. Short term loans taken in the past few years and repayment of loan on time is also taken into account while evaluating debt management.

Personal financial management: It considers dimensions such as drafting a monthly budget, buying things after careful consideration and identifying needs and wants separately.

Long term planning: It considers dimensions such as retirement planning, long-term saving and long term investments.

Emergency and risk planning: To exhibit positive financial behaviour one needs to set aside emergency fund and be adequately covered by insurance. This factor analyses emergency and risk planning behaviour of the respondents.Advice seeking: It is considered important to be updated on financial information from various sources like newspapers, TV, friends and financial consultants. This factor studies the financial behaviour of the respondents with respect to advice seeking.

Financial literacy and financial behaviour- This section aims to study the relationship between the level of literacy (knowledge) and financial behaviour. Pearson's correlation test is used to determine the relationship between the basic literacy, advanced literacy, overall literacy and financial behaviour. The results show that the correlation coefficient between overall literacy and overall financial behaviour is 0.717 which indicates 71.7% positive relationship between overall literacy and overall behaviour and this is significant at 1% level. The correlation coefficient between advanced literacy and behaviour indicates 66.6% positive relationship between the two variables and correlation between basic literacy score and behaviour is 67.9% positive at 1% level. It is clear from the above analysis that the level of literacy has a positive relationship with financial behaviour.

Correlation

	Debt Manageme nt	Person al Financ e	Long Term Planning	Emergen cyand Risk	Advic e Seekin g	Overall Behavio ur
Basic Knowledge	.661(**)	.629(**)	.556(**)	.575(**)	.533(**)	.679(**)
Advanced Knowledge	.670(**)	.588(**)	.547(**)	.565(**)	.529(**)	.666(**)
Overall, Knowledge	.712(**)	.646(**)	.588(**)	.608(**)	.567(**)	.717(**)

** Correlation is significant at the 0.01 level (2-tailed).

Multiple Regression Analysis

Variables	Unstandardized Coefficients	SE of B	Standardized Coefficients	t	Sig.
(Constant)	10.137	1.319		8.529	.000
Basic Literacy	.312	.261	.387	1.964	.030
Advanced Literacy	.493	.132	.422	3.726	.000

Dependent Variable: Financial Behaviour

These results are further validated by performing a regression analysis. The dependent variable is financial behaviour and the independent variables are basic and advanced literacy. Based on the standardized coefficient it can be inferred that advanced literacy (0.422) is the most important factor influencing wellbeing followed by basic literacy (0.387)

Conclusion and Discussion-This paper attempts to evaluate the level of financial literacy (knowledge) and bring out its impact on financial wellbeing.

The major findings of this study are that most of the respondents (64%) have a reasonable level of financial literacy. This is a positive sign. It is found that 80% of the respondents are well aware of basic literacy concepts such as simple interest, inflation, credit cards and savings interest rate. Only 56% of the respondents are well aware of advanced literacy concepts such as long period returns, stock price fluctuations, risk / return on stocks / bonds and diversification. Respondents are quite unaware with basic financial concept such as compounding, time value of money and credit purchase and advanced financial concepts such as functioning of the stock market, bond prices, mutual fund and loan financing. Majority of the respondents have a moderately positive behaviour. In dimensions such as debt management, personal finance, long term planning, emergency & risk and advice seeking behaviour positive financial behaviour is observed.

With respect to the relationship between financial literacy and financial behaviour it may be concluded that the result shows a positive relationship between basic and advance financial literacy and financial behaviour.

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The Rock Art of Sirmour Region of Rewa District (M.P) India

•**Mahesh Chandra Shrivastava**
••**Neha Singh**
••• **Pritam Kumar**

Abstract- *The study of rock art is considered as the most important element to know about the culture of prehistoric human because in the absence of literary sources, it is the only source through which we can know about the early humans. These art works are often divided into two art forms Pictograph and Petroglyphs. As we all know Vindhya region are very rich in rock-art culture and even hills of Vindhyas are very rich in raw-material like quartz, jasper, agate, chert, chalcedony. Rock art in Madhya Pradesh is reported from Bhimbetka, Daraki - Chattan, Indragiri, Rewa etc. Our research paper basically focusses on rock art sites of Rewa. We try to explore rock-art sites of Shivpurva, Dundi Gaddhi, Keraha, Deur Kothar, Sirmour etc. The rock paintings of Sirmour region includes mainty two sites Yogini Mata rock art site and Ghinauchi dham rockart site and they are in very good condition. This field will bring new-light not only cave-paintings but also studies on typology of microliths discovered from these sites. Thus, it can be concluded by saying that rocks are the most precious gift which we have got through nature. Rocks served as a solid platform to the people of early period in order to represent their emotions, feelings, daily activities etc. in the absence of paper, pen, color or any other source.*

Keywords- *Microliths, typology, Rock-art, Rock-shelter, Raw-material, Debitage*

Introduction- Rock art is paintings and carvings on natural rock formations. Rock art is human made markings placed on natural stone. The study of rock art is considered as the most important element to know about the culture of prehistoric human because in the absence of literary sources, it is the only source through which we can know about the early humans. These art works are often divided into two art forms Pictograph and Petroglyphs. The rock art of India includes relief carving, engraving and paintings. Rock art sites have been reported from different geophysical zones of India and the largest concentration documented in the central India specifically in the state of Madhya Pradesh. Rock art in Madhya Pradesh is reported from Bhimbetka,

• Head, A.P.S University in Ancient Archeology & Tourism Administration, Rewa Madhya Pradesh, India
•• Research scholar, A.P.S University in Ancient Archeology & Tourism Administration Rewa, Madhya Pradesh, India
••• Research scholar, A.P.S University in Ancient Archeology & Tourism Administration Rewa, Madhya Pradesh, India

Daraki - Chattian, Indragarh, Rewa etc. There are many rock art sites located in Rewa like Shivpurva, Dundi Gaddhi, Keraha, Deur Kothar, Sirmour etc. The rock paintings of Sirmour region includes mainty two sites Yogini Mata rock art site and Ghinauchi dham rockart site and they are in very good condition.

Geography- Rewa lies between 24°18' and 25° 12' north latitudes and 81°2' and 82° 18'. The rock art sites are located at Sirmour on the Rewa- Dabhawra road at a distance of about 3 km from the power house colony which is about 50 km from Rewa. There are altogether 5 shelters at the Yogini Mata rock art site and among them 3 are painted. The paintings consist of human figures, animal figures, weapons like bow and arrow, spears, hand axe etc. It can be said that shelter no.1 is the most important among all the shelters as it contains large number of paintings. The paintings of shelter no.1, 2 & 3 are of red colour and still they are in a very good condition. The shape of shelter no.1 is like umbrella, the shelter no.3 of Yogini Mata rock art site is box shaped and other shelters don't have any specific shape. There is one painted shelter in Ghinauchi Dham.The rock art site of Yogini Mata is declared as tourism site by the government of Madhya Pradesh.

Location Of Paintings- Within a shelter, the paintings are usually executed on the walls and ceilings. In shelter no.1 very artistic paintings of animals, humans, reptiles, birds and weapons had been executed. The canvas of the shelter is full of paintings from top to bottom. On the walls paintings are placed in horizontal pattern. In shelter no.3 one painting is founded at the ceiling of the shelter.

Details of Shelter- The shelters which are generally box shaped and umbrella shaped has its opening towards the valley. Such shelters can be approached only from the top and they are generally cut off from the sides. These are comparatively safe for living but generally narrow in width. They have a rocky surface devoid of accumulation. The paintings are generally found on the wall facing the valley and the ceiling of the shelter. The selection of shelter shows that the humans of that era have conservative culture.

Yogini Mata Rock Art Site- *Shelter no 1 is 8.4 meter long, 14.3meter in wide and 9.2meter in height. This face of shelter is in north-east direction.* The canvas is full of paintings from bottom to top. At the bottom there is a painting of five men in a group. They had kept their both hand at their waist. It seems that they are in dancing position. Just above this painting there is the painting of five men which seems to be injured and about to fall on the ground. Above them there is a painting of a reptile which looks like a snake and bird is sitting on it. Just beside the group of five men there is a painting of a man in left side who is holding bow and arrow in his hand and targeting towards his left side, beside this there is a painting of three men who is riding on three elephant holding weapons in their hand which looks like bow and arrow, behind them there is a image of a man riding on a horse holding weapon in his hand , behind him there is group of nine men standing together looks like soldier who were waiting for the commands of their leader. Beside this, there are paintings of two men riding on elephant facing towards each other. Both the men are attacking on each other with bow and arrow. Beside this there is painting of one man and behind him six men are standing in same position. Just above this scene there is a painting of an elephant and two men. First man is beside the elephant and second one is behind the first one. It seems that elephant is walking in the path and about to cross between both the men. In the left side of the painting there is a painting of two groups facing towards each other and continuously attacking with bow and arrow. In the painting of right-side group, only the images of four men are clear and rest of the paintings are not clear. They are holding bow and arrow in their hands and targeting towards the group who were in right side. In the group of left side there is a painting of twenty one men among them sixteen men are holding bow & arrow and targeting at the left group, two men are holding spears, one is holding spear upward and other downward and at the back three man are on the horse, below this there is a painting of six more men attacking with bow and arrow at left side. There are two types of bows used by man one is curved inwards and other is curved outward. Two men are holding four arrows in hand other is using one arrow at a time. Just above this scene there is painting of nine men in group in which from the left side the first man had raised his right hand upwards in the form of dancing and kept left hand on the waist, both the hand of second and third man are on the waist, the right hand of fourth man is on the waist and left hand is raised upward like the right hand of first man, the left hand of fifth man is on the waist and right hand is raised upward like first and fourth man, both the hand of sixth, seventh, and eighth man are on the waist and the right hand of ninth man is on the waist and left hand is raised upward like first, fourth and fifth man.

Just above this scene, there is a painting of elephant whose trunk is touching the ground and near him ther is a symbol which look like Damru (musical-instrument).

Shelter no. 2- It is 10.2 meter long, 6.7 meter wide and 11.3-meter Hight. It faces towards north east directionthere is a painting of five men in a row who were generally standing and watching something.

Shelter no. 3- It is 7.5 meter long.5.6 meter wide and 7.5 meter high. The face of shelter is in north-east direction. One figure of single man is painted in the ceiling of the shelter no.3 of Yogini Mata rock art site in which he is holding one axe in his right hand. His right hand is raised upwards and there is a gap between the feet and it seems that he was ready to hit or cut something with the tools in his hand.

Shelter no.4- It is a non-painted shelter. It is 8.4 meter long, 6.7 meter wide, and 8.1 meter high. It faces towards north east direction.

Shelter no 5- It is a non-painted shelter which is 9.5 meter long, 7.5 meter wide and 8,8 meter high. It faces towards north-east direction.

Ghinauchi Dham Rock Art Site- There is one painted shelter at this site. It is 6.8 meter long,6.4 meter wide and 5.5 meter high. There is a painting in which two men are holding an animal (which looks like deer) separately with left hand and in right hand they are holding similar tools which look like spears. It might be possible that they use to hunt deer for meat. In the same group of painting there is a painting of one more animal just beside the hunting scene. It was standing freely facing towards the man and looks like a cow.

Cultural Depiction in Rock Paintings

Hunting- In the shelter no.1 of Yogini Mata rock art site there is a painting at in which elephant is being attacked by a single man and in second painting group of five men are targeting an elephant with spears. One figure of single man is painted in the ceiling of the shelter no.3 of Yogini Mata rock art site in which he is holding one axe in his right hand. His hand is raised upwards and there is a gap between the feet and it seems that he was ready to hit or cut something with the tools in his hand. In the shelter of Ghinauchi Dham, there is a painting in which two men is holding an animal (which looks like deer) separately with left hand and in right hand they are holding similar tools which looks like spears. It might be possible that they use to hunt deer for meat. In the same group of painting there is a painting of one more animal just beside the hunting scene. It was standing freely facing towards the man and looks like a cow.

Way of Expressing Emotions - It is the nature of humans that they use to express their emotions and feelings according to the situation which they use to face. We can come to know about the feelings and emotions of early humans through the paintings which were founded in the shelters.

The paintings of group dancing have been founded in the shelter and it express that early man use to celebrate their happiness by dancing or it may be some rituals which were performed on some specific occasion. Battle scenes were also founded in the shelter which depicts the anger of the early human. Same way hunting scenes indicates animal were killed by men for meat, flesh, to make weapons from their bones or teeth or to protect themselves from the wild animals. It shows the protective nature of men to deal with the danger.

Fighting Or Battle Scenes- There are fighting's scenes painted on the shelters which provides us information about the battles which might took place in the past and the best example for this category is the painting in shelter no. 1 of Yogini Mata Rock Art site. In the painting, it is clearly shown that two groups are fighting each other. The weapons used by them are bow & arrow and spears. They also use animals like elephant & horse in battle and elephant is mostly used by them as it is the heavier and powerful animals. In the paintings we can see that five men are on the top of the elephant and others are infantry, it seems that during that period also there were leader who used to guide the follower and they might be having some specific power or quality. There are two groups fighting with bow and arrow. Some of them were riding on elephant and rests of them were standing on the ground targeting to the opposition group. It seems that this painting belongs to later phase and battle is going between two dynasty or two tribes in order to gain authority-ship or power because the body language of the images had been made by perfection and it is the work of skilled person whereas the painting of early stone-age was not made by made by perfection. Dancing scenes are also painted in the shelter.

Group Dance- In shelter no.1 above the battle scene, there is a painting of dancing scene in which five humans are standing in a row in same posture. It seems that they are in dancing position. In other painting they are dancing by holding each other hands. It might be possible that it was performed and made by victorious group in order to express their happiness and victory or it may some rituals performed during specific occasion.

Domestication- Elephants were used while fighting battles and riding purpose as it was done because elephant was the biggest and strongest animal. Therefore, we can say that people were aware about the uses of animal according to purpose. In the shelter of Ghinauchi Dham there is a painting of cow facing towards a man. It indicates that cow had domesticated by the early people.

Tools (Typology)- Tools are used my primitive people to make their life easy and they used to make tools by naturally available materials like stone, animals' bone etc. There are many tools which we found during survey and it includes elongated blade, blade and microlith.

Conclusion- Thus it can be concluded by saying that rocks are the most precious gift which we have got through nature. Rocks served as a solid platform to the people of early period in order to represent their emotions, feelings, daily activities etc. in the absence of paper, pen, colour or any other source. As we know that the early man lives in every part of the world and migrates from one place to another according to their needs and circumstances but they used to leave their marks or other archaic forms of early humans' cultural activities such as dance, music, thoughts, ideas, body language in the form of art which they used to make on rocks.

Hence this type of art is known as "Rock Art". The styles of paintings of Sirmour range from naturalistic to very symbolic or abstract. The scenes which are painted in the shelter depict the existence of large group of people but the shelters which are founded at the site are generally small and it was not possible for them to reside together in five shelters. The paintings belong to a later phase therefore it might be possible that due to some reason war is held between two groups at this place and it was painted by the members of one of the groups. Nearly all drawings of animals are shown in profile and in motion. Outlines of animal forms are generally realistic and they were serving humans. Therefore, it can be said rock art is the only medium through which we can know the culture of early man.

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Role of Tourism Industry in Economic Development

• **Shashi Kiran Kujur**
•• **Upendra Kumar Sahu**

Abstract- *The role of tourism industry in economic development has proved to be vitally important. The tourism industry is under the service industry under the third sector, which makes steady growth in terms of gross revenue and foreign exchange earnings. The importance of tourism as a dimension of economic development and employment generation has been recognized globally. It is the largest growth service industry in the world in terms of foreign exchange with gross revenue. Tourism in the country has been recognized as a powerful engine of economic growth and employment generation. Globally, International Tourist Arrivals registered a negative growth in the year 2020 as compared to a growth of 6.1 percent in the year 2019. The international tourist arrivals during 2020, 2019, 2018 were 402 million, 1466 million and 1413 million respectively. The number of Foreign Tourist Arrivals (FTAs) in India during the year 2020 has decreased to 2.74 million as compared to 10.93 million in the year 2019 which shows a negative percentage of 74.9%. India's share in international tourist arrivals in the year 2020 was 1.57 percent, while India's share in international tourist arrivals in the Asia Pacific region in the year 2020 was found to be 10.67 percent. The Foreign Exchange Earnings (FEE) in tourism in the year 2020 was US$ 6.958 billion as compared to US$ 30.06 billion in 2019, representing a negative growth of 76.9 percent.*

Keywords- *Tourism industry, economic development, third sector, employment, economic Growth, globally, tourist arrivals, Foreign Exchange Earnings (FEE), Foreign Tourist Arrivals (FTAs)*

1. Introduction- At present, the first need of the country is to strengthen the economy because the share of tourism industry in the country's GDP is 6 percent and about 5 crore people of the country are directly and indirectly engaged in the employment of tourism sector. The tourism industry is considered to be the second industry in the country providing employment to low-skilled and partially skilled workers. The number of women employed in the tourism industry is about 70 percent. Globally, the tourism sector employs almost twice as many women as any other country. From this point of view, it can be said that the tourism sector is also a means of supporting equality and social justice in the society. It can be said from this point of view. One's tourism sector is also a means of supporting equality and social justice in the society. India's tourism industry has expanded beyond its traditional scope in the field of medicine and yoga, but these new areas of

• Assistant Professor, Govt. Gajanand Agrawal P.G. College, Bhatapara, Chhattisgarh
•• Assistant Professor, Badri Prasad Lodhi P.G. Govt. College, Arang, Raipur, Chhattisgarh.

tourism are victims of lack of far-reaching plans. Keeping in view the importance of tourism after the country's independence, concrete policies and detailed plans have been implemented in different phases. As a result of which there has been a steady growth and development in the tourism industry. Indian tourism industry in total 117 countries in 2021 as per Global Travel and Tourism Development Index. India is ranked 54 in the Travel and Tourism Development Index which is down from 2019 where India was ranked 46, due to the covid-19 pandemic impact. World Tourism Day is celebrated every year on 27 September to spread awareness about the importance of tourism globally and its impact on our society.

2. Research methodology and limitations- The present research paper on the role of tourism industry in economic development is based on secondary data. Collection of Secondary Data has been collected from Immigration Bureau Government of India, Indian Tourism Department, Indian Tourism Statistics, UNWTO Barometer, World Tourism Organization, World Trade Organization, etc. India is providing visa on arrival facility to citizens of 180 countries except 8 countries of the world. 8 countries whose citizens have been kept out of its purview. They include Pakistan, Sri Lanka, Sudan, Iraq, Iran, Somalia, Afghanistan and Nigeria. The electronic visa will be valid only for a period of 30 days from the date of arrival of the tourist in India for which the Ministry of Home Affairs will issue a notification in this regard in due course. According to the World Travel and Tourism Council Report 2021, India is the 7th largest tourism economy in the world in terms of the total contribution of the travel and tourism industry sector to the country's GDP in 2020.

