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FACTORS IMPACTING CONTINUANCE INTENTION TO USE CHATGPT OF STUDENTS, RAMKHAMHAENG, BANGKOK

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ABSTRACT

This study explores futures studies regarding factors influencing students' intention for continued use of ChatGPT within Bangkok's Ramkhamhaeng area, focusing on the impacts of interactivity, collaborative learning, and efficiency on perceived ease of use and usefulness, as well as their subsequent effects on user satisfaction and continuance intention. Primary data were collected through a survey of 385 students studying in this area who actively use ChatGPT, with the research integrating three theoretical models to establish an innovative conceptual framework. The findings reveal that interactive learning, collaborative learning, and efficiency significantly influence perceived ease of use and usefulness, which are positively related to user satisfaction, ultimately driving students' intention to continue using ChatGPT. However, the study is limited to students in the Ramkhamhaeng area and does not consider varying variables or use cases among students from different locations, schools, or age groups, making the findings applicable primarily to this specific demographic.

KEYWORDS: *Intention to Continue Using ChatGPT, Interactive Learning, Collaborative Learning, Efficiency, Perceived Ease of Use, Perceived Usefulness, Satisfaction.*

Introduction

Artificial Intelligence (AI) has rapidly advanced, revolutionizing various industries, including education. Among its notable developments is ChatGPT, a language model that combines "Chat" for interaction and "Generative Pre-trained Transformer," referencing deep learning and natural language processing (NLP). Designed to function like a chatbot, ChatGPT efficiently processes and analyzes vast datasets to deliver comprehensive responses tailored to diverse needs, from answering emails and solving math problems to composing songs and suggesting recipes (Council L., 2023; CONTENT D., 2023).

AI-driven tools like ChatGPT have transformed education by making learning more dynamic, accessible, and student-centered. These systems provide faster and more accurate information, assisting students in research and fostering satisfaction with their usability. Globally, educational institutions are integrating AI to enhance teaching and evaluation processes (UNESCO, 2021). For instance, Japan employs AI to create personalized learning materials, South Korea integrates AI into STEM education, and China leverages AI to improve knowledge delivery systems (Kim, 2023; Takahashi, 2023; Zhao, 2024).

While ChatGPT helps bridge information gaps and supports self-paced learning, challenges remain, particularly in countries like Thailand. Issues such as ethical concerns and unequal access to technology underscore the need for comprehensive preparation among educators and students. Establishing ethical frameworks is essential for maximizing AI's potential to advance education equitably (The101.world, 2023).

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This study explores factors influencing the continued use of ChatGPT, focusing on interactive learning, collaborative learning, efficiency, perceived usefulness, perceived ease of use, and satisfaction. Understanding these elements will shed light on ChatGPT's growing popularity and support the future evolution of AI in education.

Review of Literature

• **Interaction Learning**

Interactive learning is a method of conveying knowledge that emphasizes the involvement of learners in the learning process (echo360, 2022). This approach offers numerous advantages in the classroom (Scholastic parents Staff, 2019). Interactive learning strategies facilitate collaborative learning, which in turn enhances understanding as well as retention (Bonwell & Eison, 1991). Furthermore, interactive learning needs dialogue and feedback, which are indispensable for meaningful learning experiences (Laurillard, 2002). Consequently, the implementation of this methodology is advantageous to the education of children in the contemporary era (Jonathan, 2022).

• **Collaborative Learning**

Collaborative learning is an educational approach that uses groups to enhance learning through collaboration (Andreev, 2019), helping to develop higher-order thinking, communication, self-management, and leadership skills (Education Endowment Foundation, 2021; Cornell University, 2022). Collaborative learning also opens up and increases the understanding of diverse perspectives, and plays an important role in community building and knowledge creation in online education systems (Garrison & Anderson, 2003). Resta and Laferrière (2007) examined the impact of technology on collaborative learning, emphasizing that digital tools can facilitate group interactions and that collaborative learning environments promote the co-creation of knowledge among learners (Hakkarainen & Palonen, 2003).

• **Efficiency**

According to Bardhan et al. (2010), efficiency is the capacity to produce a maximum amount of work with the least amount of money or effort. According to Mackenzie (2013), operational efficiency in the technology sector specifically refers to a system's or process's capacity to provide results at a reduced cost, with the least amount of resource consumption and the highest possible level of results. As per Mehregan et al. (2018), efficiency may also be defined as the capability of a technological system to optimize workflow and minimize bottlenecks, leading to enhanced production. Time efficiency, or the system's capacity to finish a task faster, is crucial for raising user productivity and satisfaction. Service efficiency, which evaluates how well users interact with technology to accomplish goals, is usually quantified by means of measures such as the time required to do a job or the count of steps required to reach a destination. (Cai et al., 2020).

• **Perceived Ease of Use**

Perceived ease of use refers to Users' belief on how little or rather easy work is needed to utilize a technology enables them to grasp and use it fast and effortlessly. (Worthington & Burgess, 2021). Ease of use is related to likelihood of usage, which is the simpler you design a system, the more chance someone will use it (Jones & Kauppi, 2018). In addition, Davis (1989) proposed the notion of perceived ease of use as a significant determinant impacting consumer adoption of technology. Moreover, research by Venkatesh et al. (2003) has confirmed the impact of perceived ease of use on users' desire to embrace new technology, while Hong and Tam (2006) identified that perceived usability mediates the association between user attributes and technology acceptance.

• **Perceived Usefulness**

Perceived usefulness was defined as the extent to which individuals believed that utilizing a technology would enhance their work performance. Venkatesh and Davis (2000). Saraipah et al. define perceived usefulness as the extent to which an individual feels that utilizing an information system would improve their performance, facilitating more efficient job completion with technological assistance (2016). Furthermore, much emphasis has been placed on perceived utility (i.e., the extent to which the system enhances an individual's productivity or efficiency; Venkatesh et al., 2003) in the consumer's predisposition to embrace information technology. Hong and Tam, 2006. According to Davis (1989), perceived usefulness refers to the extent to which an individual feels that utilizing a specific technology will improve their work performance.

• **Satisfaction**

Satisfaction is the pleasurable emotion derived from the fulfillment of a desire, this according to Cambridge Dictionary (no data). (Collins Dictionary, n.d.) Satisfaction achieving our goals or getting what we want. As according to the Delone & McLean (2003), user satisfaction in IT denoted how users felt their expectations had been met regarding system use, and this positively impacted continuance intention of using the technology. Parasuraman (2000) adds that the quality of the goods and services customers receive also impacts their degree of happiness, which in turn impacts their adoption and use of the technology.

Research Methodology

Research Problem

The study was conducted with the objective of exploring futures studies regarding factors related to students' intention for continued use of ChatGPT within Bangkok Area, Ramkhamhaeng. This study focuses on the impacts of interactivity, collaborative learning and efficiency toward perceived ease of use and usefulness; furthermore their impacts to user satisfaction and intentions for continuous usage.

Research Objectives

- To understand which factors are associated with or impact users' continued use of ChatGPT after they start using it.
- To suggest ways to develop and improve the use of ChatGPT for users.
- To measure the frequency and characteristics of ChatGPT use among users, such as how often they use it and in which purpose.

Research hypothesis

- **Hypothesis 1 (H₁):** There is no significant impact of interactive learning on perceived ease of use and its effect on satisfaction and continuance intention to use ChatGPT.
- **Hypothesis 2 (H₂):** There is no significant impact of collaborative learning on perceived usefulness and its effect on satisfaction and continuance intention to use ChatGPT.
- **Hypothesis 3 (H₃):** There is no significant impact of efficiency on perceived usefulness and its effect on satisfaction and continuance intention to use ChatGPT.
- **Hypothesis 4 (H₄):** There is no significant impact of perceived ease of use on satisfaction and its effect on continuance intention to use ChatGPT.
- **Hypothesis 5 (H₅):** There is no significant impact of perceived usefulness on satisfaction and its effect on continuance intention to use ChatGPT.
- **Hypothesis 6 (H₆):** There is no significant impact of satisfaction on continuance intention to use ChatGPT.

Data Analysis

The researcher utilized Jamovi software to use the appropriate statistics to attain the numbers needed for the study. Accordingly, this chapter will assess and understand the outcomes produced via the program. Hypothesis testing and descriptive analysis provide the data analysis in this study.

Table 1: The Value of Reliability Analysis of Each Item and Variable in this Study (n=385)

Item No.	Variables/ Measurement Items	Cronbach's Alpha	Strength of Association
Interaction learning		0.829	Good
IL1	"Interacting with AI ChatGPT enhances my learning experience in the context of research".	0.76	Acceptable
IL2	"I find that interaction with AI ChatGPT enhances my understanding of research concepts and methodologies".	0.777	Acceptable
IL3	"AI ChatGPT contributes positively to my ability to grasp complex research ideas".	0.754	Acceptable

Collaborative learning		0.838	Good
CL1	"AI ChatGPT supports collaborative learning efforts within my research team".	0.79	Acceptable
CL2	"Collaborating with AI ChatGPT enhances the synergy among research team members".	0.726	Acceptable
CL2	"AI ChatGPT fosters a collaborative environment conducive to shared research insights".	0.808	Good
Efficiency		0.828	Good
E1	"I use ChatGPT because it saves me time when I'm completing my tasks".	0.751	Acceptable
E2	"I use ChatGPT because it makes my tasks easier".	0.74	Acceptable
E3	"I use ChatGPT because it is useful for multitasking".	0.797	Acceptable
Perceived ease of use		0.806	Good
PEOU1	"Using AI ChatGPT enhances the ease of conducting research tasks".	0.735	Acceptable
PEOU2	"I find ChatGPT easy to use".	0.727	Acceptable
PEOU3	"I find it easy to get ChatGPT to do what I want it to do".	0.743	Acceptable
Perceived usefulness		0.822	Good
PU1	"Using ChatGPT will enhance my effectiveness".	0.761	Acceptable
PU2	"I find ChatGPT to be a useful tool in my learning".	0.765	Acceptable
PU3	"I perceive AI ChatGPT as a valuable resource for achieving research objectives".	0.738	Acceptable
Satisfaction		0.803	Good
S1	"I am pleased enough with ChatGPT".	0.721	Acceptable
S2	"ChatGPT satisfies my educational needs".	0.735	Acceptable
S3	"I am satisfied with ChatGPT's performance".	0.736	Acceptable
Continuance intention to use		0.805	Good
CTIU1	"I plan to keep using ChatGPT".	0.722	Acceptable
CTIU2	"I want to continue using ChatGPT".	0.713	Acceptable
CTIU3	"I intend to recommend ChatGPT to my friends".	0.766	Acceptable

The Cronbach's alpha variables in Table 1 show that all of the variables are reliable and valid since the overall values are greater than 0.70, indicating that the reliability of that factors is considered acceptable and good. Collaborative learning variable, with the highest value of Cronbach's alpha, 0.838. The Interaction learning where 0.829 the second highest was followed by 0.829. The value determined for the Efficiency was 0,828, Perceived usefulness which have value 0,822 and, Perceived ease of use have a value at 0,806 while the lowest value was for Satisfaction

Table 2: Demographic Information Analysis by using Frequency Distribution and Percentage

(n =385)

Demographic Factors	Frequency	Per cent
Gender		
Female	218	56.62%
male	167	43.38%
Total	385	100%
Age		
Under 18	3	0.77%
18-24	211	54.80%
25-34	145	37.66%
35 above	26	6.77%
Total	385	100%

Salary		
Lower than 10,000THB	56	14.55%
10,001THB – 15,000THB	95	24.67%
15,000THB – 20,000THB	138	35.84%
Higher than 20,000THB	96	24.94%
Total	385	100%
Education level		
Bachelor's Degree	269	69.87%
Master's Degree	96	24.93%
Doctoral Degree	20	5.2%
Total	385	100%
University		
Assumption University	177	46.0%
Ramkhamhaeng University	137	35.6%
Rattana Bundit University	71	18.40%
Total	385	100%
Faculty		
Business and Economics	186	13.8%
Arts and Humanities	53	48.3%
Science and Technology	67	17.4%
Other	79	20.5%
Total	385	100%
Frequency of use		
Daily	114	29.6%
Weekly	153	39.7%
Monthly	72	18.7%
Once every six month	46	11.9%
Total	385	100%
Primary use		
Academic work (e.g., research, assignments)	109	28.3%
Personal use (e.g., learning new topics, hobbies)	82	21.3%
Both academic and personal purposes	194	50.4%
Total	385	100%

Table 3: The Result of the Mean and Standard Deviation of Interactive Learning

Measuring Variables	N	Min.	Max	Mean	Std. Deviation	
"Interacting with AI ChatGPT enhances my learning experience in the context of research".	385	1	5	3.71	1.02	High
"I find that interaction with AI ChatGPT enhances my understanding of research concepts and methodologies".	385	1	5	3.79	0.965	High
"AI ChatGPT contributes positively to my ability to grasp complex research ideas".	385	1	5	3.85	0.965	High

From table 3, the highest average value of the variable was "AI ChatGPT contributes positively to my ability to grasp complex research ideas". which came at 3.85. Conversely, the lowest mean was "Interacting with AI ChatGPT enhances my learning experience in the context of research". at 3.71. Regarding the review of the standard deviation, "Interacting with AI ChatGPT enhances my learning experience in the context of research" had the highest value of 1.02 and the other had an equal value of 0.965. "I find that interaction with AI ChatGPT improves my understanding of research concepts and methodologies".

And "AI ChatGPT contributes positively to my ability to grasp complex research ideas".

Table 4: The Result of Mean and Standard Deviation of Collaborative Learning

Measuring Variables	N	Min.	Max	Mean	Std. Deviation	Interpretation
"AI ChatGPT supports collaborative learning efforts within my research team".	385	1	5	3.68	1.01	High
"Collaborating with AI ChatGPT enhances the synergy among research team members".	385	1	5	3.8	0.99	High
"AI ChatGPT fosters a collaborative environment conducive to shared research insights".	385	1	5	3.78	1.04	High

From table 4, the findings reveal perceived organizational support and demonstrate that the majority of collaborative learning variables are highly correlated. Especially for "Collaborating with AI ChatGPT enhances the synergy among research team members". mean score greatest at 3.8 and 0.99 has the lowest standard deviation level. On the other hand, the variable "AI ChatGPT fosters a collaborative environment conducive to shared research insights". shows a standard deviation of 1.01 and a lowest mean score of 3.68.

Table 5: The Result of Mean and Standard Deviation of Efficiency

Measuring Variables	N	Min.	Max	Mean	Std. Deviation	Interpretation
"I use ChatGPT because it saves me time when I'm completing my tasks".	385	1	5	3.87	0.998	High
"I use ChatGPT because it makes my tasks easier".	385	1	5	3.94	0.968	High
"I use ChatGPT because it is useful for multitasking".	385	1	5	3.8	1.01	High

From table 5, the greatest mean however the lowest standard deviation of efficiency was "I use ChatGPT because it makes my tasks easier". which equals 3.94 and 0.968. In opposition the lowest mean was "I use ChatGPT because it is useful for multitasking". Which average equal 3.8 but has highest standard deviation value of 1.01.

Table 6: The Result of Mean and Standard Deviation of Perceived Ease of Use

Measuring Variables	N	Min.	Max	Mean	Std. Deviation	Interpretation
"Using AI ChatGPT enhances the ease of conducting research tasks".	385	1	5	3.72	1	High
"I find ChatGPT easy to use".	385	1	5	3.99	0.944	High
"I find it easy to get ChatGPT to do what I want it to do".	385	1	5	3.91	0.943	High

From table 6, the top mean of perceived ease of use was shown as, "I find ChatGPT easy to use." which is equivalent to 3.99. Conversely, the lowest mean was attributed to the statement, "Using AI ChatGPT enhances the ease of conducting research tasks".

Which equals 3.72 but possesses the greatest standard deviation value of 1.

Table 7: The Result of Mean and Standard Deviation of Perceived Usefulness

Measuring Variables	N	Min.	Max	Mean	Std. Deviation	Interpretation
"Using ChatGPT will enhance my effectiveness".	385	1	5	3.71	1.02	High
"I find ChatGPT to be a useful tool in my learning".	385	1	5	3.85	0.961	High
"I perceive AI ChatGPT as a valuable resource for achieving research objectives".	385	1	5	3.79	1.01	High

From table 7, the highest average value of the variable was “I find ChatGPT to be a useful tool in my learning”. Which equal 3.85. However, it possesses the lowest standard deviation of 0.961. The lowest mean was associated with the statement, “Using ChatGPT will enhance my effectiveness.”

Which mean equal 3.71 but has highest standard deviation value of 1.02.

Table 8: The Result of Mean and Standard Deviation of Satisfaction

Measuring Variables	N	Min.	Max	Mean	Std. Deviation	Interpretation
“I am pleased enough with ChatGPT”.	385	1	5	3.77	0.997	High
“ChatGPT satisfies my educational needs”.	385	1	5	3.9	0.979	High
“I am satisfied with ChatGPT's performance”.	385	1	5	3.92	0.947	High

Table 8 indicates that perceived organizational support correlates with satisfaction, with the statement “I am satisfied with ChatGPT's performance” exhibiting its highest mean and lowest standard deviation. The mean is 3.92, while the standard deviation is 0.947. The statement, “I am pleased enough with ChatGPT,” had the lowest mean. It had an average of 3.77 and a maximum standard deviation of 0.997.

Table 9: The Result of Mean and Standard Deviation of Continuance Intention to Use

Measuring Variables	N	Min.	Max	Mean	Std. Deviation	Interpretation
“I plan to keep using ChatGPT”.	385	1	5	3.87	0.949	High
“I want to continue using ChatGPT”.	385	1	5	3.92	0.946	High
“I intend to recommend ChatGPT to my friends”.	385	1	5	3.76	1.03	High

From table 9, The highest average value among the variables was attributed to the statement, “I want to continue using ChatGPT”. with a mean of 3.92. In contrast, the lowest mean was associated with the statement, “I intend to recommend ChatGPT to my friends” which recorded a mean of 3.76. Regarding standard deviation, the statement with the highest value of 1.03 was also “I intend to recommend ChatGPT to my friends”. Meanwhile the minimum standard deviation value is 0.946. “I want to continue using ChatGPT”.

Hypothesis Testing Result

Hypothesis Testing Results of Simple Linear Regression

Table 10: Simple Linear Regression Analysis Summary for Hypotheses 1 (n=385)

Variables	B	SE B	β	Sig.	VIF
Interactive learning	0.619	0.0376	0.644	<.001	1.00

Note. $R^2 = 0.415$, Adjusted $R^2 = 0.413$, $p < 0.05$. Dependent Variable = perceived ease of use

Hypothesis1

H_{1o} : There is no significant impact of interactive learning on perceived ease of use and its effect on satisfaction and continuance intention to use ChatGPT.

H_{1a} : There is a significant impact of interactive learning on perceived ease of use and its effect on satisfaction and continuance intention to use ChatGPT.

Table 10 presents the findings of a fundamental linear regression analysis indicating a substantial link between interactive learning (H_1) and perceived ease of use. The hypothetical analysis provides a p-value of less than 0.001, which is below the acceptable limit of 0.05; hence, the null hypothesis is rejected. The results indicate the considerable influence of interactive learning on the apparent ease of use. The regression analysis indicates the model's relevance, evidenced by a p-value below 0.05 and a model variance of 41.3%. The R-squared value is 0.414 at a 95% confidence level for the model. The study indicated that interactive learning strongly impacted perceived ease of use ($B=0.619$, $p=0.05$). The variance inflation factor (VIF) of 1.000 for the price variable signifies the absence of multicollinearity issues, as it is below the threshold of 5.

Table 11: Simple Linear Regression Analysis Summary for Hypotheses 6 (n=385)

Variables	B	SE B	β	Sig.	VIF
Satisfaction	0.782	0.032	0.781	<.001	1.00

Note. $R^2 = 0.609$, Adjusted $R^2 = 0.608$, $p < 0.05$. dependent Variables = continuance intention

Hypothesis 6

H_{6o} : There is no significant impact of satisfaction on continuance intention to use ChatGPT.

H_{6a} : There is a significant impact of satisfaction on continuance intention to use ChatGPT.

Table 11 displays the results of a fundamental linear regression analysis, demonstrating a substantial correlation between satisfaction (H6) and continuing intention. The hypothetical investigation findings indicate a p-value of less than 0.001, which is below the standard threshold of 0.05, resulting in the rejection of the null hypothesis. The results indicate an important impact of satisfaction on the desire to continue using ChatGPT.

The regression analysis indicates a model variance of 60.8%, accompanied with a p-value less than 0.05, showing the model's relevance. The R-squared score is 0.608, indicating a 95% confidence level for the model. The study reveals an important impact of satisfaction on the intention to continue using (B=0.782, $p < 0.05$). The variance inflation factor (VIF) for the price variable is 1.000, signifying no multicollinearity concerns, since it remains below the threshold of 5.

Table 12: The Results of Multiple Linear Regression Hypotheses 2 and 3(n=385)

Variables	B	SE B	β	Sig.	VIF
Collaborative learning	0.236	0.0396	0.242	<.001	1.92
Efficiency	0.634	0.0408	0.633	<.001	1.92

Note. $R^2 = 0.671$, Adjusted $R^2 = 0.669$, $p < 0.05$. Dependent Variable = perceive usefulness

Table 12 indicates that the VIF values for both variables are below 5, implying the absence of multicollinearity among the independent variables. At a 95 percent confidence level, the unadjusted and adjusted R-squared values were seen to be 0.671 and 0.669, respectively. Thus, the values derived from the independent variables, collaborative learning and efficiency, exhibit a substantial correlation with perceived usefulness at around 67.1 percent.

Hypothesis 2

H_{2o} : There is no significant impact of collaborative learning on perceived usefulness and its effect on satisfaction and continuance intention to use ChatGPT.

H_{2a} : There is a significant impact of collaborative learning on perceived usefulness and its effect on satisfaction and continuance intention to use ChatGPT.

Table 12 indicates a significant level of the independent variable, collaborative learning, at 0.001, which is notably below 0.05. As a result, the null hypothesis was emphatically rejected, leading to the conclusion that collaboration in learning significantly impacts the perceived usefulness effect on satisfaction. Similarly, the standardized coefficient β for the variable was somewhat lower than that of efficiency, at 0.242, suggesting that collaborative learning is perceived as a more significant factor impacting perceived usefulness. The unstandardized coefficient B is 0.236. Thus, a one percent increase in the independent variable collaborative learning would result in a 23.6 percent increase in the dependent variable sense of usefulness.

Hypothesis 3

H_{3o} : There is no significant impact of efficiency on perceived usefulness and its effect on satisfaction and continuance intention to use ChatGPT.

H_{3a} : There is a significant impact of efficiency on perceived usefulness and its effect on satisfaction and continuance intention to use ChatGPT.

The significance levels for the independent variable, efficiency, as shown in the table, was below 0.001, which is considerably lower than 0.05. The null hypothesis was decisively rejected, indicating that the perceived utility of ChatGPT is strongly impacted by the efficiency effect on satisfaction. The standardized coefficient β for efficiency is 0.633, signifying that it is the most significant predictor of perceived utility relative to collaborative learning. The unstandardized coefficient B for efficiency is 0.634, signifying that a 63.4% enhancement in perceived usefulness would ensue from an increase in efficiency, hence amplifying the relevance of this variable's significance.

Table 13: The Results of Multiple Linear Regression Hypotheses 4 and 5(n=385)

Variables	B	SE B	β	Sig.	VIF
Perceive ease of use	0.448	0.0446	0.443	<.001	2.04
Perceived usefulness	0.401	0.0425	0.417	<.001	2.04

Note. $R^2 = 0.634$, Adjusted $R^2 = 0.632$, $p < 0.05$. Dependent Variable = Satisfaction

The result of the R square shown in Table 5.13 was 0.634 at a 95% confidence level. The goodness of fit for the association between the independent variables, perceived ease of use and perceived usefulness, and the dependent variable, satisfaction, is roughly 63.4 percent. From Table 5-13, the VIF values (2.04) of both independent variables are below 5, which can sum up that there is multicollinearity between the variables.

Hypothesis 4

H_{40} : There is no significant impact of perceived ease of use on satisfaction and its effect on continuance intention to use ChatGPT.

H_{4a} : There is a significant impact of perceived ease of use on satisfaction and its effect on continuance intention to use ChatGPT.

Table 13 clearly indicates that the independent variable, perceived ease of use, is significant at a level less than 0.001, which is below the threshold of 0.05. Therefore, the null hypothesis must be rejected, indicating that satisfaction about the desire to continue using ChatGPT is significantly impacted by perceived ease of use. The standardized coefficient β of the measure was 0.443, indicating that perceived ease of use is a more influential variable than perceived usefulness. Moreover, the unstandardized coefficient B is 0.448; hence, if the independent variable, perceived ease of use, grows by one percent, the dependent variable, satisfaction, would increase by 44.8 percent.

Hypothesis 5

H_{50} : There is no significant impact of perceived usefulness on satisfaction and its effect on continuance intention to use ChatGPT.

H_{5a} : There is a significant impact of perceived usefulness on satisfaction and its effect on continuance intention to use ChatGPT.

Table 13 demonstrates that the independent variable, perceived usefulness, was significant at a level below 0.001, which is distinctly lower than 0.05. Thus, the null hypothesis was rejected, signifying that perceived utility significantly impacts satisfaction with the desire to persist in using ChatGPT. Similarly, the standardized coefficient β for the measure was 0.417, indicating that perceived usefulness is a less influential variable than perceived ease of use. The unstandardized coefficient B is 0.401, signifying that a 1% rise in the independent variable, perceived usefulness, would lead to a 40.1% increase in the dependent variable, satisfaction.

Findings

This study explored factors influencing the continuance intention to use ChatGPT among university students in the Ramkhamhaeng area, focusing on ease of use, usefulness, and satisfaction. Using a structured questionnaire with 385 respondents, selected through purposive and snowball sampling, the study analyzed the impact of variables like interactive learning, collaborative learning, efficiency, and satisfaction. Most participants were female (56.62%), aged 18–24 (54.8%), with incomes of 15,000–20,000 THB, and primarily used ChatGPT weekly for academic and personal purposes. Descriptive and regression analyses showed that efficiency ($\bar{x}=3.87$, $\text{std}\{x\}=3.87$), ease of use ($\bar{x}=3.87$, $\text{std}\{x\}=3.87$), and satisfaction ($\bar{x}=3.86$, $\text{std}\{x\}=3.86$) had the highest influence, with satisfaction playing the most significant role in continued use. These findings highlight the importance of user-friendly design and perceived usefulness in fostering sustained engagement with ChatGPT.

Suggestion

To enhance users' continuance intention to use ChatGPT, the platform should focus on improving ease of use by refining its interface and navigation, making it more user-friendly and accessible. Highlighting ChatGPT's usefulness in academic tasks, such as providing feedback and aiding with writing skills, will further embed its value for learners. Maintaining high user satisfaction by collecting feedback and exceeding expectations is crucial for fostering loyalty. Additionally, building a strong user community where individuals can share experiences and advice will create a sense of belonging and motivation. These strategies collectively ensure sustained user engagement with ChatGPT.

Conclusion

Efficiency and perceived ease of use emerged as the most critical factors influencing continuance intention, followed by satisfaction. These findings emphasize the importance of user-friendly design, effective learning tools, and overall satisfaction in fostering long-term engagement with ChatGPT.

The study also provides actionable insights for improving ChatGPT, including enhancing ease of use, increasing interactive and collaborative functionalities, and addressing user satisfaction to promote sustained usage.

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A CASE STUDY ON FACTORS INFLUENCING CUSTOMER SATISFACTION AT CIRCLE CONDOMINIUM, PHETCHABURI, THAILAND

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ABSTRACT

The study investigates the major customer satisfaction factors in living at Circle Condominium, Phetchaburi, Thailand, focusing on service quality, environmental concern, price, location, and communication. A quantitative research design was adopted. Data were collected using a structured questionnaire from 200 residents who have lived in the condominium for at least six months. Perceptions of key variables were measured by using a 5-point Likert scale. Statistical analyses such as correlation and regression were conducted to ascertain their relationship with general customers' satisfaction. The results revealed that service quality and location are the top drivers of satisfaction, while communication and concern for the environment are also significant. Price had a negative relationship with satisfaction, which pointed to the fact that affordability perceptions affected overall experiences. The findings have implications for actionable items in three key areas: service delivery, communication, and eco-friendliness, but with a focused emphasis on strategic pricing adjustments to match perceived value with resident expectations. Although limited to Circle Condominium, the study provides useful practical implications to real estate developers and management teams interested in improving customer satisfaction in similar residential contexts.

KEYWORDS: Customer Satisfaction, Service Quality, Location, Environmental Concern, Communication.

Introduction

In real estate, and especially in the case of developments in the condominium industry, customer satisfaction is a crucial factor since it shapes the way residents understand and experience the product. Developers and property managers must recognize the attributes of the customer experience that lead to satisfaction to enhance service quality and facilitate resident purchasing.

The Phetchaburi area in Thailand covers the geographical region, which is currently rapidly urbanizing with growth in the real estate market, which includes condominiums constructed for people at various targets. Circle Condominium of Phetchaburi is one such residential structure that provides the most modern and comfortable conditions and high-quality services.

Apart from these generalist market patterns over the years, the consequent implementation of these factors and changes in the immigration regimes have significantly affected the condominium industry in the Thai context. Among the measures taken, the government of Thailand has put forward emigration policies that aim at increasing foreign investment in the real estate sector. Most importantly, the current amendments to the Foreign Condominium Ownership Act have legalized the ownership of up to 49% of the total area by foreigners within a condominium building, increasing the proportion of such buyers, mostly from some adjacent countries like China and Singapore. (ASEAN Briefing, 2022).