3. Objectives of the research study-

1. To study the top international tourist arrival nations.
2. To study the top international tourism receiving nations.
3. To study foreign tourist arrivals and foreign exchange earning countries.
4. Studying the top states with highest employment in India.
5. To study the states receiving foreign tourists.
6. Studying monuments that attract foreign tourists.
7. To study the states attracting domestic tourists.
8. To study the countries of foreign tourist arrival in India.

4. Research hypothesis-

1. The country's contribution to international tourism receipts has increased.
2. There has been a decline in the number of monuments that attract tourists.
3. The contribution of the tourism industry to the economic development has increased.
4. There has been a steady growth in the number of countries receiving international tourist arrivals.

5. Economic development and tourism industry- In economic development, the tourism industry is two sides of the same coin, that is, it provides significant assistance in development. The year 2020 was the year of the pandemic due to which there were restrictions on the tourism sector that's why only 2.74 million tourists arrived in India in the year 2020 which resulted in a drop of 74.9 percent compared to 2019.

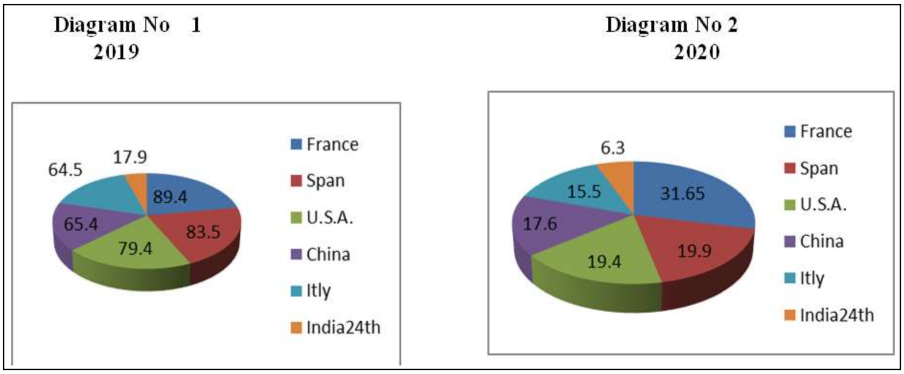
(i) Countries with top international tourist arrivals- Looking at the world international tourists, the top position is held by France, which received 89.4 million tourists in 2019, while 30.65 million tourists arrived in 2020, in which India ranked 24th with 6.3 million tourists.

Table No.-01

Countries with top international tourist arrivals (in million)

Source: UNWTO,Barometer,September 2021.

It is clear from the diagram of the above table number 1 that how are the top international tourist arrival countries in the world



(ii) Countries receiving international tourism - Following are the countries with international tourism receipts in the year 2020 which can be clarified by the table.

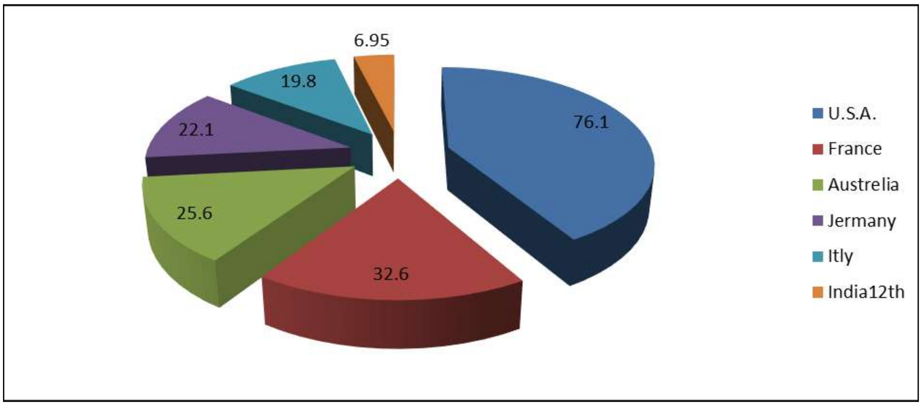
Table No.-02

Countries receiving international tourism

S.N.	Countries	Receipts US $ Billion
1	U.S.A.	76.1
2	France	32.6
3	Australia	25.6
4	Germany	22.1
5	Italy	19.8
6	India[12th]	6.95

Source: World Tourism Organization 2021.

Diagram No 3
It is becoming clear from the diagram of the appropriate table no - 2



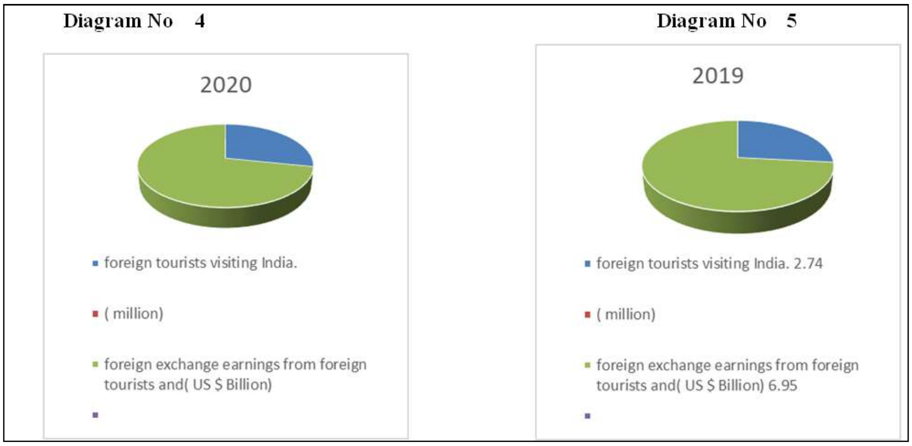
In the above number 3, foreign tourist arrival and foreign exchange Arjuna have been explained through a diagram.

(iii) Foreign tourist arrival and foreign exchange earnings - Foreign tourists arriving in India play an important role in strengthening the treaty economy, but their contribution to the country's GDP is also currently moving towards negative growth.

Table No. 03
Foreign tourist arrival and foreign exchange earning

S.N.	Details	2020	2019
1	Foreign tourists visiting India. (million)	2.74 (-74.9)[a]	10.93 (3.5)[a]
2	foreign exchange earnings from foreign tourists (US $ Billion)	6.95 (-76.9)[a]	30.05 (5.1)[a]

Source: Ministry of Tourism Government of India 2021 Note (a) the percentages given in brackets indicate increase.



Foreign tourist arrival and foreign exchange region have been explained in the appropriate table number 3 through a diagram.

(iv) States with top tourism employment direct and indirect - Puducherry with a share of 56.24 per cent in direct and indirect employment in top tourism employment, followed by Lakshadweep, Goa, Daman Deep and Kerala with a share of 49.71 per cent, 40.2 per cent, 29.35 per cent and 25.87 per cent respectively.

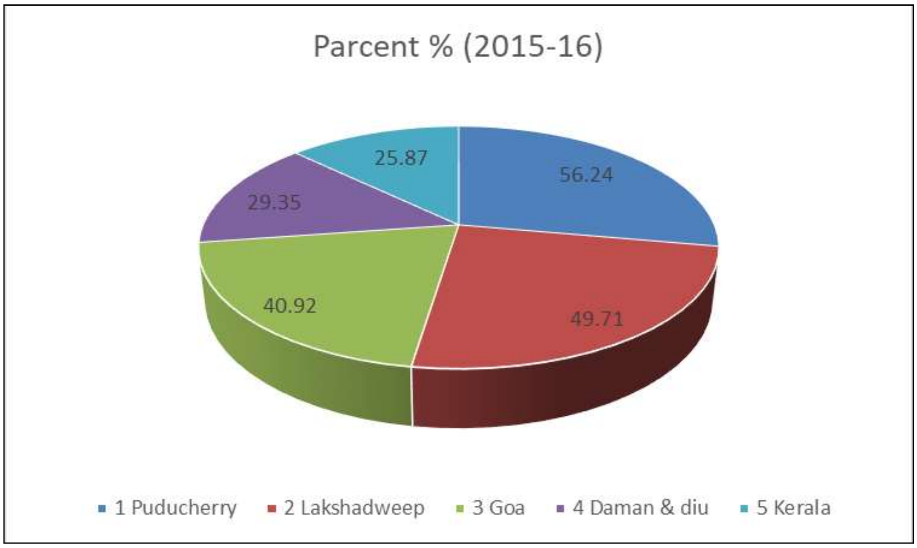
Table No. 04

States with top tourism employment direct and indirect

S.N.	State / Union territory	Percent (2015-16)
1	Puducherry	56.24
2	Lakshadweep	49.71
3	Goa	40.92
4	Daman & diu	29.35
5	Kerala	25.87

Source: Ministry of Tourism, Government of India 2021.

Diagram No 6



In table number 04, the states with top tourism employment have been shown directly and indirectly, which is becoming clear.

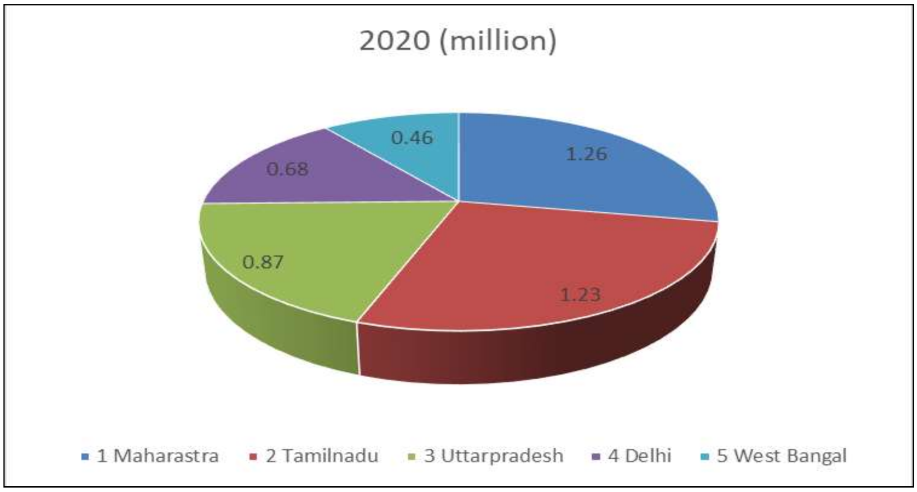
(v) States and Union Territories receiving foreign tourists. - Maharashtra topped the list of receiving foreign tourist arrivals under the Indian tourism industry at 1.26 million in 2020. Similarly Tamil Nadu 1.23 million Uttar Pradesh 0.89 million Delhi 0.68 and Kerala 0.46 million in the last fifth respectively.

Table No. 05
States and Union Territories receiving foreign tourists

S.N.	State	2020 (million)
1	Maharashtra	1.26
2	Tamilnadu	1.23
3	Uttar Pradesh	0.87
4	Delhi	0.68
5	West Bengal	0.46

Source: Indian Tourism Statistics 2021

Diagram No 7



In the appropriate table number 5, the top 5 foreign tourists receiving states and union territories have been created by the following diagram, which is becoming clear.

(vi) Monument to attract foreign tourists. - The monuments that attract foreign tourists are the remains first excavated at Nalanda, located in the state of Bihar, numbering 2.36 million. In the second place, the tomb of Sher Shah, whose number of foreign tourists is 2.10 million, in the same way, the ancient site of Vaishali Kolhua has the number of 1.91 million foreign tourists. Chhattisgarh State's Lakshmana Temple located at Sirpur which is fourth in attracting foreign tourists, 1.20 million every year and fifth place is Mamallapuram Group of Monuments located in Tamil Nadu, which has 0.4 million.

Table No. 06
Monument to attract foreign tourists

Details	Memorial 2020-21	State	Number of Million
1st	Remains excavated at Nalanda.	Bihar	2.36
2nd	Tomb of Sher Shah	Bihar	2.10
3rd	Ancient site of Vaishali Kolhua	Bihar	1.91
4th	Laxman Mandir Sirpur Chhattisgarh.	Chhattishgarh	1.20
5th	Mamallapuram Group of Monuments.	Tamilnadu	0.94

Source: Indian Tourism Statistics 2021

(vii) States attracting domestic tourists. : Tamil Nadu 23.00 million is the top state attracting domestic tourists followed by Uttar Pradesh Karnataka, Andhra Pradesh and Telangana 14.1 million 12.7 million 11.6 million 6.6 million respectively.

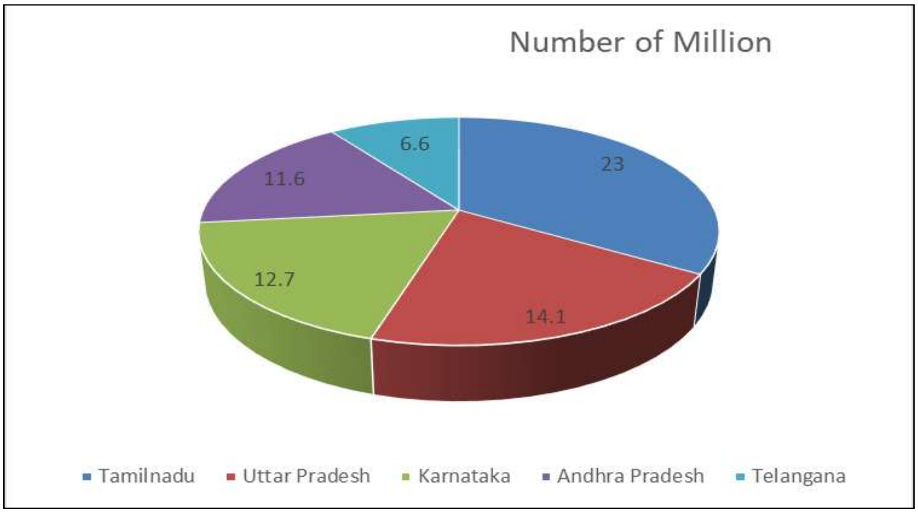
Table No. 07

States attracting domestic tourists

S.N.	State	Number of Million
1st	Tamilnadu	23.0
2nd	Uttar Pradesh	14.1
3rd	Karnataka	12.7
4th	Andhra Pradesh	11.6
5th	Telangana	6.6

Source: Indian Tourism Statistics 2021

Diagram No 8



The utilization table number 7 includes the top 5 countries attracting domestic tourists, which are clearly visible on the map.

(viii) Countries from where foreign tourists come to India. - Foreign tourists arrive in India in the tourism industry. They are the top five countries, with Bangladesh at the top, which accounts for 20 percent of all tourist destinations. In the same way, USA, UK, Canada and Russian Federation, which constitute 14.4%, 10.16%, 8.5% and 6.6% of tourists **respectively.**

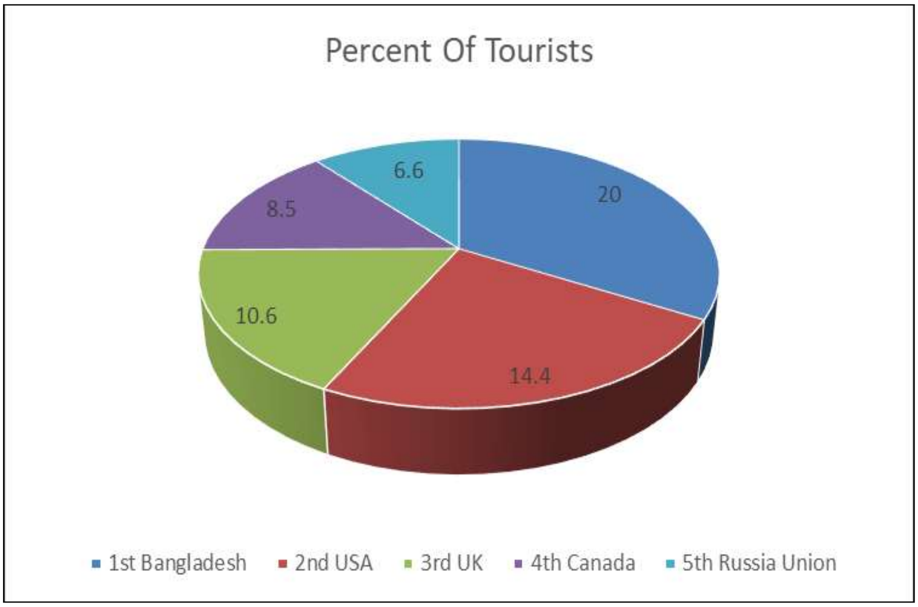
Table No. 08

Countries from where foreign tourists come to India

S.N.	Countries	Percent Of Tourists
1st	Bangladesh	20.0
2nd	USA	14.4
3rd	UK	10.6
4th	Canada	8.5
5th	Russia Union	6.6

Source: Immigration Bureau Government of India 2021.

Diagram No 09



In the appropriate table number 8, the number of countries from where foreign tourists come to India has been explained by the following diagram respectively.

6. Conclusion- In conclusion, it can be said that tourism industry has an important place in economic development. India is a country of natural, cultural and religious and political diversities, where many types of monuments, archaeological and modern landscapes attract foreigners, due to which the tourism industry has been contributing mainly to the economy. First of all, the hypothesis was considered to increase the contribution in the receipt of international tourism industry, which had a positive effect, that is, the null hypothesis is accepted and the alternative hypothesis will be accepted, it means that the international tourism industry contributed positively to the development of the country. Under the null hypothesis, there has been a decrease in the number of monuments attracting tourists, but in fact it has been found that there is an increase due to archaeological monuments. The null hypothesis is rejected and the alternative hypothesis will be accepted. The contribution of the tourism industry to the economic development has increased. That is, the null hypothesis is accepted and the alternative hypothesis will be rejected. This is a null hypothesis that India has recorded a gradual increase in the number of international tourist arrivals in the country, which is rejected because in fact, it was found that there is a lack of continuity in the countries of arrival from where tourists come. From which the alternative hypothesis will be accepted, that is, it can be said that the percentage of contribution of tourism industry in the development of the country is actively working in the GDP.