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These are some of the governmental initiatives catalyzing urban development and raising demand for residential properties in Phetchaburi, the location of Circle Condominium. The circle condominium, because of its ultra-modern facilities and strategic location, therefore, attracts many foreign residents and investors looking to take advantage of the favorable visa system and property regulations in Thailand. This study subsequently continues to investigate how such external factors, among other determinants like location, security, and management, relate to customer satisfaction at Circle Condominium.

Research Objective

- Identify the key determinants of customer satisfaction within the context of Circle Condominium.
- To explore the factors that influence customer decisions regarding purchasing at Circle Condominium in Phetchaburi.

Scopes of the Study

It is specifically about Circle Condominium, Phetchaburi, Thailand. The research will explore what factors make up or establish customer satisfaction for the condominium complex with an essential emphasis on its location, security, maintenance, and management. Data collection shall involve residents of Circle Condominium, property management personnel, and other relevant stakeholders.

Definitions of the Study

The following key concepts are defined to clarify their use and relevance in the context of this study, which examines customer satisfaction at Circle Condominium in Phetchaburi, Thailand.

- **Customer Satisfaction**

Customer satisfaction is best described as a generally accepted concept within marketing and management, referring to the measurement of fulfillment of products or services meeting or exceeding customer expectations. It is also closely associated with the perceived quality and value of the experience of the customer. In this study, it refers to the contentment of residents in Circle Condominium. It is used to measure their perception in relation to the quality of service, location, pricing, and concern for the environment. Precisely, the study investigates to what level the condominium offering has met or exceeded the residents' expectations of daily living experiences in terms of safety, maintenance, and ease. Performance appreciation of these dimensions aids property managers in managing residents' satisfaction and retention. (Kotler & Keller, 2016)

- **Service Quality**

One of the most applied service quality assessment models by Parasuraman, Zeithaml, and Berry (1988), known as the SERVQUAL model, includes tangibility, reliability, responsiveness, assurance, and empathy. Service quality will be said to be high when the service delivered meets the customer's expectations, especially consistency and responsiveness. Service quality in this condominium, Circle Condominium, may be defined by residents' perceptions of how well the maintenance level is being carried out, the response level to their needs, and safety. This aspect examines if the management has met or exceeded expectations with regard to reliability and responsiveness towards property issues, including facility maintenance, security, and general upkeep of common areas. (Parasuraman, Zeithaml, & Berry, 1988)

- **Location**

Although location is, in fact, one of the most fundamental drivers in property-specific satisfaction when it comes to real estate, it is very much a key driver of desirability, value, and convenience. Location is often determined by proximity to main facilities such as schools, shopping areas, and transportation links, which affect the functional and emotional value of the house (Baker, 2003). In the case of Circle Condominium, location applies not only to its physical place in Phetchaburi but, more specifically, to the facilities and access that surround it.

- **Price**

Price is the monetary value that residents are willing to give up for a product or service. As far as real estate is concerned, price is a major determinant of customer satisfaction because price directly affects perceptions of value for money. The prices of the units at Circle Condominium are researched, both in purchase cost and maintenance fees, to establish whether residents believe they obtain value for money spent. This research will look further into the price associated with perceived satisfaction and whether the residents feel the price justifies the quality and service. (Armstrong, 2018)

- **Environmental Concern**

It might be defined as the degree of awareness and importance considered by an individual concerning sustainability practices, mainly in a residential community setting. However, as observed in consumer behavior nowadays, the concept has become more significant because consumers are increasingly seeking eco-friendly living spaces. Environmental concerns in Circle Condominium would relate to the management's infusing eco-friendly initiatives within the condominium, such as energy-saving systems, proper waste management, and greenery. It examines how these efforts influence resident satisfaction, particularly for residents who value the sustainability of their living environment. (Schultz, 2001)

- **Communication**

It is defined as the interaction between information provided and received by providers and consumers, respectively. This trusting, open, and information-providing communication develops trust and works toward increased transparency and better customer satisfaction. As Sainz de Baranda et al. (2019) assert, it is also confirmed that inflective communication increases satisfaction. In the context of this study, communication refers to how well the management communicates with residents in Circle Condominium regarding notifications about maintenance, implementation or changes in policy, and other community concerns. The current research explores whether clear and timely communication affects residents' satisfaction with living. (Sainz de Baranda et al., 2019)

Literature Review

- **Marketing Mix**

The marketing mix theory of Neil Borden, which was developed in 1953 and later refined by E. Jerome McCarthy, is among the basic frameworks within marketing management that combine various marketing components to achieve strategic objectives and meet customer needs effectively.

- **Price:** In the local real estate market in Phetchaburi, the price of Circle Condominium is competitively positioned considering unit size, floor level, and amenities. Accordingly, the developer allows different payment plans and financing to cope with buyers' different preferences and financial capabilities.
- **Location:** Since it is in Central Phetchaburi, Circle Condominium is strategically positioned to access important facilities such as shopping centers, schools, and public transport terminals. It has easy access by main roads and highways that enhance access and connectivity. The condominium also adopts digital marketing media and cooperation with real estate agents that facilitate an increase in the target audience and, therefore, can make Circle more known in the local market (Kotler, 2017).
- **Promotion:** It is a very important ingredient in the marketing mix and includes different activities such as advertising, personal selling, and public relations.

- **Service Quality**

Service quality theory, encapsulated in the SERVQUAL model, relies on five dimensions that shape customer perceptions of service quality. Parasuraman, Zeithaml, and Berry developed the SERVQUAL model in 1985. For a long period, this model is one of the models generally utilized for the measurement and assessment of service quality in studies of service marketing and management. It includes five dimensions: reliability, responsiveness, assurance, empathy, and tangibles, which offer a framework for appraisal and enhancement of service delivery based on the perceptions and expectations of customers. (Parasuraman, 1985)

- **Price**

Price refers to the monetary value assigned to a product or service, representing the amount that consumers are willing to pay in exchange for obtaining the offering (Kotler, 2020). In the context of real estate, price encompasses various factors, such as the cost of the property, associated fees, and financing options. Pricing decisions are influenced by market dynamics, competitive positioning, perceived value, and the financial considerations of both buyers and sellers.

- **Location**

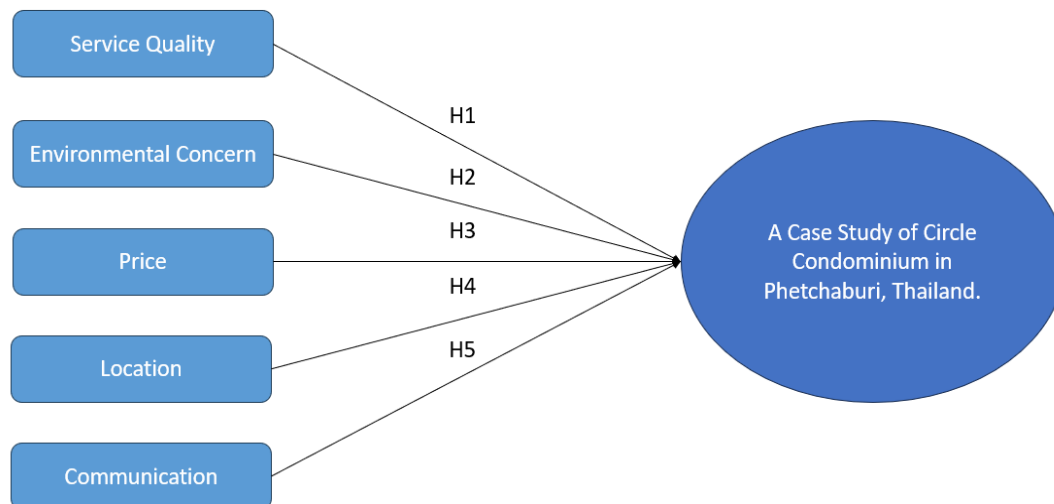
Location, in this context, will be understood to be "a place or position on the Earth's surface, being usually delineated by a set of coordinates, an address, or other identifying factors, and usually serving as a reference in a wider geographical context" (Merriam-Webster, n.d.).

- **Communication**

In the condominium research context, communication may be defined as "the exchange of information, ideas and messages between residents, management and stakeholders to foster effective collaboration, decision making and problem-solving with the condominium community". Sainz de Baranda et al. (2019, p. 205)

Conceptual Framework

The following conceptual framework illustrates the influence of key variables on customer satisfaction at Circle Condominium. The theoretical framework leans on the theories of SERVQUAL, Environmental Concern, Price-Value, Location, and Communication based on the following framework.

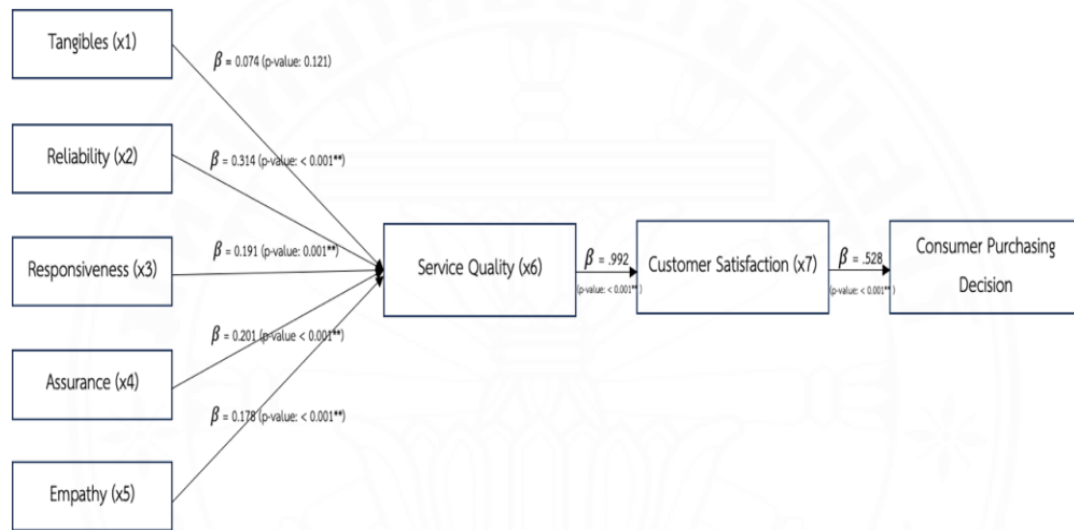

Research Hypothesis

- H₁:** Service Quality positively influences Customer Satisfaction.
H₂: Environmental Concern positively influences Customer Satisfaction.
H₃: Price positively influences Customer Satisfaction.
H₄: Location positively influences Customer Satisfaction.
H₅: Communication positively influences Customer Satisfaction.

Research Methodology

The main purpose of such a design is to measure variables such as the level of service quality, environmental concern, pricing, location, and communication. Data collection is using structured questionnaires targeting residents who have stayed in the condominium for a minimum of six months. The sample size and selection process will be representative, and analysis through descriptive and inferential statistics will explain the relations of the variables with insights.

This quantitative research tries to study each of the factors that affect customers' satisfaction at Circle Condominium, Phetchaburi, Thailand. In this article, the researcher has explored the main variables that may impact customer satisfaction, namely service quality, environmental concerns, price, location, and communication. In this research work, Cronbach's alpha, multiple linear regression, correlation analysis, and descriptive statistics were used to estimate the quantitative method. Data collection was done through a structured online survey with the help of Google Forms, with a sample size of 200 residents who have lived in this condominium for at least six months. The research instrument consists of a total of 17 questions divided into three parts: screening questions, demographic data, and variables related to customer satisfaction. A pilot test using 20 respondents was used to guarantee the reliability and clarity of the questionnaire. Cronbach's alpha was used in the initial step to test the internal consistency of the items, measuring whether the questionnaire reliably assessed the defined constructs (Bonett & Wright, 2015). The survey was designed to take 10–15 minutes to complete, maintaining respondents' interest and attention (Sharma, 2022).



Internal consistency of the survey items was checked through a reliability test conducted on data from an initial 20 respondents. The Cronbach's Alpha values for all variables were greater than the acceptable threshold ($\alpha > 0.7$), thus confirming the reliability of the measurement scales. Later, data from 200 respondents were analyzed. Descriptive statistics were computed to summarize the characteristics of the data, including means and standard deviations for each variable. Lastly, a multilinear regression analysis was performed to examine the effects of the independent variables: Service Quality, Environmental Concern, Price, Location, and Communication, on the dependent variable, Customer Satisfaction.

Hypothesis	Description	Statistical Technique
H1	Service Quality positively influences Customer Satisfaction.	Multilinear Regression
H2	Environmental Concern positively influences Customer Satisfaction.	
H3	Price positively influences Customer Satisfaction.	
H4	Location positively influences Customer Satisfaction.	Multilinear Regression
H5	Communication positively influences Customer Satisfaction.	

Results of the Study**Reliability Testing****The Value of Reliability Analysis of Variable (n = 200)**

Variable measurement items	Cronbach's Alpha	Strength of Association
Variable: Service Quality		
You are satisfied with the cleanliness of the common areas in the condominium.	0.769	Acceptable
I believe that my colleagues can be trusted to be productive when working remotely.		
Variable: Environmental Concern		
The condominium promotes eco-friendly practices (e.g., recycling, and energy-saving.)	0.772	Acceptable
The building management is concerned about reducing environmental impact.		
Variable: Price		
The monthly fees are reasonable for the services provided.	0.724	Acceptable
The cost of living in the condominium matches the quality of life.		
Variable: Communication		
The condominium management communicates effectively with residents.	0.749	Acceptable
Issues raised by residents are addressed promptly by management.		
Variable: Location		
The location of the condominium is convenient for daily needs (e.g., shopping, transportation)	0.802	Good
The neighborhood around the condominium feels safe.		
Dependent Variable (Customer Satisfaction)		
Overall, I am satisfied with my living experience at Circle Condominium.	0.737	Acceptable
I would recommend Circle Condominium to others.		

Descriptive Analysis of Demographic Data

- **Age**

Most respondents in this study are between the ages of 25 and 34, accounting for 60 of the total respondents (30%). The second largest proportion is aged 35– 44 years old, which accounted for 48 respondents or 24% of the total respondents. Thirdly, respondents aged between 45 and 54 years old are 46 respondents for 23%, and 18 between 24 are counted as 41 respondents for 20.5%. Lastly, 55 and above 2.5% were the 5 respondents, respectively.

- **Occupation**

The distribution of occupations among respondents from Circle Condominium is pretty much tilted toward working professionals. The largest group, which consists of 31.5% or 63 respondents, is that of employed people, reflecting the condominium's appeal to those seeking a stable residence near their workplace. The self-employed, 28.5% or 57 respondents, constitute the second biggest group. Those being focused on include freelancers, business people, and remote employees who love the facilities available in the condominium that permit a range of lifestyle possibilities and working schedules.

The unemployment rate is 21% or 42 respondents, which is quite high in comparison with other groups. It may be that a certain proportion of the residents are in between jobs or they might be in job-seeking, career transition, and similar short-term engagements. Another plausible explanation for such high unemployment could be related to their temporary living arrangements: given the option, an unemployed individual may choose to live in a condominium due to lesser commitment compared to owning a piece of property.

Students comprise a big chunk of the population, with 18.5% or 37 respondents. This is understandable because the condominium is close to several universities, so staying here would be an advantage for students. Among these notable universities are Phetchaburi Rajabhat University, Muban Chombueng Rajabhat University, and Sukhothai Thammathirat Open University, all accessible from Circle Condominium. The location of the condominium, in addition to the amenities offered therein like security, affordability, and modern living spaces, attracts students who prefer being independent and closer to their places of study. These attributes will probably attract students to the condo.

This indicates that retired people are a small percentage, 0.5%, which translates to 1 respondent; hence, it might not be so attractive for retired people because of the kind of lifestyle and facilities available that may suit young or working people.

This distribution outlines that a condominium is attractive for different types of residents, though working professionals and students dominate due to its proximity to universities and the facilities provided.

- **Duration of Residence**

The data indicates that the highest number of respondents, 46%, have been living in Circle Condominium for 1–2 years, which is the most common duration of residence. About 28% of respondents reported that they have been living in the condominium for 6 months to 1 year, which constitutes a fair number of newer residents. Meanwhile, the majority, or 26% of the respondents, have stayed in the condominium for over 2 years, meaning a minority of the tenants in this facility are long-term residents. The above distribution seems to indicate that condominium hosts people with medium stay lengths, and very few can keep their stay beyond two years.

- **Number of Co-Residents**

While most of the respondents represent small-scale households with 1-2 people living in their condominium units, about 43.5% gave the highest rank, whereas about 34.5% have households with 3-4 people; hence, this household unit type is quite a significant number. Quite unexpectedly, as many as 16.5% are single people, which makes it the third biggest group of single-person households. Only 5.5% of respondents live in big households, with five or more people. These reflect that the condominium has attracted a mix of household sizes, but it pays more attention to smaller living arrangements.

Demographic Factor	Frequency	Percent
<u>Age</u>		
18-24	41	20.5%
25-34	60	30%
35-44	48	24%
45-54	46	23%
55 & above	5	2.5%
Total	200	100%
<u>Occupation</u>		
Employed	63	31.5%
Retired	1	0.5%
Self-Employed	57	28.5%
Student	37	18.5%
Unemployed	42	21%
Total	200	100%
<u>Duration of Residence</u>		
1-2 years	92	46%
6 months to 1 year	56	28%
More than 2 years	52	26%
Total	200	100%
<u>Numbers of Co-Residence</u>		
0 (I live alone)	33	16.5%
1-2	87	43.5%
3-4	69	34.5%
5 or More	11	5.5%
Total	200	100%

Mean and Standard Deviation for Descriptive Analysis

The mean and standard deviation for each group variable were calculated using PSPP version 1.4.1 and Jamovi version 2.3.21.0 programs. The variables include Service Quality, Environmental Concern, Price, Location, and Communication. Table 5.3 depicts the interpretation of the mean scores derived from Sahandri (2013). Standard deviation refers to the dispersion of data in relation to the mean; a low standard deviation meant the data were clustered around the mean; in this study,

The value was close to zero. While the high standard deviation indicates that the data was more spread out, this study indicated a value that was greater than 1 (Dong et al., 2015). The summary of mean and standard deviation shows the following table:

Mean Score Interpretation

Mean Score	Mean Score Interpretation (levels)
1.00 – 2.33	Low Level
2.34 – 3.66	Moderate Level
3.67 – 5.00	High Level

Source: Sahandri et al. (2013).

Mean and Standard Deviation of Service Quality

The mean score of 3.33 showed that, on average, respondents are somewhat satisfied with the cleanliness of common areas in this condominium. It is interpreted to mean that satisfaction is at a fair level, leaning toward a tendency to agree but not up to a high satisfaction level. The standard deviation is 0.729, reflecting a relatively small variation of the responses given, thus meaning that most respondents share the same opinion about the cleanliness condition of the common areas. This consistency in data would suggest that, in general, the cleanliness of the condominium is acceptable, though there may be room for improvement.

A mean score of 3.22 indicates general satisfaction regarding the timeliness and effectiveness of the maintenance services provided, but once more it doesn't quite achieve strong satisfaction. This indicates that while people are generally content with the service provided within the complex regarding maintenance queries, certain areas might require attention to make the service even quicker or more efficient. The standard deviation of 0.731 again shows that the responses are relatively consistent, with little variation in how respondents view the quality of maintenance services. This would mean that the perception of the services is somewhat homogeneous, though some may still feel improvements are needed.

Variable	Mean	Std. Deviation	Interpretation
You are satisfied with the cleanliness of the common areas in the condominium.	3.33	0.729	Moderate
The maintenance services provided are timely and effective.	3.22	0.731	Moderate

Mean and Standard Deviation of Environment

A mean score of 3.63 suggests that most respondents perceived the condominium to promote eco-friendly practices; the average falls above the midpoint, reflecting "agree" on the Likert scale. This means a good perception of the eco-friendly initiatives taken up by the condominium. The standard deviation of 0.852 indicates moderate dispersion, meaning there is a fair deal of diversity in the response given by the respondents about eco-friendly practices. While most of the respondents may feel this, some of them may think that these are not as evident or functional as compared to the perception of other respondents.

The mean of 3.48 shows that there is a moderate level of agreement, which indicates that overall, respondents have perceived building management as generally concerned about reducing environmental impacts. This score is a little bit lower than the previous one, meaning that while the residents recognize the concern of the management, it is not so strong or as clear in action. The standard deviation of 0.814 indicates that there is an average spread in the responses with some respondents feeling more strongly about the efforts of management, while others may see them as inadequate or vague.

Variable	Mean	Std. Deviation	Interpretation
You are satisfied with the cleanliness of the common areas in the condominium.	3.33	0.729	Moderate
The maintenance services provided are timely and effective.	3.22	0.731	Moderate

Mean and Standard Deviation of Price

The mean score of 4.05 means that respondents generally agree to the fact that the cost of living in this condominium is justified by the quality of life they experience therein. This suggests that most of the residents feel the price they are paying has a reflection in value as pertains to the living experience. A relatively high mean score infers strong satisfaction with the balance between cost and quality. The standard deviation of 0.819 suggests a moderate variability in the responses, which means that while most respondents agree, there are some with differing views. Some may feel that the cost does not fully match the quality or that there could be areas where the value could be improved.

The mean score of 3.92 indicates that respondents generally view the monthly fees as reasonable for the services provided. This would suggest that, on average, the residents find the fees fair and in line with the level of service they get. This is, however, relatively lower than that of the first question, which indicates a generally fair deal but with room for improvement in residents' perception of value. A standard deviation of 0.918 indicates moderate variability; while most respondents believe the fees are reasonable, there is a level of diversity regarding how people consider the charges to be fair. Some may feel that in view of the service provided, the fees are too high, while others might think otherwise.

Variable	Mean	Std. Deviation	Interpretation
The cost of living in a condominium matches the quality of life.	4.05	0.819	Moderate
The maintenance services provided are timely and effective.	3.92	0.918	Moderate

Mean and Standard Deviation of Communication

The mean score of 3.77 indicates that respondents generally agree with the statement that the condominium management communicates effectively with the residents. That is, most residents think that the communication is clear and satisfactory since the average response leans toward "agree" on the Likert scale. This relatively high mean score indicates a positive overall perception of communication effectiveness. This shows an average standard deviation of 0.865, representing a relatively medium spread or variability in the response distribution; thus, while the greater part of the residents might think communication is effective, others could still feel it needs to be addressed.

Results indicated a mean score of 3.83, showing a generally positive agreement that management quickly acts upon issues raised by the residents. It represents a very high degree of satisfaction with the timeliness of management's responses to concerns and issues. The relatively high means indicate that residents consider management to be responsive to their needs. This is further supported by the moderate dispersion characteristic of a standard deviation score of 0.803, meaning that most have responded well to the speed, though some may not believe their problems are solved in time.

Variable	Mean	Std. Deviation	Interpretation
The cost of living in a condominium matches the quality of life.	3.77	0.865	Moderate
The maintenance services provided are timely and effective.	3.83	0.803	Moderate

Mean and Standard Deviation of Location

A mean of 3.63 shows that respondents generally agree with the fact that the location of the condo is convenient enough to meet their day-to-day needs. Essentially, this means most of the residents feel that the condominium is in an area where one can easily reach other essential services such as grocery stores, schools, and public transportation. The relatively high mean score reflects a favorable perception of the location's practicality. A standard deviation of 0.925 demonstrates a moderate dispersion of the responses. In this case, many of the respondents find the location convenient, though there is some deviation from the means to indicate that some of the respondents felt the location could be more accessible or centric for their needs.

The average score of 4.01 suggests that the respondents generally feel the neighborhood around the condominium is safe. This implies a very high level of agreement that safety in the neighborhood is one of the positive sides of living. The relatively high mean score reflects strong satisfaction with safety in the neighborhood. The standard deviation of 0.938 suggests that while most respondents feel safe in the neighborhood, there is some level of variability in responses. A small number of respondents may have safety concerns, but overall, the perception is quite positive.

Variable	Mean	Std. Deviation	Interpretation
The location of the condominium is convenient for daily needs.	3.63	0.925	Moderate
The neighborhood around the condominium feels safe.	4.01	0.938	Moderate

Hypothesis Testing Results

Using JAMOV version 2.5, the MLR analysis of the influence of independent variables such as service quality, environment, price, location, and communication on the dependent variable of customer satisfaction was done in this study.

R-squared values were used to determine the proportion of variance in customer satisfaction, which was explained by the independent variables. The variance Inflation Factor was computed to check for multicollinearity among the independent variables. A VIF value of more than 5 shows high multicollinearity, meaning that the independent variables are highly correlated; this may affect the reliability of the regression results (James et al., 2013).

The following are some of the statistics that were considered for each predictor variable in the regression analysis:

- **B:** The unstandardized coefficient, which is the raw coefficient showing how much the dependent variable is, is the customer satisfaction expected to change with a one-unit increase in the independent variable.
- **SE B:** The standard error of the unstandardized Beta, indicating the amount of variation existing in the B estimate
- **t:** This represents the t-statistic, which indicates whether the independent variable significantly predicts the dependent variable. The larger the t-value, the larger the significance.
- **Sig.:** The p-value will indicate if the relationship between the independent and dependent variables is significant, using the standard of $p < 0.05$.
- **VIF:** This stands for Variance Inflation Factor, which is a multicollinearity measure; if the VIF is greater than 5, it means high multicollinearity and careful interpretation is needed.

Multiple Linear Regression (MLR) Analysis - Statistical Hypothesis

To examine the relationship between the independent variables (Service Quality, Environment, Price, Location, and Communication) and the dependent variable, **Customer Satisfaction**, a Multiple Linear Regression (MLR) analysis was conducted. The following hypotheses were tested:

Research Hypotheses

- H₁:** There is a significant relationship between Service Quality and Customer Satisfaction.
- H₂:** There is a significant relationship between Environment and Customer Satisfaction.
- H₃:** There is a significant relationship between Price and Customer Satisfaction.
- H₄:** There is a significant relationship between Location and Customer Satisfaction.
- H₅:** There is a significant relationship between Communication and Customer Satisfaction.

The Result of Multiple Linear Regression

The following are the estimates, standard errors, t-values, p-values, and confidence intervals for each predictor from the results of the regression analysis.

Multilinear Regression Coefficients for Predicting Customer Satisfaction

Predictor	B (Estimate)	SE (Standard Error)	Beta (Standardized)	t- value	p- value	95% C (Lower Upper)
Intercept	2.1260	0.4107	-	5.177	< 0.001	(1.3160 2.9359)
Service Quality	0.1926	0.0632	0.2123	3.048	0.003	(0.0749; 0.3497)
Environment	0.1107	0.0568	0.1362	1.948	0.053	(-0.0013 0.2742)
Price	-0.0381	0.0546	-0.0471	-0.697	0.486	(-0.1803 0.0861)
Location	0.1184	0.0487	0.1655	2.430	0.016	(0.0311; 0.2998)
Communication	0.0356	0.0519	0.0463	0.686	0.493	(-0.0868 0.1795)

Interpretation of Hypothesis Tests

- **Service Quality (H₁)**

There exists a positive relationship between service quality and customer satisfaction, as the regression coefficient is 0.1926, which is significant at the 0.003 level. Hence, H₀ has to be rejected since the impact of service quality on customer satisfaction has been proved to be significant. The key elements considered in this regard include cleanliness, timely maintenance, and professionalism in management.

- **Environment (H₂)**

The relationship between Environment and Customer Satisfaction is borderline significant: B = 0.1107, p = 0.053. Keeping in mind that the p-value is a bit above 0.05, it still denotes an informative trend to significance. Environmental undertakings of waste management, energy efficiency, and green spaces appeal to the residents with an interest in sustainability. In this respect, environment is viewed to be practically significant in the framework of this research.

- **Price (H₃)**

Price was inversely related to Customer Satisfaction but was insignificant, with a p-value of 0.486 and B = -0.0381. Therefore, the null hypothesis cannot be rejected, which would indicate that price is an insignificant variable in this model. The residents might view the cost as reasonable, considering the benefits they gain from the facilities provided in the condominium.

- **Location (H₄)**

There is a significant positive relationship between Location and Customer Satisfaction, with a beta of 0.1184 and a p-value of 0.016. The null hypothesis, H₀, is rejected, indicating that proximity to public transport, shopping centers, and schools, coupled with a safe and accessible neighborhood, significantly influences Customer Satisfaction.

- **Communication (H₅)**

Communication was positively related to Customer Satisfaction but was not statistically significant (B = 0.0356, p = 0.493). The null hypothesis cannot be rejected; therefore, the effect of Communication on Customer Satisfaction is not substantial in this model. In this model, residents may consider other factors more important than communication when evaluating their overall satisfaction.

Summary of Statistical Results

- **Significant Predictors**
 - Service Quality ($p = 0.003$)
 - Location ($p = 0.016$)
 - Environment ($p = 0.053$, marginally significant)
- **Non-significant Predictors**
 - Price ($p = 0.486$)
 - Communication ($p = 0.493$)

Discussion and Conclusion

Summary of the Study

Based on such analysis of these results, it can be shown that Service Quality and Location are significantly and positively related to Customer Satisfaction since residents' satisfaction level is increased when condominium management has excellent service quality and strategic convenience of the location.

Summary of Hypothesis Testing Results

Hypothesis	p-value	Decision
H1: Service Quality positively influences Customer Satisfaction	0.003	Supported: Strong positive relationship
H2: Environmental Concern positively influences Customer Satisfaction	0.053	Borderline: Weak but positive relationship
H3: Price positively influences Customer Satisfaction	0.486	Not supported: No significant relationship
H4: Location positively influences Customer Satisfaction	0.016	Supported: Significant positive relationship
H5: Communication positively influences Customer Satisfaction	0.493	Not supported: Insignificant relationship

Service Quality, with the highest predictive power, was thus significant at $p = 0.003$, hence vital in influencing resident satisfaction. The Environmental Concern variable was associated, with a $p = 0.053$, pointing out possible opportunities for improvement in friendly practices to the environment. The price had no significant effect on satisfaction, with a p-value of 0.486, and similarly, in communication, the p-value was 0.493. This calls for the condominium management to re-strategize these areas.

Strengths of Influence Factors

The relative importance of the independent variables was checked using standardized coefficients or Beta values from the regression model, which reflects the influence of each variable on Customer Satisfaction while controlling other variables.

Dependent Variable: Customer Satisfaction	Rank	Independent Variable	Standardized Coefficient (Beta)
	1	Service Quality	0.2123
	2	Location	0.1655
	3	Environmental Concern	0.1362
	4	Communication	0.0463
	5	Price	-0.0471

The standardized Beta coefficients, derived from the regression model, showed that Service Quality, with the highest Beta value of 0.2123, was the most potent determinant, implying that improvement in service quality is most strongly associated with higher levels of customer satisfaction. Location followed closely with a Beta of 0.1655, reflecting proximity to amenities and a safe environment as important to residents.

Considering Beta from the factors, Environmental Concern had a value of 0.1362, suggesting this variable slightly affected customer satisfaction. Therefore, it reflected a belief by residents that an eco-friendly practice was valued but most likely secondary in priority, compared with other factors of service and location.

In contrast, the impacts of Communication and Price were rather weak at Beta = 0.0463 and Beta = -0.0471, respectively. In any case, the p-value for price is 0.486, which suggests that this variable is not significant in predicting customer satisfaction. On one hand, the negative relationship with price may imply that a higher cost cuts the perceived value, though this relationship is not strong enough to be conclusive in this context.

Discussion and Conclusion

This section discusses the findings, highlighting how each of the variables affects Customer Satisfaction and concluding the objectives of the study.

Service Quality and Customer Satisfaction

The positive and significant relationship between Service Quality and Customer Satisfaction supports previous studies emphasizing the importance of reliable, responsive, and empathetic services in a residential setting. The beta value of 0.2123 specifies that the contribution of the Service Quality variable on customers' satisfaction is important at a moderate level. The associated p-value is 0.003, which shows that this particular relationship is statistically significant for the 95% confidence level.

Environmental Concern and Customer Satisfaction

Considering all the variables, it seems that amongst them, environmental concern presented a positive relation to satisfaction, although it was small. The Beta is small at 0.1362, while p was significant only just over the 0.05 considered limit ($p=0.053$). This implies that though environmental initiatives, such as waste management, energy efficiency, and green spaces, are valued by the residents, these aspects do not strongly raise overall satisfaction. The confidence interval for Environmental Concern is -0.00137 to 0.2742, which shows that with further efforts or stronger environmental practices, this might be a more significant driver of satisfaction. Management could integrate sustainability initiatives into an overall strategy for improving satisfaction.

Price and Customer Satisfaction

The result reveals that the price does not significantly affect Customer Satisfaction as the beta value is -0.0471 with a p-value of 0.486, showing no statistical relationship at all. This can also be a negative value due to the fact that, while some may be very sensitive to price, on the other hand, residents would consider it reasonable considering services provided against the price. Since the confidence interval for price (-0.18039 to 0.0861) crosses zero, it is further supported by the fact that price is not a big determinant of satisfaction.

Locational and Customer Satisfaction

Location was one of the strongest predictors of customer satisfaction. With a beta value of 0.1655 and a p-value of 0.016, the relationship of Location with Customer Satisfaction is statistically significant at a 95% confidence level, indicating that proximity to amenities like shopping centers, public transport, and

safe neighborhoods is really desirable for residents. It is expected that such influences from the location are strong enough not to be rejected out of confidence, with the latter ranging from 0.03119 to 0.2998.

Communication and Customer Satisfaction

Communication had little significance on Customer Satisfaction. In fact, with a beta of 0.0463 and a p-value of 0.493, this study does not recognize it as a very strong predictor of satisfaction. The confidence interval for communication (-0.08680 to 0.1795) also includes zero, confirming that the role of communication in shaping customer satisfaction is not substantial in this context. While residents appreciate general communication, other factors like service quality and location seem to be more important.

Recommendations

Based on the analysis of the factors that affect customer satisfaction in the condominium, the following recommendations are made:

- **Improvement in Service Quality:** The most influential driver of customer satisfaction is that of service quality. Management should invest more in training programs, institute resident feedback mechanisms at regular intervals, and define strict standards pertaining to cleanliness, maintenance, and resident services. This shall maintain the satisfaction of the residents, witnessing higher levels due to the reception of very good service always being experienced.
- **Increase Environmental Initiatives:** Though environmental concern does have a moderate influence on satisfaction, some sustainable practices could be implemented to cater to the eco-conscious resident segment. The waste reduction program, energy-saving measures, and the creation of green spaces are initiatives that prove that the condominium is keen on being "green" without burdening the residents and increasing costs.
- **Improve Communication:** While communication is not a key driver of satisfaction, it is still an area that holds much importance in the resolution of issues in a timely manner. Management should work on improving communication based on resident feedback through digital platforms or periodic town hall meetings where concerns are addressed, maintenance schedules updated, and important information shared.
- **Focus on Value Addition, Not Price Changes:** Price was found to be less affecting satisfaction. Thus, management should focus on the creation of value for the residents, such as by adding more amenities, personalized services, or enhancing the living experience in general. Satisfaction would increase by enhancing the perceived value without changing the prices.

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THE ROLE OF YOGA IN SUSTAINABLE PRACTICE IN THE CURRENT GLOBAL SITUATION

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ABSTRACT

*Yoga promotes a thoughtful, holistic approach to inscribe the sustainability in current global challenges. According to Gro Harlem Brundtland, sustainability is stated as "Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs". Yoga encourages us to be fully conscious, connecting our breath, body, and mind, while sustainable living emphasizes conscious awareness of our actions and their impact on the inward and outward environment. The eight limbs of yoga also known as Patanjali's Ashtanga yoga, facilitates spiritual and physical growth of an individual as well as the surrounding dimensions. Out of eight limbs of Yoga, **Niyama** (positive duties) alone can bring about a significant difference in the person's socio- economic and environmental dimensions. If we can observe Niyama alone, we can lead us to a sustainable world or society.*

KEYWORDS: Sustainability, Ashtanga Yoga, Niyama.

Introduction

Yoga is a spectacularly multifaceted phenomenon. Yoga works on all aspects of the person the physical, vital, mental, emotional, psychic and spiritual. Yoga is the science of right living and as such is intended to be incorporated in daily life. The term 'Yoga' is derived from Sanskrit root 'Yuj', it means to unite or to control or to be whole. It is also described as '*Yujyate anena iti Yogah*'- it means yoga is that which joins. In the traditional terminology it is joining of the individual self with the universal self. It is an expansion of the narrow constricted egoistic personality to an all pervasive, eternal and blissful state of reality. It is also a discipline which balances and unites mind, body and spirit and creates union with everything. Yoga is one of the six classic systems of Hindu philosophy. One of the great Seers, Sage Patañjali, compiled the essential features and principles of Yoga in the form of 'Sūtras' (aphorisms) and made a vital contribution in the field of yoga, nearly 4000 years ago.

Sage *Patanjali*, define yoga as '*Yogaś citta vṛtti nirodhaḥ*' (Yoga Sūtra: 1.2). Yoga is a process of gaining control over the mind by cessation of the modification of mind, one can reach the original state- '*tada drashtuh swarupe avasthanam*'. Then the seer establishes himself in his original state. This technique of 'mind control' prescribed by Patanjali, has the tool to develop the power of concentration and focusing of mind with increase speed of thoughts.

In *Yoga- Vāsiṣṭha* one of the best texts on Yoga, the essence of Yoga is beautifully portrayed thus, '*manaḥ praśamanopāyaḥ Yoga ityabhidhīyate*' – Yoga is called a skillful trick to calm down the mind.

According to *Swami Vivekananda*, yoga is a conscious process to accelerate the evolution to single life, a few years or just a few days by controlling the behavior the internally as well as externally, this state can be achieved by following work or karma yoga, by worship or Bhakti yoga, by knowledge or Jnana yoga and by psychic control or Raja yoga.

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In *Bhagavad-Gita*, there are two widely recognized definitions of yoga. First is

“Yogastha kuru karmāṇi saṅgaṁ tyaktva dhanañjaya
siddhyasiddhyo samo bhūtvā samatvaṁ Yoga ucyate. (Gita 2.48).

Yoga, renouncing attachments and staying even minded in successes or failures. It integrates the personality by bringing body-mind coordination in a well-balanced way.

Second is ‘*Yogaḥ karmasu kauśalam*’ (Gita 2.50). Yoga is a special skill which makes the mind reach its subtler state. It is process or a technique to reach the ultimate state of perfection.

Yoga is a systematic and conscious practice, purposed to elevate an individual to higher levels of spiritual realization and ultimately achieve divinity. It is an organizational skills approach to holistic personality development, encompassing physical, mental, intellectual, emotional, and spiritual aspects. Yoga is a for self-transformation, achieved through the calming and focusing of the mind. For sublimation of all mental modifications in the mind Sage Patanjali enumerate Ashtanga yoga or often called as eight-fold path of yoga, it comprises of **Yama** (self-restraint), **Niyama** (self-observance), **Asana** (physical posture), **Pranayama** (regulated nostril breathing), **Pratyahara** (in drawing mind away from perceptible external sensory stimuli), **Dharana** (concentration), **Dhyana** (meditation), and finally to attain a state of **Samadhi** (identification with pure consciousness).

Sustainability is the pursuit of a harmonious relationship between human activities and the environment to ensure the well-being of present and future generations. It involves striking a balancing between economic growth, environmental conservation and social equity. Sustainability strive to create a harmonious association between human activities and the environment. ensuring the well-being of both current and future generations. It emphasizes on integrating economic growth, environmental preservation and social equity. Sustainable practices focus on preserving natural resources, minimizing pollution, and enhancing ecosystem resilience while supporting inclusive growth and promoting social equity.

Sustainability encompasses beyond environmental, economic, and social dimensions to include personal well-being, it emphasizing the importance of harmonizing the body, mind, and emotions. This holistic approach recognizes that our inner balance significantly influences our ability to live sustainably and contribute positively to the world.

Impact of Niyama in Sustainability

In ancient time, the path of yoga was followed for liberation. In the past few decades, yoga has been studied regardless of age. Yoga has been extensively studied and practiced by people of all ages, demonstrating its universal relevance and appeal. It suggests that yoga is not limited to a specific age group but has gained recognition as a valuable practice for everyone, regardless of their stage in life. Several studies reports increasing use of yoga for balancing and harmonizing the body, mind and emotions.

Patanjali's **Ashtanga Yoga** (Eight Limbs of Yoga) provides a profound framework for harmonizing the body, mind, and emotions, which aligns closely with the principles of sustainability. By cultivating inner balance, clarity, and conscious living, the Ashtanga system complements sustainable practices both internally and externally.

Niyama are an important tool for self-realization as they are a code of conduct for personal purification. The following are the five niyamas-

शौचसंतोषतपःस्वाध्यायेश्वरप्रणिधानानि नियमाः ॥PYS.32॥

Shaucha (Cleanliness): सत्त्वशुद्धिसौमनस्यैकाग्र्येन्द्रियजयात्मदर्शनयोग्यत्वानि च ॥PYS. 41॥

Shaucha emphasizes both physical and mental purity, recognizing that cleanliness fosters clarity and positivity.

- **Physical Cleanliness:** Maintaining hygiene and tidiness in our surrounding reduces disease and promotes well-being.
- **Mental Cleanliness:** Purifying the mind from negative emotions like anger, jealousy, and greed creates space for cheerfulness, concentration, and self-control.
- **Connection to the Environment:** By valuing cleanliness, we contribute to a healthier society and environment. Proper waste management, avoiding pollution, and keeping public spaces clean are extensions of practicing Shaucha in daily life.

Santosha (Contentment): संतोषादनुत्तमसुखलाभः॥PYS.42॥

Santosha is the practice of finding joy and satisfaction with what we have, fostering an attitude of gratitude.

- **Happiness in Simplicity:** Contentment leads to peace of mind and unexcelled happiness that doesn't rely on material possessions.
- **Minimalist Lifestyle:** By embracing contentment, one learns to live with fewer resources, which minimizes wastage and helps conserve nature's resources for future generations.
- **Impact on Sustainability:** A content individual is less likely to overconsume, leading to sustainable habits and a reduction in ecological footprints.

Tapah (Austerity): कायेन्द्रियसिद्धिरशुद्धिक्षयात्तपसः ॥PYS.43

Tapah refers to self-discipline and commitment, often through practicing austerity and simplicity.

- **Purification:** Engaging in disciplined actions like regular exercise, healthy eating, and meditation removes physical and mental impurities.
- **Mastery of Senses:** Practicing austerity helps in self-control, enabling one to resist overindulgence and stay true to sustainable goals.
- **Sustainability Connection:** A simple and austere lifestyle naturally aligns with conserving resources and adopting a mindful approach to consumption.

Swadhyaya (Self-study): स्वाध्यायादिष्टदेवतासम्प्रयोगः ॥PYS.44॥

Swadhyaya involves the study of oneself through introspection, self-reflection, and gaining knowledge.

- **Self-awareness:** By examining thoughts, actions, and patterns, one gains clarity about personal strengths and weaknesses.
- **Improved Decision-Making:** Self-awareness enhances the ability to make thoughtful and responsible choices that benefit society and the environment.
- **Community Engagement:** Understanding oneself fosters empathy, improving relationships with others and promoting harmony within communities.

Ishwar Pranidhana (Surrender): समाधिसिद्धिरीश्वरप्रणिधानात् ॥ PYS.45 ॥

Ishwar Pranidhana signifies surrendering oneself to a higher power or the divine, cultivating trust and humility.

- **Divine Connection:** Surrendering individual egos allows one to recognize the divine presence within and around, fostering unity with all forms of life.
- **Harmony with Nature:** This sense of oneness with the divine reminds us of our responsibility to care for and respect our surroundings, reducing harm to the environment.
- **Tranquility:** Complete surrender brings peace of mind and helps align actions with a higher purpose, leading to more sustainable and compassionate living.

These principles from the Niyamas are not just spiritual guidelines but practical tools for creating a balanced and sustainable way of living. They teach us to care for ourselves and our surroundings, embrace simplicity, and recognize our connection to the greater whole. Through their practice, we cultivate a harmonious life that benefits both humanity and the planet.

Sustainability involves not only caring for the environment and society but also achieving harmony within ourselves. Aligning the body, mind, and emotions nurtures personal well-being, which strengthens our ability to make sustainable choices and positively impact the world.

Yoga and sustainability both are reciprocal to each other as both focuses on balance, harmony, and responsible living. Yoga emphasizes self-awareness and growth, which are essential for promoting sustainable behavior. By aligning the physical, mental, and spiritual aspects of a person, yoga nurtures a mindset of mindfulness and responsibility qualities needed to make conscious choices for sustainable living.

A calm and focused mind, cultivated through yoga, enhances the ability to prioritize long-term goals like sustainability, over short-term gains like luxury. This mental clarity supports thoughtful decision-making to reduce waste, conserve resources.

Yoga guides us to the unity of all beings, emphasizing that individual well-being is interconnected with the welfare of the planet and society. This brings to the core principle of sustainability and help in maintaining balance between humans and the nature. The practice of yoga helps individuals to develop, strengthen, adapt, and self-discipline. These qualities are vital for navigating the challenges of sustainable living and inspiring others to adopt mindful, eco-friendly practices. By integrating yoga into daily life, individuals not only enhance their inner harmony but also cultivate the mindset and habits needed to live sustainably, contributing to the well-being of both humanity and the planet.

Discussion

Niyama play a vital role in minimizing global warming and promoting sustainability. The principles of Niyama, provide a holistic framework for personal development that aligns with global efforts to address climate change and nurture sustainability. The adoption of these principles at both individual and collective levels can significantly contribute to minimizing global warming.

Shaucha emphasizes the importance of purity and cleanliness, both internally and externally. e.g. practicing shaucha encourages responsible waste disposal, reduction of single-use plastics, and proper recycling. By maintaining clean habits and advocating for public cleanliness initiatives, individuals can reduce land and water pollution, directly benefiting ecosystems and combating global warming.

Santosha cultivates a sense of gratitude and satisfaction with what one has, leading to reduced material consumption. e.g. content individuals are more likely to adopt minimalistic lifestyles, avoiding overconsumption of goods and energy. This reduces the demand for resource-intensive industries, such as fast fashion and unsustainable agriculture, helping mitigate climate change.

Tapah promotes self-discipline and voluntary simplicity, encouraging individuals to avoid unnecessary luxury or excess. e.g. a person practicing tapah may choose energy-efficient appliances, limit excessive use of heating or cooling systems, or reduce dependency on fossil-fuel-based transport by walking or cycling. Such practices lower energy consumption and reduce greenhouse gas emissions, directly combating global warming and supporting sustainable living.

Swadhyaya involves introspection and gaining knowledge, helping individuals understand their role in the broader context of global sustainability. e.g. through self-reflection and education, individuals can recognize the environmental impact of their actions, such as the carbon footprint of their diet, and shift toward plant-based or locally sourced foods.

Ishwar Pranidhana fosters humility and a sense of connection with nature and all living beings, promoting stewardship of the Earth. e.g. viewing the natural world as sacred inspires efforts to protect biodiversity, conserve water, and prevent deforestation. It encourages the adoption of eco-friendly practices and advocacy for environmental policies, contributing to the collective fight against global warming.

Conclusion

Yoga is a systematic and conscious practice designed to elevate an individual from basic instincts to higher levels of spiritual realization and ultimately achieve divinity. It offers a structured approach to holistic personality development, encompassing physical, mental, intellectual, emotional, and spiritual aspects. The application of Niyamas to modern challenges offers a unique and holistic approach to sustainability. By developing individual responsibility, self-discipline, and environmental consciousness, developed collective efforts to combat global warming. Integrating the philosophy of Niyamas into daily practices and policy-making can create a synergistic path toward a more sustainable and harmonious planet.

Niyamas aim to calm the mind by sensible actions and sensible attitudes towards oneself, towards one's life and towards one's surrounding. Niyama and sustainable living share a profound connection, as they both share emphasis on awareness and mindfulness. Both seek to cultivate harmony within ourselves and the world around us. Niyama makes us more environmentally conscious in our choices thus promoting more balance, greener and sustainable environment.

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A STUDY ON PERFORMANCE EVALUATION OF AU & UJJIVAN SMALL FINANCE BANKS

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ABSTRACT

India is a developing country and poor people are unaware of saving their money in the proper channel. So for the economic growth of any country it is essential to save money in proper channel. Banks play a vital role for the development of financial system of any country. It is necessary to assess regularly the financial performance of banks. In Indian banking system small finance banks are an initiative taken by RBI to promote fundamental banking functions such as deposits and lending. Small Finance banks are registered as public limited companies under Companies Act, 2013. The objective of small finance banks are to provide access to bank credit and services to unserved section including small business units, farmers and small industries etc. The purpose of the current research work is to evaluate the financial performance of small finance banks. For this purpose two small finance banks were chosen AU small finance bank and Ujjivan small finance bank. In this study ratio analysis technique will be used. This research paper will also compare the liquidity, and profitability ratios of these two small finance banks. This research paper enlightens the contribution of small finance banks towards financial inclusion of India.

KEYWORDS: Small Finance Banks, Financial Inclusion, Performance Analysis, AU, Ujjivan.

Introduction

India is a developing country and financial strength is necessary for the economic development. This can be achieved through financial inclusion. Financial inclusion is the process of making financial services accessible and affordable to all unprivileged and under privileged group. These groups are unaware of saving their money in the proper channel. So for the economic growth of any country, it is essential to save money in proper channel. Banks play a vital role for the development of financial system of any country. It is necessary to assess regularly the financial performance of banks. The government of India and RBI took many initiatives for strengthening the financial services and small finance banks are one of them.

In Indian banking system small finance banks were emerged in 1996 in the private sector. In 2013, Nachiket Mor Committee gave the idea of differentiated bank licensing to fill the gap in providing financial services to unprivileged sector. Then in 2015 an initiative taken by RBI to promote fundamental banking functions such as deposits and lending and Small Finance banks are registered as public limited companies under Companies Act, 2013. RBI had provided license to 10 institutions to perform as small finance banks and there are: Ujjivan SFB, Jana SFB, Equitas SFB, AU SFB, Capital SFB, Fincare SFB, ESAF SFB, North East SFB, Suryoday SFB, Utkarsh SFB.

Small finance banks are same with other commercial banks and perform the same functions which commercial banks perform. These banks are considered as niche banks. The objective of small finance banks are to provide access to bank credit and services to unserved section including small business units,

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farmers and small industries etc. and to provide financial inclusion to economy. The basic functions of these banks are to accept deposits from public and provide loan facility to the needy persons as well as distribution of units of mutual funds, different products of insurance etc. A small finance bank can get the status of scheduled bank if it fulfills all the compliances of RBI Act 1934 Sec 42(6)(a).

Small finance banks have to follow the rules and guidelines provided by the RBI and the government of India. The purpose of the current research work is to evaluate the financial performance of small finance banks. For this purpose two small finance banks were chosen AU small finance bank and Ujjivan small finance bank. In this study ratio analysis technique will be used. In the present study, an attempt is made to compare the liquidity and profitability ratios of these two small finance banks. This research paper enlightens the contribution of small finance banks towards financial inclusion of India.

Objectives of the Study

This research paper is based on secondary sources such as research article and web sites. The following objectives are taken for the purpose of study:

- To evaluate the financial performance of AU Small Finance Bank through liquidity and profitability ratio.
- To study the financial performance of Ujjivan Small Finance Bank through liquidity, and profitability ratio.
- To compare and interpret the contribution of AU and Ujjivan Small finance bank.
- To enlighten the contribution of small finance banks towards financial inclusion of India.

Research Methodology

This research paper is based on qualitative research methodology to evaluate the financial performance of AU small finance bank and Ujjivan small finance bank. This research design is descriptive research design. This study is based on secondary source such as review of existing literature, journals, research articles and government reports, annual reports & official websites. The present study also acknowledges the contribution of small finance banks towards financial inclusion of India. An effort is made to compare and interpret the contribution of AU and Ujjivan small finance bank through ratio analysis technique. In this study liquidity ratios and profitability ratios will be taken. This study is based on data collected during the four year period from FY 2020-21 to FY 2023-24.

Literature Review

Monica Nirolia, Dr. Monika (2024), discussed the performance of small finance banks in India. In this study, four small finance banks were selected as AU SFB, Equitas SFB, Suryoday SFB and Ujjivan SFB. This study presented that the competition between these banks were very high but AU bank and Ujjivan banks performs better as compare to other two banks and these banks maintained their ratio as per RBI norms. This study has used ratio analysis techniques for analyzing financial performance of small finance banks.

Abilash KM, Dr. C. Panneerselvam (2023), presented the performance of EASF in small finance banking sector and its contribution towards financial inclusion in India. In this study, they evaluated the quantitative, financial and operational performance of ESAF small finance bank. This study focused the contribution of ESAF for the welfare of people of the nation and government initiatives towards financial literacy. This study is based on ESAF products and services.

Pritha Chaturvedi (2022), analysed the grant of licenses to eleven payments banks and ten small finance banks and also focused the implication of financial inclusion for making a high-priority sector which were unbanked or under banked. In this study they also mentioned about the role of small finance banks towards rural and urban poor as well as unbanked persons. This study also investigated the principles used by RBI to license the small finance banks and challenges by different group of small finance bank stakeholders.

Shama and Gurunathan (2022), focused that small finance banks play an important role in Indian financial system as they provide financial services to minor agriculturalists, small business, trivial businesses, and small farmers. They also discussed the contribution of these banks towards country's economic growth by serving the majority of the country's population. This study aims to assess the credit risk associated with small scale banks.

Sasidharan (2021), discussed that ESAF is a small finance bank that performs basic financial services such as deposits and loans. This study is based on Kerala region. ESAF small finance bank and

its differences from other commercial banks were also mentioned. This study also provided the great learning of small finance company and customer technology for ESAF bank and role of SFB in financial inclusion of our country.

Srikanth (2021), emphasized the role of small finance banks in financial inclusion through maintaining successful portfolios. This study also focused the significant impact of banking system on economic growth and economic development. This study also discussed that small finance banks are the right vehicles to achieve digital and financial inclusion and financial services can be provided to the majority of rural and semi-urban areas. According to the study, the majority of small finance banks have been moving in the right direction in terms of creating value for their respective stakeholders since their inception.

Gupta (2021), analyzed an overview of services obtained by small finance banks in India. This study has also focused the role of small finance banks in Indian banking system. The basic objective of this study to understand the concept of small business offered by small finance banks and its prospects in India. This study also discussed the challenges of small finance banks and concluded that in order to create different banks, these new banks also need to develop their business models.

Contribution of Small Finance Banks in Financial Inclusion

• **AU Small Finance Bank**

This bank was founded as vehicle finance company in 1996 at Jaipur by a Chartered Accountant Mr. Sanjay Agarwal. It was converted to a small finance bank on 19th April 2017. This bank performs all functions such as loans, deposits and payment products and services. This bank provides various types of loans such as vehicle loans, housing loans and business loans to customers. This bank mainly focuses on the customer's needs. AU has 2408 branches in 21 states and 4 union territories in India. This bank is listed on NSE & BSE. In 2021 AU SFB became the largest small finance bank of the country and evolved its positioning from "Chalo Aage Badhein" to "Badlaav Humse Hai". This bank transformed the lives of people and contributed to the development of economy by embracing technology, driving financial inclusion and building strong customer relationships.

• **Ujjivan Small Finance Bank**

Ujjivan small finance bank limited is a focused bank in India, which provide financial services to unserved and under-served segments and build financial and digital inclusion in the country. This bank has started as NBFC in 2005 with the mission to provide a full range of financial services to those people who were not adequately served by financial institution. This bank commenced its operation on the grant of license from RBI on 1st February 2017. As a mass market bank, this bank offer personalised customer experience to customers. Ujjivan SFB has 753 branches in 26 states. In the year 2019 this bank has best IPO in the financial service sector with 170 times of oversubscription in last four years across the banking and financial services sector. This bank creates sustainable social impact through community development and financial literacy. This bank provides internet banking, mobile application, tablet based origination and phone banking services.

Contribution of Small Finance Banks in Financial Inclusion

The main objectives for introduction of small finance bank is to provide basic financial services to unprivileged and under privileged person who are unaware of loan and deposit facilities. An efforts are taken in this study to know the contribution of small finance banks in financial inclusion. In this study two small finance banks are taken AU SFB and Ujjivan SFB. These banks are compared on the basis of liquidity and profitability ratios and mean value of the ratios.

Table 1: Liquidity Ratios of AU Small Finance Bank & Ujjivan Small Finance Bank

Years	Current Ratio		Quick Ratio	
	AU Small Finance Bank	Ujjivan Small Finance Bank	AU Small Finance Bank	Ujjivan Small Finance Bank
2020-21	0.39	0.66	16.07	21.47
2021-22	0.38	0.98	16.63	25.09
2022-23	0.44	0.81	19.27	26.22
2023-24	0.45	0.69	18.96	25.70
Mean	.42	.79	17.73	24.62

Interpretation

Current ratio measures an ability to pay off its short term liabilities with its short term assets. Quick ratio measures an ability to quickly convert liquid assets into cash to pay for its short term debts. In this study current ratio and quick ratio of four years are analysed and it was found that the mean of current ratio of AU small finance bank is .42 and Ujjivansmall finance bank is .79. The mean of quick ratio of AU small finance bank is 17.73 and Ujjivansmall finance bank is 24.62. While comparing the liquidity ratios of these two banks Ujjivan Small finance bank has maintained a good current ratio and quick ratio than AU small finance bank which indicate better short term solvency position.

Table 2: Liquidity Ratios of AU Small Finance Bank &Ujjivan Small Finance Bank

Ratios	SFB/ Years	2020-21	2021-22	2022-23	2023-24	Mean
Operating Profit Per Share (Rs.)	AU Small Finance Bank	3.57	19.07	15.23	0.21	9.52
	Ujjivan Small Finance Banks	-1.29	-4.53	4.95	5.25	1.095
Net Operating Income Per Share (Rs.)	AU Small Finance Bank	158.55	188.05	123.07	158.30	156.99
	Ujjivan Small Finance Banks	16.24	16.27	21.31	29.39	20.80
Net Profit Per share (Rs.)	AU Small Finance Bank	37.5	35.88	21.42	22.93	29.43
	Ujjivan Small Finance Banks	0.05	-2.4	5.63	6.63	2.48
Operating Margin (%)	AU Small Finance Bank	2.24	10.14	12.37	0.13	6.22
	Ujjivan Small Finance Banks	-7.97	-27.84	23.24	17.85	1.32
Net Profit Margin (%)	AU Small Finance Bank	23.64	19.07	17.4	14.54	18.66
	Ujjivan Small Finance Banks	0.29	-14.73	26.4	22.57	8.63
Return On Net Worth	AU Small Finance Bank	18.96	15.11	13.06	12.28	14.85
	Ujjivan Small Finance Banks	0.27	-16.19	27.23	23.12	8.60
Return On long Term Funds (%)	AU Small Finance Bank	65.50	55.42	51.62	55.47	57.00
	Ujjivan Small Finance Banks	34.25	17.70	70.57	71.64	48.54

Interpretation

Profitability ratio measures how well a institution generates profit. It is a way to assess a institution's ability to use its assets to produce profit. In this study the profitability ratio of two banks are takes as AU small finance bank and Ujjivan small finance bank. For the comparison purpose four year data are taken and the mean of these profitability ration are also calculated. The mean of operating profit per share of AU small finance bank is 9.52 Rs. and Ujjivansmall finance bank is 1.095 Rs. The mean of net operating income per share of AU small finance bank is 156.99Rs. and Ujjivansmall finance bank is 20.80Rs.