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Socio Economic Activities in District Meerut: A Micro Level Study

• **Bhupender Kumar**
•• **Sannwar**

Abstract- *All this study shows that enough changes have occurred in the social and economic thinking of the rural population. With the changing times and circumstances, these changes have also been accepted and assimilated in general. As observed during our personal discussions with the rural folks, there is sufficient scope for further changes in their attitude towards socio- economic set-up of the rural areas if selfless services based on high ethical and nationalistic standards are provided by political leaders in these areas.*

Keywords-*Socio Economic Activities, Rural population, Rural folks*

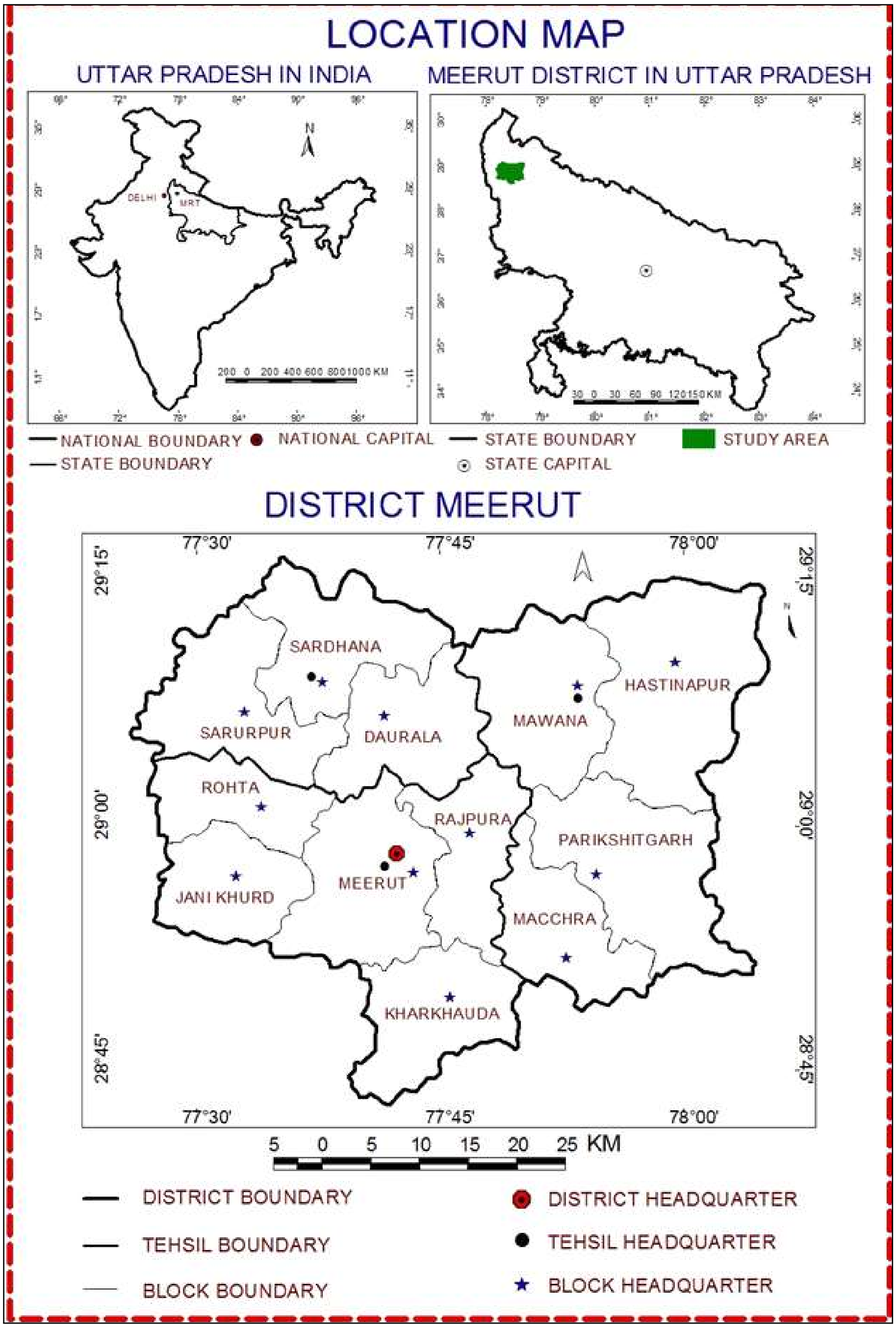
Introduction- The main emphasis is on land utilization, provision of such infrastructure as may boost agricultural production, provide employment to rural labour and may connect rural areas with urban areas in order to have meaningful interaction and exchanges of socio-cultural and socio-religious view point between rural and urban people. Population problems of the rural areas, health care programmes for the rural areas, health care programmes for increasing the level of literacy among the rural people, provision of adequate employment opportunities for the rural people in order to prevent their migration to urban areas, provision of basic requirements for development of cottage and village industries after giving sufficient training to rural people, provision of credit facilities to the farmers for meeting their short-term and long-term demands, provision of irrigation facilities through canals, tubewell etc., supply of seeds of high yielding varieties of different crops, supply of fertilizers to the farmers and similar other measures constitute important part and parcel of the development of rural economy.

The study of socio-economic conditions of the country side is the proper guide for going deep into the structure of Indian culture as our country is known to be a country of villages. The social customs in the rural and urban areas have changed a lot over the last few decades. The changes in the cities have also affected the customs in the villages. But still these villages do not easily agree to or accept the change in their century's old customs.

Research Methodology and Study Area- For the purpose of conducting

• Research Scholar, Department of Geography, D.J. College, Baraut, Baghpat
• • Assistant Professor, Department of Geography, Maharaja Agrasen College of Education Sarai Chhabila, Bulandshahr, (U.P.)

research studies for this topic the following approach has been adopted. For the purpose of getting elementary information about our studies, data have been collected through secondary sources from various district and tehsil offices, tehsil headquarters, offices of the block development officers, planning office, census office, offices of B.D.O's etc.



These secondary sources have returned very important information's about demographic, socio-economic, religious and other features of the economy of the district. According to these sources, Meerut district is divided into 3 tehsils namely -Meerut, Mawana, Sardhana and with their sub-division into 18 blocks, out of which 5 blocks are in Meerut thesil, 4 blocks in Mawana and 3 blocks in Sardhana, total rural population 1584507.For the purpose of getting primary information, about 1% of the total households in the rural area have been selected on the basis of stratified random sampling technique.

Social-customs and festivals: Hindus have almost similar social customs and festivals. The marriages take place either according to SanatanDharm or Arya Samaji system. In both the systems Satpadi ritual is observed. The age of marriage among Hindus is said to have been low in rural areas but of late the trend is changing fast and now the model age of marriage for femals is around 18 years and of males around 22 years. However, the evil of dowry is very much in existence which, in the recent times, is found to have resulted in the strained relations of the two families of the bride and the groom. There are some reformist groups mainly among Jats who shun big and ostentatious marriage parties, dowry and too much expenditure in the name of marriage and other ceremonies of the household, but the effect of their sane advice is only nominal. Child marriages were quite popular in the so-called low-castes in the past, but these castes are also showing appreciation and acceptances of higher marriageable age which comes nearer to that ordained by our constitution. The system of marriage (Nikah) among Muslims is said to be strictily according to Shariat and Shariat laws.

The main festivals of Hindus include Holi, Diwali, Dashera, Shivratri, Krishna Janmasthmi and Ram Navami etc. Muslims celebrate their Id, Ramzan and Moharran. As compared to towns, the Hindu and Muslims mutually participate more in each other's festivals in the rural areas than in urban areas as revealed by our field studies and also observed during the course of our personal discussions with people of the cross-sections of society.

Family size: Till a few decades ago joint family system used to be very much in vogue in the villages and as a result the size of the family used to be large. The tendency is still the same. But due to division of agricultural land and more and more movement of people towns in search of jobs, the family size is showing a downward trend and joint family system is also breaking up. The spread of education is accelerating this break up of joint family system. Our field studies have revealed that on the averaged family size among Muslim families has comparatively been larger than that in Hindu families, Again, in Hindu families, the family size among scheduled castes has connection have been tabulated below-

Table Showing Community Wise Family Size in Rural Areas

Name of the community	Average family size including husband, wife and other dependents	Average No. of children per family
Hindus	6	2
Muslims	9	6

Source: Survey data

Male child preference- In the past male child used to get preferential treatment in the family almost in all respects like education, bringing-up of children and general treatment. The boys used to be given all sorts of facilities while the female children, the girls, were a neglected lot. But for some time, past, a new awakening has dawned and the parents are now not so averse to their girl-children so far as their education is concerned, but in the matter of daily meals and other eatables male children still get lion's share and preferential treatment. The girls are seen to confined to household duties within the four walls and hardly move freely as their brother except for attending schools where such facilities exit. Political awakening among females has little effect despite four and a half decades of independence:

Religious Set-Up of Rural People-

Table Showing the Percentage of People of Different Communities in Rural Areas of Meerut District

Community	Percentage
Hindus	70.727
Muslims	26.36
Christians	00.04
Sikhs	00.07
Others	4.79
Total	100.00

Source: Survey data

During our survey we came to know that the rural population of District Meerut is composed primarily of two main religious groups-Hindus and Muslims. Hindus make nearly 77% and Muslims makeup 26% of the total population in the countryside of Meerut district there are other groups like Christians, Sikhs etc. also but their presence is only nominal. For example Christians form only a very meager part i.e., 0.04% while Sikhs are merely 0.07% of the whole lot. Hindus include Jains, Buddhists also and 4.79 other caste.

The effect of modern science, education and the western civilization in the towns seems to have started entering the villages, and the young people in the rural areas are less religious minded than the people of older generation expect them to be. The most unfortunate part of this new pseudo-culture is that the new generation (also in villages) has started disbelieving Dharma and God and is indulging in antisocial and immoral acts. The absence of the real religious thinking is certainly very dangerous for the country-side as well as for economic development of the country. Blind faith in religion is still being observed in rural areas where rural people are found to be ready to sacrifice everything for preserving their religious dogmas and religious faith.

Political and Economic Set-up of Rural People- Political Set-up; It is a well-known fact that in democracy the success of Panchayati Raj and the fulfillment of the hopes of the people, their participation and involvement in the developmental work in villages depend largely upon effective role of local leadership. Formal and informal leaders were located and identified in each village during our filed studies. Formal leaders were those who were holding a position in the panchayti and informal leaders were located on the basis of their reputation as revealed from observation and discussion with villagers. Both types of these leader are equally important for the politic-economic uplift of rural areas.

The local leaders of all these parties a when contacted, claimed to look after the interests of the farmers, the labourers and the general public. Their problems, as claimed by these leaders, include subsidy on fertilizers, payment of electricity bills due to operation of tubwells, payment of government loans, wavering of loans below Rs. 10,000 to 20,000 unemployment, wages and social disparities, education and, above all, the problems of law and order and Kisan Credit Card and others agreements.

The country-side of this district apparently seems to be more politically conscious as compared to other parts of India. But it is a sad comment, which is usually heard from the village fulk, that no useful purpose is being served by any political party nor is there any hope of any real service being performed in the near future by any political group whatsoever. The reason is not far to seek.

For any socio-economic-political system and particularly system to be successful, as far as the welfare of the public is concerned, three factors are of utmost importance. These factors are education, socio-economic-political consciousness and morality. Only a very small percentage can be said to be educated in the real sense. As regards, creating of social consciousness and knowledge about the merits and demerits of various socio-economic and political systems, no such ideological training is imparted to the masses by any political party. The parties do exhort the people for launching movements for their problems, but the aim only remains confined to their vote banks for which sometimes even non-issues are taken up to boiling points achieving political mileage by each and every party. In the absence of any ideological approach, caste consideration plays an important role in the political affiliation of the people.

As regards to the third factor of morality, it has become the biggest casually among leader of all the parties and therefore, they have nothing to offer to the masses in this direction. They simply exploit the poor and innocent people and use all sorts of illegal and unethical methods including muscle, money, wine and false promises to woo the voters, who, in the absence of education and social consciousness, become easy prey to these politicians, It. is an irony of fate that in our county polity has become corrupt, criminal and immoral as a whole and unfortunately there are no exceptions. Politicians have bidden good bye to moral values and national interest. That is why all sorts of corrupt practices on the national front have become the talk of the day and their systematic and ceremonial observance and protection has become very common.

There is also a non-political organization, Bhartiya Kisan Union (BKU) which has a very good base in the country-side of this district. Under the leadership of Chaudhary Mahendra Singh tikait, this group has become quite influential. But it is also most dominant among the Jat population. This too has not made any remarkable impact as regards the fulfillment of its aims and objects.

Only a political party with ideologically dedicated and moralist cadre and leaders can serve the real purpose of delivering goods for a system free from exploitation-social religious-social, religious, economic and political.

Economic Set-up of rural people- The base of the rural economy of our country is agriculture. Nearly 70% of our population is engaged in agriculture directly or indirectly. If is through agriculture that our rural people meet the basic needs of their life. The rural economy which is dependent on agriculture, has its impact on the whole country. It our rural economy is strong; the country will make rapid and widespread economic progress because 40% of our total export is contributed from agricultural products. Besides this, the raw material for big industries in the cities is also supplied by rural areas. So, the economic setup of these rural areas is mainly agrarian in character based on farm economy and supported by allied professions like animal husbandry, poultry poultry farming etc.

The employment of rural population is also based mainly on agriculture. Those villagers, who are not engaged in agriculture, earn their livelihood through animal husbandry, small manufacturing, processing, servicing and repairs in the form of household industry and other occupations like building construction, trade and commerce, communication and other works. Even those persons, who work in agriculture, also remain unemployed for five to six months in a year. As such, they also earn through building construction and some sort of business etc. to maintain themselves during these months while some villagers also seek jobs in the nearby towns and cities.

Our field studies of samples village have also revealed that in almost all the tehsilspersons engaged in agriculture dominate whereas in other allied profession their entry is of a supplementary nature. It would be clear from the following table in which their beak-up has been analyzed:

Table Showing Percentage of Persons Engaged in Various Occupations in Tehsils of Meerut District

Tehsil	Meerut	Mawana	Sardhana
Work Categories			
Cultivators	40%	60%	47%
Agricultural labour	29%	17%	27%
Animal husbandry	1%	1%	1%
Manufacturing	13%	8%	10%
construction	2%	1%	2%
Commerce & Communication	6%	5%	5%
Others	9%	8%	8%

Source: Survey Data.

There are many other factors which provide strength and stability to the base of rural economy directly and which have an important place there. These factors include agriculture finance rural development bank facilities, incentives to handloom etc. by the government.

Rural Bank- Various Committees, constituted by the government have recommended that the reform in rural economy is essential. With a view to increasing the National Product and to bring improvement in the economic condition of the villagers, it was deemed necessary that a separate banking system for rural areas be established. In order to protect the farmers from the exploitation by money lenders and also in view of the city-oriented policies of the commercial banks of the private sector, it was decided to nationalize 14 commercial banks in 1969. Later on, in the eighties, some other commercial banks were nationalized. The idea was that through nationalization the money deposited in banks will not only be limited to be used in the interest of a few big industrialists but will also be released towards agriculture, small scale industries, retailers transport and other priority areas mainly concerned with rural development.

The Reserve Bank of India has also taken up several measures to openly help the small marginal farmers, landless laborers, rural technicians, small entrepreneurs and living below the poverty line in order to make them self-dependent. For this purpose, NABARD has also been established, so that the rural economy may be provided with a strong base.

Attitude 0f the People Towards Socioeconomic Changes- The survey of rural areas has revealed that sufficient changes have taken place in the social and economic set-up there during the last few decades. The causes of these changes are, mainly the changing psychology of the villagers, influence of cities, increase in business of each and every individual there, changes in the employment possibilities and areas due to pressure of circumstances, downward trends in the joint family system and the availability of useful financial schemes of the governments for the economic development of the country-side.

Attitude towards social changes: It is quite clear, from a look at the social set-up of the rural areas that a big change has taken place in the psychology of the village folks. They have now changed their views at every level as compared to the state of affairs a few decades ago. These changes are observed mainly in the areas of women's employment, women education, family and religious traditions, which bear a direct relation between individual and social development. There is appreciable awakening in the, villagers as regards social changes. Previously, the people in the villages used to discard these social changes as an evil effect of urban culture. But the situation is different now. The same very social changes now receive a positive response.

Changing attitude towards women education and employment- Previously, even in the near past, the girls were not supposed to be capable of getting education while the boys were provided all sorts of facilities for their education. Our survey of the sampled villages clearly indicates a considerable change in the outlook of the village people as regards female education. From the government side also more and more attention is being paid towards girls education. Free supply of books, stationery. and other related material along with incentives, in the form of scholarships, have been announced by the government.

Changing attitude towards social traditions: During our survey we found that the centuries old family and religious traditions have' also changed a lot. An impact of urban civilization can be easily seen on rural families. Previously well-knit joint family ties were very strong in the villages; but now more and. more single families are coming into existence. With the failure of joint family system religious traditions, that were followed jointly, have also ceased to exist or at least their observation has become nominal and very loose. The older generation sticks to these traditions while the new ones are not particular about them and even refuse to recognize the same. However, in some cases the elders have also welcomed the changes like the increase in the age of marriage and abolishing the custom of dowry etc. Previously the sense of untouchability was very strong in our society, particularly, in the villages. But in this direction to the general psychology has received a radical change which is to be appreciated.

Attitude towards economic change- The assessment of the economic change in the rural areas can be. made from the changes in the field of employment, agricultural techniques, financial facilities and all other factors which directly influence the economic development in the villages.

Changing attitudes towards employment- The economy of our country is mainly based on agriculture which is also the main source of employment to the rural people. But in the last few decades due to pressure of the dependence of more and more families on agriculture and also due to the breaking up of joint family system the size of the plough able agriculture land per family is becoming smaller and uneconomic. As such, the per capita income has been adversely affected. As a result, the rural population now is no more dependent on agriculture alone. The villagers seek other smaller employments along with agriculture. Thus, we find a change in the hereditary family occupations due to pressure of circumstances in the country side.

Changing attitude towards agricultural techniques- From our survey we came to know that previously the farmers in the rural areas were not fully acquainted with the new techniques of agriculture. And, if at all, some of them knew it, they were hesitant in making use of the same due to lack of financial resources. But, now as the facilities of irrigation, electricity, agricultural implements, fertilizers and improved seeds 'are provided by the government at concessional rates the farmers too have been dreaming of becoming self-sufficient in producing food-grains by using modern techniques. This is the result of the change in the out-look of farmers and small entrepreneurs towards modernization.