The mean of Net profit per share of AU small finance bank is 29.43 Rs. and Ujjivan small finance bank is 2.48 Rs. The mean of operating margin of AU small finance bank is 6.22% and Ujjivan small finance bank is 1.32%. The mean of net profit margin of AU small finance bank is 18.66 % and Ujjivan small finance bank is 8.63%. The mean of Return on net worth of AU small finance bank is 14.85% and Ujjivan small finance bank is 8.60%. The mean of return on long term funds of AU small finance bank is 57% and Ujjivan small finance bank is 48.54%. So after comparing profitability ratios of these two banks it was found that AU small finance bank is performing better in profitability than Ujjivan small financebank.

Findings and Suggestions

After considering the liquidity ratio of AU small finance bank and Ujjivan small finance bank it was found that both banks have maintained a good current ratio, but in quick ratio both the banks fail to maintain the ideal ratio. While considering the profitability ratios of AU small finance bank and Ujjivan bank, it indicates that AU bank has good performance than Ujjivan small finance bank. It also indicates that Ujjivan bank has fluctuating trend. In profitability ratios operating margin and net profit margin of AU small finance bank is better than Ujjivan small finance bank. The net profit per share of AU small finance bank is also better than Ujjivan small finance bank which indicate that AU bank is effective in generating profit from the money invested into the bank.

After the study of two small finance bank it is suggested that both banks should have check on their short term adequacy and this will help them to pay off their debts easily. The performance of these two banks are favourable as compared to other small finance banks so investor should invest in these banks. These banks play most important role in financial inclusion so these banks should do adequate planning to earn more profit and should increase net profit margin by efficient management. For increasing profitability small finance banks should consider internal sources of financing.

Conclusion

Introduction of small finance bank is the one of the best step initiated by central government and RBI. For the economic growth of any nation it is essential to regularly assess the financial strengths and weaknesses of bank. Small finance banks are installed to develop the growth financial inclusion and offer banking services to low earnings and underbanked such as small group, small farmers, small agencies etc. As a result of this study, it has been found that AU bank has better performance than Ujjivan bank. These banks are contributed best on its part but still people of the country are not getting the benefits of the financial services. So, the government and SFB should take necessary steps to aware people about the availability of various financial services provided by small finance banks.

Small finance banks are also provided wide range of products which will lead future growth in banking and able to adapt with all customer needs. RBI and other regulatory bodies should conduct training programs and content oriented events among small business to provide awareness regarding various financial services and enhance financial literacy.

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आपदा प्रबन्धन एवं मनोवैज्ञानिक संवेदनशीलता

Rikhbi Chand*

सार

आपदा प्राकृतिक अथवा अप्राकृतिक कारणों से घटित होने वाली घटना है जो समाज की सामान्य स्थिति को अचानक से बिगाड़ देती है और भारी मात्रा में जानमाल को नष्ट कर देती है। संवेदनशीलता किस सीमा तक एक समुदाय, ढाँचे, सेवाओं और भूक्षेत्र को प्रभावित करती है। यह उसकी प्रकृति निर्माण एवं खतरनाक क्षेत्र से समीपता अथवा आपदा संवेदनशील इलाकों के आधार पर परिभाषित किया जा सकता है। संवेदनशीलता की संकल्पना जोखिम का हिसाब लगाने में सहायक होता है। जोखिम प्रबन्धन का अर्थ सामाजिक और आर्थिक स्तर पर मुख्य हानि से जूझने की क्षमता को बनाना है। हर प्रकार के जोखिम की संवेदनशीलता और सरलता से आ जाने का डर विभिन्न व विशेष लक्षणों पर निर्भर करता है। इस समझ के साथ संवेदनशीलता का आकलन भौतिक एवं सामाजिक-आर्थिक मापदंड पर किया जाता है। स्वंत्रता पूर्व सूखा और भुखमरी भारत के सबसे बड़े सहांरक रहे हैं और आज हालात कुछ बदल गए हैं। बेहतर सिंचाई, जल इकट्ठा करने की बेहतर व्यवस्था और अनाज सुरक्षा ने सुखे से मरने वालों की संख्या में काफी हद तक कमी कर दी है। पिछले कुछ दशकों से भूकम्प, बाढ़ एवं चक्रवात की बढ़ती दर से क्षति के मुख्य कारक रहे हैं। संसार के सबसे अधिक प्राकृतिक विपदा प्रवण देशों में भारत का स्थान दूसरा है। पहले स्थान पर चीन है। अतः विपदाओं के कारण, परिणाम एवं इसके रोकथाम के उपाय के बारे में आम नागरिकों में जागरुकता पैदा करना आवश्यक है। इससे व्यक्ति एवं समाज अच्छी तरह से निपट सकता है। संयुक्त राष्ट्र के आंकड़ों के अनुसार प्रतिवर्ष पूरे संसार में औसतन एक लाख से अधिक लोग प्राकृतिक विपदाओं से मर जाते हैं और 20,000 करोड़ रुपये की संपत्ति नष्ट हो जाती है।

शब्द कोश: प्राकृतिक आपदा, भूकम्प, जोखिम प्रबन्धन, बाढ़, चक्रवात।

प्रस्तावना

भारत विपदाओं से कई वर्षों से संघर्ष कर रहा है। हम उस दिन को कैसे भूल सकते हैं, जब 26 दिसंबर 2004 को सुनामी ने भारत के तटीय भागों में तबाही मचाई अथवा 26 जनवरी 2001 की सुबह जब भारत का पश्चिमी भाग (विशेषकर गुजरात) भूकम्प से बुरी तरह प्रभावित हुआ था। विभिन्न प्रकार की भेद्यता के कारण भारत को 'विपदा प्रवण राष्ट्र' कहा जाता है इसके कारण है—

- 55 प्रतिशत से ज्यादा भूभाग भूकम्प की आंशका से ग्रस्त है,
- 12 प्रतिशत भूभाग बाढ़ प्रवण है,
- 8 प्रतिशत भाग चक्रवातों से प्रभावित है, और
- 70 प्रतिशत कृषि भूमि सूखा प्रवण है।

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आपदाओं का वर्गीकरण

आपदाओं के वर्गीकरण निम्नानुसार किया जा सकता है:

- **प्राकृतिक आपदाएँ**
 - **जलवायु सम्बन्धी:** बाढ़, सूखा, चक्रवात, बादल का फटना, लू, गर्म एवं ठण्डी हवाएँ, पाला, आंधियाँ, तूफान/ ओलावृष्टि, बिजली का गिरना।
 - **भू-गर्भ सम्बन्धी:** भूकम्प, भूस्खलन।
- **मानवाकृत आपदाएँ**
 - **रासायनिक, औद्योगिक एवं परमाणु सम्बन्धी:** रासायनिक विपदा, औद्योगिक विपदा, परमाणु विपदा।
 - **दुर्घटना सम्बन्धी:** आग, बम विस्फोट, सड़क, रेल, वायु दुर्घटना, खान में बाढ़ आना एवं ढहना मुख्य भवनों का ढहना, बांध का टूटना, खान में आग लगना।
 - **जैविक आपदाओं सम्बन्धी:** महामारी, टिड्डी दल आक्रमण, जानवरों की महामारी।
 - **अन्य आपदाएँ:** आतंकवादी गतिविधियाँ, उपद्रव, दंगे, बलवा, त्यौहारों, उत्सवों, मेलों आदि पर होने वाली भगदड़।

राजस्थान राज्य में आपदाओं की स्थिति

राजस्थान राज्य भी आपदाओं से अछूता नहीं रहा है यहाँ सूखे की मार से राज्य का जनमानस परेशान रहता है। राज्य का 60 प्रतिशत क्षेत्र मरुस्थलीय होने के कारण राज्य की सबसे प्रमुख आपदा सूखा (अकाल) है। मानसून की विफलता एवं बारम्बार अकाल की पुनरावृत्ति राज्य की स्थिति को ज्यादा गम्भीर बना देती है। लगभग हर वर्ष राज्य इससे प्रभावित रहता है। विशेषकर राज्य के पश्चिमी जिले इससे अधिक प्रभावित रहते हैं।

राजस्थान राज्य के अनेक हिस्से भूकम्प क्षेत्र II, III एवं IV के अन्तर्गत आते हैं। जालोर, सिराही, बाड़मेर और अलवर जिलों के कुछ भाग क्षेत्र IV में पड़ते हैं जबकि बीकानेर, जैसलमेर, बाड़मेर, जोधपुर, पाली, सिराही, डूंगरपुर, बासवाड़ा, अलवर जिलों के बहुत से भाग क्षेत्र III में पड़ते हैं। राज्य में समस्त नदी थालों (बेसिन्स) की संख्या 15 है। इन नदी थालों से संबंधित जिलों (अजमेर, अलवर, भरतपुर, बारां, बून्दी, बाड़मेर, चित्तौड़गढ़, जालौर, झालावाड़, पाली, सिराही, नागौर, उदयपुर, हनुमानगढ़) में बाढ़ की सम्भावना विद्यमान रहती है।

राज्य के आबादी क्षेत्रों में अग्नि की प्रबल संभावना विद्यमान रहती है। राज्य में ओलावृष्टि शीतलहर-पाला टिड्डी दल आक्रमण, चक्रवाती हवाएँ, बादल का फटना जैसी आपदाएँ भी कुछ जिलों को प्रायः प्रभावित करती रहती है। आँधी और तेज हवाएँ विशेषकर रेगिस्तानी जिलों में बहुतायत से आती हैं, परन्तु ओलावृष्टि एवं पाला पड़ने की सम्भावना राज्य में कहीं भी हो सकती है। कई बार तो ओलावृष्टि तथा पाले से बड़े पैमाने पर फसलें नष्ट हो जाती हैं और ग्रामीण क्षेत्रों में भोजन एवं चारे की विकट समस्या उत्पन्न हो जाती है। राज्य में बढ़ते औद्योगिकीकरण के कारण रासायनिक, औद्योगिक, परमाणु संबंधी आपदाओं की संभावना भी बढ़ती जा रही है।

राजस्थान देश का सर्वाधिक सूखाग्रस्त क्षेत्र है। मानसून की विफलता एवं बारम्बार अकाल की पुनरावृत्ति स्थिति को ज्यादा गम्भीर बना देती है। इसके दुष्प्रभाव विभिन्न प्रकार से दृष्टिगोचर होते हैं—कृषि उत्पादन एवं चारा, कृषि सहायक गतिविधियाँ (जैसे पशुपालन, भेड़पालन आदि), पशु एवं मानव दोनों के लिए पानी एवं भोजन की कमी आदि। राज्य की 75 प्रतिशत खेती वर्षा पर निर्भर करती है। सूखे के अतिरिक्त मानसून का अन्य खतरनाक पहलू राज्य के कुछ हिस्सों में अत्यधिक वर्षा के कारण बाढ़ के रूप में सामने आता है, जबकि उसी समय अन्य हिस्सों में अकाल एवं सूखा रहता है। इस प्रकार सूखा एवं बाढ़ से राज्य की समस्त अर्थव्यवस्था प्रभावित होती है। जिससे आर्थिक विकास की समस्त गतिविधियों के बजट का विमुखन (diversion) हो जाता है।

राज्य में आपदाओं से निपटने का तन्त्र

- आपदा प्रबन्धन, सहायता एवं नागरिक सुरक्षा विभाग
- राज्य आपदा प्रबन्धन प्राधिकरण
- जिला आपदा प्रबन्धन प्राधिकरण
- राज्य कार्यकारिणी समिति
- विभिन्न गैर-सरकारी संगठन
- विभिन्न सरकारी विभाग इत्यादि।

राज्य द्वारा राज्य आपदा प्रबन्धन योजना 2014 में बनाई जा चुकी है। साथ ही सभी जिलों की जिला आपदा प्रबन्धन योजनाएं भी बनाई गई हैं जिसे समय-समय पर जिला आपदा प्रबन्धन प्राधिकरण की देखरेख में अद्यतन किया जाता रहता है।

विभिन्न आपदाओं के लिये नोडल विभाग

राज्य सरकार द्वारा आपदाओं की प्रकृति के आधार पर उनके नोडल विभाग निर्धारित कर दिये हैं। इसमें राज्य आपदा प्रबन्धन प्राधिकरण के अनुमोदन से समय-समय पर संशोधन किया जावेगा। इन नोडल विभागों का यह कर्तव्य है कि वे विभाग से संबंधित आपदा के निवारण, उपशयन एवं तैयारी के लिए आवश्यक योजनाएं बनाएं। नोडल विभागों का विवरण निम्नानुसार है—

क्र.स.	नोडल विभाग	संबंधित आपदा
1.	आपदा प्रबंधन, सहायता एवं नागरिक सुरक्षा	सूखा, ओलावृष्टि, पाला एवं शीतलहर, तूफान, आकाशीय बिजली, चक्रवात
2.	ऊर्जा	विद्युत उत्पादन वितरण एवं प्रसारण संबंधी आपदा।
3.	गृह	आंतकी हमला, पुलिस बलवा, कानून-व्यवस्था संकट स्थिति, आणविक, रासायनिक एवं जैविक, हवाई, सड़क, रेल दुर्घटना, भगदड़
4.	जल संसाधन	बाढ़ एवं जल निकासी, बांध टूटना, बादल फटना
5.	सार्वजनिक निर्माण विभाग	भूकम्प, बड़े भवनों का गिरना
6.	खान	खान में आग एवं पानी का भरना
7.	उद्योग	रासायनिक एवं औद्योगिक आपदा, तेल फैलना
8.	नगरीय विकास	शहरी अग्नि
9.	राजस्व	गांव की आग एवं नाव पलटना
10.	वन	वनों में आग
11.	चिकित्सा एवं स्वास्थ्य	जैविक एवं महामारी, खराब खाने से बीमारी
12.	कृषि	टिड्डी दल का हमला
13.	पशु पालन	पशु महामारी

राजस्थान में भूकम्प की दैवीय आपदा और तत्परता

भवन निर्माण सामग्री संवर्द्धन प्रौद्योगिकी परिषद द्वारा संवेदी क्षेत्र भूचित्रावली के अनुसार राजस्थान राज्य का क्षेत्र प्पे एवं प्ट के अन्तर्गत आता है। जालोर, सिरोही, बाड़मेर और अलवर जिलों के कुछ भाग क्षेत्र प्ट में पड़ते हैं। जबकि बीकानेर, जैसलमेर, बाड़मेर, जोधपुर, पाली, सिरोही, डूंगरपुर, बासवाड़ा, अलवर के बहुत से भाग क्षेत्र प्प में पड़ते हैं। विभिन्न गहनताओं और विस्तार वाले संभावित भूकम्प के क्षेत्र निम्न तालिका में अंकित है:—

क्रमांक	भूकम्प क्षेत्र	परिणाम (रिएक्टर पैमाना)	राज्य के जिलों के नाम
1.	IV (अति क्षति जोखिम क्षेत्र)	6.0–6.9	बाड़मेर जिले का कुछ भाग(चौहटन पंचायत समिति), जालोर (सांचोर पंचायत समिति),अलवर(तिजारा पंचायत समिति) और भरतपुर (नगर, पहाड़ी पंचायत समिति)
2.	III (मध्यस्थ क्षति जोखिम क्षेत्र)	5.0–5.9	उदयपुर, डूंगरपुर, सिरोही, बीकानेर, जैसलमेर, बाड़मेर, झुन्झुनू, सीकर, दौसा, भरतपुर के भाग
3.	II (न्यून क्षति जोखिम क्षेत्र)	4.0–4.9	गंगानगर, हनुमानगढ़, चूरु, जोधपुर,पाली, राजसमन्द, चित्तौड़गढ़, झालावाड़, कोटा, बून्दी, सवाई माधोपुर, करौली, धौलपुर, बांसवाड़ा, बीकानेर, उदयपुर, झुन्झुनू, सीकर, जयपुर के कुछ भाग

जल की उपलब्धता

राजस्थान राज्य हमेशा से जल की कमी वाला क्षेत्र रहा है। राज्य में वर्षा अनियमित है एवं यहां पर वर्षा के प्रतिमान में भारी अंतर है, वार्षिक औसत वर्षा जैसलमेर में 100 मि.मी. से झालावाड़ में 800 मि.मी. तक होती है। राज्य की वार्षिक औसत वर्षा 531 मि.मी. है। राज्य के 22 पूर्वी जिलों के लिए यह 688 मि.मी. है, जबकि शेष पश्चिमी जिलों के लिए यह केवल 318 मि.मी. है। राज्य के बहुत बड़े भाग में पेयजल हेतु भूजल उपलब्ध नहीं है। कभी-कभी पेयजल ट्रकों, ट्रेनों या अन्य तरीकों से पहुंचाया जाता है।

जनसंख्या वृद्धि और अन्य प्रकार की जल आवश्यकताओं में वृद्धि से राज्य अत्यधिक जल संकट की ओर अग्रसित हो रहा है। राज्य में प्रति व्यक्ति वार्षिक जल उपलब्धता लगभग 780 घन मी. है, जबकि न्यूनतम आवश्यकता 1000 घन मी. आंकी गई है। स्वीकृत अन्तर्राष्ट्रीय मानकों के अनुसार 500 घन मी. से कम जल उपलब्धता अत्यधिक जल संकट का द्योतक है। जनसंख्या में वृद्धि एवं स्वच्छता के प्रति बढ़ती जागरूकता के कारण पेयजल की मांग में तीव्र वृद्धि हुई है। तदनुसार कृषि कार्य हेतु जल की मांग जो कि वर्ष 1995 में 3.28 बिलियन घन मी. थी वर्ष 2045 में बढ़कर 8.07 बिलियन घन मी. तक पहुंचना संभावित है।

राज्य में कुल सतही जल संसाधन 21.7 बिलियन घन मी. है, इसमें से 16.05 घन मी. का उपयोग आर्थिक रूप से उपादेय है। राज्य ने अब तक 11.84 बिलियन घन मी. जल का संधारण कर लिया है, जो कि आर्थिक रूप से उपादेय संग्रहण जल का 72 प्रतिशत है। 17.89 बिलियन घन मी. जल अन्तर्राष्ट्रीय समझौतों द्वारा प्राप्त होता है।

बजट व्यवस्था

भारत सरकार द्वारा निर्धारित दिशा-निर्देशों के अनुसार प्राकृतिक आपदाओं के लिए राज्य आपदा मोचन निधि में राशि स्थानान्तरित की जाती है। इसमें सामान्य राज्यों को 75 प्रतिशत भारत सरकार द्वारा तथा 25 प्रतिशत राशि सम्बन्धित राज्य द्वारा वहन की जाती है। कुछ विशेष कैटेगिरी वाले राज्यों को भारत सरकार अपना अंश 90 प्रतिशत देती है तथा 10 प्रतिशत सम्बन्धित राज्य द्वारा वहन किया जाता है। ये समस्त राशि नॉन-प्लान ग्रांट के तहत प्रदान की जाती है। भारत सरकार द्वारा प्रत्येक वित्तीय वर्ष में दो किश्तों में यह राशि जून तथा दिसम्बर में राज्यों को दी जाती है। राज्य आपदा मोचन निधि में से सहायता उपलब्ध कराने हेतु राज्य स्तर पर मुख्य सचिव की अध्यक्षता में गठित राज्य कार्यकारी समिति द्वारा निर्णय लिया जाता है।

राजस्थान राहत कोष

अकाल, भूकम्प, बाढ़, ओलावृष्टि, अग्नि, चक्रवात जैसी प्राकृतिक आपदाओं से होने वाली जन-धन की क्षति के लिए केन्द्र सरकार द्वारा राज्य आपदा मोचन निधि से सहायता प्रदान किये जाने की व्यवस्था है किन्तु इनके अतिरिक्त राज्य में कुछ अन्य प्राकृतिक आपदाएं तथा गैर प्राकृतिक आपदाएं भी होती रहती हैं जिनसे होने वाली जन-धन की क्षति के लिए सहायता प्रदान की कोई व्यवस्था नहीं है। ऐसी अन्य प्राकृतिक आपदाओं एवं

गैर प्राकृतिक आपदाओं में जनता को सहायता प्रदान कर राहत देने के लिए वर्ष 2005-06 के राज्य के बजट में रु 5.00 करोड़ की राशि प्रावधान करके राजस्थान राहत कोष स्थापित किया गया।

राजस्थान राहत कोष के अर्न्तगत शामिल होने वाली आपदाएँ

- मनुष्य, पशु एवं फसलों का महामारी से बचाव
- खान में बाढ़ का पानी आना या उसके ढहने पर होने वाली आपदा में खोज एवं बचाव का कार्य
- बहुमंजिले भवनों के ढहने, कुए के ढहने पर होने वाली आपदा के समय किये जाने वाले खोज एवं बचाव के कार्य
- मिट्टी एवं चट्टान ढह जाने तथा कुए में। जहरीली गैस से उत्पन्न आपदा में खोज एवं बचाव के कार्य
- उपरोक्त के अतिरिक्त अन्य आपदाएं जो राज्य स्तरीय समिति द्वारा सहायता देने योग्य हो, निर्णित की जावें।

आपदा प्रबन्धन के तीन चरण

आपदाओं के रोकथाम, नियंत्रण व प्रबंधन के लिए अलग-अलग प्रकार के उपायों की विभिन्न चरणों में आवश्यकता होती है अतः किसी भी प्रकार के आपदा प्रबन्धन के लिए निम्न तीन चरण होते हैं—

- **प्रथम चरण** — आपदा से पूर्व तैयारी की अवस्था
- **द्वितीय चरण** — आपदा के समय और प्रभाव की अवस्था में तात्कालिक राहत व्यवस्था
- **तृतीय चरण** — आपदा के बाद की पुर्नवास एवं आधारभूत संरचना के बहाली की अवस्था

आपदा प्रबन्धन के मनोवैज्ञानिक उपाय

कौटिल्य के अर्थशास्त्र के अनुसार— आपदा नियन्त्रण राज्य का प्राथमिक कर्तव्य है किन्तु कोई भी राज्य केवल सरकारी साधनों के आधार पर आपदा प्रबन्धन नहीं कर सकता, जब तक कि जन समुदाय भी कार्य में पूर्ण लगन से साथ न दे।

आपदा प्रबन्धन के तहत पूर्वानुमान व चेतावनी, पूर्व तैयारी करना, आपदा के कुप्रभावों को कम करने के उपाय करना, आपदा आने पर त्वरित प्रभावी राहत व बचाव कार्य करना व आपदा के पश्चात आपदाग्रस्त लोगों के पुर्नवास की व्यवस्था करना है। इन सभी कार्यों में जन-जन की जागरुकता एवं सहभागिता आवश्यक है। अतः कोई भी आपदा प्रबन्धन तब तक सफल नहीं हो सकता जब तक कि उसके लिए बनायी गई योजना, अलग-अलग आपदाओं से निपटने के लिए आवश्यक रोकथाम के उपाय एवं उनसे कुशलतापूर्वक निबटने के लिए आवश्यक तकनीक एवं उपकरणों की जानकारी का प्रचार-प्रसार व्यापक रूप से नहीं किया जावे। इसलिए आपदा प्रबन्धन के हर चरण में प्रभावितों को राहत प्रदान करने एवं उनकी मनोवैज्ञानिक स्थितियों को समय के अनुसार भापते हुए सरकार, समाज एवं गैर-सरकारी संगठनों तथा मीडिया की भूमिका सबसे महत्वपूर्ण होती है।

आपदाओं के पूर्वानुमान एवं चेतावनी के लिए मीडिया की भूमिका-मौसम विज्ञान विभाग, मौसम के पूर्वानुमान एवं चेतावनी जारी करता है, उस समय प्रचार-प्रसार के सभी माध्यमों यथा दूरदर्शन, रेडियों, इन्टरनेट, समाचार पत्रों तथा सोशल मीडिया आदि के माध्यमों से अधिक से अधिक प्रसारित कर प्रभावित क्षेत्र के नागरिकों को मनोवैज्ञानिक दृष्टि से संबल प्रदान किया जा सकता है।

आपदा आने पर त्वरित रूप से राहत एवं बचाव कार्य करने में मीडिया की भूमिका-आपदा आने पर आम जनता में भय व्याप्त होता है। जिससे उसका मनोवैज्ञानिक संतुलन बिगड़ने की पूर्ण सम्भावना रहती है तथा तरह-तरह की अफवाहें फैलती हैं। ऐसी परिस्थितियों में मनोवैज्ञानिक संतुलन बनाये रखना एक विकसित राष्ट्र एवं सुसभ्य समाज के लिए नितान्त आवश्यक है।

प्राकृतिक आपदाओं के उभरते पक्षों के विभिन्न अध्ययनों ने इस बात को प्रमाणित किया जाता है कि व्यक्ति, समाज एवं राष्ट्र के सुदृढ़ एवं विकास के लिए प्राकृतिक आपदाओं का समयबद्ध उचित योजना बनाकर उनका उचित ढंग से निदान के प्रयास किये जाने चाहिए। प्रकृति में घटित घटनाओं का व्यक्ति विशेष के जीवन पर एक मनोवैज्ञानिक प्रभाव पड़ता है उस आपदा से व्यक्ति की मनोदशा अत्यन्त ही निर्बल एवं कमजोर हो जाती है ऐसे में समाज की मनोदशा को संबल प्रदान करना एक राज्य एवं न समुदाय के लिए आवश्यक हो जाता है।

सन्दर्भ ग्रन्थ सूची

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राष्ट्रीय शिक्षा नीति 2020 में विद्यार्थियों की अधिगम शैली की स्थिति

सीमा चौधरी*

सार

इस पत्र का उद्देश्य इस बात पर चर्चा करना है कि भारत में राष्ट्रीय शिक्षा नीति (एनईपी) 2020 के ढांचे के भीतर अधिगम शैली को कैसे संबोधित किया जाता है। राष्ट्रीय शिक्षा नीति (एनईपी) 2020 का उद्देश्य भारतीय शिक्षा प्रणाली को अधिक समग्र, लचीला और बहु-विषयक बनाकर इसमें क्रांति लाना है। यह शोध पत्र एनईपी 2020 के भीतर अधिगम शैली के समावेश और महत्व की जांच करता है, और छात्रों के संज्ञानात्मक और चरित्र विकास पर इसके संभावित प्रभाव पर प्रकाश डालता है। अधिगम शैली को पाठ्यक्रम से एकीकृत करके, एनईपी 2020 छात्रों को सीखने की जटिलताओं से निपटने के लिए आवश्यक कौशल से लैस करना चाहता है। शिक्षा हमेशा सामाजिक विकास के लिए महत्वपूर्ण रही है और इसे सार्वभौमिक रूप से एक मौलिक मानव अधिकार के रूप में स्वीकार किया जाता है। एनईपी 2020 21वीं सदी के छात्रों की आकांक्षाओं के साथ संरेखित करते हुए, शैक्षिक ढांचे में व्यापक बदलाव पेश करता है और संज्ञानात्मक विकास, चरित्र निर्माण और समग्र, सर्वांगीण व्यक्तियों के निर्माण पर जोर देता है। अनुभवात्मक शिक्षा, आलोचनात्मक सोच और सामाजिक-भावनात्मक विकास पर नीति का ध्यान पारंपरिक रटने-आधारित शिक्षण विधियों से एक महत्वपूर्ण प्रस्थान का प्रतिनिधित्व करता है, जो अधिक समावेशी और शिक्षार्थी-केंद्रित शिक्षा की ओर एक आदर्श बदलाव को दर्शाता है। एनईपी 2020 के तहत अधिगम शैली के एकीकरण और प्रभावकारिता को समझना शिक्षकों, नीति निर्माताओं और हितधारकों के लिए महत्वपूर्ण है, जो छात्रों को विविध वास्तविक दुनिया के संदर्भों में मार्गदर्शन करने और पनपने के लिए आवश्यक उपकरणों से लैस करना चाहते हैं। यह अध्ययन अधिगम शैली से संबंधित नीति के प्रावधानों का गहन विश्लेषण प्रदान करता है।

शब्द कोश: अधिगम शैली, राष्ट्रीय शिक्षा नीति (एनईपी) 2020, प्रभाव, विद्यार्थी।

प्रस्तावना

भारत में नई शिक्षा नीति कि भुभारंभ 1968 के नई शिक्षा नीति से मानी जाती हैं। इसमें समय-समय पर संशोधित होता आ रहा है, 1986, 1992 में नई शिक्षा नीति पर संशोधित किया गया। जिसमें शिक्षा संबंधित नियमों को 21वीं सदी में बहुत बड़ा बदलाव किया गया है। इसी समय मानव संसाधन प्रबंधन मंत्रालय के नाम को बदल कर अब शिक्षा मंत्रालय के नाम से जाना जाता है। नई शिक्षा नीति 2020 का उद्देश्य है कि 2030 तक नई शैक्षिक पाठ्यक्रम 5 + 3 + 3 + 4 को वर्तमान शैक्षिक प्रणाली 10 + 2 के साथ प्रतिस्थापित करना है। नई शिक्षा नीति 2020 में केंद्र तथा राज्य सरकार दोनों का निवेश होगा।

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नई शिक्षा नीति के माध्यम से एकेडमिक बैंक ऑफ क्रेडिट का गठन किया गया है। जिसमें छात्रों द्वारा परीक्षा में प्राप्त किए गए क्रेडिट को डिजिटल एकेडमी क्रेडिट बनाया जा रहा है और विभिन्न उच्च शिक्षा संस्थानों के माध्यम से इन क्रेडिट को संग्रहित कर छात्रों के अंतिम वर्ष की डिग्री में स्थानांतरित करके सभी क्रेडिट को एक साथ जोड़ा जा रहा है। जो छात्र हित के लिए महत्त्वपूर्ण है। इस शिक्षा नीति के अंतर्गत शैक्षिक पाठ्यक्रम को लचीला बनाए जाने की हर संभव कोशिश की जा रही है। नई शिक्षा नीति के भीतर स्नातक कोर्स 3 से 4 साल तक पढ़ा जा सकता है इसके साथ-साथ यदि कोई छात्र 1 साल के लिए स्नातक कोर्स की पढ़ाई करता है तो उसे केवल एक साल की पढ़ाई का ही प्रमाण पत्र दिया जाएगा और 2 साल बाद उसे एडवांस डिप्लोमा का प्रमाण पत्र दिया जाएगा और 3 साल बाद उचित प्रमाणों के आधार पर उसे डिग्री दी जाएगी। अंत में 4 साल के बाद छात्र को बैचलर डिग्री के साथ-साथ रिसर्च की डिग्री भी दी जाएगी। नई शिक्षा नीति के तहत ई लर्निंग पर जोर दिया जा रहा ताकि किताबों पर निर्भरता कम हो सकें। नई शिक्षा नीति के तहत भारतीय उच्च शिक्षा आयोग को 4 वर्टिकल दिए गए हैं।

- नेशनल हायर एजुकेशन रेगुलेटरी काउंसिल
- हायर एजुकेशनल काउंसिल
- जर्नल एजुकेशन काउंसिल
- नेशनल एक्सीडेंटेशन काउंसिल

नई शिक्षा नीति 2020 का प्रारूप का श्रेय इसरो के पूर्व प्रमुख के कस्तूरीरंगन को दिया जाता है। इस शिक्षा नीति को बेहतर बनाने के लिए नेशनल ट्यूटर्स प्रोग्राम, रेमेडियल इंस्ट्रक्शनल एड्स प्रोग्राम, शिक्षा का अधिकार से नई शिक्षा नीति 2020 के विकास के लिए सुझाव लिया गया है। विद्यार्थियों को एक बेहतर और आकर्षक शिक्षण अधिगम देने के लिए संस्थानों और संकायों द्वारा इसके अनुरूप पाठ्यक्रम और शिक्षण विधा को रचा गया है और प्रत्येक कार्यक्रम को उसके लक्ष्यों तक पहुँचाने के लिए रचनात्मक आंकलन का उपयोग किया गया है। इस नई शिक्षा नीति में ओडीएल कार्यक्रम उच्चतम गुणवत्ता वाले इन-क्लास कार्यक्रमों के बराबर होने का लक्ष्य रखा है। ओडीएल के प्रणालीगत विकास, विनियमन और मान्यता के लिए मानदंड, मानक, और दिशानिर्देश तैयार किए गए हैं, और ओडीएल की गुणवत्ता के लिए एक रूपरेखा तैयार किया गया है, जो कि सभी उच्चतर शैक्षणिक संस्थानों के लिए तैयार किया गया है। नई शिक्षा नीति 2020 के सभी कार्यक्रमों, पाठ्यक्रम, पाठ्यचर्या, विषयों में शिक्षण विधि, इन-क्लास, ऑनलाइन, ओडीएल और को समर्थन जैसे सभी कार्यक्रमों का लक्ष्य होगा।

नई शिक्षा नीति 2020 में तकनीक आधारित अधिगम का उपयोग और एकीकरण

- **तकनीक आधारित अधिगम का उपयोग** – आज भारत में डिजिटल इंडिया अभियान के तहत पूरे देश में डिजिटल रूप से सशक्त समाज एवं ज्ञान आधारित अर्थव्यवस्था में परिवर्तन करने में मदद कर रहा है। इससे हमारे शैक्षिक शिक्षण में गुणवत्ता प्रदान होगा। तकनीक आधारित अधिगम को इस्तेमाल करने वाले शिक्षक एवं विद्यार्थियों के वास्तविक उपयोग से तकनीकी का रचनात्मकता के साथ विकास दर तीव्र हो रहा है। तकनीक आधारित अधिगम के प्रयोग से देश में नई क्रांति का आगाज हो गया है। आज देश में नई तकनीक का क्षेत्र बढ़ते हुए आर्टिफिशियल इंटेलिजेंस, मशीन लर्निंग, ब्लॉक चेन, स्मार्ट बोर्ड, हस्त संचालित कंप्यूटिंग उपकरण, छात्रों के विकास के लिए एड्रेसिबल कंप्यूटर टेस्टिंग और अन्य प्रकार के सॉफ्टवेयर के माध्यम से छात्र क्या सीखेगा या वे कैसे सीखेगा दोनों का भविष्य तकनीकी पर निर्भर करेगा इसका शोध का क्षेत्र बढ़ेगा क्योंकि इसमें तकनीकी एवं शैक्षिक दोनों का दृष्टिकोण होगा।

तकनीक आधारित अधिगम का मुख्य उद्देश्य

- शिक्षण अधिगम को सरल एवं उपयोगी बनाना।
- छात्र आंकलन प्रक्रियाओं को बेहतर एवं सरल बनाना।

- शिक्षकों एवं छात्रों को एक स्तर तक तैयार करना एवं व्यावसायिक विकास में सहयोग करना।
- सूचना तकनीक आधारित अधिगम के माध्यम से शैक्षिक नियोजन को बढ़ाना।
- इसके माध्यम से प्रबंधन एवं प्रशासन को सरल एवं व्यवस्थित करना आसान हो जाएगा। इसमें मुख्य रूप से प्रवेश, उपस्थिति, मूल्यांकन संबंधी प्रक्रियाएँ हैं।
- तकनीक आधारित अधिगम की उपलब्धता प्रौद्योगिकी का सही व्यवस्था के लिए सूचना एवं सम्प्रेषण के माध्यम से शिक्षकों और विद्यार्थियों के लिए बहुत से शैक्षिक सॉफ्टवेयर विकसित किए जाएंगे और उन्हें उपलब्ध करवाये जायेंगे।
- सभी राज्य के क्षेत्रीय भाषाओं को शिक्षण एवं अधिगम संबंधी ई-कंटेंट तैयार कर दीक्षा प्लेटफार्म पर अपलोड किया जाएगा।
- ई-कंटेंट को सभी राज्य एवं एनसीईआरटी, सीआईईटी, सीबीएसई, एनआईओएस एवं अन्य निकायों/संस्थानों में भी लागू किया जाएगा।
- दीक्षा प्लेटफार्म पर उपलब्ध ई-कंटेंट का उपयोग शिक्षकों के विकास के लिए किया जा सकता है।
- तकनीक आधारित अधिगम संबंधी उपायों के संवर्धन एवं प्रसार हेतु सीआईईटी को मजबूत बनाया जाएगा।
- शिक्षकों के सुबिधा के लिए तकनीक आधारित अधिगम के उपकरण उपलब्ध कराये जायेंगे जिससे शिक्षक अपने शिक्षण-अधिगम अभ्यासों में ई-सामग्री को उपयुक्त रूप से शामिल किया जा सकें।

तकनीक आधारित अधिगम के न्याय संगत उपयोग को सुनिश्चित करना

जिस क्षेत्र में शिक्षा के आभाव के कारण गुणवत्ता पूर्ण शिक्षा की व्यवस्था नहीं हो पाती थी उसके वैकल्पिक के रूप में नई शिक्षा नीति, 2020 प्रौद्योगिकी की ओर ध्यान केंद्रित कर रही हैं।

- नई शिक्षा नीति 2020 में ऑनलाइन/डिजिटल शिक्षा के हानियों को कम करते हुए इसे तैयार किया गया है जिससे अध्ययन करना आसान होगा।
- तकनीक आधारित अधिगम का लाभ तब तक नहीं उठाया जा सकता जब तक डिजिटल इंडिया अभियान और कंप्यूटिंग उपकरणों की उपलब्धता जैसे ठोस प्रयासों के माध्यम से डिजिटल अंतर को समाप्त नहीं किया जाता।
- तकनीक आधारित अधिगम के लिए तकनीकी का उपयोग समानता के सरोकारों को पर्याप्त रूप से संबोधित किया जाएगा।
- तकनीक आधारित अधिगम को प्रभावशाली शिक्षा बनाने के लिए प्रशिक्षक के लिए प्रशिक्षण की व्यवस्था कि जाएगा।
- तकनीक आधारित अधिगम में यह माना नहीं जा सकता है कि पारंपरिक कक्षा में एक अच्छा शिक्षक स्वचालित रूप से चलने वाली एक ऑनलाइन कक्षा में भी एक अच्छा शिक्षक सिद्ध होगा।

राष्ट्रीय शिक्षा नीति (एनईपी) 2020 का उद्देश्य भारतीय शिक्षा प्रणाली को अधिक समग्र, लचीला और बहु-विषयक बनाकर इसमें क्रांति लाना है। अधिगम शैली को पाठ्यक्रम से एकीकृत करके, एनईपी 2020 छात्रों को सीखने की जटिलताओं से निपटने के लिए आवश्यक कौशल से लैस करना चाहता है। शिक्षा हमेशा सामाजिक विकास के लिए महत्वपूर्ण रही है और इसे सार्वभौमिक रूप से एक मौलिक मानव अधिकार के रूप में स्वीकार किया जाता है। एनईपी 2020 21वीं सदी के छात्रों की आकांक्षाओं के साथ संरेखित करते हुए, शैक्षिक ढांचे में व्यापक बदलाव पेश करता है और संज्ञानात्मक विकास, चरित्र निर्माण और समग्र, सर्वांगीण व्यक्तियों के निर्माण पर जोर देता है। अनुभवात्मक शिक्षा, आलोचनात्मक सोच और सामाजिक-भावनात्मक विकास पर नीति का ध्यान पारंपरिक रटने-आधारित शिक्षण विधियों से एक महत्वपूर्ण प्रस्थान का प्रतिनिधित्व

करता है, जो अधिक समावेशी और शिक्षार्थी-केंद्रित शिक्षा की ओर एक आदर्श बदलाव को दर्शाता है। एनईपी 2020 के तहत अधिगम शैली के एकीकरण और प्रभावकारिता को समझना शिक्षकों, नीति निर्माताओं और हितधारकों के लिए महत्वपूर्ण है, जो छात्रों को विविध वास्तविक दुनिया के संदर्भों में मार्गदर्शन करने और पनपने के लिए आवश्यक उपकरणों से लैस करना चाहते हैं। यह अध्ययन अधिगम शैली से संबंधित नीति के प्रावधानों का गहन विश्लेषण प्रदान करता है।

राष्ट्रीय शिक्षा नीति 2020 ने अधिगम पर कई तरह से प्रभाव डाला है –

- राष्ट्रीय शिक्षा नीति 2020 के मुताबिक, शिक्षा में सिर्फ संज्ञानात्मक क्षमता को ही नहीं, बल्कि सामाजिक, नैतिक, और भावनात्मक क्षमताओं को भी विकसित करना चाहिए।
- राष्ट्रीय शिक्षा नीति 2020 ने वैचारिक समझ, रचनात्मकता, आलोचनात्मक सोच, मानवीय नैतिक मूल्यों, और संवैधानिक मूल्यों पर जोर दिया है।
- राष्ट्रीय शिक्षा नीति 2020 के मुताबिक, रटकर सीखने को बढ़ावा नहीं दिया जाना चाहिए। इसके बजाय, वास्तविक जीवन से सीखने पर जोर दिया जाना चाहिए।
- राष्ट्रीय शिक्षा नीति 2020 के मुताबिक, शिक्षा में प्रयोगात्मक शिक्षा को अपनाना चाहिए। इसमें हस्त गतिविधि आधारित अधिगम, कला-एकीकृत और खेल-एकीकृत शिक्षा, कहानी-आधारित शिक्षाशास्त्र वगैरह शामिल हैं।
- राष्ट्रीय शिक्षा नीति 2020 में बहुभाषिकता को बढ़ावा दिया गया है। इसके तहत, छात्र अपनी मातृभाषा या क्षेत्रीय भाषा के साथ-साथ दूसरी भाषाओं में भी सीखते हैं।
- राष्ट्रीय शिक्षा नीति 2020 के मुताबिक, परीक्षाओं के लिए अधिगम को बढ़ावा नहीं दिया जाता। परीक्षा का मकसद शिक्षार्थियों के अधिगम के बीच अंतराल को खोजना होता है।

संदर्भ ग्रन्थ सूची

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जलवायु परिवर्तन का वैश्विक भूगोल पर प्रभाव

निर्मला चौपड़ा*

सार

जलवायु परिवर्तन का प्रभाव उष्णकटिबंधीय क्षेत्रों से लेकर ध्रुवीय क्षेत्रों तक हो रहा है। यह एक वैश्विक खतरा है जिसने विभिन्न क्षेत्रों पर दबाव डालना शुरू कर दिया है। इस अध्ययन का उद्देश्य वैचारिक रूप से यह पता लगाना है कि जलवायु परिवर्तनशीलता दुनिया भर में विभिन्न क्षेत्रों किस स्तर तक प्रभावित कर रही है। विशेष रूप से, कृषि क्षेत्र पर होने वाले प्रभाव वैश्विक रूप से चिंताजनक परिदृश्य हैं, क्योंकि अपरिवर्तनीय मौसम के उतार-चढ़ाव के कारण पर्याप्त उत्पादन और खाद्य आपूर्ति को खतरा है। बदले में, यह वैश्विक भोजन प्रतिमानों को चुनौती दे रहा है, विशेष रूप से उन देशों में जहां कृषि उनकी अर्थव्यवस्था और कुल उत्पादकता का अभिन्न अंग है। जलवायु परिवर्तन ने अधिकतम तापमान सीमाओं में बदलाव के कारण कई प्रजातियों की उत्तरजीविता और अस्तित्व को भी दांव पर लगा दिया है, जिससे पारिस्थितिकी तंत्र संरचनाओं में उत्तरोत्तर परिवर्तन करके जैव विविधता का नुकसान बढ़ रहा है। जलवायु परिवर्तन विशेष खाद्य और जलजनित और विषाणु जनित रोगों की संभावना को बढ़ाते हैं, और इसका एक हालिया उदाहरण कोरोनावायरस महामारी है। जलवायु परिवर्तन रोगाणुरोधी प्रतिरोध क्षमता को भी तेज करता है, प्रतिरोधी रोगजनक संक्रमणों की बढ़ती घटनाओं के कारण मानव स्वास्थ्य के लिए एक और खतरा खड़ा कर दिया है। इसके अलावा, वैश्विक पर्यटन उद्योग तबाह हो गया है क्योंकि जलवायु परिवर्तन प्रतिकूल पर्यटन स्थलों को प्रभावित करता है। शोध में पर्यावरणीय, सामाजिक और आर्थिक व्यवहार्यता जैसे मुद्दों की पहचान करने के लिए द्वितीयक तथ्यों का उपयोग किया गया है। समस्या को बेहतर ढंग से समझने के लिए, विभिन्न मीडिया आउटलेट्स, शोध एजेंसियों, नीति पत्रों, समाचार पत्रों और अन्य स्रोतों से जानकारी एकत्र की गई है। यह शोध उपर्युक्त क्षेत्रों में दुनिया भर में जलवायु परिवर्तन शमन और अनुकूलन दृष्टिकोणों और संबंधित आर्थिक लागतों का एक क्षेत्रीय मूल्यांकन है। निष्कर्ष के अनुसार, अत्याधुनिक जलवायु नीति बनाने के लिए अतीत में लागू किए गए संसाधनों और विनियमों की सख्त जवाबदेही के माध्यम से देश के दीर्घकालिक विकास के लिए सरकार की भागीदारी आवश्यक है। इसलिए, जलवायु परिवर्तन के प्रभावों को कम करना अत्यंत महत्वपूर्ण होना चाहिए, और इसलिए, इस वैश्विक खतरे को वैश्विक निर्वाह सुनिश्चित करने के लिए इसके भयानक प्रभावों को दूर करने के लिए वैश्विक प्रतिबद्धता की आवश्यकता है।

शब्द कोश: जलवायु, परिवर्तन, वैश्विक, मौसम, भौगोलिक।

प्रस्तावना

इक्कीसवीं सदी के लिए दुनिया भर में देखे गए और प्रत्याशित जलवायु परिवर्तन और ग्लोबल वार्मिंग पिछले 65 वर्षों के दौरान सामने आए महत्वपूर्ण वैश्विक परिवर्तन हैं। जलवायु परिवर्तन वैश्विक स्तर पर एक जटिल चुनौती है जिसका पारिस्थितिकी, पर्यावरण, सामाजिक-राजनीतिक और सामाजिक-आर्थिक

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विषयों के विभिन्न घटकों पर प्रभाव पड़ता है। जलवायु परिवर्तन में कई दुनिया भर में तापमान में वृद्धि शामिल है। औद्योगिक क्रांति की शुरुआत के साथ, पृथ्वी की जलवायु की समस्या कई गुना बढ़ गई। यह बताया गया है कि तत्काल ध्यान और उचित कदम इसके विनाशकारी प्रभावों पर काबू पाने की संभावना को बढ़ा सकते हैं। क्षेत्रीय आधार पर जलवायु परिवर्तन के सटीक परिणामों की व्याख्या करना संभव नहीं है जो मान्यता के उभरते स्तर और स्थानीय और राष्ट्रीय स्तर पर नीति निर्धारण में जलवायु अनिश्चितताओं को शामिल करने से स्पष्ट है। जलवायु परिवर्तन की विशेषता व्यापक लंबी अवधि के तापमान और वर्षा के रुझान और आसपास के वातावरण में दबाव और आर्द्रता के स्तर जैसे अन्य घटकों के आधार पर होती है। इसके अलावा, अनियमित मौसम पैटर्न, वैश्विक बर्फ की चादरों का पीछे हटना और इसी के अनुरूप समुद्र के स्तर में वृद्धि जलवायु परिवर्तन के सबसे प्रसिद्ध अंतरराष्ट्रीय और घरेलू प्रभावों में से हैं। औद्योगिक क्रांति से पहले, ज्वालामुखी, जंगल की आग और भूकंपीय गतिविधियों सहित प्राकृतिक स्रोतों को वायुमंडल में CO_2 , CH_4 , CFC और H_2O जैसे ग्रीनहाउस गैसों के विशिष्ट स्रोतों के रूप में माना जाता था। जलवायु परिवर्तन पर संयुक्त राष्ट्र फ्रेमवर्क कन्वेंशन ने 12 दिसंबर, 2015 को पेरिस में सम्मेलन (COP-21) में जलवायु परिवर्तन से निपटने और एक स्थायी कम कार्बन भविष्य के लिए आवश्यक कार्यों और निवेशों को तेज करने और तीव्र करने के लिए एक बड़ा समझौता किया। पेरिस समझौता जलवायु परिवर्तन को रोकने और इसके प्रभावों के अनुकूल होने के लिए महत्वाकांक्षी उपायों को करने के लिए पहली बार सभी देशों को एक साथ लाकर कन्वेंशन का विस्तार करता है, ऐसा करने में विकासशील देशों की सहायता के लिए बढ़ी हुई फंडिंग के साथ। इस प्रकार, यह वैश्विक जलवायु लड़ाई में एक महत्वपूर्ण मोड़ है। पेरिस समझौते का मुख्य लक्ष्य इस सदी में वैश्विक तापमान वृद्धि को पूर्व-औद्योगिक स्तरों की तुलना में 2 डिग्री सेल्सियस से नीचे रखकर जलवायु परिवर्तन के खतरे के प्रति वैश्विक प्रतिक्रिया में सुधार करना और तापमान वृद्धि को 1.5 डिग्री सेल्सियस तक सीमित रखने के प्रयासों को आगे बढ़ाना है। इसके अलावा, समझौता जलवायु परिवर्तन के प्रभावों से निपटने के लिए राष्ट्रों की क्षमता को मजबूत करने और कम जीएचजी उत्सर्जन और जलवायु-लचीले रास्तों के साथ वित्तपोषण प्रवाह को संरेखित करने की आकांक्षा रखता है। इन बुलंद लक्ष्यों को हासिल करने के लिए पर्याप्त वित्तीय संसाधन जुटाए जाने चाहिए पेरिस समझौते के तहत सभी पक्षों को राष्ट्रीय स्तर पर निर्धारित योगदान (एनडीसी) के माध्यम से अपना सर्वश्रेष्ठ प्रदर्शन करने और आने वाले वर्षों में इन प्रयासों को मजबूत करने की आवश्यकता है। इसमें दायित्व शामिल हैं कि सभी पक्ष नियमित रूप से अपने उत्सर्जन और कार्यान्वयन गतिविधियों पर रिपोर्ट करें। समझौते के लक्ष्य की दिशा में सामूहिक प्रगति की समीक्षा करने और पक्षों की भविष्य की व्यक्तिगत कार्रवाइयों को सूचित करने के लिए हर पांच साल में एक वैश्विक स्टॉक-टेक आयोजित किया जाएगा। पेरिस समझौता 22 अप्रैल, 2016 को पृथ्वी दिवस पर न्यूयॉर्क में संयुक्त राष्ट्र मुख्यालय में हस्ताक्षर के लिए उपलब्ध हुआ। 4 नवंबर, 2016 को, तथाकथित डबल थ्रेशोल्ड (विश्व उत्सर्जन के कम से कम 55 प्रतिशत के लिए जिम्मेदार 55 देशों द्वारा अनुसमर्थन) पूरा होने के 30 दिन बाद यह प्रभावी हुआ। तब से लेकर अब तक और भी देशों ने समझौते की पुष्टि की है और पुष्टि करना जारी रखा है, जिससे 2017 की शुरुआत में 125 पक्ष इसमें शामिल हो गए। पेरिस समझौते को पूरी तरह से क्रियान्वित करने के लिए, पेरिस में तंत्र, प्रक्रियाओं और चिंताओं की एक विस्तृत श्रृंखला पर सिफारिशों को परिभाषित करने के लिए एक कार्य कार्यक्रम शुरू किया गया था। 2016 से, पार्टियों ने सहायक निकायों (।चाएँ।टैज। और।ठ।) और कई गठित संस्थाओं में सहयोग किया है। पेरिस समझौते के पक्षकारों की बैठक (COP) के रूप में कार्य करने वाले पार्टियों का सम्मेलन पहली बार नवंबर 2016 में C22 के साथ मारकेश में आयोजित किया गया था और इसके पहले दो प्रस्ताव बनाए गए थे। कार्य योजना 2018 तक पूरी होने वाली है। पेरिस समझौते की संभावना में उत्सर्जन को कम करने के लिए कुछ शमन और अनुकूलन रणनीतियाँ इस प्रकार हैं सबसे पहले, वैश्विक औसत तापमान में वृद्धि को पूर्व-औद्योगिक स्तरों से 2 डिग्री सेल्सियस से नीचे रखने का दीर्घकालिक लक्ष्य, दूसरा, वृद्धि को 1.5 डिग्री सेल्सियस तक सीमित रखने का लक्ष्य, क्योंकि इससे जलवायु परिवर्तन के जोखिम और

प्रभाव काफी कम हो जाएंगे, तीसरा, वैश्विक उत्सर्जन को जल्द से जल्द चरम पर पहुंचाने की आवश्यकता, यह मानते हुए कि विकासशील देशों को इसमें अधिक समय लगेगा, अंत में, उसके बाद सर्वोत्तम उपलब्ध विज्ञान के तहत तेजी से कटौती करना, ताकि सदी के उत्तरार्ध में उत्सर्जन और निष्कासन के बीच संतुलन हासिल किया जा सके। दूसरी ओर, कुछ अनुकूलन रणनीतियाँ हैं जलवायु परिवर्तन के प्रभावों से निपटने के लिए समाजों की क्षमता को मजबूत करना और विकासशील देशों के अनुकूलन के लिए अंतर्राष्ट्रीय सहायता को जारी रखना और उसका विस्तार करना।

हालांकि, मानवजनित गतिविधियों को वर्तमान में जलवायु परिवर्तन के लिए सबसे अधिक जवाबदेह माना जाता है। औद्योगिक क्रांति के अलावा, अन्य मानवजनित गतिविधियों में अत्यधिक कृषि कार्य शामिल हैं, जिसमें ईंधन आधारित मशीनीकरण का अधिक उपयोग, कृषि अवशेषों को जलाना, जीवाश्म ईंधन को जलाना, वनों की कटाई, राष्ट्रीय और घरेलू परिवहन क्षेत्र आदि शामिल हैं। नतीजतन, ये मानवजनित गतिविधियाँ जलवायु संबंधी तबाही का कारण बनती हैं, स्थानीय और वैश्विक बुनियादी ढांचे, मानव स्वास्थ्य और कुल उत्पादकता को नुकसान पहुंचाती हैं। ऊर्जा की खपत ने तापमान बढ़ने के संबंध में जीएचजी के स्तर को बढ़ा दिया है क्योंकि विकासशील देशों में अधिकांश ऊर्जा उत्पादन जीवाश्म ईंधन से आता है।

इस समीक्षा का उद्देश्य पर्यावरण को प्रभावित करने वाले वैश्विक स्तर पर विभिन्न क्षेत्रीय साक्ष्यों पर मौजूदा साहित्य का विश्लेषण करके सामाजिक-वैज्ञानिक पहलू में जलवायु परिवर्तन के प्रभावों को उजागर करना है। यद्यपि यह समीक्षा जलवायु परिवर्तन और इसके गंभीर रूप से प्रभावित क्षेत्रों की गहन जांच करती है जो वैश्विक कृषि, जैव विविधता, स्वास्थ्य, अर्थव्यवस्था, वानिकी और पर्यटन के लिए गंभीर खतरा पैदा करते हैं, और जलवायु परिवर्तन प्रभावों से बचने के लिए ध्वनि विकल्प के रूप में अनुकूलित किए जाने वाले कुछ व्यावहारिक रोगनिरोधी उपायों और शमन रणनीतियों का उद्देश्य बताते हैं। अनियमित मौसम पैटर्न और जलवायु परिवर्तन के अन्य प्रभावों के सामाजिक निहितार्थों पर विस्तार से चर्चा की गई है। इस समीक्षा में वैश्विक स्तर पर कुछ असंख्य स्थायी शमन उपायों और अनुकूलन प्रथाओं और तकनीकों पर इसके आर्थिक, सामाजिक और पर्यावरणीय पहलुओं पर गहन ध्यान देने के साथ चर्चा की गई है। डेटा संग्रह अनुभाग के तरीके पूरक जानकारी में शामिल हैं। संबंधित अध्ययन और उसके उद्देश्य आज, हम सुंदर डिजिटल, वैश्वीकृत दुनिया में एक साधारण जीवन जी रहे हैं जहाँ जलवायु परिवर्तन की निर्णायक भूमिका है। एक देश में जो कुछ होता है उसका भौगोलिक रूप से दूर-दूर के देशों पर व्यापक प्रभाव पड़ता है, जो वर्तमान संकट को कोविड-19 के रूप में इंगित करता है। कोविड-19 जैसी सबसे खतरनाक बीमारी ने दुनिया के जलवायु परिवर्तन और आर्थिक स्थितियों को प्रभावित किया है।

वर्तमान अध्ययन का उद्देश्य

इस विषय पर शोध की स्थिति की समीक्षा करना है, जो पिछले प्रकाशित और अप्रकाशित शोध कार्यों की व्यवस्थित समीक्षा करके वैश्विक जलवायु परिवर्तन प्रभाव, अनुकूलन और सतत शमन उपायों पर आधारित है। इसके अलावा, वर्तमान अध्ययन उसी विषय पर शोध पर टिप्पणी करता है और उसी विषय पर भविष्य के शोध का सुझाव प्रस्तुत करता है। विशेष रूप से, वर्तमान अध्ययन का उद्देश्य है— पहला, प्रकाशनों को व्यवस्थित करना ताकि उन्हें ढूंढना आसान और त्वरित हो। दूसरा, इस क्षेत्र में मुद्दों का पता लगाना, भविष्य के काम के लिए शोध की रूपरेखा प्रस्तावित करना। अध्ययन का तीसरा उद्देश्य जलवायु परिवर्तन, विभिन्न क्षेत्रों और उनके मिटिगेशन माप पर पिछले साहित्य को संबंधित करना है।

समीक्षा पद्धति

इस समीक्षा—आधारित लेख में व्यवस्थित साहित्य समीक्षा तकनीकों का पालन किया गया है। सबसे पहले, साहित्य की खोज के लिए शोध विषय को अंतिम रूप दिया। दूसरे, संबंधित लेखों को खोजने और डेटाबेस से डाउनलोड करने के लिए कई शोध डेटाबेस का उपयोग किया। विभिन्न लेखों पर ध्यान केंद्रित

किया, जिसमें शोध लेख, फीडबैक टुकड़े, लघु नोट्स, बहस और विद्वानों की पत्रिकाओं में प्रकाशित समीक्षा लेख शामिल हैं। रिपोर्ट में कई कीवर्ड जैसे जलवायु परिवर्तन, शमन और अनुकूलन, कृषि और मानव स्वास्थ्य विभाग, जैव विविधता और वानिकी विभाग, आदि की खोज की गई।