Rural Banks- During our survey we came to know that the opening of more and more branches of banks in the economic set-up of rural areas clearly indicates the increasing trust of the villagers in the banking. There are 92 branches of nationalized banks working in rural areas of Meerut District. These banks show the path of freedom from the yoke and exploitation of the money-lenders and the landlords since the banks provide short- and long-term loans to the village-folk at reduced interest rates. Long ago the farmers used to take loans from the moneylenders and landlords as per the age-old traditions and thus used to be exploited permanently and still were not inclined to go to the banks for loans. In its rural loan policy, the government 'has taken up measures to supply loans to small and marginal cultivators and the persons belonging to weaker sections on priority basis. This is the major aspect of rural economy which provides a proper shape and size to the economic development of the villages.

Changing attitude towards marketing system- From our survey of sampled villages, we come to understand that a big change is taking place in the marketing system there, although still many farmers sell their produce to big farmers and land lords at low rates, while the latter take the same produce to the cities and sell with a big margin of profit. In order to stop this exploitation of the poor farmers the government came out with schemes of marketing societies, co-operative societies and go down facilities etc. Now the farmers can sell their produce in the nearest mandi at suitable and proper rates and get money.

Table showing heat, cold storage & go down facilities in Meerut District-2011:

Tehsil	No. of villages with heat facilities	No. of villages with cold storages	No. of villages with go down facilities
Meerut	35	9	75
Mawana	34	4	80
Sardhana	17	-	57

Source : 'Survey data'.

The procedure and the atmosphere in Mandis make the transactions of commodities quick and economical. So, the producers can sell the produce conveniently. The transaction system needs an effective process to ascertain enough profit in each bargaining.

Position of sampled villages regarding heat, cold storage & go down facilities:

Tehsil	No. of sampled villages	No. of villages with heat facilities	No. of villages with cold storages	No. of villages with go down facilities
Meerut	4	4	3	4
Mawana	4	4		4
Sardhana	3	3	-	3

Source: Self compilation from primary data.

This table of sampled villages shows that maximum number of heat facilities are available in Meerut and Mawana tehsils. Sardhana next to them. In sampled villages maximum cold storage facilities are in Meerut tehsil villages. Regarding go-down facilities, all the tehsils are almost at par.

In order to bring about changes in the economic side, Jawahar Rozgar Yajna* and the opening of related training centers in the villages have also been taken up by the government. The villages are taking interest in this scheme.

` All this study shows that enough changes have occurred in the social and economic thinking of the rural population. With the changing times and circumstances, these changes have also been accepted and assimilated in general. As observed during our personal discussions with the rural folks, there is sufficient scope for further changes in their attitude towards socio-economic set-up of the rural areas if selfless services based on high ethical and nationalistic standards are provided by political leaders in these areas.

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Death, As The 'Giver of Gifts'- A Review article

• **Uma S.P**

Abstract- *The article brings out the power of age-old traditions and belief. The author presents 'DEATH' as a concept which is the most real where the living world is concerned. When 'belief' the foundation force of every single civilization stands under treat, it is" death" who steps in to save the 'disc world' from oblivion. This endears death to the living world as he becomes the' Giver of Gifts' rather than taker of lives. In this hilarious work called 'Hogfather'.*

Keywords: *belief, hope, reality, dream*

Introduction:

Terry Pratchett- An author, despite having been knighted by the Queen, for his services to literature, claims, never to have "committed anything literary" in his life, immediately commands interest, as the most original, thought provoking and path breaking writer, whose creations strongly exhibit that extremely rare, unique quality of "timelessness" The positivity, all pervading humour, razor sharp insights found in his writings, are capable of providing immense pleasure, as well as a remarkable healing power, to a chaotic, conflict ridden civilization eternally.This is the 20th Discworld Novel and a 1997 British Fantasy Award Nominee.

As the title suggests, the story is woven around the parable related to Christmas and the legendary 'Santa - Claus'. Terry Pratchett explores the 'power of Belief', that succeeds in binding together a diverse population and delves into the harmonious existential possibilities which is inseparably intertwined with Faith. As in most Discworld series, this plot is also strongly supported with, unlimited imagination and narrates a situation where the 'HOGFATHER' , disappears around the time of Hogswatch as a result of a planned operation, commissioned by 'the Auditors of Reality' . They give a contract to the 'Assassins Guild', to 'delete' the HOGFATHER, from the Discworld Lord Downey, the head of the Assassins guild, hands over this seemingly impossible task, to his ruthless killer, Jonathan Teatime. Mr. Teatime, carries out the task, by kidnapping the 'tooth fairy' and taking control of the collection of teeth, stored at the 'Castle of bones'. Destroying these teeth collection would in turn destroy the memories of children, in turn destroying their faith, arising out of ancient racial memories, passed on from generation to generation and civilization to civilization, to help make sense of a visibly senseless cycle of existence, and to bring colour and acceptability to Life.

• Ph.D Scholar (Lit.), Lords University, Alwar

Death plays a central role in this novel, and it is Death, who decides to step in, to save Belief, by donning the garments of the Hogfather and attempting to fulfill the duties of "the giver of gifts"

Death, also manages to rope in the support of an unwilling assistant, his adopted grand-daughter.

Susan Sto Helit, because there are places involved, where Death cannot go. Together they manage to restore the HOGFATHER, to the Discworld.

The highlight of 'HOGFATHER' is the bizararre plot, where 'Death', the dreaded last visitor, the taker of lives, decide to suddenly be the 'jolly giver of gifts', the most welcome guest everywhere!

Helped by Albert, his trusted assistant, Death as the HOGFATHER, gets into the red velvet coat, fitting in the empty ribs with huge pillows, and bravely takes on the jolly laugh ' Ho Ho.Ho' , as he rides the sleigh pulled by the pigs. 'Tusker, snouter Gouger, Rooter'.

In the hilarious events that eventually unfolds, Death crystallises into an image more solid and life-like than ever before, far out-growing the best literary personification ever created.

Death, begins to enjoy his interactions with life, at its early beginnings... with childhood, without the masks, without the voluntary blindness of adulthood, and with the awesome capacity of embracing total truthfulness, with the ability of seeing the truth as it is.

And Death goes a step further, than being merely the giver of gifts Death wants to see justice prevail in the world. To the horror of Albert, who reminds him that "it's hope that is important. Big part of belief, is hope. Give people Jam today, and they'll just sit and eat it. Give them hope of 'Jam tomorrow', now that will keep them going forever!"

Death still continues to want change. Death observes the inequality and begins to 'care'... And points out.

" IT IS HOGSWATCH,
PEOPLE DIE ON THE STREETS.
PEOPLE FEAST BEHIND LIGHTED WINDOWS. AND OTHER PEOPLE HAVE NO HOMES.
IS THIS FAIR? "

And Death takes a peep at his normal role, and finds it fair as can be. " I AM EVEN HANDED TO RICH AND POOR ALIKE. "

Albert points out the limitations of their roles, and reminds Death, that they can only witness, never manipulate the normal course of existence. But, Death, goes on being 'HOGFATHER', atleast for the time being, and saves a little homeless girl, from freezing to death, by handing her over to the watchmen.

And Death also interferes when a poor old peasant, becomes the 'victim of kindness' of a King, who insists on pressing the peasants to accept the gift of leftovers that the king had no use for.

The peasant only wanted to celebrate Hogswatch with 'some old baked beans and potatoes. The insensitiveness of the King, infuriates Death the Hogfather and he chases the King away and provides the peasant, with the food of his dreams, food that he was used to and could recognise... everyday ordinary food (" A pig's head, breathed the old man! ") And Albert says wisely:

"Charity ain't giving people what You wants to give, it's giving people, what they need to get".

Death, continues to do all he could, to bring a few smiles in otherwise dark countenances, and thoroughly gets into the spirit of the season, especially when he smashes into the Hogswatch celebration scene, of a toy shop in Ankh morpork, belonging to one Mr. Crumley.

Death, the Hogfather, hugely enjoys giving small children, the kind of gifts no sane elders would ever dream of giving them.

And Death, found that dealing with the large queue of children was extremely enjoyable, as hardly anyone was ever pleased to see him before... Large pink teddy bears and razor-sharp swords exchanged hands, to the horror of parents as well as Mr. Crumley the toy shop owner, who was left sobbing at the steps, as he could not get closer to his own shop, due to the crowds!!

He sends for help, and gets constable visit and Corporal Nobby Nobs, from the watchouse.

We get to see one of the best comic instances, as Nobby goes up to the 'Imposter Hogfather', with the intention of arresting him. And get given the kind of gift, Nobby dared not even imagine... a dream weapon (" a genuine Burleigh and stronginthearm double - action, triple cantilever crossbow")

Mr. Crumley demands to have the 'imposter' arrested, but finds himself in a tight spot, when asked to voice charges against the 'imposter'. Mr. Crumley begins by declaring that this was not the Hogfather, he had hired. And accuses this Hogfather, of 'giving away' gifts but these were not from Crumley's toy shop, so he could not accuse the Hogfather of theft either... When asked on what grounds they could arrest the Hogfather, Mr. Crumley is stunned and wails.

"This is a Shop! And if goods are being given away for free, who will pay and buy anything? "....

The whole incident is hilarious, as well as thought- provoking for the reader...

Commercialization is a strong concept that comes up, and so does unconditional belief, which gives a personality, the kind of strong foundation, which remains unshaken even when facing the worst in the distant futures.

And the strong sarcasm, found in the subtle comments, does not recommend acceptance of any unconditional belief, either... Terry Pratchett, has always exposed the hypocrisies, the double standards, the tremendous stupidities that humanity is capable of. His narration has included all of these in vivid colours and uninhibited clarity...

The satirical element is obvious in the following conversation between Albert and Death. Death is commenting with satisfaction, upon the expression on the little girl's face, as she is made to sit on his bony lap, in his capacity as ' Hogfather '. He says " IT'S THE EXPRESSION ON THEIR LITTLE FACES I LIKE", and Albert replies...

" You mean the sort of fear and awe and not knowing whether to laugh or cry or wet their pants? "And Death says

"YES, NOW THAT IS WHAT I CALL BELIEF"

This throws more light on the author's originality of perceptions, more that any analytical theorization can ever accomplish.

Relevance- Terry Pratchett, has succeeded in total acceptance of his race, with all their imperfections and follies; and has been able to create a niche of sanity, that one could comfortably retire to, whenever ready to withdraw from the war front of day-to-day existence. Every single one of his works, open up just such an escape route to the lost paradise... Hogfather, is no exception!

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- Terry Pratchett (1996) The Hogfather (20th Discworld Novel), Victor Gollancz, United Kingdom: Page No 112-124, 330-345, 400-415.

Supplementary data:

CHARACTERS:

1. DEATH disguised as HOGFATHER
2. ALBERT, the pixie, Assistant to DEATH
3. SUSAN- STO- HELIT, - Adopted granddaughter of DEATH.
4. JONATHAN TEA TIME- Member of Assassin's Guild
5. DEATH OF RATS, and THE RAVEN
6. MUSTRUM RIDCULLY Arch Chancellor of unseen university
7. WIZARDS of Unseen University
8. HEX, The Thinking Machine
9. THE OH GOD, BILIOUS and various other super natural beings
10. THE AUDITORS OF REALITY

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The New Subaltern in Arundhati Roy's the Ministry of Utmost Happiness

• **Pankaj Bala Srivastava**

Abstract- *Speaking about the unspeakable always attracts attention and sympathizes deeply with people of unusual anatomy; 'The Ministry of Utmost Happiness' reflects Indian society through the central character of intersex people (Hijra). In this novel, Arundhati Roy presented several dimensions of the social, religious and political aspects of intersex people. Through the character of Anjum, she evokes several concerns related to this community. She tries to depict every detail of their lives, dreams, suffering, worries and hopes, for they are often oppressed by society. Roy addressed the struggle of transgender people. In the present paper, an attempt has been made through this novel to explore the portrayal of Marginalization and Social Exclusion of Transgender, which helps create a sympathizing discourse on the transgender community and protects it from the exploitation of the Indian social, political and cultural.*

Keywords- *Subaltern, Marginalization, Hijra, Transgender, Gender Issues, Social Exclusion*

Introduction- Subaltern studies emerged in India around the 1980s. It was a movement of Indian scholars, proficient in the West, who sought to recuperate the history for the lower classes, for voices that had not been heard before. The term *subaltern* is 'a name for the general characteristic of subordination in South Asian society, whether expressed by class, caste, age, gender or any other way'. Subaltern studies analyze the binary relationship of the subaltern and the ruling classes and, thus, the interplay of dominance and subordination.

The concept of "subaltern" is an outcome of the post-colonial situation, which has given rise to heaps and heaps of literature. With the advantage of socio-economic status, the definition and the characteristics associated with the term "subaltern" have significantly changed. Arundhati Roy focuses in her second novel, *The Ministry of Utmost Happiness*, as a camouflage of contemporary socio-political problems, particularly relevant to studying the "subaltern" in the South-Asian context. The novel is about everyone and everything happening in a rapidly changing India, especially the displaced and marginalized, as the book is dedicated to "The Unconsoled". Through the protagonist or main character of the novel, the transgender issue is raised. Other ongoing problems like gender discrimination, caste inequality, capitalism, and many other socio-political facts were equally addressed. Arundhati Roy is an activist and has had an

• Associate Professor & Head, Department of English, Mahila Vidyalaya Degree College Lucknow (U. P.)

illustrious career with books on capitalism, globalization, and democracy. Thus *the Ministry of Utmost Happiness* is undoubtedly and instinctively an outgrowth of the author's observation of "The New Subaltern," who are victims of social and political injustice. Therefore, this paper aims to examine Roy's portrayal of "the new subaltern" in a setting of democratic India through his characters framing them in a post-colonial situation. As the study of the subaltern constantly changes, this article also attempts to trace the development of subaltern studies in South Asia.

Gender is a term frequently used in social sciences and language disciplines. Its discourse starts at the baby's birth and is a process constructed by society. It tells us about the context of the region, religion, and ethnic group that build the gender identity of the individual. However, gender refers to the cultural categories of femininity and masculinity, which relates to society's expectations of gender roles.

Arundhati Roy, the winner of the Booker Prize, is one of those Indian English writers who occupy a typical place as a novelist in English literature. She is one of the women writers working to create a new image for Indian women writing. Her popularity as a novelist rests in her ability to portray sensitive aspects of human life and social relations. In The Ministry of Utmost Happiness, Roy diagnoses the dilemma of deviant gender and intersex women in particular.

Intersex is a term generally used for various conditions in which the individual is born with a reproductive or sexual anatomy that does not fit typical definitions of being male or female. However, the person might be born seeming to be female on the outside, having on the inside typical male anatomy. Some intersex characteristics are identified at birth, while others, until puberty or later in life, discover that they are intersex.

Transgender or intersex people are known in India as Hijras. They are considered neither men nor women and are occasionally subjected to social neglect and alienation. Both family and society avoid these people. They face an identity crisis as they cannot define themselves as typically male and female boundaries. They are marginalized and forced to live the life of others. Their education and public area are confined, or they decide to live a life of isolation due to certain limitations.

Two elements that Roy utilized to depict the fighting realistic narrative; the first is throughout the protagonist, Anjum; instead of accepting her marginality as a hijra, this double-colonized transgender character who is socially and culturally ostracized, made up her mind and survived her life by transforming the graveyard, a place of death, into a paradise. Although her identity lay in-between till the end of the novel, she breathed life into her ancestors' dead culture and recovered her own identity. The second element is the language of this novel which is English on the surface. Still, it fills with Urdu, Persian, Arabic, and Hindi as a subversive strategy to foreground linguistic hybridity and cultural identity in indigenous settings. Presentation of English is a deliberate aesthetic choice that reflects the author's engagement with the challenges of telling a story of the nation from multiple non-English languages. Roy reconstitutes the inherited western language on the lexical, syntactical, and phonological pattern of her indigenous languages to deconstruct and dehegemonize the English canonical language.

The Ministry of Utmost Happiness takes us on an affectionate journey of many years across the Indian scenery. The story moves from the cramped neighbourhoods of Old Delhi and the roads of the new town to the mountains and valleys of Kashmir and beyond. Arundhati Roy pictured the suffering of marginalized people. They are struggling to live in a society full of mess and brutality ingrained there. But most ordinary people are excluded and broken by the world they live in. In this novel, Roy's characters include an inter-sex woman (Hijra), a rebellious architect, and her landlord, a supervisor in the intelligence service. The narrative spans decades and locations but primarily occurs in Delhi and Kashmir.

Discussion- The concept of hijras and other transgender people is not a new one. They have a solid historical presence in Hindu mythology and other religious texts in India. Though they were recognized and given importance in the ancient custom and practices, the conditions have been deteriorating generation by generation. We are unaware that a community has been disdained due to our inferior perspectives- sometimes, we label them with the sole word transgenders or contempt them with our eyebrows frowned. But they are not just a community with similar features or gender fluids. Each individual differs in gender incongruence. There are genders (not having a gender or gender neutral persons), bi-gender (persons who fluctuate between male and female gender-based behaviours and identities), gender fluids (a mix of male and female, but may feel more man some days, and more woman other days), intersex persons (persons born with reproductive or sexual anatomy that does not seem to fit the typical definitions of female or male), abro-sexuals (individuals that have a fluid and rapidly changing sexuality that fluctuates between different sexualities), androgynes (persons whose appearances or clothing have elements of both femininity and masculinity), hermaphrodite (a person having both male and female sex organs or other sexual characteristics, either abnormally or as the neutral condition) and so on. We designate them as transgenders or persons—a community that should be disdained, scorned, and excommunicated.

Roy's *The Ministry of Utmost Happiness* protagonist is an intersex woman. The word intersex refers to people whose biology does not fit the typical definition of male or female. Intersex traits comprise variations in chromosomal patterns, reproductive organs, genitals, and hormones, which enable us to assign their sex as male or female. Intersex women are also considered binary biological sex, and she does not suit the exact definition of what is culturally regarded as female.

Anjum, the novel's central character, is born with undeveloped genitals of both sexes. Her family wants her to be a boy, but she acts and dresses like a woman. She is known as Hijra. Then, she is rejected by her parents and forced to live in a small house in a cemetery. Roy's this novel explains mainly the dilemma faced by the intersex community in India. It is a simultaneous critique of the politics of subversion against hijras, i.e., people of unclear sexual orientation. Roy evokes several concerns related to this community. She tries to depict their suffering, worries, and hopes, for society often opposes them. Remarkably, the intersex woman is doubly oppressed as a woman and simultaneously intersex.

Arundhati Roy's this novel records many conflicts in marginalized people's lives. *The Ministry of Utmost Happiness* tackles mainly the issue of Hijras, which has long been considered taboo. Roy tells her own story through Tilottama. Roy unveils many traits of this burden category. While intersex people have a biological defect since birth, they are exposed to discrimination from their surroundings. The novel also addresses other issues, including feminism, gender, and sexuality, which all flow and determine the concept of intersex.