प्राकृतिक आपदाएँ और जलवायु परिवर्तन के सामाजिक-आर्थिक परिणाम

प्राकृतिक और पर्यावरणीय आपदाएँ साल-दर-साल अत्यधिक परिवर्तनशील हो सकती हैं कुछ साल बहुत कम मौतों के साथ बीत जाते हैं, इससे पहले कि कोई महत्वपूर्ण आपदा घटना कई लोगों की जान ले ले (सिमांस्की 2021)। पिछले एक दशक में हर साल औसतन प्राकृतिक आपदाओं से वैश्विक स्तर पर लगभग 60,000 लोगों की मौत हुई (रिची और रोजर 2014, विरानाटा और सिम्बोलोन 2021)। तो, रिपोर्ट के अनुसार, वैश्विक मौतों का लगभग 0.1 प्रतिशत। मौतों की संख्या कम हो सकती है – कभी-कभी 10,000 से कम, और सभी मौतों का 0.01 प्रतिशत जितना कम। लेकिन सदमे की घटनाओं का विनाशकारी प्रभाव होता है। इथियोपिया में 1983-1985 का अकाल और सूखा और हैती में 2010 में आए पोर्ट-ऑ-प्रिंस भूकंप और अब हालिया उदाहरण कोविड-19 महामारी है (एरमान 2021)। इन घटनाओं ने वैश्विक आपदा मौतों को 200,000 से अधिक तक पहुंचा दिया है। वर्षों में हुई मौतों का 0.4 प्रतिशत से अधिक। भूकंप और सुनामी जैसी कम आवृत्ति, उच्च प्रभाव वाली घटनाओं को रोका नहीं जा सकता है, लेकिन मानव जीवन का इतना अधिक नुकसान रोका जा सकता है। ऐतिहासिक साक्ष्य बताते हैं कि पहले आपदा का पता लगाने, अधिक मजबूत बुनियादी ढांचे, आपातकालीन तैयारी और प्रतिक्रिया कार्यक्रमों ने दुनिया भर में आपदा से होने वाली मौतों को काफी हद तक कम कर दिया है। निम्न-आय भी आपदाओं के लिए सबसे अधिक संवेदनशील हैं इन क्षेत्रों में रहने की स्थिति, सुविधाओं और प्रतिक्रिया सेवाओं में सुधार करना आने वाले दशकों में प्राकृतिक आपदा से होने वाली मौतों को कम करने के लिए महत्वपूर्ण होगा। महाद्वीप के आंतरिक क्षेत्रों में बढ़ते तापमान का प्रभाव पड़ने की संभावना है (डिमरी 2018, गोज एट अल. 2020 प्राकृतिक संसाधनों (पानी) की कमी, ग्लेशियर पिघलने में वृद्धि और बढ़ते पारे के कारण मौसम के पैटर्न में बदलाव के कारण कई पौधों की प्रजातियों के विलुप्त होने की संभावना है (गाम्पे 2016, मिहिरेतु 2021, शैफ्रिल 2018)। दूसरी ओर, तटीय पारिस्थितिकी तंत्र तबाही के कगार पर है (पेरेरा 2018, फिलिप्स 2018)। तापमान में वृद्धि, कीट रोग का प्रकोप, स्वास्थ्य संबंधी समस्याएं और मौसमी और जीवनशैली में बदलाव लगातार जारी हैं, इन पैटर्न के भविष्य में भी जारी रहने की प्रबल संभावना है (अब्बास 2021, सी. हुसैन 2018)। वैश्विक स्तर पर, अच्छे बुनियादी ढांचे की कमी और अपर्याप्त अनुकूलन क्षमता सबसे अधिक प्रभावित कर रही है (आईपीसीसी 2013)।

उपरोक्त चिंताओं के अलावा, पर्यावरण शिक्षा और ज्ञान की कमी, पुराना उपभोक्ता व्यवहार, प्रोत्साहनों की कमी, कानून की कमी और जलवायु परिवर्तन के प्रति सरकार की प्रतिबद्धता की कमी आम जनता की चिंताओं में योगदान करती है। 2050 तक, पारे में 2 से 3 प्रतिशत की वृद्धि और वर्षा पैटर्न में भारी बदलाव के गंभीर परिणाम हो सकते हैं (हुआंग 2022, गोर्स्ट 2018)। प्राकृतिक और पर्यावरणीय आपदाओं ने वैश्विक स्तर पर भारी नुकसान पहुंचाया, जैसे कि कृषि उत्पादन में कमी, सिस्टम का पुनर्वास और आवश्यक तकनीकों का पुनर्निर्माण (अली और एरेनस्टीन 2017, रामनकुट्टी 2018,) इसके अलावा, पिछले 3 या 4 वर्षों में, दुनिया धुंध से संबंधित आंखों और त्वचा रोगों से ग्रस्त रही है, साथ ही खराब दृश्यता के कारण सड़क दुर्घटनाओं में भी वृद्धि हुई है।

जलवायु परिवर्तन और कृषि

वैश्विक कृषि सभी ग्रीनहाउस उत्सर्जन के 30-40 प्रतिशत के लिए जिम्मेदार अंतिम क्षेत्र है, जो इसे जलवायु वार्मिंग में मुख्य रूप से योगदान देने वाला एक प्रमुख उद्योग बनाता है और इससे काफी प्रभावित होता है (ग्रीगय मिश्रा 2021, ऑर्टिज 2021, थॉर्नटन और लिपर 2014)। कई कृषि-पर्यावरणीय और जलवायु कारक जिनका कृषि उत्पादकता पर प्रमुख प्रभाव पड़ता है (पौतासो 2012) बाढ़, जंगल की आग और सूखे (हुआंग 2004) सहित वर्षा की चरम स्थितियों के जवाब में काफी प्रभावित होते हैं। इसके अलावा, समाप्त होने वाले

संसाधनों पर अत्यधिक निर्भरता भी आग को हवा देती है और वैश्विक कृषि को तबाही की ओर ले जाती है। गॉडफ्रे एट अल. (2010) ने उल्लेख किया कि कृषि में गिरावट किसान के जीवन की गुणवत्ता को चुनौती देती है और इस प्रकार गरीबी का एक महत्वपूर्ण कारक है क्योंकि खाद्य और पानी की आपूर्ति जलवायु परिवर्तन (ऑर्टिज 2021, रोसेनजवेग 2014) द्वारा गंभीर रूप से प्रभावित होती है। आर्थिक प्रणालियों के एक अनिवार्य हिस्से के रूप में, विशेष रूप से विकासशील देशों में, कृषि प्रणालियाँ समग्र अर्थव्यवस्था और संभावित रूप से घरों की भलाई को प्रभावित करती हैं (श्लेनकर और रॉबर्ट्स 2009)। जलवायु परिवर्तन पर अंतर सरकारी पैनाल द्वारा प्रकाशित रिपोर्ट के अनुसार, ग्रीनहाउस गैसों की वायुमंडलीय सांद्रता पिछली कुछ शताब्दियों में हवा में असाधारण स्तर तक बढ़ गई है (उस्मान और मखदूम 2021, स्टॉकर 2013)। जलवायु परिवर्तन दो अलग-अलग कारकों का संयुक्त परिणाम है। पहला प्राकृतिक कारण है, और दूसरा मानवजनित क्रियाएँ हैं (करमी 2012)। यह भी अनुमान लगाया गया है कि इस सदी के अंत तक विश्व में तापमान में 1 से 3.7 डिग्री सेल्सियस तक की वृद्धि हो सकती है (पचौरी 2014)।

जलवायु परिवर्तन का जैव विविधता पर प्रभाव अध्ययनों से पता चला है कि बड़े पैमाने पर प्रजातियों की गतिशीलता काफी हद तक विविध जलवायु घटनाओं (अब्राहम और चैन 1988, मैन्स 2021, ए.एम.डी. ऑर्टिज 2021) से जुड़ी हुई है। जलवायु परिवर्तन की गति और परिमाण दोनों ही समुद्री, मीठे पानी और स्थलीय क्षेत्रों के जीवों के लिए अनुकूल आवास सीमाओं को बदल रहे हैं। सामान्य जलवायु व्यवस्थाओं में परिवर्तन कई तरीकों से पारिस्थितिकी तंत्र की अखंडता को प्रभावित करते हैं, जैसे कि प्रजातियों की सापेक्ष बहुतायत में भिन्नता, सीमा में बदलाव, गतिविधि समय में परिवर्तन और माइक्रोहैबिटेट उपयोग (बेट्स 2014)। किसी भी प्रजाति का भौगोलिक वितरण अक्सर पर्यावरणीय तनावों, जैविक अंतःक्रियाओं और फैलाव बाधाओं को सहन करने की उसकी क्षमता पर निर्भर करता है। इसलिए, जलवायु परिवर्तन के बजाय, स्थानीय प्रजातियों को केवल स्वीकार करना, अनुकूलन करना, स्थानांतरित करना या विलुप्त होने का सामना करना होगा (बर्ग 2010)। इसलिए, सबसे अच्छा प्रदर्शन करने वाली प्रजातियों में नए पारिस्थितिक तंत्रों के साथ समायोजन करने की बेहतर जीवित रहने की क्षमता होती है या जहां वे पहले से स्थित हैं वहां जीवित रहने की कम दृढ़ता होती है (बेट्स 2014)।

मानव स्वास्थ्य पर जलवायु परिवर्तन के निहितार्थ

यह एक सर्वविदित तथ्य है कि मानव स्वास्थ्य जलवायु परिवर्तन का एक महत्वपूर्ण शिकार है (कॉस्टेलो 2009)।¹ के अनुसार, जलवायु परिवर्तन 2030–2050 के दौरान प्रति वर्ष 250,000 अतिरिक्त मौतों के लिए जिम्मेदार हो सकता है (वाट्स 2015)। इन मौतों का कारण अत्यधिक मौसम से होने वाली मृत्यु दर और रुग्णता और वेक्टर जनित बीमारियों का वैश्विक विस्तार है (लेमेरी 2021, यांग और उस्मान 2021, मेयरिक्स 2021)।

वन क्षेत्र पर जलवायु परिवर्तन का प्रभाव

वन दुनिया की जलवायु के वैश्विक नियामक हैं और वैश्विक कार्बन और नाइट्रोजन चक्रों को विनियमित करने में उनकी एक अपरिहार्य भूमिका है (रहमान 2021, रीचस्टीन और कार्वालहिस 2019)। इसलिए, वन पारिस्थितिकी में गड़बड़ी सूक्ष्म और स्थूल जलवायु को प्रभावित करती है (एलिसन 2017)। बदले में, जलवायु वार्मिंग का तापमान और वर्षा पैटर्न आदि को प्रभावित करके ट्रांसपाइरेंस वनों की वृद्धि और उत्पादकता पर गहरा प्रभाव पड़ता है। चूंकि वन पारिस्थितिकी तंत्र की विशिष्ट संरचना और कार्यों में विशिष्ट परिवर्तन लाती है (झांग 2017) और साथ ही वन स्वास्थ्य को प्रभावित करती है, जलवायु परिवर्तन के कई विनाशकारी परिणाम भी होते हैं जैसे कि जंगल की आग, सूखा, कीटों का प्रकोप और अंतिम लेकिन कम से कम वन-निर्भर समुदायों की आजीविका। एक अन्य वन उत्पाद, यानी सूखे की बढ़ती आवृत्ति और तीव्रता, वैश्विक वनों की भलाई के लिए बहुत सारी चुनौतियाँ पेश करती है (डिफेनबॉग 2017), जिसके जल्द ही और बढ़ने का अनुमान है (हार्टमैन 2018, लेहनर 2017, रहमान 2021)। इसलिए, जलवायु परिवर्तन तूफानों को प्रेरित करता है, और अधिक महत्वपूर्ण प्रभाव वैश्विक वनों के अस्तित्व पर अतिरिक्त दबाव भी डालता है (मार्टिनेज-अल्वाराडो 2018)।

आर्थिक क्षेत्र पर जलवायु परिवर्तन का प्रभाव

जलवायु समग्र उत्पादकता और आर्थिक विकास में महत्वपूर्ण भूमिका निभाती है। अपने बढ़ते वैश्विक अस्तित्व और आर्थिक विकास पर इसके प्रभाव के कारण, जलवायु परिवर्तन स्थानीय और अंतर्राष्ट्रीय पर्यावरण नीति निर्माताओं (फेरेरा 2020, ग्लेडिश 2021, अब्बास 2021, लैम्पर्टी 2021) दोनों की प्रमुख चिंताओं में से एक बन गया है। इसलिए कृषि क्षेत्र के समग्र उत्पादकता कारक पर जलवायु परिवर्तन के प्रतिकूल प्रभाव स्थानीय अनुकूलन नीतियों के निर्माण और उत्पादक जलवायु नीति अनुबंधों की संरचना को समझने के लिए महत्वपूर्ण हैं। दुनिया में जलवायु परिवर्तन पर पिछले अध्ययनों ने पहले ही कृषि क्षेत्र पर इसके प्रभावों का पूर्वानुमान लगा दिया है। शोधकर्ताओं ने पाया है कि वैश्विक जलवायु परिवर्तन दुनिया के विभिन्न क्षेत्रों में कृषि क्षेत्र को प्रभावित करेगा। अन्य जनसांख्यिकीय क्षेत्रों में विभिन्न कृषि गतिविधियों पर जलवायु परिवर्तन के प्रभावों का अध्ययन और प्रभावों का जवाब देने के लिए सापेक्ष रणनीतियों का विकास शोधकर्ताओं के लिए एक केंद्र बिंदु बन गया है (चांडियो 2020, ग्लेडिश 2021, मोसावी 2020)। 1980 के दशक से ग्लोबल वार्मिंग के तेजी से बढ़ने के साथ, वैश्विक स्तर पर तापमान बढ़ने लगा है, जिसके परिणामस्वरूप देशों में बारिश और वाष्पीकरण में अविश्वसनीय परिवर्तन हुआ है। कई देशों का कृषि विकास लंबे समय से जलवायु परिवर्तन पर निर्भर, नाजुक और अतिसंवेदनशील रहा है, और यह कृषि के विकास पर है कुल कारक उत्पादकता विभिन्न फसलों और किसानों की पैदावार को प्रभावित करती है (अलहसन 2021य वू 2020)। दुनिया में खाद्य सुरक्षा और प्राकृतिक आपदाएँ तेजी से बढ़ रही हैं। कई प्रमुख जलवायुप्राकृतिक आपदाओं ने संबंधित देशों में स्थानीय फसल उत्पादन को प्रभावित किया है। इन प्राकृतिक आपदाओं के प्रभावों को अर्थव्यवस्थाओं और आबादी के विकास द्वारा खराब तरीके से नियंत्रित किया गया है और ये मानव जीवन को भी प्रभावित कर सकते हैं। एक उदाहरण चीन है, जो दुनिया के सबसे अधिक प्रभावित देशों में से एक है, जो अपनी बड़ी आबादी, कठोर पर्यावरणीय परिस्थितियों, तेजी से ढूँ, कम पर्यावरणीय स्थिरता और आपदा शक्ति के कारण प्राकृतिक आपदाओं के प्रति संवेदनशील है। जनवरी 2016 के सांख्यिकीय सर्वेक्षण के अनुसार, चीन ने 298.3 बिलियन युआन का आर्थिक नुकसान उठाया और लगभग 137 मिलियन चीनी लोग विभिन्न प्राकृतिक आपदाओं (झी 2018) से गंभीर रूप से प्रभावित हुए।

निष्कर्ष

विशिष्ट सामाजिक-कृषि, सामाजिक-आर्थिक और भौतिक प्रणालियाँ मनोवैज्ञानिक कल्याण की आधारशिला हैं और जलवायु परिवर्तन द्वारा इन प्रणालियों में परिवर्तन के विनाशकारी प्रभाव होंगे। जलवायु परिवर्तनशीलता, अन्य मानवजनित और प्राकृतिक तनावों के साथ, मानव और पर्यावरणीय स्वास्थ्य स्थिरता को प्रभावित करती है। खाद्य सुरक्षा एक और चिंताजनक परिदृश्य है जो खाद्य गुणवत्ता से समझौता, उच्च खाद्य कीमतों और अपर्याप्त खाद्य वितरण प्रणालियों को जन्म दे सकता है। वैश्विक वनों को विभिन्न जलवायु कारकों जैसे तूफान, सूखा, अचानक बाढ़ और तीव्र वर्षा से चुनौती मिलती है। दूसरी ओर, उनका मानवजनित सफाया उनके अस्तित्व को बढ़ा रहा है। वर्तमान में, पृथ्वी पर आधुनिक जीवन लगातार जलवायु पैटर्न के अनुरूप है, और तदनुसार, इस तरह के काफी बदलावों के अनुकूल होना सबसे महत्वपूर्ण है। क्योंकि जलवायु में तेजी से होने वाले परिवर्तन जीवित रहने और समायोजित होने को कठिन बना देंगे, इस वैश्विक स्तर पर बढ़ती पहली को प्राथमिक समुदाय स्तर से लेकर अंतर्राष्ट्रीय स्तर तक हर स्तर पर तत्काल ध्यान देने की आवश्यकता है। फिर भी, बहुत प्रयास, शोध और समर्पण की आवश्यकता है, जो सबसे महत्वपूर्ण समय है।

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राजस्थान में खनिज संसाधनों का अध्ययन एवं संरक्षण

राजकुमार वर्मा*
डॉ. बिपिन मण्डार**

सार

खनिजों की दृष्टि से राजस्थान एक अतिसमृद्ध राज्य है। राजस्थान को "खनिजों का संग्रहालय या खनिजों का अजायबघर" कहा जाता है। राजस्थान में कृषि के बाद खनन क्षेत्र एक अन्य प्रमुख क्षेत्र है। राजस्थान में वर्तमान में लगभग 79 प्रकार के खनिज पाये जाते हैं जिसमें से यहाँ 58 प्रकार के खनिजों का दोहन किया जाता है। राजस्थान का खनिजों की दृष्टि से भारत में दूसरा स्थान है। खनिज क्षयशील एवं अनवीकरणीय संसाधन है। इनकी मात्रा सीमित है तथा पुनर्निर्माण असम्भव है। खनिज उद्योगों का आधार है किन्तु औद्योगिक विकास के लिए खनिजों का अतिशय दोहन एवं उपयोग उनके अस्तित्व के लिए संकट है। अतः खनिजों का संरक्षण एवं प्रबंधन आवश्यक है। खनिज संसाधनों का विवेकपूर्ण उपयोग तीन बातों पर निर्भर है— खनिजों के लगातार दोहन पर नियंत्रण, उनका बचतपूर्वक उपयोग एवं कच्चे माल के रूप में सस्ते विकल्पों की खोज, खनिजों के अपशिष्ट पदार्थों का बुद्धिमतापूर्वक उपयोग। खनिज निर्माण के लिए चक्रीय पद्धति को अपनाना प्रबंधन कहलाता है। यदि खनिजों के संरक्षण के साथ-साथ प्रबंधन पर ध्यान दिया जाए तो खनिज संकट से निपटा जा सकता है।

शब्द कोश: संग्रहालय, खनिजों का अजायबघर, क्षयशील, अनवीकरणीय, विवेकपूर्ण दोहन।

प्रस्तावना

जिस प्रकार पानी और जमीन पृथ्वी पर बहुत महत्वपूर्ण खजाना है, वैसे ही महत्वपूर्ण खनिज संसाधन भी है। खनिज संसाधनों के अभाव में हम अपने देश की औद्योगिक गतिविधियों को गति, रणनीति और सही दिशा नहीं दे सकते हैं जिससे देश का आर्थिक विकास भी अवरुद्ध हो सकता है। खनिज सम्पदा दुनिया के कई देशों में राष्ट्रीय आय का एक प्रमुख स्रोत है। किसी देश की आर्थिक, सामाजिक प्रगति उसके प्राकृतिक संसाधनों का उचित उपयोग करने की क्षमता पर निर्भर करती है। खनिजों की सबसे महत्वपूर्ण विशेषता यह है कि वे उपयोग में आने के बाद लगभग समाप्त हो जाते हैं। यह हमारे वर्तमान और भविष्य के कल्याण से संबंधित है क्योंकि खनिज अनवीकरणीय संसाधन है जिन्हें फिर से नवीनीकृत नहीं किया जा सकता है इसलिए इनके संरक्षण की आवश्यकता बहुत अधिक है।

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राजस्थान खनिजों की दृष्टि से एक सम्पन्न राज्य है। राजस्थान में 79 प्रकार के खनिज पाये जाते हैं जिसमें से 58 प्रकार के खनिजों का दोहन किया जाता है। देश के कुल खनिज उत्पादन में राजस्थान का योगदान 22 प्रतिशत है। राजस्थान का खनिज भण्डारों की दृष्टि से झारखण्ड के बाद दूसरा स्थान तथा खनिज उत्पादन की दृष्टि से झारखण्ड, मध्यप्रदेश के बाद तीसरा स्थान है। 1979 ई. में राजस्थान में खनिज विकास निगम की स्थापना की गई। राजस्थान की पहली खनिज नीति 1978 में तत्कालीन मुख्यमंत्री भैरो सिंह शेखावत के अधीन बनाई गई थी। 1991 में दूसरी खनिज नीति बनाई गई। राजस्थान के खान और भू-विज्ञान निदेशालय ने राज्य में खनन क्षेत्र को विकसित करने के लिए "खनिज आधारित उद्योगों के लिए पर्यावरण के अनुकूल और उपयुक्त वातावरण विकसित करने के लिए सर्वोच्च प्राथमिकता" की शुरुआत की गई। राजपुरा-दरीबा-बामनिया कला क्षेत्र को भारतीय भूवैज्ञानिक सर्वेक्षण विभाग द्वारा "भूवैज्ञानिक पार्क" के रूप में संरक्षित किया गया है। राजस्थान के खनिज विभाग ने 15 अगस्त, 1999 को "विजन-2020" घोषित किया। राजस्थान स्टेट माइंस एण्ड मिनरल्स लिमिटेड की स्थापना 2003 में की गई थी। राजस्थान में नई खनन नीति को 28 जनवरी, 2011 को राज्य मंत्रीमण्डल द्वारा अनुमोदित किया गया था। राज्य की नई खनिज नीति 4 जून, 2015 को जारी की गई थी। राजस्थान देश का एकमात्र सीसा, जस्ता, वोलास्टोनाइट, सेलेनाइट, कैल्साइट और जिप्सम का उत्पादक है। राज्य में प्रमुख खनिजों के लिए 148 खनन पट्टे, गौण खनिजों के लिए 16817 खनन पट्टे और 17454 खदान लाइसेंस हैं। वित्त वर्ष 2023-24 में राजस्थान में खनिजों से राज्य को कुल राजस्व 7491 करोड़ रुपये प्राप्त हुआ।

राजस्थान की भौगोलिक स्थिति

राजस्थान की स्थिति 23°3' उ. अक्षांश से 30°12' उ. अक्षांश तथा 69°30' पूर्वी देशान्तर से 78°17' पूर्वी देशान्तर के मध्य स्थित है। राजस्थान का अधिकांश भाग कर्क रेखा के उत्तर में स्थित है। कर्क रेखा राज्य में डूंगरपुर जिले की दक्षिणी सीमा से होती हुई बाँसवाड़ा जिले के लगभग मध्य से गुजरती है। जलवायु की दृष्टि से राजस्थान का अधिकांश भाग उपोष्ण या शीतोष्ण कटिबन्ध में स्थित है। राजस्थान की उत्तर (कोणा गाँव-गंगानगर) से दक्षिण (बोरखेड़ा-बाँसवाड़ा) तक की कुल लम्बाई 826 कि.मी. है तथा पूर्व (सिलान गाँव-धौलपुर) से पश्चिम (कटरा-जैसलमेर) तक की कुल चौड़ाई 869 कि.मी. है।



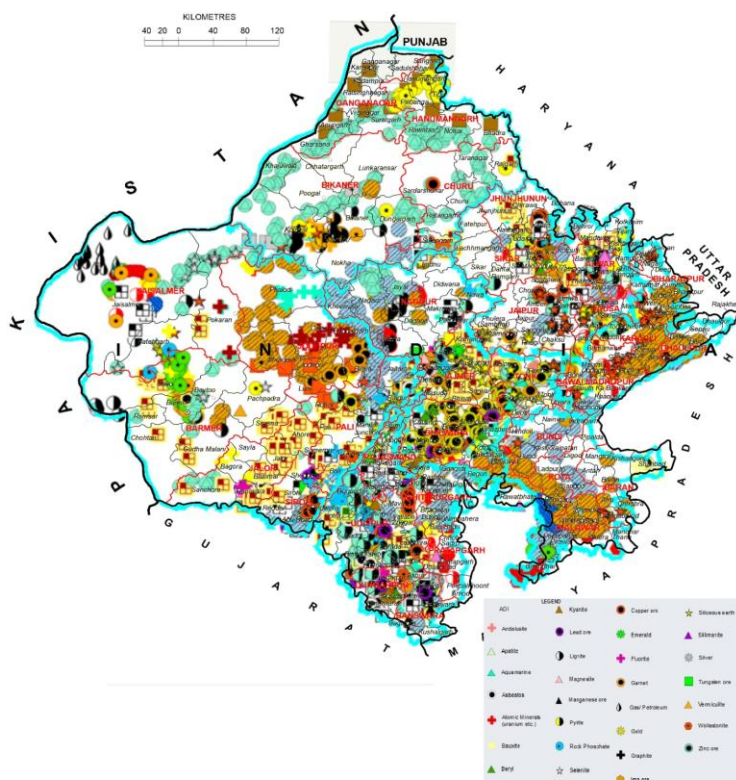
चित्र 1

- राजस्थान में खनिजों के वर्तमान स्वरूप का अध्ययन किया गया है।
- राजस्थान में खनिजों के संरक्षण के महत्व को स्पष्ट किया गया।
- राजस्थान में खनिज विकास हेतु किए गए प्रयासों को स्पष्ट किया गया है।

- वर्तमान में राज्य में खनिजों के खनन/दोहन में लगातार वृद्धि हो रही है।
- राज्य/केन्द्र सरकार द्वारा खनिजों के विकास एवं संरक्षण हेतु प्रयास किये जा रहे हैं।

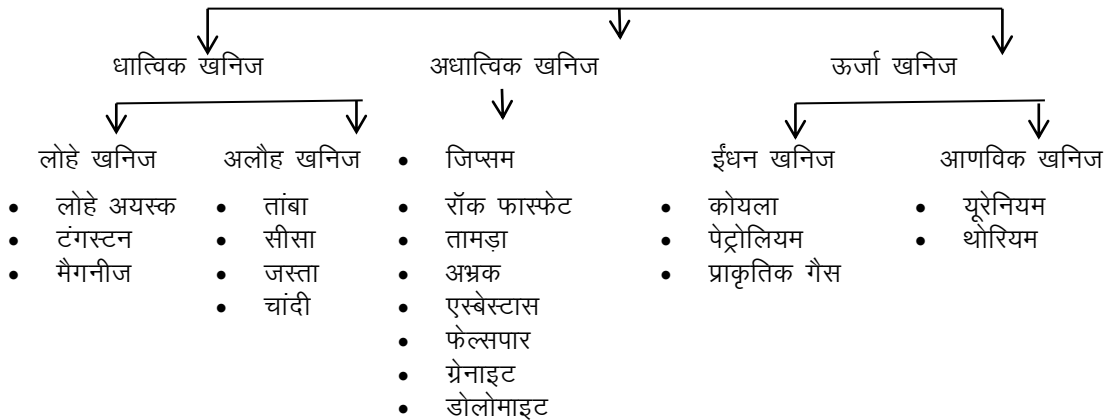
प्रस्तुत शोध पत्र में प्राथमिक एवं द्वितीयक आँकड़ों का प्रयोग किया गया है। प्राथमिक आँकड़ों का संकलन प्रश्नावली, साक्षात्कार, अनुसूची एवं व्यक्तिगत सम्पर्क से किया गया है। द्वितीयक आँकड़ों का संकलन डायरी, पत्र-पत्रिकाओं, समाचार पत्र, राजस्थान खनिज निगम, सरकारी वेबसाईड एवं पुस्तकों के माध्यम से किया गया है।

राजस्थान में खनिजों का क्षेत्रीय वितरण किसी एक प्राकृतिक विभाग में केन्द्रित न होकर छितरा हुआ है तथा साथ ही खनिजों की मात्रा भी असमान है। राज्य के अधिकांश उत्पादित खनिज भीलवाड़ा, कोटा, अजमेर, जोधपुर, जयपुर, करौली, सवाईमाधोपुर, टोंक आदि जिलों से खनन किये जाते हैं।



चित्र 2

राजस्थान में खनिजों का वर्गीकरण



- लोह-अयस्क:**— राजस्थान लोह-अयस्क और सुरक्षित भण्डारों की दृष्टि से एक निर्धन राज्य है। इस राज्य में लोह-अयस्क की विभिन्न किस्में पाई जाती है जैसे— हैमेटाइट, लिमोनाइट आदि। लोहा अयस्क का उत्पादन 1953 से किया जा रहा है। वर्ष 2022-23 में लोहा अयस्क का उत्पादन 5.60 मिलियन टन था।

उपयोग— इस्ताप निर्माण, बुनियादी ढांचा, ऑटोमोबाइल क्षेत्र में।

प्रमुख क्षेत्र— मोरीजा— बानोल, नीमला— राइसेला, डाबला—सिंघाना, नाथरा की पाल, थूर—हुन्डेर आदि है।

- मैगनीज:**— राजस्थान में मैगनीज की कच्ची धातु मुख्यतः बांसवाड़ा जिले में पायरोल्युसाइट, ब्राऊनाइट खनिज के रूप में मिलती है। कुछ मैगनीज अयस्क उदयपुर जिले के नेगड़िया व रामौसन गाँवों के निकट भी मिलते हैं। वर्तमान में (2018-19) मैगनीज उत्पादन 9.29 हजार टन उत्पादन किया गया।

प्रमुख क्षेत्र— बांसवाड़ा (लीलवानी, नरड़िया, इटावा, कालाखूआ), उदयपुर (नेगड़िया, सरूपपुरा), सवाईमाधोपुर (गंगवाड़ा)।

- सीसा-जस्ता:**— भारत में सीसा-जस्ता का उत्पादन केवल राजस्थान ही करता है। राजस्थान में जस्ता-सीसा मिश्रित रूप में मिलता है राजस्थान में सीसा-जस्ता का उत्पादन वर्ष 2022-23 में 1.4 मिलियन टन एवं जस्ता का उत्पादन 0.84 मिलियन टन था।

उपयोग— बैटरी, ऑटोमोबाइल, इलेक्ट्रिक वाहन आदि में।

प्रमुख क्षेत्र त्र जावर खान (उदयपुर)।

- तांबा:**— तांबा अलोह-धातु पदार्थों में सबसे महत्वपूर्ण है। राजस्थान में 13.11 करोड़ टन तांबे के भण्डार होने का अनुमान है। राजस्थान में तांबे का उत्पादन वर्ष 2022-23 में 1.1 मिलियन टन था।

उपयोग— नवीकरणीय ऊर्जा, ट्रांसमिशन नेटवर्क, इलेक्ट्रिक वाहन आदि में

प्रमुख क्षेत्र त्र खेतड़ी, सिंघाना (झुंझुनू), खो-दरीबा (अलवर), देलवाला— केरावली (उदयपुर), भीलवाड़ा, झालावाड़ आदि।

- ऐस्बेस्टास:**— ऐस्बेस्टॉस शब्द का प्रयोग ऐसे खनिज के लिए होता है जो बहुत कुछ लचीले तन्तुओं में अलग किया जा सकता है, इसका उपयोग सीमेन्ट चादरें, टाईलें, फिल्टर्स आदि के निर्माण में किया

जाता है। राज्य में ऐस्बेस्टास का उत्पादन 2005-06 में 1.570 हजार टन हुआ। परन्तु 2011-12 में इसका उत्पादन नहीं हुआ। राजस्थान में इसकी 30 खानें हैं।

प्रमुख क्षेत्र त्र झाड़ौल, बरोली, किरत (उदयपुर), डूंगरपुर, राजसमंद, अजमेर आदि।

- **फेल्सपार:-** व्यापारिक फेल्सपार-पोटाश स्पर और सोडास्पर का मिश्रण है। भारत में राजस्थान फेल्सपार का 61 प्रतिशत उत्पादन करता है। इस खनिज की प्राप्ति अभ्रक खादानों से सह-उत्पाद के रूप में होती है। राजस्थान में फेल्सपार का उत्पादन वर्ष 2022-23 में 5.6 मिलियन टन था।

उपयोग- निर्माण सामग्री, टाइल्स, ग्लास फाइबर आदि।

प्रमुख क्षेत्र:- अजमेर, जयपुर, पाली, टोंक, सीकर, उदयपुर आदि।

- **डोलोमाईट:-** डोलोमाईट में कैल्शियम तथा मैग्नेशियम का दुहरा कार्बोनेट होता है। इसका उपयोग चिप्स, पाउडर तथा चूना बनाने में किया जाता है। डोलोमाईट का उत्पादन 2018-19 में 1896.2 हजार टन रिकार्ड किया गया। राजस्थान के कुल उत्पादन का 48 प्रतिशत जयपुर जिले से, 23 प्रतिशत अलवर व 15 प्रतिशत सीकर जिले से प्राप्त होता है।
- **अभ्रक:-** राजस्थान के बहुमूल्य खनिजों में अभ्रक का मुख्य स्थान है। यह देश के कुल उत्पादन का लगभग 25 प्रतिशत खनन कर दूसरे स्थान पर है। राज्य में अभ्रक की लगभग 265 खानें हैं। राजस्थान में अभ्रक का उत्पादन 2018-19 में 9.18 हजार टन था।

प्रमुख क्षेत्र त्र टोंक, जयपुर, भीलवाड़ा, उदयपुर, सीकर, अजमेर, ब्यावर आदि।

- **जिप्सम:-** भारत में सबसे अधिक जिप्सम राजस्थान में मिलता है। भारत के कुल उत्पादन में राजस्थान का लगभग 95 प्रतिशत हिस्सा है। वर्ष 2018-19 में इसका उत्पादन 3717.85 हजार टन था।

उपयोग- सीमेन्ट, अमोनियम सल्फेट खाद, पैरिस ऑफ प्लास्टर आदि में।

प्रमुख क्षेत्र त्र नागौर (भदवासी, खैरात), बीकानेर, हनुमानगढ़, जैसलमेर, बाड़मेर आदि।

- **चीनी मृत्तिका:-** यह सब मिट्टियों में मूल्यवान होती है सिरेमिक सिलिकेट उद्योग के लिए चीनी मृत्तिका महत्वपूर्ण है राजस्थान में चीनी मृत्तिका का उत्पादन वर्ष 2022-23 में 3.0 मिलियन टन था।

प्रमुख क्षेत्र- सवाईमाधोपुर, सीकर, अलवर, जालौर आदि।

उपयोग- रबर उद्योग, पेन्ट्स, सीमेन्ट, टैक्सटाईल, चीनी मिट्टी के बर्तन आदि।

- **चूना पत्थर-** चूने का पत्थर राजस्थान में सर्वाधिक महत्वपूर्ण इमारती पत्थर है जो विभिन्न भू-वैज्ञानिक कालों जैसे अरावली, रायलो, अजबगढ़, विंध्यन तथा चतुर्थकीय आदि का राज्य के सभी भागों में मिलता है राजस्थान में चूना पत्थर का उत्पादन वर्ष 2022-23 में 93 मिलियन टन था।

प्रमुख क्षेत्र- जोधपुर का बिलाड़ा, नागौर का सोजत, सवाईमाधोपुर, उदयपुर, चित्तौड़गढ़ आदि।

उपयोग- निर्माण उद्योग, बुनियादी ढांचा आदि।

- **सोना-** भूगर्भीय सर्वेक्षण विभाग द्वारा किये गये सर्वेक्षण से बांसवाड़ा जिले के आनन्दपुर-भूकिया क्षेत्र में स्वर्ण का पता चला है। सोने का उत्पादन वर्ष 1995-96 में 201 किलोग्राम था परन्तु 2022-23 में सर्वेक्षण विभाग के द्वारा 126 मिलियन टन सोने के भण्डार खोजे गये हैं।

प्रमुख क्षेत्र- बांसवाड़ा, डूंगरपुर, सिराही।

उपयोग- आभूषण, चिकित्सा, निवेश आदि।

- **कोयला:-** राजस्थान में टशयरी कल्प का लिग्नाइट कोयला पाया जाता है। लिग्नाइट कोयले के भण्डार के मामले में तमिलनाडु के बाद राजस्थान का दूसरा स्थान है।

प्रमुख क्षेत्र त्र बाड़मेर (कपूरडी, जालिपा, गिराल), बीकानेर (पलाना, बरसिंहसर) आदि है।

क्र.सं.	खनिज	संसाधन	उत्पादन (2022-23)	उपयोग
1.	सीसा	31.26 मिलियन	0.84 मिलियन टन	बैटरी, ऑटोमोबाइल, इलेक्ट्रिक वाहन
2.	चूना पत्थर	29 बिलियन टन	93 मिलियन टन	निर्माण उद्योग, बुनियादी ढांचा
3.	तांबा	868 मिलियन टन	1.1 मिलियन टन	नवीकरणीय ऊर्जा, इलेक्ट्रिक वाहन, ट्रांसमिशन नेटवर्क
4.	लोह-अयस्क	35.5 मिलियन टन	5.6 मिलियन टन	इस्पात निर्माण, बुनियादी ढांचा, ऑटोमोबाइल
5.	सोना	126 मिलियन टन	—	आभूषण, चिकित्सा निवेश

स्रोत: आईबीएम मिनरल ईयरबुक, खान मंत्रालय, डीएमजी, राजस्थान

राजस्थान भारत में खनिज उत्पादन का एक प्रमुख केन्द्र है, यहाँ सीसा, जस्ता, तांबा, चांदी, चूना पत्थर, लौह अयस्क जैसे प्रमुख खनिजों का उत्पादन होता है। राज्य में सोने, पोटाश, टंगस्टन और लिथियम जैसे कीमती रणनीतिक और महत्वपूर्ण खनिजों के आशाजनक भण्डार भी हैं। वित्त वर्ष 2023-24 में, प्रमुख खनिजों से राजस्थान का राजस्व 3945 करोड़ रुपये तक पहुँच गया, जिसमें से 90 प्रतिशत से अधिक योगदान 5 प्रमुख खनिजों से हुआ तथा लघु खनिज जैसे— ग्रेनाइट, संगमरमर, बलआ पत्थर, जिप्सम, क्वार्ट्ज, डोलोमाइट का उत्पादन भी अधिक होता है। वित्त वर्ष 2023-24 में राजस्थान का लघु खनिजों से राजस्व 2772 करोड़ रुपये तक पहुँच गया।

खनिज संसाधनों के संरक्षण से तात्पर्य

प्राकृतिक सम्पदाओं का योजनाबद्ध और विवेकपूर्ण उपयोग किया जाए तो उनसे अधिक दिनों तक लाभ उठाया जा सकता है, वे भविष्य के लिए संरक्षित रह सकती हैं। सम्पदाओं या संसाधनों का योजनाबद्ध समुचित और विवेकपूर्ण उपयोग ही उनका संरक्षण है। संरक्षण का यह अर्थ कदापि नहीं कि प्राकृतिक साधनों का प्रयोग न कर उनकी रक्षा की जाए, उनके उपयोग में कंजूसी की जाए या उनकी आवश्यकता के बावजूद उन्हें बचाकर भविष्य के लिए रखा जाए। वरन् संरक्षण से हमारा तात्पर्य है कि संसाधनों का अधिकाधिक समय तक अधिकाधिक मनुष्यों की आवश्यकताओं की पूर्ति हेतु अधिकाधिक उपयोग करना।

खनिज संसाधन संरक्षण के उपाय

खनिज संसाधन और खदानों का संरक्षण उसी प्रकार आवश्यक है जिस प्रकार पर्यावरण संरक्षण जरूरी है। इसके लिए निम्न प्रावधान किये जाने चाहिए।

- खनिज सम्पदा का नियन्त्रित उपयोग किया जाये।
- कोयला, पेट्रोल आदि ईंधन खनिजों का प्रयोग कम किया जाये और इसके स्थान पर गैर परम्परागत खनिज संसाधनों को बढ़ावा दिया जाये।
- खनिजों के उपयोग के बाद स्कैप को व्यर्थ न फेंक कर उनका बार-बार उपयोग किया जाये।
- खनन कार्य में वैज्ञानिक विधि अपनायी जाये। खनन कार्य पूर्व नियोजित और उन्नत तकनीकी द्वारा किया जाये।
- कम मात्रा में उपलब्ध खनिजों के स्थान पर विकल्पों की खोज की जाए।
- खनिज पदार्थों के गुण और मात्रा की जानकारी के लिए इनका सर्वेक्षण किया जाये।
- खनिजों पर सरकार का नियंत्रण होना चाहिए। इसके खनन के लिए सरकार को स्पष्ट और कठोर नीति अपनानी चाहिए।

- सतत खनन पर ध्यान: पर्यावरण, सामाजिक और शासन (ESG) मानकों को संबोधित करना और जिम्मेदार संसाधन प्रबंधन के लिए सतत खनन प्रथाओं को लागू करना।

निष्कर्ष

उपर्युक्त अध्ययन से यह स्पष्ट है कि सरकार ने ऐसी खनन नीतियाँ बनाई थीं जिनके कारण राजस्थान खनिज उद्योग के विभिन्न क्षेत्रों में स्वावलम्बी बन गया। उदारीकरण, वैश्वीकरण और निजीकरण के प्रचार ने विदेशी पूंजी निवेश के साथ-साथ आधुनिक तकनीक को भारत में लाने में बहुत मदद की है। निजी उद्योगों को उद्योगों के आंतरिक क्षेत्र में प्रवेश करने की अनुमति देकर, खनिज उद्योग क्षेत्र में भी तेजी से प्रतिस्पर्धी प्रगति हुई है।

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भारत में टिकाऊ कृषि के लिए जैव प्रौद्योगिकी: संभावनाएँ और चुनौतियाँ

निर्मला चौपड़ा*

सार

भारत का कृषि क्षेत्र इसकी अर्थव्यवस्था और ग्रामीण आजीविका के लिए महत्वपूर्ण है, लेकिन आज इसे बढ़ती खाद्य मांगों को पूरा करने की चुनौती का सामना करना पड़ रहा है। विश्व के सबसे बड़े खाद्य उत्पादकों में से एक होने के बावजूद, टिकाऊ विकास आवश्यक है। चूंकि 40 प्रतिशत से अधिक जनसंख्या कृषि में कार्यरत है, इसलिए टिकाऊ पद्धतियों की आवश्यकता स्पष्ट है। जैविक खेती और एकीकृत कीट प्रबंधन सहित सरकार की पहलों को इन चुनौतियों से निपटने में चुनौतियों का सामना करना पड़ रहा है। हालांकि, विश्व स्वास्थ्य संगठन के अनुमान के अनुसार, देश की जनसंख्या 1.447 बिलियन है, जिसके 2050 तक 1.7 बिलियन तक पहुंचने का अनुमान है, जिससे संसाधनों की मांग बढ़ेगी, जिसके लिए खाद्य उत्पादन में 70 प्रतिशत वृद्धि की आवश्यकता होगी। जैव प्रौद्योगिकी टिकाऊ कृषि के लिए आशाजनक है, लेकिन सुरक्षा कारणों से इसका उपयोग अभी भी सीमित है। कीट प्रबंधन में जैव प्रौद्योगिकी विकल्पों और दूसरी हरित क्रांति में उक्तक संवर्धन की व्यापक सफलता से इस क्षेत्र की क्षमता उजागर होने के बावजूद, इसका अनुप्रयोग सीमित बना हुआ है। स्थिरता, नैतिक विचारों और नीतिगत सीमाओं से संबंधित चिंताओं ने भारत में आनुवंशिक रूप से संशोधित (जीएम) फसलों, जीनोम संपादन, जैव-प्रबलीकरण और न्यूट्रास्युटिकल्स, परिशुद्धता कृषि और भारतीय कृषि पद्धतियों में बिग डेटा के उपयोग को सीमित कर दिया है। यह समीक्षा भारतीय कृषि में जैव प्रौद्योगिकी की भूमिका के बारे में व्यापक समझ प्रदान करती है, तथा इसे अपनाने पर आने वाली चुनौतियों और संभावित समाधानों पर प्रकाश डालती है। बहुआयामी परिदृश्य में जैव-प्रौद्योगिकीय हस्तक्षेपों की पूरी क्षमता का दोहन करने के लिए शोधकर्ताओं, नीति निर्माताओं और किसानों की ओर से ठोस प्रयास की आवश्यकता है।

शब्द कोश: टिकाऊ प्रथाएं, जैविक खेती, आनुवंशिक संशोधन प्रौद्योगिकी, पादप जैव प्रौद्योगिकी।

प्रस्तावना

भारत का कृषि क्षेत्र इसकी अर्थव्यवस्था और समाज के लिए केन्द्रीय है, जो जनसंख्या के एक बड़े हिस्से को आजीविका प्रदान करता है। विश्व बैंक के अनुसार, कृषि देश के 40 प्रतिशत से अधिक कार्यबल को प्रत्यक्ष और अप्रत्यक्ष रूप से रोजगार देती है, जो ग्रामीण आजीविका में इसकी महत्वपूर्ण भूमिका को उजागर करता है। भारत दुनिया के सबसे बड़े खाद्य उत्पादकों में से एक है, जिसका कृषि उत्पादन 2020-20 में 292.3

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मिलियन मीट्रिक टन था। इस मांग को पूरा करने के लिए भारत को अपनी कृषि उत्पादकता बढ़ानी होगी तथा टिकाऊ कृषि पद्धतियों को अपनाना होगा। सरकार ने टिकाऊ कृषि को बढ़ावा देने के लिए कई पहल शुरू की हैं, जिनमें जैविक खेती, एकीकृत कीट प्रबंधन और संरक्षण कृषि शामिल हैं। इन प्रयासों के बावजूद, टिकाऊ कृषि पद्धतियों को अपनाना सीमित है तथा देश में टिकाऊ कृषि हाशिये पर है। इसके साथ ही, देश की 1.447 बिलियन की आबादी 30 वर्षों से भी कम समय में 1.7 बिलियन तक पहुँचने का अनुमान है, जिससे भोजन, पानी और अन्य संसाधनों की माँग बढ़ जाएगी। खाद्य एवं कृषि संगठन (एफएओ) की एक रिपोर्ट के अनुसार, 2050 तक भारत के खाद्य उत्पादन में 70 प्रतिशत की वृद्धि की आवश्यकता होगी, मांस उत्पादन को 200 मिलियन टन से अधिक बढ़ाकर 470 मिलियन टन तक पहुँचने की आवश्यकता होगी।

भारत में कृषि विनिर्माण से लेकर खाद्य प्रसंस्करण तक देश की अर्थव्यवस्था में महत्वपूर्ण योगदान देती रही है, क्योंकि यह कारखानों में उपयोग के लिए कच्चा माल प्रदान करती है। हरित क्रांति और आधुनिक फसल किस्मों को अपनाने और इनपुट की गहनता के कारण इस क्षेत्र में विशेष रूप से उत्पादकता में प्रभावशाली वृद्धि देखी गई है। हालाँकि, नई प्रौद्योगिकियों, टिकाऊ प्रथाओं और वर्षा आधारित क्षेत्रों के बेहतर दोहन की आवश्यकता जैसी चुनौतियाँ हैं। इन चुनौतियों के बावजूद, भारत वैश्विक कृषि बाजार में एक प्रमुख खिलाड़ी बना हुआ है, जो महत्वपूर्ण संख्या में कृषि उत्पादों का निर्यात करता है और फिर भी संयुक्त राज्य अमेरिका या नीदरलैंड जैसे अन्य खाद्य निर्यातक देशों की तरह खाद्य सुरक्षा के मामले में अपनी पूरी क्षमता तक पहुँचने में विफल रहता है। यद्यपि वैश्विक खाद्य सुरक्षा में भारत की भूमिका जटिल है। देश व्यापार और प्रौद्योगिकी आदान-प्रदान में वृद्धि के माध्यम से वैश्विक खाद्य सुरक्षा में महत्वपूर्ण योगदान दे सकता है। भारत अपनी आबादी के लिए खाद्य सुरक्षा सुनिश्चित करने में महत्वपूर्ण चुनौतियों का सामना कर रहा है। ये चुनौतियाँ देश की मूल्य-आधारित इनपुट सब्सिडी और सार्वजनिक वितरण प्रणाली पर निर्भरता से और भी बढ़ जाती हैं, जो चीन द्वारा उपयोग किए जाने वाले प्रत्यक्ष हस्तांतरण की तुलना में कम कुशल हैं। राष्ट्रीय खाद्य सुरक्षा अधिनियम के अधिनियमन सहित वैश्विक खाद्य कीमतों में अस्थिरता के प्रति भारत की प्रतिक्रिया भी बहस का विषय रही है। नीतियों के अलावा, मोदी सरकार ने कृषि प्रौद्योगिकी को प्रोत्साहित करना जारी रखा है, जैसा कि विभिन्न पहलों और नीतियों से स्पष्ट है। एस. दत्ता व अन्य ने आनुवंशिक संशोधन प्रौद्योगिकी की आवश्यकता पर जोर दिया, जो खाद्य सुरक्षा में महत्वपूर्ण योगदान दे सकती है। सिंह और मीना ने प्लांट बायोटेक्नोलॉजी में एग्रोटेक स्टार्टअप्स की जिम्मेदारियों और क्षेत्र में नवाचार और विकास को आगे बढ़ाने में उनकी भूमिका को रेखांकित किया। ये अध्ययन सामूहिक रूप से भारतीय कृषि के आधुनिकीकरण में प्रौद्योगिकी के महत्व को रेखांकित करते हैं, एक ऐसा लक्ष्य जो इस क्षेत्र के लिए मोदी के दृष्टिकोण के अनुरूप है।

टिकाऊ कृषि पद्धतियाँ

जैव प्रौद्योगिकी, उत्तरी अमेरिका और यूरोप में जैविक खेती, एकीकृत कीट प्रबंधन और संरक्षण कृषि सहित टिकाऊ कृषि पद्धतियों को बढ़ावा देने में महत्वपूर्ण भूमिका निभाती है। पारंपरिक तरीकों, जैसे कि दोहरी फसल और कृषि वानिकी, को जलवायु परिवर्तन के प्रतिकूल प्रभावों को कम करने में प्रभावी माना गया है, जिसे जैव प्रौद्योगिकी हाइड्रोपोनिक प्रणालियों द्वारा बेहतर ढंग से सुधारा जा सकता है। हालाँकि, उत्तर प्रदेश में वैज्ञानिक मक्का की खेती प्रथाओं की स्थिरता अलग-अलग है, सिंचाई और जैव प्रौद्योगिकी द्वारा संभव उच्च उपज वाली किस्मों के उपयोग को अधिक टिकाऊ माना जाता है। स्थिर कृषि विकास को समर्थन देने के लिए सिंचाई क्षमता में लगातार वृद्धि की आवश्यकता पर भी बल दिया गया है। भारत में टिकाऊ कृषि में जैव प्रौद्योगिकी का उपयोग काफी चर्चा का विषय रहा है। गुप्ता, एट अल., और वीडब्ल्यू रतन दोनों ने कीट प्रबंधन में जैव प्रौद्योगिकी विकल्पों की क्षमता पर प्रकाश डाला, जिसमें पूर्व ने नैतिक और नियामक विचारों की आवश्यकता पर जोर दिया। हालाँकि, एगेलिंग और आलम ने आगाह किया कि भारतीय कृषि की स्थिरता केवल जैव प्रौद्योगिकी पर ही निर्भर नहीं है, तथा वर्तमान नीतियाँ टिकाऊ प्रौद्योगिकियों को अपनाने को हतोत्साहित कर सकती हैं। ये अध्ययन भारत में टिकाऊ कृषि में जैव प्रौद्योगिकी की क्षमता को रेखांकित करते हैं और व्यापक

पर्यावरणीय और आर्थिक कारकों पर सावधानीपूर्वक प्रबंधन और विचार की आवश्यकता पर प्रकाश डालते हैं। यादव ने भारत में कृषि क्षेत्र पर उतक संवर्धन, एक प्रमुख जैव प्रौद्योगिकी तकनीक के प्रभाव पर चर्चा की, और दूसरी हरित क्रांति में इसकी भूमिका पर जोर दिया। यह भारत में खाद्य और पोषण की बढ़ती मांग को पूरा करने के लिए फसल स्वास्थ्य और उत्पादन में सुधार करने में पादप जैव प्रौद्योगिकी की क्षमता को रेखांकित करता है। भारत की कृषि आधारित अर्थव्यवस्था में नई प्रौद्योगिकियों की प्रासंगिकता तब महत्वपूर्ण हो जाती है जब हम भारत के अद्वितीय आनुवंशिक आधार, कृषि जलवायु विविधता और कुशल कार्यबल को प्रमुख संपत्ति मानते हैं। भारत में पादप जैव प्रौद्योगिकी देश की खाद्य और पोषण संबंधी मांगों को पूरा करने के लिए फसल स्वास्थ्य और उत्पादन में उल्लेखनीय सुधार कर सकती है। हालाँकि, भारत सरकार इस बात से चिंतित है कि जैव प्रौद्योगिकी नवाचारों के व्यावसायीकरण से किसानों की बाहरी इनपुट पर निर्भरता बढ़ सकती है, जिससे किसान पिछली फसलों से व्यवहार्य बीजों का पुनरुपयोग करने की अपनी क्षमता खो सकते हैं और इस प्रकार सतत विकास और आत्मनिर्भरता में बाधा उत्पन्न हो सकती है।

इससे पहले, कृषि में जैव प्रौद्योगिकी अनुप्रयोगों ने अच्छे और चुनौतीपूर्ण दोनों तरह के परिणाम प्राप्त किए हैं। बैसिलस थुरिंगिएंसिस (बीटी) कपास जैसी आनुवंशिक रूप से संशोधित फसलों की शुरुआत ने पारंपरिक कृषि प्रथाओं को बाधित कर दिया है, जिससे संभावित रूप से अकुशलता बढ़ रही है। दूसरी ओर, पादप उतक संवर्धन के अनुप्रयोग का कृषि पर सकारात्मक प्रभाव पड़ा है, जिसने भारत में दूसरी हरित क्रांति में योगदान दिया है। भारत में पशुपालन पद्धतियों में जैव प्रौद्योगिकी की महत्वपूर्ण संभावनाएँ हैं, विशेषकर पशु प्रजनन, पोषण और स्वास्थ्य के क्षेत्रों में। जी. ई. सेइडेल और ओटेरु आदि ने पशु कृषि क्षेत्र में विकास के अवसरों पर प्रकाश डाला, जिसका जैव प्रौद्योगिकी के माध्यम से दोहन किया जा सकता है। वाजिद, पशु प्रजनन में जीनोमिक जैव प्रौद्योगिकी की क्षमता पर जोर देते हैं, जिससे पशुधन उत्पादन में सुधार हो सकता है। बोन्नेउ और रैडस्मा, दोनों ने पशु पोषण, शरीर क्रिया विज्ञान और स्वास्थ्य में जैव प्रौद्योगिकी के संभावित अनुप्रयोगों पर चर्चा की, जिसमें रोग प्रतिरोधी ट्रांसजेनिक जानवरों का उत्पादन और उन्नत प्रजनन और जीनोमिक प्रौद्योगिकियों का उपयोग शामिल है। सामूहिक रूप से, ये अध्ययन सुझाते हैं कि जैव प्रौद्योगिकी भारत में पशुपालन प्रथाओं को महत्वपूर्ण रूप से बढ़ा सकती है। जैव प्रौद्योगिकी प्रथाओं ने विशिष्ट अनाज और बीज फसलों पर ध्यान केंद्रित करते हुए फसल स्वास्थ्य और उत्पादन में भी सुधार किया है। हालाँकि, उद्योग को नैतिकता, व्यवसाय और राजनीति के संदर्भ में चुनौतियों का सामना करना पड़ा है, विशेष रूप से गुजरात में बीटी कपास के मामले में। भारत में बीज और कृषि जैव प्रौद्योगिकी उद्योगों का भी विश्लेषण किया गया है, जिसमें नवाचार को प्रोत्साहित करने और नियामक अनिश्चितता को कम करने के लिए अधिक ठोस नीति सुधारों का आह्वान किया गया है। गहूकर ने पेटेंट कानूनों की जटिलताओं और अंतर्राष्ट्रीय समझौतों से पूर्ण लाभ प्राप्त करने के लिए अधिक समय की आवश्यकता पर चर्चा की। रंगासामी ने बायोटेक फसलों के जोखिम और लाभों के बारे में जानकारी के प्रभावी प्रसार की आवश्यकता पर जोर दिया, साथ ही एक मजबूत नियामक प्रणाली के महत्व पर भी जोर दिया। जबकि सपकोटा और जोशी ने कृषि में जैव प्रौद्योगिकी की क्षमता पर प्रकाश डाला, बुनियादी ढांचे और वित्त पोषण की आवश्यकता है।

ये बिंदु भारतीय पादप जैव प्रौद्योगिकी क्षेत्र में टिकाऊ जैव प्रौद्योगिकी दृष्टिकोण की अनेक सफलताओं को रेखांकित करते हैं।

भारत में आनुवंशिक रूप से संशोधित (जीएम) फसलों का चरण

जीएम फसलें पादप जैव प्रौद्योगिकी में केंद्र बिंदु रही हैं, जो कीट प्रतिरोध, शाकनाशी सहिष्णुता और बढ़ी हुई पोषण सामग्री जैसे लक्षण प्रदान करती हैं। यहां हम भारत में जीएम फसलों को अपनाने, उनके लाभों और विवादों की जांच करेंगे, केस स्टडीज और कृषि पद्धतियों पर उनके प्रभावों पर प्रकाश डालेंगे। भारतीय कृषि क्षेत्र के अत्यधिक लाभदायक होने के बावजूद, विदेशी कृषि दिग्गज भारत में निवेश करने में सशक्त हैं, क्योंकि भारतीय न्यायालय ने नीतियों में ढील देने का रुख अपनाया है। इसलिए, भारत में आनुवंशिक रूप से संशोधित