The first chapter, Where Do Old Birds Go to Die? Anjum, an intersex woman, settled in a graveyard near her relatives' burial sites. Where she lives and is depicted as a tree like a part of the natural world, unspeaking, trying to avoid others. The tree could mean a natural growth and signify her desire to live against all the forces. She defies the vultures which climb in the high branches of the tree. The vultures try to defeat her through poisonous acts. It reflects how the history of corrupt and venal politicians, religious hatred, bloodshed, death and denial of justice poisons Indian society.

The majority of the characters of the novel feel a traumatic identity in one way or another. Anjum has a complex gender history. She is born as an intersex boy Aftab. But tends towards being effeminate. Since he is the first boy in the house, his parents decided to treat as a boy him and to prevent his feminine traits. His father blames him when he joins Hijras. Then he is ignored by his father. Musa is dedicated to the people of Kashmir, fighting for freedom, whereas the government considers his fighting as terrorism. He is labelled as a terrorist, but he believes that he is a free fighter. Tilo becomes embroiled with Musa as she is caught harbouring an enemy of the state, which is technically seditious activity.

The main characters of this book tried to find a place that could be considered normal. Anjum feels emotionally drained due to the absence of love in her life. Tilo feels neglected by her mother, who refuses to acknowledge her as her biological daughter. The warrior Musa tries to live like an average person but is conflicted due to his empathy with Kashmiri, leading him to become a terrorist. None of these characters feels that he is a part of the world, looking for a place where they can live, be accepted, and be happy.

The notion of freedom is brightened throughout the story. It is manifested in Musa's fight for freedom in Kashmir and Anjum as he tries to avoid the *Duniya*'s rules of the world. She came from the Hijras community to live in a graveyard to not obey anyone's rules. Tilo tries to be released from marriage and to free herself from the thwart for being a friend of a terrorist.

In Indian society, patriarchal misogyny and violence against women occasionally erupt in merciless brutality. The main characters, Tilo and Anjum, are very independent and not afraid to believe in themselves even though the cost of culture marginalizes them or disempowers women.

Conclusion- A lot of criticism has propped up after the publication of *The Ministry of Utmost Happiness* due to the incoherency in the narrative pattern. The narrative starts at a graveyard's unusual setting to depict India's corrupted pseudo-democratic setup under the clutches of globalization, materialization, industrialization, westernization, and other political scams. By order of structure, the novel starts with the story of Anjum, a trans-woman, precisely a woman trapped in a man's body. The time gap is adjusted to tell the story of Anjum, from her birth to the events that led her to the first set of the graveyard. Through this part of the narrative, Roy melds the one half of the dystopian sphere by etching the caste craze, media politics, gender politics, globalization, islamophobia, etc., that rules democratic India, which cracked the whole set up and demolished the "the ministry of utmost happiness".

Arundhati Roy is an acute observer of the very fabric of Indian society. He is an activist and social reformer for the marginalized and socially exclusive peoples (transgender people) and oppressed and a revolutionary spark for the 21st-century litterateurs. The novel recounts some of the egregious events of Contemporary Indian history, such as land reform in 2002; the Godhra train burning, and the Kashmir insurgency. It illustrates the sufferings, pain, and right of the LGBT community in contemporary India. The novel also incorporates many social and political events that occurred in India and other parts of the world against the backdrop of its story.

There is a very narrow space for the strange or unusual in Indian literature. Sexuality always remains taboo in our conservative society. Those matters were never discussed publically, so the space for transgender remains inside the walls taboo. Their lives remain a forbidden story, and they are neither encouraged to have a better life nor get help from anyone. Some writers have written on sexuality, emphasizing their place in society.

Arundhati Roy is known for presenting unconventional subjects; in this work, she picks the unspoken, ignored, and underestimated Hijra. India is never a utopia for transgender people; mainstream society abandons them, and the homophobic society never treats them as complete human beings. They lost their identity and remained silent. Roy exposed the small world of transgender with more enormous complications in desperate need of help.

The Ministry of Utmost Happiness is a complete satire aiming to attack the ways of a patriarchal society. Where transgender people beg for their place, women are raped and bound to seize their lips, and the abandoned lives of Dalits, Hindus, and Muslims are at war. Citizens are the actual victims. Roy always captures real events in her texts; this so-called fiction is no less. The story takes us through the lanes between the graveyards to Valley, the forest to the protest field, and silent tears to the demonstration.

Apart from being a social reformer, Roy is famous for her excellent use of words. Every word of her work has a purpose. Her remarks about the political situation always attracted controversy because very few writers use the medium of literature to speak the truth. But she always attempts to soothe

the wounds of the excluded crowd. She tries to see through their eyes, aiming to console and help and stand with them.

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Exemplifying Composition, Faith & Practice: The Mystic Poet Saints of Maharashtra

• **Geeta Sahu**

Abstract- *The Bhakti Movement is a* Hindu *religious movement in which the main spiritual practice is loving devotion towards God. The word "Bhakti" is derived from the Sanskrit word, "Bhaj" which means devotion and personal attachment to God. In Hindu philosophy and thought, Bhakti is one of the ways to reach God. It is also the name of an important religious and social movement in medieval India. The development of Bhakti as a major form of Hindu practice has left an indelible stamp on the faith of many Hindus. In general, a liberal movement, its denouncement of caste offered recourse for Hindus from the orthodox Brahaminical systems. Bhakti resulted in a mass of devotional literature, music and art that has enriched the world and given India renewed spiritual impetus, one eschewing unnecessary ritual and artificial social boundaries. This paper attempts to explore the Bhakti Movement in Maharashtra through the writings of some poet-saints like Sant Namdev, Tukaram, Eknath, Ramdas and some other popular women saint-poets like Janabai, Bahinabai and Muktabai who have been instrumental in shaping the Bhakti Movement in Maharashtra. The methodology of the paper analyzes the literature of each Saint individually with an intention to study their literature.*

Keywords- *Faith, Myth, Ideology, Saints, Maharashtra*

An introduction to the *Bhakti* Movement- The Bhakti Movement has a rich tradition in Maharashtra. It gained momentum due to people of modest origin who visited from place-to-place singing devotional songs and praising the name of God. The spread of the Bhakti movement in Maharashtra inculcated the spirit of oneness among the Marathas. Medieval Bhakti movement had played an important role in giving shape to this distinct identity to Marathi speaking people. Sant Dyaneshwara (13th century) is considered as a pioneer of the Medieval Bhakti Movement in Maharashtra.

The Hindu tradition has generally been divided into a number of important historical and religious periods through its long development. The formative time frame from 2500—400 B.C.E. is highlighted by what are known as the sacred texts, the Vedas, and nomadic people known as the Indo-Aryans; this period is classified as the Vedic Period.

Central to the Vedas was the visionary figure of the *rishi*, one who was able to communicate with and about the various Gods of the Vedic pantheon through a complex system of rituals that could only be conducted

• Associate Professor, Department of English, H.R College of Commerce Mumbai Maharashtra 400020

by an increasingly powerful priesthood. Liberation, or *moksha*, was to be found through the precise performance of ritual. The Epic and Classical periods, from 400 B.C.E.—600 B.C.E. are so named because of their focus on important texts, namely, the *Mahabharata* and the *Ramayana*.

Also of central importance to this time frame were Law Books concerned with the ideal nature of society. Social order and stability were to be found in a hierarchical ordering of people as well as specific roles assigned to each individual's life stage (*ashrama*) and position in society (*varna*) or caste. On the upper rung of this system were the Brahmins (priests), followed by Kshatriyas (warriors) and Vaishyas (merchants), also known as twice-born classes. Only these groups were enabled to take part in an initiation ceremony known as the "sacred thread," study the Vedas and take part in Vedic rituals. Beneath these three groups were the Shudras, those who were servants to the upper three *varnas*. Underneath this rung came another subsection, the Untouchables, those whose occupations were so polluting that they did not even qualify to fit *within* an ordered society.

In order to understand the Bhakti movement, it is important to understand its historical significance. It is generally accepted that the Bhakti Movement was the result of the combination of a number of factors, which are as follows-

Firstly, the people were not happy with the highly philosophical exposition of Hinduism as given by Shankaracharya and looked for a system which could be easily comprehended by all. Secondly, the high caste ridden character of the medieval Hindu society with the higher castes committing all sorts of atrocities on the members of lower castes and untouchables, evoked strong reaction and convinced the Hindu saints and philosophers of the need of evolving a movement which did not believe in castes and other distinctions and laid emphasis only on Bhakti or devotion.Finally , the adaptation of Islam by a large number of low caste Hindus convinced the saints and reformers, that unless the rigors of caste system were reduced, it would be difficult to retain the lower caste Hindus in the fold of Hinduism. Finally, it is argued that the impact of Muslims on the Indian society was also largely responsible for the rise of the Bhakti movement.

Sri Vallabha defines Bhakti as firm and all-surpassing affection of God with full sense of His greatness. It means attachment to God and that presupposes detachment from all other things. The feeling of oneness with God is not its culmination. It is gained through the grace of God and that is won by the purity of heart.

According to A. L. Srivastava, "Perhaps after the decline of Buddhism, there has never been a more widespread and popular movement in our country than the Bhakti movement. The term Bhakti movement is used for the efforts made by the religious leaders and philosophers to reform the Hindu religion during the 15th and 16th centuries. As most of the religious preachers and philosophers laid emphasis on *Bhakti* for the attainment of salvation, the movement is popularly known as the *Bhakti* movement."

Within the movement at large, useful distinctions have been made by contemporary scholars between those poet saints who composed verses extolling God *with* attributes or form, namely, "*Saguna*" bhaktas, and,those extolling God without and beyond all attributes or form, "*Nirguna*."

The *Bhakti* Movement in Maharashtra- The *Bhakti* movement in Maharashtra gained momentum due to people of modest origin who visited from place-to-place singing devotional songs and praising the name of God. These saints had devoted themselves in prophesying the harmony of God and fraternity of man. They perched in simple and lucid language that could be perceived by the common man of Maharashtra. The liberal religion preached by the saint poets of Maharashtra is popularly known as Maharashtra Dharma, which was a stream of the medieval *Bhakti* movement, but socially it was more profound, unitary and far more liberal in the field of social reforms.

The *Bhakti* cult in Maharashtra centred around the shrine of *Vithoba* or *Vitthal* the presiding deity of *Pandharpur*, who was regarded as a manifestation of Krishna. This movement is also known as the Pandharpur movement. The Pandharpur movement led to the development of Marathi literature, modification of caste exclusiveness, sanctification of family life, elevation of the status of women, spread of the spirit of humaneness and toleration, subordination of ritual to love and faith, and limitation of the excesses of polytheism.

The *Bhakti* movement in Maharashtra is broadly divided into two sects. The first school of mystics is known as *Varakaris*, or the mild devotees of God *Viththala* of *Pandharpur*, and the second as *Dharakaris*, or the heroic followers of the cult of *Ramadasa*, the devotee of God *Rama*. The former are more emotional, theoretical, and abstract in their viewpoint, while the latter are more rational, practical, and concrete in their thoughts. The difference between the two schools is, however, only apparent and not real, realization of God as the highest end of human life being common to both.

Poet Saints of Maharashtra

Sant Dnyāneshwar- founder of the *Varkari* Movement of Phandarpur (1275–1296)- Dnyaneshwar was a 13th-century Maharashtrian Hindu saint , poet, philosopher and yogi of the Nath tradition whose works are considered to be milestones in Marathi literature. Dnyaneshwar was born in 13th century Maharashtra, before the Muslim invasions of the region started. During this period, arts and sciences prospered under the patronage of the newly ascended Yadava kings. However, this period also witnessed religious degeneration, superstitions, and rituals which involved animal sacrifices and worship of many deities. Dnyaneshwar emerged as one the first original philosophers to write in Marathi language in this era. Some of his works were critical of the notions of asceticism and deity worship prevalent in the time.

Dnyaneshwar was the second of the four children of Vitthal Govind Kulkarni and Rukmini, a pious couple from Apegaon near Paithan on the banks of the river Godavari. The couple was excommunicated from the Brahmin caste as Vitthal had broken with sannyas, the last of the four ashrams. Four children were born to them; Nivrutti in 1273, Dnyandev (Dnyaneshwar) in 1275, Sopan in 1277 and daughter Mukta in 1279. It is believed that later Vitthal and Rukmini ended their lives by jumping into the waters at Prayag where the river Ganges meets Yamuna hoping that their children would be accepted into the society after their death.

The Dnyaneshwari or *Bhavartha Deepika* was written down by Sacchidananandbaba from discourses by Dnyaneshwar. By the time the commentary was complete Dnyaneshwar was only 15 years old.Considered masterpieces of Marathi literature, the Dnyaneshwari's 18 chapters are composed in a metre called "ovi". Dnyaneshwar liberated the "divine knowledge" locked in the Sanskrit language to bring that knowledge into Marathi and made it available to the common man.

After having composed *Amrutanubhava*, Dnyaneshwar made a pilgrimage to northern India with Namdev and other saints. After completing this pilgrimage, he expressed his intention to enter into a state of Samadhi because he felt that the mission of his life was complete. It is widely propagated that at the age of 21 on 13th day of the second half of Kartik in the year1218 Dnyaneshwar entered into a permanent state of *Sanjeevan* Samadhi at Alandi in Maharashtra.

(Sant Namdev - the first biographer and auto-biographer in Marathi and the foremost proponent of Bhagawad-Dharm (29 October, 1270 - 1350)- Namdev is a poet-saint from the Varkari sect of Hinduism. He is also venerated in Sikhism.He was born on October 29, 1270 in the state of Maharashtra village of Narasi-Bamani, in Hingoli district. Most of the spiritual messages of Namdev emphasized the importance of living the life of a householder (*grahastha jeevan*) and that through marriage and having a family, one could attain Moksha.

Saint Namdev, a contemporary saint-poet of Saint Dnyaneshwar, is considered a prominent religious poet of Maharashtra. He was one of the earliest writers who wrote in the Marathi language. He is the foremost proponent of the Bhagwad-Dharma who reached beyond Maharashtra, right into Punjab. He also wrote some hymns in Hindi and Punjabi. His depth of devotion and talent in delivering Kirtan was of such a high standard that it is said even the Lord Pandurang swayed to his tune.

Even as a child his devotion to Lord Vitthal was extraordinary - his sole occupation was to spend day and night in devotion to Vithoba. His devotion was so sincere that sometimes he would consider Vithoba to be his dearest brother or his play mate. According to a legend, when Namdev was five years old, his mother once gave him some food offerings for Vithoba and asked him to give it to Vithoba in the Pandharpur temple. Namdev took the offerings and placed it before Vithoba's idol in the temple, asking Vithoba to accept the offerings. When he saw that his request was not being met, he told Vithoba that he would kill himself if Vithoba continued to ignore the offerings. Vithoba then appeared before him and ate the offerings in response to the utter devotion of young Namdev.

He accepted Visoba Khechar as his guru, through whom he actually saw the form of God.Namdev's Kirtans have references to many holy books.

This shows that he was well read and a great scholar. Approximately 2500 of Namdev's Abhangas have been collected in NamdevVaachi Gaatha. The book also includes the long autobiographical poem Teerthaavali, talking about his travels in the company of Saint Dnyaneshwar. This poem makes him the first auto-biographer in Marathi literature. He has also written a biography on Saint Dnyaneshwar through Aadi, Samadhi and Teerthavali, which makes him the first Marathi biographer. He continued to propagate the Bhagawad-Dharma for 50 years after the death of Saint Dnyaneshwar.

Chokhamela- the first Dalit Poet Saint of Maharashtra- Chokhamela was a saint in Maharashtra, India in the 14th century. He belonged to the Mahar caste considered "untouchable" in India in that era. He was born at Mehuna Raja, a village in Deulgaon Raja Taluka of Buldhana district. He lived at Mangalvedha in Maharashtra. He wrote many abhangas. He was one of the first Dalit poets in India. Chokhamela lived with his wife Soyarabai and son Karmamela in Mangalvedha. Chokhamela's hereditary task was to remove dead animals from people's homes and farms and to dispose of them beyond the town limits. As a lower-caste person, Chokha was forced to live outside the town in a separate settlement for members of the untouchable caste.

He was initiated into bhakti spirituality by the poet-saint Namdev . Once when he visited Pandharpur, he listened to Sant Namdev's kirtan. Chokha was moved by Namdev's teachings. Later, he moved to Pandharpur. The traditional story is that the upper castes here did not allow him to enter the temple nor did they allow him to stand in the door of the temple. So, he built a hut on the other side of the river Chandrabhaga.

While working on construction of a wall, the wall fell down, crushing some workers. Chokha was one of them. His tomb is in front of the Vitthal temple, Pandharpur, where it can be seen to this day. According to a legend the bones of the dead Chokhamela were still chanting *Vitthal, Vitthal*, apparently yearning to visit the Vitthal temple. The bones were buried at the footsteps of the Vitthal temple.

Sant Tukaram- the climactic point of the *Varkari* Tradition (1577–1650)- Sant Tukaram was a prominent Varkari Sant and spiritual poet of the Bhakti movement. He was a devotee of Vitthala or Vithoba, a form of God Vishnu. He accepted 'Namdev maharaj *as his Guru.* He lived most of his life in Dehu, a town close to Pune in Maharashtra. Dilip Purushottam Chitre, a well-known Marathi Scholar, identifies Tukaram as the first modern poet of Marathi. Chitre believes that Tukaram was the successor to Dnyaneshwar who denied caste hierarchy in Hindu religion and attacked rituals present in Hinduism. Tukaram has attacked almost every form of myth existing in Hindu society during his time. He opposed the existing system of human's by misunderstanding chaturvarna in veda's as un-touchability or divisions of politic's

Janābāi –Most Popular Woman Saint-Poet of Maharashtra- Janabai was a Marathi religious poetess in the Hindu tradition in India, who was born likely in the seventh or the eighth decade of the 13th century. According to folklore, she died in 1350. Janabai was born in Gangākhed, Maharashtra to a couple with first names *rand* and *Karand*. Under the caste system which rigidly existed in India, the couple belonged to the lowest caste. After her mother died, her father took her to Pandharpur Since her childhood, Janabai worked as a maidservant in the household of *Dāmāsheti*, who lived in Pandharpur and who was the father of the prominent Marathi religious poet Nāmdev. Janabai was likely a little older than Namdev, and attended to him. Though she never had any formal schooling, she thus composed many high-quality religious verses of the *abhang* form. Fortunately, some of her compositions got preserved along with those of Namdev. Authorship of about 300 *abhang* is traditionally attributed to Janabai. However, researchers believe that quite a few of them were in fact compositions of some other writers.

Bahinabai- the first woman to write her Autobiography in Maharashtra (1628–1700 AD) is a Varkari female-saint from Maharashtra. She is considered as a disciple of another Varkari poet-saint Tukaram. Having been born in a brahmin family, Bahinabai was married to a widower at a tender age and spent most of her childhood wandering around Maharashtra along with her family. She describes, in her autobiography *Atmamanivedana*, her spiritual experiences with a calf and visions of the Varkari's patron deity Vithoba and Tukaram. She reports being subjected to verbal and physical abuse by her husband, who despised her spiritual inclination but who finally accepted her chosen path of devotion. Unlike most female-saints who never married or renounced their married life for God, Bahinabai remained married her entire life.

Bahinabai's abhanga compositions, written in Marathi, focus on her troubled marital life and the regret being born a woman. Bahinabai was always torn between her duties to her husband and her devotion to Vithoba. Her poetry mirrors her compromise between her devotion to her husband and God. Bahinabai has written an autobiographical work called *Atmamanivedana* or *Bahinibai Gatha*, where she describes not only her current birth but also twelve previous births. The first 78 verses of the total 473 trace her current life.

Apart from her autobiography, Bahinabai composed abhangas, which deal with various subjects like praise of god Vithoba, Atman, Sad-guru, sainthood and devotion. Bahinabai's abhanga compositions also focus on her troubled relationship with her husband, the conflict between husband and wife, and to certain extent its resolution. She even portrays her husband's hostile and harmful feelings with empathy. Unlike many of the woman-saints of the period, Bahinabai remained married her entire life, dutifully serving her husband, balancing her roles *pativrata* (a devoted wife) and *virata* (the detached). Bahinabai does not revolt against social traditions and believed denouncement of the world is not the solution to a woman's suffering. Her poetry reflects her compromise between her devotion to her husband and her god Vithoba.

Muktabai- The Incarnation of Devi Saraswati or Adi-Shakti (1279-

1297)- Muktabai was a saint in the Varkari tradition. She was born in a Deshastha Brahmin family and was the younger sister of Dnyaneshwar, the first Varkari saint. Muktabai wrote forty-one Abhang throughout her life span. "Tati ughada dnaneshwara" is one her most insightful works, being a conversation with saint Dnyaneshwar. It is considered to be a milestone in Marathi literature.

According to Nath tradition Muktabai was the last of the four children of Vitthal Govind Kulkarni and Rukmini, a pious couple from Apegaon near Paithan on the banks of the river Godavari. She was the youngest sister of Sant Dnyaneshwar.

On one occasion, Muktabai wished to cook sweet buns for her brothers. So, she set off to the village to get a clay plate from the potter to roast them. A prominent leader of the village, Visoba, who was very cruel to the children, scolded her and ordered the village potters to refuse her request. As she returned home, she was weeping with sadness. Dnyaneshwar asked her to prepare the dough. He then bent down, touching the floor with his hands and heated his back red-hot, asking Muktabai to roast the buns on it. She did so and happily give them to her brothers. With shock and amazement, secretly watching this miracle through a window, Visoba Chaati, realised the power of these extraordinary children. He rushed inside the hut and picked up the crumbs of the buns, as their prasad. Seeing this, Muktabai exclaimed, "O khechara (mule) turn back!" These words completely transformed his heart. He fell at their feet, crying and begging their forgiveness.

Conclusion- Most Hindus today identify themselves with the worship of God Vishnu, Shiva, Krishna or the feminine divine Shaktas. Devotees within each strand focus on their god or goddess as Ultimate Reality, thus having a distinctly monotheistic outlook, while at the same time acknowledging that the Divine takes many forms for the benefit of humanity.

The state of Maharashtra has had a rich tradition of saints. All these saints have laid a solid foundation to the *varkari sampradaya*, the belief systems and religious practices of the people in Maharashtra.

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Biotechnology in Waste Water Treatment

•Reena Verma

Abstract- *The main application of biotechnology industrial hazardous waste treatment are prevention of environmental pollution through waste treatment, remediation of polluted environments and bio monitoring of environment and treatment processes. Environmental biotechnology concerns the science and practical knowledge relating to the use of microorganisms and their products. Biotechnology combines fundamental knowledge in microbiology, biochemistry, genetics and molecular biology. The common biotechnological process in the treatment of hazardous waste water is the biotransformation or biodegradation of hazardous substances by microbial communities. For preventing environmental pollution in environmental engineering, activated sludge process, trickling filters, anaerobic treatments, biogas reactors are some methods used extensively in waste water treatment technologies. In this review paper, the role of biotechnology on waste water treatment was assessed and several treatments methods were investigated.*

Keywords- *Biotechnology, waste water treatment, microorganisms, trickling filters*

Introduction- Environmental biotechnology deals with the use of biotechnological tools to protect and conserve the environment. Two important areas of environmental biotechnology are waste treatment and bioenergy production.

In terms of volume, the treatment of sewage and waste water from domestic and industrial sources is the largest biotechnological industry. Although the technology of sewage treatment is relatively new, the art of sanitation is several thousand years old. Initially treatment of sewage was aimed both at improving the environment and utilizing the manorial value of the sewage on the land. Treatments were done by filtration with the use of filters and mechanical aeration systems. (Oxidation, activated sludge).

Waste and by products activities in agriculture, forestry and food industry can be used for various purposes, particularly to produce energy. They can also be degraded into fermentative compounds by micro-organisms or transformed into proteins in the same way as saturated aliphatic hydrocarbons n- paraffin (by products of oil refining),methane or methanol.

Biotechnology is based on many disciplines such as biochemistry, microbiology genetic, zoology, botany, food engineering, etc. According to Karl Ereky, biotechnology is a process that raw materials are converted to

• Associate Professor, Department of Botany, DAV (Pg) College, Dehradun

new products by living organisms. Biotechnology is defined as "fermentation using bioreactors, bioprocessing, bioleaching, bio pulping, bioremediation, bio filtration and phytoremediation (OECD, 2005)

Microbial biotechnology is essential to this development given microbial communities can carry out key processes and combine these in different ways,i.e. removal or reuse of carbon, nitrogen, phosphorus and micro pollutants and production of bioenergy and high value products.

Waste water treatments are becoming part of the circular sustainability movement by integrating energy production and resource recovery into the production of clean water.The cultivation of algae on waste water which has been markedly developed and improved contributes to the purification of this water and provides a biomass high in protein and trace elements.

The purification of sewage and waste water and the elimination of an important proportion of the organic matter contained in residual effluents are carried out by aerobic and anaerobic microorganisms. For example spectacular results were obtained in the processing of effluents from yeast, oil and cidar works, from milk and cheese dairies and potato starch works by an anaerobic process in which the active biological compound is recycled. This produces less residual sludge's, prevents to a great extent the escape of foul smells, and produces a little methane, which is used to feel the boilers of the processing facilities.

Role of biotechnology in waste water treatment- The treatment of sewage and waste water from domestic and industrial sources is the largest biotechnological industry. There are several waste water treatment methods based on biotechnology that are used worldwide. It includes activated sludge, oxidation ponds, tricking filters, bio-filters anaerobic treatments etc. All the methods are part of the biological waste water treatment and use microbes to treat organic waste in sewage.

1. Activated sludge- Activated sludge plants are the largest application of continuous or semi continuous fermentation, with fresh effluent being added and sludge removed in order to maintain constant populations of organisms. In the activated sludge process, a biological flock of bacteria and protozoa are used to metabolize waste water organically .The process contains aerated tanks to keep the flow of o_2 consistent. One of the features of this process is that the solid waste settles at the bottom of a tank along with the flow of liquid waste known as activated sludge .Thereafter this activated sludge is brought back to the aeration tank to repeat the aeration process containing the new lot of sewage.

2. Biodegradation- Biodegradation is the process by which materials such as oil spill, herbicides, pesticides etc. are degraded by the action of microbial system. Organic compounds may be biodegradable (transformed by biological mechanisms which might lead to complete mineralization), persistent (fail to undergo biodegrading in a particular environment) or recalcitrant (inherently resistant to biodegradation).Most naturally occurring compounds are biodegradable.

Table showing Microorganisms able to degrade some toxic chemicals

Organisms	**Toxic Chemicals**
Pseudomonas spp	4-alkylbenzoatesBenzene,hydrocarbons,malathion,naphthalene,methyl nephthalenes,organophosphates,polycyclic aromatics,rubber,toluene,phenolics.pulp bioproducts,etc
Alcaligenes spp	Halogenated hydrocarbons,linear alkyl benzene, sulphonates,polycyclic aromatic PCB_S
Arthrobacter spp	Benzene,hydrocarbons,pentachlorophenol,phenoxyacetates,polycyclic aromatics
Bacillus spp	Aromatics,long chain alkanes,phenylureas
Corynebacterium spp	Halogenated hydrocarbons,phenoxyacetates
Mycobacterium spp	Aromatics, branched hydrocarbons, benzene, cycloparaffins
Nocardia spp	Hydrocarbons,alkylbenzenes,naphthalene,phenoxyacetates,polycyclic aromatics
Sreptomyces spp	Diazinon,phenoxyacetates,halogenated-hydrocarbons
Candida tropicalis	*Polycyclic aromatics*
Cunninghamella elegans	*$PCB_{S,}$* polycyclic aromatics
Fusarium solani	propanil

3. Bio sorption: Bio sorption can be defined as a fast process independent of energy on which biological materials or biopolymers acting as sorbent have the ability to remove pollutants such as heavy metals from waste water through metabolically mediated or biological material chemical pathways of uptakes. Biological material can include living or dead microorganisms and their components, seaweeds, plant materials, industrial and agricultural waste and natural residues.

Biosorptions encomparises physico-chemical mechanisms by which metal species, radionuclides and so on are removed from aqueous solutions by microbial biomass or products (Gadd 2000).This technique can be an alternative to conventional waste water treatment facilities(Yurtrever and Sengil 2009)

Various bacterial species e.g. Bacillus, Pseudomonas, Escherichia exhibits bio sorption property because of their small size and ability to grow in different environmental conditions. The disadvantage include it takes a long time for removal of meals and the regeneration of plant for further bio sorption is difficult. These made it imperative for a cost capable of removing heavy metals from aqueous effluents.

4. Removal of organic nutrients: Nitrogen and phosphorous are indispensable for growth and vitality of living beings, hence termed as nutrients. However discharge of nutrients rich waste streams to aquatic ecosystem results in eutrophication, therefore nutrient removal from waste water is critical to meet the strict nutrient discharge standards. Krishna et.al (2009) used anaerobic baffled rector for the treatment of waste water which has an approximately 500mg/l. COD (Chemical oxygen demand)

Conventional waste water nutrients removal system transforms fixed nitrogen (e.g. NO_3, TKN) to nitrogen gas (N_2) through biological nitrification/dentrification, whereas phosphorus removal is accomplished through incorporation into microbial biomass or chemical precipitations.
In this study it was seen that when the hydraulic retention time was chosen as 9hr and 10hr, COD and BOD removal efficiencies were observed as 90 %(

Krishna et.al 2009)

Nakhla et.al (2006) conducted a worked with submerged vacuum ultrafiltration membrane to remove organics from food processing waste water .BOD and COD removed with the efficiencies of 95 to 95.6%

Oil degrading bacteria and phototrophic microorganisms used for the treatments of hydrocarbons rich water, almost 95% removal seen (Chavan and Mukherji, (2008)

5. **Membrane bioreactors (MBR)-**Membrane bioreactors act as a microfiltration system that helps in separating suspended solids. A highly advanced filtration system is capable of separating high quality effluents .Also; it is capable of separating nutrients.

Membrane bioreactors (MBR_S) are becoming increasingly popular due to various advantages in waste water treatment.eg, flexibility of operation, ability to attain higher sludge and consequently less sludge, production and higher nitrification and de nitrification rates (Ahmed etal 2008)

Few disadvantages of this system include frequent monitoring of membrane and its maintenance of high cost. There is limitations of pressure, temperature, and PH to which the system can be exposed (Dopson and Burgers 2007)

6. Trickling filters- Trickling filters are either made up of stones or installed plastic media. The bed is covered with microorganisms and slime. A sufficient amount of air is passed as it is an aerobic process and water is trickled through the bed pores when microbes act and degrades sewage. This process is known to minimize Biological Oxygen Demand and suspended solids.

7. Anaerobic treatments- Anaerobic treatments involve the function of microorganisms in the absence of air .It is a complex process that further helps in the digestion of nutrients of effluent as well. Also the by-product of the process includes carbon dioxide and methane which helps in forming biogas. The latest advancements in the biotechnology fields enable the generation of electric current using sewage .When the microbes degrade organic waste through the oxidation process, it develops electrons. It is used to produce current.

Conclusion- This paper illustrates the role of biotechnology in hazardous waste management. Biological treatment is one of the most widely used removal methods as well. The application of biotechnology in waste management is very important in view of its economic and environmental benefits. Use of microorganisms in the treatments of industrial, mining and mineral waste etc. and also in the extraction of metals from their ores through some biological methods.

Microbial biotechnology is essential for the development of circular economy in waste water treatment by integrating energy production and resources recovery into production of clean water. A comprehensive knowledge about identity, physiology, ecology population dynamics of process critical microorganisms will improve process stability, reduce CO_2

,bio energy production and help in finding new approaches and solutions.

The applications of biotechnology on various fields such as industry, agriculture, waste water treatment is very important in view of environmental benefits. It is possible to evaluate various wastes around us by microbial processes.

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Child Labourers as Rag Pickers in India: A Sociological Investigation

• Preeti Dwivedi

Abstract- *Child labourers as rag pickers are gradually increasing in India showing an unfortunate scenario of any country. Shoulders on which school bags should be carried instead of sacks of garbage refrain them right to education. Such type of occupation makes them more prone to different health hazardous ailments. With keeping concerns of child labourers as rag pickers the present study make an effort to access their working conditions and exploitation due to such occupation. The present study also explores their personal behaviour and perceptions towards rag picking. For the same study 50 child rag pickers were selected for collecting information through purposive random sampling method from Kanpur city for collecting information. Result of the study shows that garbage picking harms children in all ways related to physically, mentally and emotionally. These innocent children who should spend more and more time studying and with their peers, most of the time they work for hours to earn their livelihood. Government and non - government agencies should educate these children and develop their personality in the best way. These agencies also make efforts to make these children free from drug addiction with the help of drug de - addiction centres by various. So that these children can become the best youth of tomorrow and society can develop in the positive way.*

Keywords- *Child Labourers, School bags, Occupation.*

Rag pickers refers to the people who collect rags or waste or recyclable materials from roadsides, market places, a pile of waste dumping places in urban areas and sold them for money for their livelihood. In developing country like India more cases of children below 18 years are gradually increasing who are engaged in waste or garbage picking. In these countries industrialization is increasing continuously without using proper recyclable method of solid industrial waste (Furedy, 1990). Thus, in developing countries a greater number of children are engaged in such type of neglected sector with their family members (Krishna and Chaurasia, 2016). Children involved in rag picking are a worst form of child labour where children engaged themselves in a job or occupation which make them prone to different health hazardous diseases (WHO, 1988; Krishna and Chaurasia, 2016). Still less research work has been undertaken investigating the health risks involved in such type of work of rag picking (Kungnulskiti,

• Assistant Professor, Department of Sociology, Mahila Mahavidyalaya (P.G.) College Kanpur (U.P.)

1991; Parasuramalu, 1993). It is very unfortunate that children who should spend time in school or with their play - mates spend more and more time in handling the garbage and keep their life busy with such type of risk prone job or occupation (Caroline, 1996). Rag pickers, on the one hand, are victims of many serious diseases due to their exposure with various pathogens during garbage picking, on the other hand they are also at equal risk of being pinched by many sharp and hazardous objects during picking of waste (Krishna and Chaurasia, 2016). In the same way the danger of being bitten by various stray animals like dogs or pigs remains the same (Krishna and Chaurasia, 2016).

Police harassment and negligence of people are severely faced by these children tremendously (Krishna and Chaurasia, 2016). Thus, garbage picker children experience different physical, emotional and economic as well as sexual form of exploitation (Sekar and Kavitha, 2015). Different life-threatening difficulties and exploitation in childhood make their life tough there after they involve in different anti - social activities like stealing, drug abuse, pick - pocketing and prostitution (Pathwary et al, 2012; Bala and Singh,2019). More frequency of children involved in anti - social activities as through picking of waste they are unable to fulfil even basic needs of life thus their involvement can be easily seen in different anti-social activities to make money without efforts and hard work (Rauf et al, 2013).

Hard work demands a healthy diet, but in case of children involved in rag picking they cannot take a nutritious diet due to their lower economic conditions. Hence to fulfil the energy of the body they seek for something else such as different illegal substances like narcotics and alcohol (Bala and Singh, 2019). Different illegal substances are consumed by child rag pickers e.g., marijuana, methamphetamines and ecstasy (Mathus, 2009). Smoking, chewing tobacco and alcohol consumption are most popular sources of enjoyment for garbage pickers (Yang, 2016).

Above review of literatures show that rag pickers children experience different life-threatening difficulties and exploitation. This is a worse form of child labour in any country. Considering all above issues present study has following objectives-

- To access the socio - economic status of child rag pickers
- To investigate the working conditions and exploitation of child rag pickers.
- To investigate personal behaviour and perceptions of child rag pickers.

Methodology- For the same study 50 child rag pickers were selected for collecting information through purposive random sampling method from Kanpur city for collecting information. An interview schedule having both open and closed ended questions was framed for data collection. Collected data were tabulated and analysed.

Result and Discussion- Age-wise data shows that 28% of the respondents have age between 6-12 years while majority of the respondents (72%) of rag pickers are teen agers between 13-18. Youth who is the backbone of the development of the country, but in such a situation we can see that these teenagers struggle hard for their livelihood by picking up garbage. This condition is a matter of great misfortune for a country.

Respondents' household conditions are classified in Table-1

Table 01

Types of Households	No of respondents
Muddy House.	18(36) *
Hut with thatched roof.	17(34)
House with tin shade.	7 (14)
House made with tarpaulin and plastic cover	8 (16)
Total	**50 (100)**

**percentage in parentheses*

Analysis of data associated to house of rag pickers' children show that 36% of them were living in muddy house (36%) than Hut with thatched roof (34%). 16% of the respondents were living in houses made with tarpaulin and plastic cover (16%).

When the respondents were asked to talked about how many rooms are in their house and whether they are ventilated, then 60% of them said that they have only one room house, while 40% live in two room house but everyone said that the room is not ventilated at all. Respondents also told that they fetch drinking water from government tap or hand pump as there is neither tap nor hand pump in the house.

All the respondents lack materialistic comfort items like refrigerator, washing machine etc. Only 28% of the respondents said that they have TV which gives them some entertainment.

Caste - wise distribution of data are shown in Table-2.

Table 02

Caste-category.	Number of respondents
OBC.	18 (36)*
SC.	25(50)
ST.	7(14)
Total	**50 (100)**

*percentage in parentheses

Caste wise distribution of data shows that half of the children rag pickers belong to scheduled caste (50%) than Other Backward Caste (36%).

Data associated to educational status of the respondents are shown in Table-3.

Table - 03

Educational level	No. of respondents
Illiterate.	28(56)*
Primary.	18(36)
Middle school	3(6)
High school.	01(2)
Total	**50 (100)**

**Percentage in parentheses*

Table -3 shows that more than half of the respondents (56%) are illiterate. On the other hand, 36% of the respondents are primary educated.

26% of the respondents were found to have school dropout. These respondents said that their parents had enrolled them in the school, but due to financial constraints most of them started the work of collecting garbage with their parents and thus left school.

Thus, from the above analysis, it is known that the children who pick up garbage come from very low socio - economic status. Due to the weak financial condition of the family, these children have to work as a waste picker, which is the worst type of child labour.

When rag pickers children were asked about the working hours, then about 60% of them said that they work for about 8 to 10 hours daily while about 40% of the children simply said that their daily working hours are around 6 to 8 hours. In this way, in the present study the working hour of any child has not been found to be less than 6 hours. When rag pickers children were asked whether they use any safety measures like hand gloves, sticks etc while picking up garbage, most of them (67%) answered no. Because of this, many children get injured by sharp objects while picking up garbage. Despite being injured, no proper treatment is given to them.

It was also told by garbage pickers children that many times during the work they got injured by stray animals like dogs, pigs etc. Picking garbage from the garbage heap is also risky for the health of the children. Because children stay in the dirty place most of the time and pick up the messy garbage by hand. When children were asked about their health-related problems in the last six months, then about 80% of the children replied that they had something health related issues during the last six months like jaundice, typhoid, dysentery, viral fever etc.

Intoxication tendencies have also been observed in rag pickers children. When the children were asked whether they had consumed any kind of intoxicant, then about 65% of the children gave their answer yes. In most of the cases, alcohol, cigarettes and inhalants are most commonly used by these children. 10% of children admitted to using drugs.

All the children accepted that the work of rag picker brings inferiority in them but they have no other option to make a living. 40% of the children said that they want to study but due to weak financial condition in the house they help the family and bear the financial burden and thus are unable to go to school.

Conclusion- From the analysis of above facts, it is found that garbage picking by children is a worst type of child labour. It harms children in all ways related to physically, mentally and emotionally. It is unfortunate that the shoulders on which the school bag should be carried are the sacks of garbage and those who should spend more and more time studying and with their peers, most of the time they work for hours to earn their livelihood. At its root is the spread of poverty and unemployment in the country. In this order government and non - government agencies should come forward. The work of rag picking, which is the only means of livelihood by these children for their family, slowly kills their childhood. Government and non - government agencies should educate these children and develop their personality in the best way. Children who have became addicted to drugs; efforts should be made to make these children free from drug addiction with the help of drug de - addiction centres by various non-government agencies. So that these children can become the best youth of tomorrow and contribute to development our society in positive way.

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Green Roof as rain water retention

• **Anuradha Negi**

Abstract- *Urban areas generate extensively more storm water runoff than natural areas of the same size due to greater percentage of impervious surface that prevent water infiltration. Vegetated green roofs not only reduced the amount of storm water runoff, they also extend its duration over a period of time. Impervious surface such as rooftops, parking lots, and roads increases runoff and potential for flooding. Green roofs demonstrate a way to reduce area crate a wet weather flow that the existing combined sewer overflow (CSO) events. Green roofs are regarded as best management practice by filtration and adsorption throw growth media (soil). Intensive green roofs, with their deeper substrates and higher plant biomass are able to retention greater quantities of runoff and there is need for more studies on this less common type of green roof which also investigate the effect of factors such as age and vegetation composition.*

Keywords- *Green roof, high water holding capacity, leaching potential, runoff quantity, water quality performance.*

Introduction- Nowadays the global population forces expansion of urban areas. Due to more opportunities people start living in urban areas. Urban areas constantly lose its greenery as demand for building streets and driveways increases. Plain land forests are displaced by impervious surfaces. The level of urbanization is rising and expected to reach 83% by 2030 in developed countries.

At present, India is home to five mega cities, with over 10 million populations, but by 2030 this number will go up to seven. Delhi will continuous to be the most populous city in the world 2030 this , adding staggering 9.6 million people to its population the most in any urbanization not only intensifying storm water runoff rather it is enhancing stream channel and river erosion which creates numerous problems both within and outside cities by unsustainable use of natural systems. The urban hydrological system faces highly fluctuating amount of surface runoff water, which creates a negative impact on same city infrastructure and surrounding environment in most cities, conventional storm water rapidly from the city to recipients.

Urban storm water infrastructure has been exposed to major rethinking when the idea of sustainable development gained more ground since 1990s. A city can benefit from proper usage of storm water. Storage reservoir ponds as well as green areas are effective tools for reducing runoff

• Associate Professor, Department of Botany, Agra College, Agra

during a rainfall. A modification of existing hydrological system is required to cope with this situation. Most big cities have a large area of impervious surface and building green areas in urban regions is quite expensive and sometime imposable. To solve the problem of large storm water runoff, a costly and disruptive way is to enlarge or expend storm water infrastructure. Several cities are employing consultants to study environmentally friendly, cost-effective alternatives to solve those problems. Low impact development (LID) and water sensitive urban design (WSUD) approaches are used in USA and Australia respectively for minimizing impervious cover and maximizing infiltration of rainfall, although in most locations those approaches are not widely implemented and vast majority of new storm water management in USA and Australia remains in the form of conventional storm sewers with limited treatment by retention basins.

In older urban areas, there is lack of suitable land creating sustainable storm water infrastructure; thus green roofs and vertical walls can be variable alternative there. Green roof or vegetated roof can be implemented in the huge amount of the unused roof area (40%-50%) of the impermeable surfaces in urban areas. Vegetated roofs can play an important role in modern urban drainage because of their ability to slow down and reduce runoff response. Green roofs provides numerous ecological and economic benefits including energy conservation, storm water management, mitigation of noise air pollution of the urban heat island effect and increased longevity of roofing member as well as improved biodiversity. Out of all proven benefits, the reduction of storm water runoff is the greatest environmental services that green roofs provide in a green roof system. Much of the precipitation is captured in the media or vegetation and eventually evaporates from the soil surface or is released back into the atmosphere by transpiration. This is continuous process.

Review-

Daniel J Bliss et.al**. (2009)** constructed a prototype green roof and monitored in Pittsburgh, Pennsylvania, to demonstrate a way to reduced storm water runoff and combine sewer overflow (CSO) events. The prototype green roof reduced the runoff volume by up to 70% compared to conventionally ballasted roof covering a control portion of the same building. A reduction of at least 20% was found for rainfalls of 1.5 cm (0.60 inches) or less. The green roof also reduced the flow rate of runoff throughout storms peak value between 5% and 70% lower than control roof flow rates. For some small storms, the time of peak flow rate was delayed by up to several hours. Water quality tests indicated that in most cases that a first-flash phenomenon was not evident in green roof runoff samples. Levels of phosphorous and chemical oxygen demand (COD) were elevated by green roof. Both the control and green roofs produced runoff that demonstrated neutralization of slightly acidic rainfall.

Alar Teemusk and Ulo Mander (2010) analysis the temperature regime of an existing green roof and a sod roof compared with a modified bituminous membrane roof and a steel sheet roof.. Results are given both seasonally and daily. In summer temperature under both the green roof (100 mm) and the sod roof (150 mm) showed a similar temperature run; undesirable higher temperature on the surfaces did not cause a notable increase in temperature under the substrate layers. The difference between the temperature amplitude under the substrate layers of the planted roof and conventional roofs was on average 20C. In autumn and spring, the sod roofs soil layer showed higher temperatures under the substrate layers of the planted roofs were higher than the surface of the conventional roofs; average amplitude was 1C and 7-8C, respectively.

Lihua TANG et.al**. (2011)** studied an artificial raining experiment was carried out on green roof to analyze its rainwater storage capacity by measuring the rainfall and runoff. Then, a HYDRUS-1D model was established based on green roof structure. The model was used to simulate and analyze the influences of some key factors, including the rainfall, soil depth and soil characteristics. According to the experiments and results, the green roof has good rainwater retention and storage capacity. For the green roofs with 10 cm soil layer in this study, it varies from 16.1mm to 21.6 mm according to different rainfall frequency. The capacity has an increase trend with the increase of soil depth. For the water storage effectiveness, loam is more suitable for roof greening than sandy soil and silt clay.

Martin Seidl et.al**. (2013)** compares the effectiveness of two different thickness of green roof substrate with respect of nutrient and heavy metal retention and release. The roof act as a sink for C.N.P. Zinc and Copper for small rain events if the prior period was principally dry. Otherwise the roofs may behave as a source of pollutants, principally for carbon and phosphorous. Both field and column studies showed an important retention for Zn and Cu. The column showed, however, lower SS, DOC and metal concentrations for runoff.

Raha Hakimdavar et.al. (2014) provided important insight into the hydrologic performance of green roofs, specifically examined the effect of green roof drainage area on system performance in an urban climate. They investigated that how rainfall characteristics and green roof scale impact the peak and cumulative volume of green roof runoff during individual storm events.

K Vijayaraghavan and UM Josh' (2015) investigate the sorption capacity or leaching potential of substrate. In this study, novel attempts were made to incorporate a brown-seaweed *(Turbinaria conoides)* in growth substrate to enhance the runoff quality from green roofs. The green roof substrate, prepared using 30% perlite, 20% vermiculite, 10% sand, 20% crushed brick, 10 % cocopeat and 10% T.conoids, was found to have favorable characteristics such as low bulk density (477.7 Kg/m^3), high WHC(49.5%) , AFP(20.5%) and HC(4210 mm/h) with the aid of down-flow fixed column, sorption capacity of green roof substrate towards various metal ions(Na, K, Ca, Mg, AI, Fe, Cd, Cu, Cr, Ni, Pb and Zn) was examined and results indicated that the column was able to operate for 1440 min at a flow rate of 5 ml/min before outlet Ni concentration reached the inlet green roof experiments were performed using pilot-scale assemblies with *Portulaca grandiflora* as vegetation. Under rainfall simulations, it was observed that vegetated green roof assemblies acted as a sink for various metal ions and produced better. In addition, green roofs buffered acidic rain and delayed runoff generation.

J M Aloisio et. al. (2016) evaluates the interactive effects of plant species and growth medium selection on rainwater capture, nitrogen and phosphorous content of runoff, and production of edible biomass. In a full factorial experiment, four plant species, *Portulaca oleracea L., Amanarnthus tricolor L., A. cruentus* L.'Kerala Red' and *A. dubius Mart. Ex The11.* `Klaroen Groot' were grown in three types of growing media (Gaia soil, extensive Mix, and potting soil) in microorganisms with lysimeters to capture runoff. Forty days after planting a rain event was simulated. Plants were harvested 45 days after planting. Species effects on edible biomass runoff volume, and the concentration of Total Dissolved Phosphorous (TDP) in runoff differed among growing media, crops grown in potting soil yield 45 times more edible biomass than Gaia soil and three times more than Extensive Mix. In Extensive Mix, all plant species reduced runoff volume (22-69%), compared to the control and *P. oleracea* produced three to 14 times more edible biomass compared with the *Amaranthus spp.* Yet reduced runoff volume (29-61%) and TDP (21-39%) less than the Amaranthus spp. These results indicate that crop species selection results in trade off effects among ecosystems functions highlighting the role of speces selection on green roofs.

Hengbing Wang et. al. (2017) proposed a concept model of pollutant cycling, which includes the direct factors substrate and structure of the green roof system; and indirect factors such as plant species, irrigation, fertilizer atmospheric deposition and age of the green roof.

Conclusion- This paper compares the storm water retention performance by the multifarious studies were using various roof platforms to quantify the effects of various treatments on rainwater retention. Vegetated roofs are becoming more commonly developed as a means of mitigating storm flow in urban areas. The long impervious surface area create a wet weather flow that the existing combined waste water and storm water sewer system cannot contained with. Green or vegetated can reduce the amount of storm water that reaches the sewer conveyance system. Green roofs have considerable potential for storm water source control, both for new developments and as a retrofit option. Increased precipitaiton is predicted under current climate change projections will put further pressure on urban populations and infrastructure. Green roof technologies which entail growing plants on roof tops, are increasingly being used to elevate storm water runoff problems, green roof can also help to reduce the risk of peak water flow. Green roof media minimizing leaching of nutrients and other contaminants while maintaining their ability to support plant growth. Green roofs on runoff quality are a source or sink of pollutants, is ambiguous. The intra particle pore and inter particle pore space distribution which were determined by particle size distribution were important determining factors of both water holding capacity and rainwater retentions. Green roofs substrates usually designed to achieve desirable characteristics such as low bulk density, preparation cost, higher Water Holding Capacity (WHC), Hydraulic Conductivity and Artificial Porosity (AFP), sorption capacity or leaching potential. Green roofs are being designed for food production also.

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A Theoretical Study of Thermophysical And Cohesive Properties of LiBr1-xFx Mixed Alkali Halide

• **A.K. Dixit**

Abstract- *I have studied the thermophysical and cohesive properties such as Gruneisen parameter, molecular force constant, Restrahl frequency, Debye temperature, compressibility and Anderson - Gruneisen parameter etc of* $\boldsymbol{LiBr}_{1-x}F_x$ *mixed alkali halide under the banner of three body force potential model. Three Body Force Potential (TBFP) model contains long- range forces (Colombians and three body interactions) as well as short range forces (vander-Waal's and overlap repulsive forces).* [10-15] *I have selected mixed alkali halides for the discussion because mixed crystals are very useful and known as solid solutions. Mixed alkali halides have received considerable attention of investigators* [1-9] *due to their scientific and technological importance. The observations show that the micro - hardness of mixed alkali halides is larger than the pure crystals. Some results are very close to their experimental value which shows the superiority of this model over other models.*

Keywords- *Gruneisen parameter, molecular force constant, Restrahl frequency, Debye temperature, compressibility and Anderson*

Introduction- Ionic solids are model crystals for the analysis of lattice properties. In the same sprit we have used our three-body force potential model (TBFP) for the calculation of lattice and thermo-physical properties of mixed alkali halide $\mathbf{LiBr}_{1-x}F_x$. This potential model consists long-range (Columbian and three body interaction) forces as well as short range forces (overlap repulsive force operating up to next nearest neighbor ions and vander - Waal's interaction) [25-30]. This shows that the inclusion of three body interaction effect makes the present model suitable for the study of thermophysical properties of mixed alkali halides. Most of the theoretical and experimental workers [10-36] have explained the elastic and thermophysical properties of the ionic solids.

Theory and method of Calculations- A large number of attempts have been made to explain the behavior of the ionic solids under some boundary conditions through some potential models. We have applied the TBP model for the calculation of thermophysical properties of mixed alkali halide. Three body potential model contains long-range forces as well as short-range forces. Colombians force associated with three body interaction force is long-range force while vander -Waal's and Hafemeister–Flygare are short-range forces. The values of input data for different concentrations(x) have been evaluated by applying Vegard's law for second order elastic constants, lattice constants, ionic radii and vander -Waal's constants of host and dopant

• Professor of Physics, Government P.G. College Satna (M.P.)

materials as –

$C_{ij}(mix) = x\, c_{ij}(A) + (1-x)\, c_{ij}(B)$

$r_{ij}(mix) = x\, r_{ij}(A) + (1-x)\, r_{ij}(B)$

$\rho(mix) = x\, \rho(A) + (1-x)\, \rho(B)$

$C(mix) = x\, C(A) + (1-x)\, C(B)$

$D(mix) = x\, D(A) + (1-x)\, D(B)$

The constituents of mixed crystal are held together by the harmonic elastic forces with no internal stress within the crystal. The values of input data are given in table 1.1. Thermophysical properties included in the discussion are Gruneisen parameter (γ), molecular force constant (***f***) Debye Temperature (θ_D), Restrahl frequency (υo), ratio of volume thermal expansion coefficient to specific heat at constant volume. Relevant expressions have been derived from three body potential model.[25-36]

$$U(r) = -\alpha_m z^2e^2/r - 2nf(r)\,\alpha_m ze^2/r + nb\beta_{+-}\exp[(r_1+r_2-r)/\rho] + n`b/2[\,\beta_{++}\exp[(2r_1-1.4142r)/\rho + \beta_{--}\exp(2r_2-1.4142r)/\rho] - C/r^6 - D/r^8$$

$$U'(r) = +\alpha_m z^2e^2/r^2 + 2nf(r)\,\alpha_m ze^2/r^2 - 2nf'(r)\,\alpha_m ze^2/r - nb/\rho\,\beta_{+-}\exp[(r_1+r_2-r)/\rho] - n`b(1.414)/2\rho[\,\beta_{++}\exp[(2r_1-1.4142r)/\rho + \beta_{--}\exp(2r_2-1.4142r)/\rho] + 6C/r^7 + 8D/r^9$$

$$U''® = -2\alpha_m z^2e^2/r^3{}_{+}4nf(r)\,\alpha_m z^2e^2/r^3 + 4nf`(r)\,\alpha_m ze^2/r^2 - 2nf``(r)\,\alpha_m ze^2/r + nb/\rho^2\,\beta_{+-}\exp[(r_1+r_2-r)/\rho] + n`b(1.414)^2/2\rho^2[\,\beta_{++}\exp[(2r_1-1.4142r)/\rho + \beta_{--}\exp(2r_2-1.4142r)/\rho] - 42C/r^8 - 72D/r^{10}$$

$$U''(r) = 6\alpha_m z^2e^2/r^4 + 12nf(r)\,\alpha_m ze^2/r^4 - 12nf`(r)\,\alpha_m ze^2/r^3 + 6nf``(r)\,\alpha_m ze^2/r^2 - 2nf```\pi(r)\,\alpha_m ze^2/r + nb/\rho^2\beta_{+-}\exp[(r_1+r_2-r)/\rho] + n`b(1.414)^3/2\rho^3[\,\beta_{++}\exp[(2r_1-1.4142r)/\rho + \beta_{--}\exp(2r_2-1.4142r)/\rho] + 336C/r^9 + 720D/r^{11}$$

$$[U(r)]_{SR} = +nb\,\beta_{+-}\exp[(r_1+r_2-r)/\rho + n`b/2[\,\beta_{++}\exp[(2r_1-1.4142r)/\rho + \beta_{--}\exp(2r_2-1.4142r)/\rho] - C/r^6 - D/r^8$$

$$[U(r)]_{SR} = -nb/\rho\,\beta_{+-}\exp[(r_1+r_2-r)/\rho - n`b(1.414)/2\rho[\,\beta_{++}\exp[(2r_1-1.4142r)/\rho + \beta_{--}\exp(2r_2-1.4142r)/\rho] + 6C/r^7 + 8D/r^9$$

$$[U(r)]_{SR} = +nb/\rho 2\,\beta_{+-}\exp[(r_1+r_2-r)/\rho] + n`b(1.414)^2/2\rho 2[\,\beta_{++}\exp[(2r_1-1.4142r)/\rho + \beta_{--}\exp(2r_2-1.4142r)/\rho] - 42C/r^8 - 72D/r^{10}$$

(i) Gruneisen parameter

$$\gamma = -r_o/6[U```(r)/U``(r)]\; r = r_o$$

(ii) Molecular force constant

$$f = 1/3[U``_{SR}(r) + 2/r\; U`_{SR}(r)]_{r=ro}$$

(iii) Restrahl frequency

$$\upsilon o = 1/2\pi\sqrt{f/\mu}$$

where μ is the reduced mass of the crystal.

(iv) Debye Temperature. $\Theta_D = h\,\upsilon o/k$

(v) Ratio of volume thermal expression coefficient to specific heat at constant volume

$$\alpha_v/C_v = -U'''(r_o)/2\,r_o\,U''(r_o)^2$$

(vi) Compressibility $\beta = 18\,r_o/U''(r_o)$

(vii) The Anderson- Gruneisen Parameter

$$\delta_T = -\,\beta\,r_o^3/27V\,U(r_o)$$

The above relations have been used to calculate the thermophysical and cohesive properties of given mixed halide. The model parameters are given in table 1.1 and calculated thermophysical and cohesive properties of mixed alkali halide are given in table 1.2 .

Table 1.1

MODEL PARAMETERS FOR MIXED ALKALI HALIDE $LiBr_{1-x}F_x$ AT DIFFERENT COMPOSITIONS

Composition (x)	ρ (10^{-8}cm)	b (10^{-12}ergs)	f (r₀)	af′ (r₀)	C(10^{-60}erg x cm^6)	D(10^{-76}erg x cm^8)
0.0 (LiBr)	0.254	0.324	0.0038	-0.037	594	284
0.2	0.2786	0.3552	0.0035	-0.0324	484.4	232.4
0.4	0.3032	0.3864	0.0031	-0.0278	374.8	180.8
0.6	0.3278	0.4176	0.0028	-0.0232	265.2	129.2
0.8	0.3524	0.4488	0.0024	-0.0186	155.6	77.6
1.0 (LiF)	0.377	0.480	0.0021	-0.014	46	26

Table 1.2

THERMOPHYSICAL & COHESIVE PROPERTIES OF MIXED HALIDE $LiBr_{1-x}F_x$ AT DIFFERENT COMPOSITIONS.

Cohesive Property	X=0		X=0.2		X=0.4		X=0.6		X=0.8		X=1.0	
	Calc	Exp.	Calc	Exp.	Calc	Exp.	Calc	Exp.	Calc	Exp.	Calc	Exp.
Gruneisen Prarmeter γ	2.08	2.02	1.906	-	1.732	-	1.558	-	1.384	-	1.21	-
Molecular force constant *f* (10^4 dyn/cm)	7.42	-	7.526	-	7.632	-	7.738	-	7.844	-	7.95	-
Restrahl frequency υo (T Hertz)	13.1	-	13.14	-	13.18	-	13.22	-	13.26	-	13.3	-
Debye Temperature (Θ_D) (k)	628.5	-	630.42	-	632.34	-	634.26	-	636.18		638.13	730
Ratio of volume thermal expression coefficient to specific heat at cons tant volume α_v/C_v(10^{10}ergs unit)	7.14	-	6.9	-	6.26	-	5.62	-	4.98		4.34	
Compressibility (β) (10^{-12} dyn/cm)	4.53	4.20	3.976	-	3.422	-	2.868	-	2.314		1.76	1.49
The Anderson - Gruneisen Prarmeter δ_T	4.16	-	3.756	-	3.352	-	2.948	-	2.544		2.41	-

Result and Discussion- A look at the table 1.2, it is clear that presently estimated end point values of Gruneisen parameter are very close to their experimental values. Some results of ours are still higher than the experimental values. The reason behind is to change in bond length in ionic solids. The compressibility and micro hardness and Ratio of volume thermal expression coefficient to specific heat at constant volume of mixed halide is higher than pure crystals. So, this mixed halide is very important for industrial purpose. Some results are very close to their experimental value which shows the superiority of this model over other models. On the basis of overall achievements, the present TBP model can be regarded to be adequately suitable for the prediction of thermo physical and cohesive properties of mixed alkali halides.

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Income Inequality in Post-Covid Era: Recent Global Trend

•Pooja Sikka
•• Bhaskar Sarmah

Abstract- *The COVID-19 pandemic has upended lives and economies around the world, with devastating consequences for the poor and vulnerable. The pandemic has deepened global inequality and exposed the inadequacies of social safety nets and health systems. The purpose of this paper is to examine the rising global inequality in the post-COVID era and to explore its causes, consequences, and possible solutions. The paper relies on the latest data from the World Bank and other reputable institutions to provide a comprehensive analysis of the trends and patterns of inequality. The paper argues that rising global inequality is not only a moral and ethical issue but also a political and economic one that threatens social stability and undermines the prospects for sustainable development. The paper concludes with a call for urgent action to address the root causes of inequality and to build more inclusive and resilient societies.*

Keywords- *Global Income Inequality, Post COVID era, Economic Growth*

Introduction- The COVID-19 pandemic has exposed the deep fault lines of global inequality, revealing the stark disparities between the rich and the poor, the developed and the developing countries, and the privileged and the marginalized. The pandemic has affected everyone, but it has not affected everyone equally. The COVID-19 pandemic has threatened the lives and livelihoods of the less-educated and less-well paid more than those of more educated and better paid, many of whom can stay safely at home and continue to work (Deaton,2021). The poor and vulnerable have been hit the hardest, both in terms of health and economic impacts. The pandemic has exacerbated poverty, unemployment, hunger, and inequality, creating a vicious cycle of deprivation and despair.

The World Bank defines inequality as "the unequal distribution of income, wealth or opportunities among individuals, households, or countries." Inequality is not only a moral and ethical issue but also a political and economic one that affects social stability, undermines democracy, and hinders sustainable development. Inequality can lead to social unrest, conflict, and violence, as well as to lower economic growth, reduced productivity, and weaker institutions.

As per the World Bank, global inequality has been rising over the past few decades, with the top 1% of the world's population capturing an increasing

• Assistant Professor, Panjab University Regional Centre Ludhiana, Punjab, India
•• Assistant Professor, Krishna Kanta Handiqui State Open University Guwahati, Assam

share of global income and wealth. In 2020, the top 1% of the world's population held over 43% of global wealth, while the bottom 50% held less than 2%. This trend has been particularly pronounced in high-income countries, where income inequality has increased significantly since the 1980s (World Economic Forum,2020)

The COVID-19 pandemic has exacerbated global inequality, with the poorest and most vulnerable populations bearing the brunt of the health and economic impacts. According to the United Nations Development Programme (UNDP, 2020), the pandemic is expected to push an additional 47 million people into extreme poverty in 2021, bringing the total number of people living in extreme poverty to 515 million. The pandemic has also widened the gap between rich and poor countries, with low- and middle-income countries facing greater challenges in accessing vaccines, medical supplies, and economic support.

According to the World Bank's Global Economic Prospects report of January 2022, the COVID-19 pandemic has further exacerbated global inequality, particularly in low-income countries, where the pandemic has led to a sharp increase in poverty rates. The report highlights that the pandemic has widened the gap between rich and poor countries, with low- and middle-income countries facing greater challenges in accessing vaccines, medical supplies, and economic support. The report also notes that income inequality has been on the rise in many countries, with the pandemic exacerbating pre-existing trends. The report suggests that policies that promote inclusive growth, such as investing in education and infrastructure, can help reduce inequality and promote long-term sustainable development.

The purpose of this paper is to examine the rising global inequality in the post-COVID era and to explore its causes, consequences, and possible solutions. The paper relies on the latest data from the World Bank and other reputable institutions to provide a comprehensive analysis of the trends and patterns of inequality. The paper argues that rising global inequality is a complex and multifaceted problem that requires a holistic and integrated approach that addresses the root causes of inequality and promotes inclusive and sustainable development.

Evidences Of Rising Global Inequality in Post Covid Times- The pandemic as well as the lockdowns and stimulus programmes that governments have adopted to fight it and the associated economic crisis have affected different people, industries and countries to different degrees, with respect to the distribution of income and production (Dauderstädt,2022). The causes of rising global inequality are complex and multifaceted, reflecting a combination of structural, institutional, and policy factors that vary across countries and regions. The globalization of trade, investment, and finance has led to increased economic integration and competition, but it has also widened the gap between the winners and losers of globalization. Globalization has created new opportunities for some countries and regions to grow and develop, but it has also exposed others to greater volatility and vulnerability, as well as to the risks of job displacement, wage stagnation, and income polarization. The rapid pace of technological change has transformed the nature of work and the skills required to succeed in the global economy. Technological change has created new opportunities for innovation, efficiency, and productivity, but it has also disrupted traditional industries and jobs, and widened the skills gap between the educated and the uneducated, the urban and the rural, and the young and the old.

The movement of capital across borders has increased the mobility of capital and the flexibility of investment, but it has also exposed developing countries to greater financial instability, volatility, and vulnerability. Capital flows have led to increased financialization, speculation, and rent-seeking, but they have also reduced the policy space and autonomy of developing countries to pursue their own development goals. The quality of institutions, including the rule of law, property rights, and governance, can have a significant impact on inequality. Weak institutions can lead to corruption, rent-seeking, and elite capture, while strong institutions can promote accountability, transparency, and inclusiveness. In many developing countries, weak institutions and lack of political will have undermined efforts to promote social justice and reduce inequality.

The COVID-19 pandemic has had a significant impact on the global economy and has led to an increase in poverty rates in many countries, particularly low-income countries. According to the World Bank's Global Economic Prospects report of January 2022, the pandemic has pushed an additional 124 million people into extreme poverty (defined as living on less than $1.90 per day) in 2020, with the majority of new extreme poor residing in South Asia and Sub-Saharan Africa. The COVID-19 pandemic has had a significant impact on the economies of low-income countries. Many low-income countries already faced economic challenges prior to the pandemic, and the pandemic has worsened these challenges, leading to increased poverty, unemployment, and economic instability. Here are some examples of how COVID-19 has affected the economies of low-income countries, some of the countries that have seen a significant increase in poverty rates and economic challenges in the post-COVID era include-

India- According to the Pew Research Center, the number of Indians who fell below the national poverty line increased by 75 million in 2020 due to the COVID-19 pandemic. This has been attributed to the loss of jobs and income among informal workers and those in the informal sector.

Nigeria- The World Bank reports that the COVID-19 pandemic has pushed an additional 7 million Nigerians into poverty in 2020. The country has also been affected by falling oil prices, which has led to a decline in government revenue and an economic slowdown.

Brazil- According to the United Nations Development Programme (UNDP), the COVID-19 pandemic has worsened economic inequality in Brazil, with an estimated 9.5 million people falling into poverty in 2020. The pandemic has also led to a decline in economic growth and rising unemployment rates.

South Africa- The World Bank reports that the COVID-19 pandemic has pushed an additional 2.2 million South Africans into poverty in 2020. The country has also been affected by falling commodity prices, which has led to a decline in government revenue and an economic slowdown.

Uganda- According to the World Bank, the COVID-19 pandemic has had a severe impact on Uganda's economy, with a sharp decline in economic activity and significant job losses. The pandemic has hit Uganda's informal sector particularly hard, which accounts for more than 80% of the country's employment.

Haiti- Haiti is one of the poorest countries in the world, and the COVID-19 pandemic has worsened its economic challenges. According to the International Monetary Fund, the pandemic has led to a significant decline in economic growth and an increase in poverty rates.

Bangladesh- Bangladesh is one of the most densely populated countries in the world, and the COVID-19 pandemic has had a significant impact on its economy. According to the World Bank, the pandemic has led to a decline in economic growth, a decline in remittances (which are an important source of income for many Bangladeshis), and a significant increase in poverty rates.

Sierra Leone- Sierra Leone is one of the poorest countries in Africa, and the COVID-19 pandemic has had a severe impact on its economy. According to the International Monetary Fund, the pandemic has led to a significant decline in economic growth and an increase in poverty rates.

In addition to these countries, many other low-income countries have been severely affected by the COVID-19 pandemic, including countries in Sub-Saharan Africa, South Asia, and Latin America. Urgent action is needed to support these countries and mitigate the impact of the pandemic on their economies and populations. This may include measures such as debt relief, increased aid, and support for economic recovery and resilience.

Tackling Global Income Inequality: The Way Forward- As the COVID-19 health crisis spread throughout the world to reach low- and middle-income countries in South Asia, Sub-Saharan Africa, and Latin America, the international community became increasingly anxious about potentially catastrophic effects of the crisis there (Goldberg and Reed 2020). The reason being, the consequences of rising global inequality are far-reaching and multidimensional, affecting not only the poor and vulnerable but also the entire society and the planet. Inequality has a direct impact on poverty and hunger, as the poor and vulnerable are less likely to have access to basic necessities such as food, water, health care, and education. Inequality can trap people in poverty and perpetuate cycles of deprivation and exclusion. Inequality can also affect health and education outcomes, as the poor and vulnerable are more likely to suffer from poor health, malnutrition, and lack of access to quality education. Inequality can limit the life chances and opportunities of individuals and communities, and undermine the human development potential of societies. According to Lakner, Mahler and Negre (2022) reducing each country's Gini index by 1% per year has a larger impact on global poverty than increasing each country's annual growth rate 1 percentage point above World Bank forecasts.

Inequality can lead to social tensions and conflicts, as people feel excluded, marginalized, and discriminated against. Inequality can erode social trust and solidarity, and undermine the social contract between citizens and the state. Inequality can also fuel extremism, populism, and polarization, and threaten social stability and cohesion. Inequality can also have environmental consequences, as the rich and affluent consume more resources and emit more greenhouse gases than the poor and vulnerable. Inequality can lead to unsustainable patterns of consumption and production, and exacerbate the ecological footprint of human activities. Inequality can also undermine efforts to promote environmental sustainability and climate action.

Addressing rising global inequality requires a comprehensive and coordinated approach that addresses the root causes of inequality and promotes inclusive and sustainable development. This can be achieved by promoting access to education, health care, and basic services, and by investing in skills and human capital development. It can also be achieved by addressing discrimination and bias, and by promoting equal opportunities for all.

Pandemics, like natural disasters, offer a unique opportunity to study how economies work Jordà, Singh, and Taylor,2020). Overall, the trajectory of global income inequality in the post-COVID era will depend on a complex set of factors and is difficult to predict with certainty. However, it is clear that concerted efforts will be needed to address existing inequalities and prevent the emergence of new ones in the wake of the pandemic. International organizations are actively working to address global inequality in the post-COVID era. The World Bank is providing financial support to low- and middle-income countries to help them respond to the COVID-19 pandemic and mitigate its economic impact. This includes providing emergency financing, debt relief, and support for social protection programs.

The International Monetary Fund (IMF) is providing financial assistance to countries in need and has called for a coordinated global response to the pandemic. The organization has also advocated for policies that support inclusive growth and reduce inequality, such as progressive taxation and social protection programs. The United Nations (UN) has called for a "new social contract" that prioritizes equity and inclusivity in the post-COVID era. The organization has also emphasized the need for international cooperation and solidarity to address the pandemic and its economic impact.

The Organisation for Economic Co-operation and Development (OECD) has called for policies that promote inclusive growth and reduce inequality, such as investments in education and training, progressive taxation, and support for small and medium-sized enterprises. The World Health Organization (WHO) has emphasized the importance of universal health coverage and access to healthcare as a means of reducing inequality and promoting health and well-being in the post-COVID era.

In addition to these organizations, many others are also working to address global inequality in the post-COVID era, including civil society organizations, philanthropic foundations, and academic institutions. According to Oxfam (2021), Governments around the world have a small and shrinking window of opportunity to create a just economy after COVID-19. While progress is being made, much more need to be done to achieve a more equitable and sustainable world in the wake of the pandemic.

Concluding Remarks- Rising global inequality is a complex and multifaceted problem that requires a holistic and integrated approach that addresses the root causes of inequality and promotes inclusive and sustainable development. The COVID-19 pandemic has exposed the deep fault lines of global inequality, revealing the stark disparities between the rich and the poor, the developed and the developing countries, and the privileged and the marginalized. The pandemic has deepened global inequality and exposed the inadequacies of social safety nets and health systems. It is difficult to predict whether a "new world order" will come into force in the post-COVID era. The COVID-19 pandemic has had a significant impact on the global economy and has led to political, social, and economic changes in many countries. However, the idea of a "new world order" typically implies a significant and intentional shift in global power relations and governance structures, and it is unclear whether such a shift will occur in the post-COVID era. The policies implemented by governments in response to the pandemic will also have an impact on income inequality in the post-COVID era. If governments prioritize policies that support inclusive growth and address inequality, it may help to mitigate the impact of the pandemic on income inequality.

The COVID 19 pandemic has exposed existing inequalities and weaknesses in global governance structures, and that there is a need for a more cooperative and coordinated approach to addressing global challenges. The pandemic has also exacerbated existing geopolitical tensions and that there is a risk of increased competition and conflict between major powers. It is difficult to predict with certainty the shape that global income inequality will take in the post-COVID era. However, there are several factors that could influence the trajectory of global income inequality in the coming years. The pace and nature of the global economic recovery from the COVID-19 pandemic will be a key determinant of income inequality in the post-COVID era. If the recovery is slow or uneven, it may exacerbate existing income inequalities and create new ones.

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