पौधों के लिए पेटेंट संरक्षण की स्थिति अनिश्चित है, जिससे उनके परिचय के लिए चुनौतियाँ उत्पन्न होती हैं। इसके बावजूद, उत्पाद विकास पाइपलाइन में आनुवंशिक रूप से इंजीनियर फसलों की एक विविध रेंज मौजूद है। चौधरी ने दिखाया है कि भारत में जीएम तकनीक अभी भी मूल्यांकन के शुरुआती चरण में है, और आनुवंशिक रूप से संशोधित कपास को भारत में सफलतापूर्वक विकसित किया गया है, जिससे पैदावार और मुनाफा बढ़ा है। भारत में कपास जैसे आनुवंशिक रूप से संशोधित पौधों की सफलता बहस और अन्वेषण का विषय रही है। प्रवीण ने भारत में पौधों के वायरस से निपटने के लिए ट्रान्सजेनिक दृष्टिकोण जैसे आनुवंशिक संशोधनों की क्षमता पर चर्चा की। पंजाब में आनुवंशिक रूप से संशोधित पौधों, विशेष रूप से गेहूँ की सफलता बहस का विषय रही है। प्रेरित उत्परिवर्तन प्रजनन ने भारत में औषधीय और सुगंधित फसलों के विकास में आशाजनक परिणाम दिखाए हैं। आनुवंशिक इंजीनियरिंग और जीन स्थानांतरण विधियों में तेजी से प्रगति ने विभिन्न पौधों की प्रजातियों को इंजीनियर करना संभव बना दिया है, जिनमें पंजाब कृषि के लिए महत्वपूर्ण प्रजातियाँ भी शामिल हैं। केरल में आनुवंशिक रूप से संशोधित पौधों की सफलता विभिन्न अध्ययनों में प्रदर्शित की गई है। लाल और लूना ने भारत में क्रमशः प्रतिशत नीलगिरी और औषधीय और सुगंधित फसलों के सफल आनुवंशिक सुधार पर प्रकाश डाला। कुमेर ने कर्नाटक में सब्जी उत्पादकता में सुधार के लिए वैज्ञानिक रूप से आधारित बागवानी हस्तक्षेप की सफलता को रेखांकित किया, जिसे केरल में भी लागू किया जा सकता है। ये अध्ययन सामूहिक रूप से सुझाव देते हैं कि उचित हस्तक्षेप और समर्थन दिए जाने पर आनुवंशिक रूप से संशोधित पौधे केरल में पनप सकते हैं। भारत में जीएम फसलों के लिए नियामक प्रणाली महत्वपूर्ण चुनौतियों का सामना कर रही है, जिसमें नियामक देरी, राजनीतिक हस्तक्षेप और सार्वजनिक गलतफहमियाँ शामिल हैं। आनुवंशिक रूप से संशोधित (जीएम) पौधों के विकास में कई चुनौतियाँ हैं। हैल्पिन ने पौधों में कई जीनों को व्यक्त करने या हेरफेर करने की कठिनाई पर प्रकाश डाला, जो कि पादप आनुवंशिक इंजीनियरिंग में एक प्रमुख बाधा है (65)। अहंगेर और अहमद विशेष रूप से खाद्य सुरक्षा के संदर्भ में जीएम फसलों की स्वीकार्यता बढ़ाने के लिए इन चुनौतियों का समाधान करने की आवश्यकता पर बल देते हैं। अंजनप्पा ने आणविक प्रजनन में तेजी से प्रगति के बावजूद, कुछ पौधों की प्रजातियों और फसल जीनोटाइप की अड़चन के कारण पौधों के परिवर्तन में आने वाली अड़चन पर चर्चा की। टंडन ने संयुक्त राज्य अमेरिका में पहली आनुवंशिक रूप से संशोधित फसल बीटी कॉटन से जुड़ी पर्यावरणीय चिंताओं पर चर्चा की। बावा और डे दोनों ने जीएम पौधों में विदेशी डीएनए के एकीकरण और विषाक्त पदार्थों और एलर्जी के संभावित उत्पादन को नियंत्रित करने की कठिनाई की ओर इशारा किया। ये चुनौतियाँ सामूहिक रूप से पादप आनुवंशिक इंजीनियरिंग में निरंतर अनुसंधान और नवाचार की आवश्यकता को रेखांकित करती हैं। हालाँकि, भारत में आनुवंशिक रूप से संशोधित (जीएम) पौधों को अपनाने में अनेक चुनौतियाँ आ रही हैं।

भारत में फसलों को बेहतर बनाने में जैव प्रौद्योगिकी की भूमिका

क्रांतिकारी बैक्टेरिया प्रौद्योगिकी ने वास्तव में सटीक जीनोम संपादन के लिए नए रास्ते खोल दिए हैं। हम फसल सुधार, रोग प्रतिरोधक क्षमता और जलवायु परिवर्तनशीलता के अनुकूलन में संभावित अनुप्रयोगों पर चर्चा करते हैं, तथा भारतीय कृषि अनुसंधान में हाल के विकास पर जोर देते हैं। बैक्टेरिया जीनोम एडिटिंग ने कृषि में क्रांति ला दी है, जिससे फसलों में बेहतर उपज, बायोफोर्टिफिकेशन और तनाव सहिष्णुता सहित कई अनुप्रयोग उपलब्ध हुए हैं। यह तकनीक विशेष रूप से पादप जीनोमिक्स अनुसंधान में प्रभावी रही है, जिससे तेजी से और कुशल जीनोम संपादन संभव हुआ है। बैक्टेरिया प्रणाली की तुलना अन्य जीनोम-संपादन उपकरणों, जैसे ज़ास्मू और 'थ्रू से की गई है, क्योंकि इसमें बेहतर गुणवत्ता और उत्पादकता के साथ प्रतिरोधी फसलें विकसित करने की क्षमता है। इसके अलावा, इसका उपयोग पोषण वृद्धि, रोग प्रतिरोध और सूखा सहिष्णुता जैसे बेहतर लक्षणों के साथ नवीन पौधों की किस्मों को विकसित करने के लिए किया गया है। भारत में, यह तकनीक चावल, गेहूँ, मक्का और ज्वार जैसी अनाज फसलों पर महत्वपूर्ण प्रभाव डाल सकती है, जो खाद्य सुरक्षा के लिए

महत्वपूर्ण हैं। इस प्रणाली को पौधों में उपज प्रदर्शन, बायोफोर्टिफिकेशन और तनाव सहिष्णुता में सुधार करने के लिए सफलतापूर्वक लागू किया गया है, जिसमें चावल सबसे अधिक अध्ययन की गई फसल है।

चावल के विकास और अनुप्रयोग की समीक्षा की गई है, जिसमें कार्यात्मक जीनोमिक अनुसंधान और विविधता सुधार पर इसके प्रभाव पर ध्यान केंद्रित किया गया है। पौधों के जीनोम संपादन में बैक्टेरिया प्रणालियों के अनुप्रयोग, विशेष रूप से उपज प्रदर्शन और तनाव सहिष्णुता में सुधार करने पर प्रकाश डाला गया है, जिसमें चावल अध्ययन की एक प्रमुख फसल है। बैक्टेरिया प्रणाली ने गेहूँ, एक जटिल और पॉलीप्लोइड पौधे में लक्षित जीनोम संपादन के लिए भी बड़ी क्षमता दिखाई है। इस प्रणाली को एग्रोबैक्टीरियम-प्रदत्त बैक्टेरिया प्रणाली का उपयोग करके गेहूँ जीनोम संपादन के लिए और अधिक अनुकूलित किया गया था जो उत्परिवर्तन पुनर्प्राप्ति की दक्षता को काफी बढ़ाता है। गेहूँ में इस प्रणाली के अनुप्रयोग को विशिष्ट जीन के सफल लक्ष्यीकरण के माध्यम से प्रदर्शित किया गया है, जिसके परिणामस्वरूप वांछित उत्परिवर्तन हुए हैं। हालाँकि बैक्टेरिया को सफलतापूर्वक लागू किया गया है, लेकिन इसका अनुप्रयोग बड़ी ७० ट्रांसजेनिक पौधों की आबादी की आवश्यकता से प्रभावित हो सकता है ४७-४९। भारत में बैक्टेरिया की सफलता बड़ी ७० ट्रांसजेनिक पौधों की आबादी पर निर्भर करती है, जैसा कि क्रमशः प्रतिशत चावल और मक्का में कई अध्ययनों से पता चलता है। इन अध्ययनों में बाद की पीढ़ियों में उच्च उत्परिवर्तन दर और उत्परिवर्तन की स्थिर विरासत पाई गई। पौधों की कोशिकाओं में बैक्टेरिया घटकों की डिलीवरी, जीनोम संपादन में एक महत्वपूर्ण कदम है, जिसे एग्रोबैक्टीरियम ट्यूमेफेशियंस, प्लांट वायरस और ए. राइजोजेन्स सहित विभिन्न तरीकों से खोजा गया है। खाद्य फसलों को संशोधित करने में बैक्टेरिया प्रौद्योगिकी की क्षमता, जिसमें उपज और तनाव सहिष्णुता बढ़ाने में इसकी भूमिका शामिल है, को में उजागर किया गया है। ये निष्कर्ष फसल सुधार में बैक्टेरिया के सफल अनुप्रयोग के लिए भारत में बड़ी ७० ट्रांसजेनिक पौधों की आबादी के महत्व को रेखांकित करते हैं। इन चुनौतियों के बावजूद, बैक्टेरिया प्रणाली कृषि उत्पादों को बढ़ाने के लिए एक शक्तिशाली उपकरण बनी हुई है।

बायोफोर्टिफिकेशन और न्यूट्रास्युटिकल्स

जैव-प्रौद्योगिकीय रणनीतियाँ जैव-प्रबलीकरण के लिए फसलों की पोषण सामग्री को बढ़ाती हैं। यहां, हम भारतीय जनसंख्या में कुपोषण को दूर करने और स्वास्थ्य को बढ़ावा देने के लिए पोषक तत्वों से भरपूर किस्मों और न्यूट्रास्युटिकल्स के विकास पर चर्चा कर रहे हैं। जैव-प्रबलीकरण, खाद्य फसलों की पोषण सामग्री को बढ़ाने की प्रक्रिया, भारत में कुपोषण को संबोधित करने के लिए एक प्रमुख रणनीति है। भारतीय कृषि अनुसंधान परिषद पोषण सुरक्षा में सुधार के लिए जैव-फोर्टिफाइड फसल किस्मों के विकास में सक्रिय रूप से शामिल है। भारत में खाद्य और पोषण उत्पादन बढ़ाने के साधन के रूप में आनुवंशिक संशोधन सहित पादप जैव प्रौद्योगिकी की खोज की जा रही है। अध्ययनों ने भारत में जंगली खाद्य पौधों के पोषण मूल्य पर भी प्रकाश डाला है, जैसे कि पोर्टुलाका ओलेरासिया लिन और एस्पैरागस ऑफिसिनैलिस डीसी, जो प्रोटीन, वसा और कैलोरी से भरपूर हैं। यह दृष्टिकोण देश में ७१ पोषक तत्वों से भरपूर फसल किस्मों के विकास और विमोचन में विशेष रूप से सफल रहा है। आनुवंशिक संशोधन सहित पादप जैव प्रौद्योगिकी ने इस प्रक्रिया में महत्वपूर्ण भूमिका निभाई है, जिसमें विशिष्ट अनाज और बीज फसलों पर ध्यान केंद्रित किया गया है। विशेष रूप से गेहूँ के जैव-प्रबलीकरण को भारत में पोषण सुरक्षा सुनिश्चित करने के लिए एक आशाजनक मार्ग के रूप में पहचाना गया है। भारतीय कृषि अनुसंधान परिषद ने चावल, गेहूँ, मक्का और बाजरा जैसी अनाज फसलों पर ध्यान केंद्रित करते हुए इस प्रयास में महत्वपूर्ण भूमिका निभाई है। ये प्रयास भारत में पोषण सुरक्षा में उल्लेखनीय सुधार कर सकते हैं, विशेष रूप से कमजोर आबादी के लिए। भारत सरकार ने जैव प्रौद्योगिकी, विशेष रूप से कृषि उत्पादन और स्वास्थ्य देखभाल के क्षेत्रों में महत्वपूर्ण प्रयास किए हैं। इसमें एक मजबूत बायोटेक आधार का विकास, जीएम पौधों का व्यावसायिक परिचय और जीएम जीवों से एंजाइमों का उत्पादन शामिल है। जैव प्रौद्योगिकी विभाग ने जैव प्रौद्योगिकी अनुप्रयोगों के लिए आवश्यक बुनियादी ढांचे और मानव संसाधन के निर्माण में प्रमुख भूमिका निभाई है। कृषि क्षेत्र में, सरकार रासायनिक उर्वरकों के स्थायी विकल्प के रूप में जैव उर्वरकों

के उपयोग पर ध्यान केंद्रित कर रही है। ये प्रयास भारतीय जनसंख्या के लाभ के लिए जैव प्रौद्योगिकी का लाभ उठाने की प्रतिबद्धता को दर्शाते हैं। नाइट्रोजन-फिक्सिंग बैक्टीरिया, शैवाल और कवक सहित जैव उर्वरकों ने पोषक तत्वों की उपलब्धता और पौधों की अवशोषण क्षमता को बढ़ाकर भारतीय कृषि में महत्वपूर्ण भूमिका निभाई है। उन्हें रासायनिक उर्वरकों के लिए टिकाऊ और लागत प्रभावी विकल्प माना जाता है, जिनमें व्यावसायिक सफलता की संभावना है। अध्ययनों से पता चला है कि जैवउर्वरक पौधों की वृद्धि, फलों की उपज और राइजोस्फीयर एंजाइम गतिविधियों में काफी सुधार कर सकते हैं, विशेष रूप से भारतीय थार रेगिस्तान जैसे कठोर वातावरण में। पोटैशिक जैवउर्वरकों का विकास और अनुप्रयोग, जो पौधों के पोषण मूल्य को बढ़ा सकते हैं, भारत में सक्रिय अनुसंधान क्षेत्र हैं।

हालाँकि, पौधों पर आधारित दवाओं और न्यूट्रास्युटिकल्स के विकास को व्यावसायिक व्यवहार्यता और राष्ट्रीय स्वीकृति की आवश्यकता का सामना करना पड़ता है।

कुपोषण से निपटने के लिए एक स्थायी दृष्टिकोण, बायोफोर्टिफिकेशन, भारत में भारतीय कृषि अनुसंधान परिषद, द्वारा चल रहे कार्यक्रमों के माध्यम से अपनाया जा रहा है। भारत जैव-प्रबलित फसल किस्मों को विकसित करने में प्रगति कर रहा है जो पोषण और खाद्य सुरक्षा दोनों में योगदान दे सकती हैं।

चर्चा और निष्कर्ष

जैव प्रौद्योगिकी हस्तक्षेप की भूमिका और क्षमता पर ध्यान केंद्रित करते हुए, यह समीक्षा भारतीय कृषि के बहुमुखी परिदृश्य में मूल्यवान अंतर्दृष्टि प्रदान करती है। कृषि क्षेत्र, राष्ट्र की अर्थव्यवस्था और उसके लोगों की आजीविका के बीच महत्वपूर्ण अंतर्सम्बन्ध पर बल दिया गया है, जिससे इन प्रमुख पहलुओं के विस्तृत अन्वेषण के लिए मंच तैयार हो गया है। भारत में कृषि क्षेत्र, जो प्रत्यक्ष और अप्रत्यक्ष रूप से 40 प्रतिशत से अधिक कार्यबल को रोजगार देता है, देश की अर्थव्यवस्था और ग्रामीण आजीविका में महत्वपूर्ण भूमिका निभाता है। अनुमान है कि 2050 तक जनसंख्या 1.7 बिलियन तक पहुंच जाएगी, तथा भोजन, पानी और संसाधनों की मांग बढ़ रही है, जिससे इस क्षेत्र के समक्ष आने वाली चुनौतियों से निपटने के लिए नवीन दृष्टिकोण अपनाने की आवश्यकता है। यह समीक्षा भारतीय कृषि की उपलब्धियों और विकास पर जोर देती है, जिसका श्रेय आंशिक रूप से हरित क्रांति और आधुनिक फसल किस्मों को अपनाने को दिया जाता है। हालाँकि, टिकाऊ प्रथाओं, तकनीकी प्रगति और कुशल संसाधन उपयोग की आवश्यकता जैसी चुनौतियाँ अभी भी बनी हुई हैं। यह आलेख वैश्विक खाद्य सुरक्षा में भारत की जटिल भूमिका पर प्रकाश डालता है, तथा व्यापार और प्रौद्योगिकी आदान-प्रदान में वृद्धि की संभावनाओं पर ध्यान देते हुए, अपनी आबादी के लिए खाद्य सुरक्षा सुनिश्चित करने में आने वाली बाधाओं को भी स्वीकार करता है। जैव प्रौद्योगिकी भारतीय कृषि को बदलने में एक प्रमुख भूमिका निभा रही है, जिसमें टिकाऊ प्रथाओं, आनुवंशिक रूप से संशोधित (जीएम) फसलों, सीआरआईएसपीआर/कैस9 जीनोम संपादन, जैव-प्रबलीकरण और बड़े डेटा विश्लेषण के साथ सटीक कृषि के एकीकरण पर ध्यान केंद्रित किया गया है। इन प्रौद्योगिकियों के संभावित लाभों, जिनमें बढ़ी हुई उपज, कीट प्रतिरोध, बेहतर पोषण सामग्री और संसाधन अनुकूलन शामिल हैं, का आगे भी अन्वेषण किया जा रहा है। हालाँकि, समीक्षा में जैव-प्रौद्योगिकीय नवाचारों को अपनाने से जुड़े नैतिक, व्यावसायिक और राजनीतिक आयामों को रेखांकित किया गया है, विशेष रूप से जीएम फसलों के मामले में। भारत में जीएम फसलों पर चर्चा एक सूक्ष्म आख्यान को प्रतिबिंबित करती है, जिसमें कपास की सफलता की कहानियों को स्वीकार किया जाता है तथा नियामक प्रणालियों, सार्वजनिक धारणा और पर्यावरण संबंधी चिंताओं में चुनौतियों को उजागर किया जाता है। बैक्टेरिया जीनोम संपादन प्रौद्योगिकी के परीक्षण से फसल सुधार, रोग प्रतिरोधक क्षमता और जलवायु परिवर्तनशीलता के अनुकूलन पर इसके क्रांतिकारी प्रभाव पर जोर मिलता है। भारत की खाद्य सुरक्षा चुनौतियों से निपटने में इस प्रौद्योगिकी के संभावित अनुप्रयोग स्पष्ट हैं, विशेष रूप से अनाज फसलों में, जो जीविका के लिए महत्वपूर्ण हैं। भारत में कुपोषण से निपटने के लिए जैव-प्रबलीकरण और न्यूट्रास्युटिकल्स महत्वपूर्ण रणनीतियाँ हैं, तथा जैव-प्रौद्योगिकीय हस्तक्षेप से पोषक तत्वों से भरपूर फसल किस्मों का विकास होता है। यह आलेख

जैव-प्रबलित किस्मों को जारी करने की सफलता पर प्रकाश डालता है, तथा विशेष रूप से कमजोर आबादी के लिए पोषण सुरक्षा में सुधार लाने में उनकी भूमिका पर बल देता है। परिशुद्ध कृषि और वृहद डेटा विश्लेषण, परिवर्तनकारी उपकरण के रूप में उभर रहे हैं, जिनमें संसाधन उपयोग को अनुकूलित करने, फसल प्रबंधन को बढ़ाने और उपज को अधिकतम करने की क्षमता है। भारत में इन प्रौद्योगिकियों को अपनाने में बुनियादी ढांचे, सामाजिक-आर्थिक कारकों और नीतिगत हस्तक्षेपों से संबंधित चुनौतियों का सामना करना पड़ता है। समीक्षा में इन चुनौतियों पर काबू पाने तथा परिशुद्ध खेती को बढ़ावा देने के लिए ठोस प्रयास की आवश्यकता को स्वीकार किया गया है। अंतिम खंड भारतीय कृषि में जैव प्रौद्योगिकी के भविष्य पर एक दूरदर्शी परिप्रेक्ष्य प्रस्तुत करता है। इस आशाजनक प्रक्षेप पथ में वैश्विक अर्थव्यवस्था में, विशेष रूप से पादप जैव प्रौद्योगिकी के क्षेत्र में, महत्वपूर्ण वृद्धि और योगदान की संभावना है। हालाँकि, इस शोधपत्र में भारतीय कृषि में जैव प्रौद्योगिकी की पूरी क्षमता का दोहन करने के लिए नैतिक, व्यावसायिक और राजनीतिक आयामों पर ध्यान देने के महत्व पर जोर दिया गया है। सरकार की भूमिका को रेखांकित किया गया है तथा इस क्षेत्र में जैव प्रौद्योगिकी पद्धतियों के भविष्य को आकार देने में इसके महत्वपूर्ण प्रभाव पर बल दिया गया है। संक्षेप में, यह समीक्षा पत्र भारतीय कृषि में जैव प्रौद्योगिकी के बहुमुखी परिदृश्य की प्रत्यक्ष समझ प्रदान करता है, जो देश के कृषि क्षेत्र के सतत विकास में निवेश करने वाले नीति निर्माताओं, शोधकर्ताओं और हितधारकों के लिए एक मूल्यवान संसाधन के रूप में कार्य करता है। विविध दृष्टिकोणों का संश्लेषण और तकनीकी नवाचारों की खोज भारत की उभरती कृषि आवश्यकताओं को पूरा करने में जैव प्रौद्योगिकी हस्तक्षेप की जटिलता और क्षमता को रेखांकित करती है।

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सरकार के प्रमुख कार्यक्रमों में महिलाओं की भागीदारी

सुनीता चौधरी*
डॉ. लाल कृष्ण शर्मा**

सार

भारत की अर्थव्यवस्था इस दुनिया में सबसे तेजी से बढ़ने वाली अर्थव्यवस्था है लेकिन विकासशील अर्थव्यवस्था होने के अलावा, इस देश की आबादी का बड़ा हिस्सा महिलाएं हैं, जो आजादी के बाद से ही अकेल रह रही हैं। शिक्षा की कमी, अपना खुद का व्यवसाय शुरू करने में समस्याएं, सुरक्षा के मुद्दे, जल्दी शादी आदि के कारण इस देश में महिलाओं की स्थिति बहुत अच्छी नहीं है। इस पत्र का लक्ष्य भारत में महिलाओं के विकास पर योजनाओं के प्रभाव को जानना है। ये योजनाएं स्वशक्ति, स्वयं सिद्ध, महिलाओं के लिए प्रशिक्षण और रोजगार कार्यक्रम का समर्थन, महिला-ई-हाट, वन स्टॉप सेंटर योजना, बेटी बचाओ बेटी पढ़ाओ, कामकाजी महिला छात्रावास, स्वाधार गृह, उज्ज्वला, प्रियदर्शिनी जैसी हैं। ये योजनाएं 1990 से शुरू की गई थीं और अभी भी जारी हैं। इनमें से कुछ सफल हैं, कुछ असफल हैं और मुट्ठी भर प्रदर्शन में औसत से नीचे हैं। इन नीतियों का प्रदर्शन बहुत अच्छा नहीं है लेकिन बहुत बुरा भी नहीं है 1990-2000, 2001-2010, 2011-2021 और यह पाया गया कि पहला और तीसरा चरण बहुत अच्छा प्रदर्शन कर रहे हैं और अपनी भूमिका कुशलता से निभा रहे हैं और अच्छे परिणाम दे रहे हैं।

शब्द कोश: योजना, सहभागिता, महिला, सरकारी।

प्रस्तावना

हमारे देश में महिला सशक्तिकरण और उनकी स्थिति में सुधार की आवश्यकता प्राचीन काल से हमारे देश के समाज में लिंग और पुरुष वर्चस्व में भेदभाव के कारण उत्पन्न हुई। महिलाओं को उनके समाज और परिवार के सदस्यों द्वारा कई कारणों से दबाया जाता है। हमारे देश में परिवार और समाज में पुरुष सदस्यों द्वारा उन्हें कई तरह के भेदभाव और हिंसा का सामना करना पड़ा है। अच्छी तरह से विकसित रीति-रिवाजों और परंपराओं से समाज में महिलाओं के लिए गलत और पुरानी प्रथाएं प्राचीन काल से ली गई हैं। कई महिला देवियों की पूजा करने और समाज में महिला रूपों जैसे मां, बहन, बेटी, पत्नी आदि को सम्मान देने की परंपरा है। लेकिन, केवल महिलाओं का सम्मान और सम्मान करने का मतलब यह नहीं है कि महिलाएं विकासशील देश

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की जरूरत को पूरा कर सकती हैं। जरूरत है कि बाकी आबादी सशक्त बने और जीवन के हर क्षेत्र में अपना योगदान दे। प्राचीन भारतीय समाज में सती प्रथा, दहेज प्रथा, घरेलू हिंसा, यौन हिंसा, पत्नी को जलाना, पर्दाप्रथा, कार्यस्थल पर यौन उत्पीड़न, बाल विवाह, बाल श्रम आदि अनेक प्रकार की कुप्रथाएं विद्यमान थीं। ये सभी कुप्रथाएं पुरुष प्रधानता, श्रेष्ठता भावना तथा समाज में पितृसत्तात्मक व्यवस्था के कारण विद्यमान हैं। हमारे प्रथम प्रधानमंत्री पंडित जवाहरलाल नेहरू ने कहा था कि लोगों को जागृत करने के लिए महिलाओं को जागृत करना होगा। एक बार यह जागृत हो जाए तो परिवार अपने आप ही आगे बढ़ जाता है, गांव आगे बढ़ जाता है और राष्ट्र उनकी ओर बढ़ता है। हमारे देश में यदि हम महिलाओं को सशक्त बनाना चाहते हैं तो हमें उन सभी राक्षसों को मारना होगा जो समाज में महिलाओं के अधिकारों और मूल्यों को मार रहे हैं जैसे अशिक्षा, यौन उत्पीड़न, असमानता, महिलाओं के खिलाफ घरेलू हिंसा, बलात्कार और कई अन्य मुद्दे। लैंगिक भेदभाव देश के सांस्कृतिक, आर्थिक और शैक्षिक स्तर को पीछे धकेलने में मुख्य भूमिका निभा रहा है। ऐसी शैतानियों को खत्म करने का सबसे कारगर उपाय है समानता का अधिकार सुनिश्चित करके महिलाओं को आत्मनिर्भर और सशक्त बनाना। लैंगिक समानता को प्राथमिकता देने से पूरे देश में महिला सशक्तीकरण को बढ़ावा मिलता है और इससे उन्हें उच्च स्तर के लक्ष्य प्राप्त करने में मदद मिलती है। इसे स्वयं या किसी संगठित संस्था द्वारा प्रत्येक परिवार में बचपन से ही बढ़ावा दिया जाना चाहिए। इसकी आवश्यकता इसलिए है क्योंकि महिलाएं शारीरिक, मानसिक और सामाजिक रूप से मजबूत बनना चाहती हैं। चूंकि बचपन से ही घर पर बेहतर शिक्षा प्रदान की जा सकती है, इसलिए यह महिलाओं की स्थिति में सुधार और राष्ट्र के समग्र विकास में मदद करती है। अभी भी कई पिछड़े क्षेत्रों में माता-पिता की गरीबी, असुरक्षा और अशिक्षा के कारण कम उम्र में विवाह और बच्चे पैदा करने का चलन है। महिलाओं को सशक्त बनाने के लिए, महिलाओं के खिलाफ हिंसा, लैंगिक भेदभाव, सामाजिक अलगाव और दुर्व्यवहार को रोकने के लिए सरकार द्वारा कई आवश्यक कदम उठाए गए हैं। 108वें संविधान संशोधन विधेयक जिसे महिला आरक्षण विधेयक भी कहा जाता है, को महिलाओं के लिए हर क्षेत्र में सक्रिय रूप से भाग लेने के लिए 1/3 सीटें सुरक्षित करने के लिए पारित किया गया था। पिछड़े क्षेत्रों में महिलाओं के वास्तविक मूल्यों और उनके उज्ज्वल भविष्य के लिए सरकार द्वारा प्रदान की जाने वाली सभी सुविधाओं के बारे में उन्हें जागरूक करने के लिए विभिन्न अभियानों की आवश्यकता है। उन्हें वास्तव में महिला सशक्तीकरण की चाहत को साकार करने के लिए लड़कियों के जीवित रहने और उचित शिक्षा की भी आवश्यकता है। महिला सशक्तीकरण और उनकी स्थिति में सुधार हमारे देश में दोनों लिंगों के मूल्य को समान बनाने की दिशा में एक तेज गति लाने का एक तरीका है। सभी तरह से महिलाओं की स्थिति का उत्थान राष्ट्र की प्राथमिकता होनी चाहिए। उस समय समाज में पुरुषों और महिलाओं के बीच असमानताओं के बीच की खाई को पाटने की आवश्यकता है, क्योंकि इससे कई समस्याएँ उत्पन्न होती हैं जो राष्ट्र के समग्र विकास के मार्ग में एक बड़ी बाधा बन जाती हैं। वास्तव में सशक्तीकरण लाने के लिए, यह हर महिला की जिम्मेदारी है कि जो उद्यमी बनना चाहती है, उसे अपने अधिकारों के बारे में खुद जागरूक होने की आवश्यकता है। अब समय आ गया है कि सकारात्मक कदम उठाए जाएँ और उन्हें केवल घरेलू कामों और पारिवारिक जिम्मेदारियों में शामिल करने के बजाय हर गतिविधि में शामिल किया जाए। उन्हें अपने आस-पास और साथ ही देश में होने वाली सभी गतिविधियों के बारे में पता होना चाहिए। महिला सशक्तीकरण में समाज और देश में कई चीजों को बदलने की शक्ति है और वे अपने समाज में गंभीर परिस्थितियों और गंभीर समस्याओं को संभालने में पुरुषों की तुलना में बहुत बेहतर हैं। महिलाएं पुरुषों की तुलना में परिवार और देश की वित्तीय/आर्थिक स्थिति को बेहतर तरीके से संभाल रही हैं। अगर महिलाओं की स्थिति में सुधार होता है, तो पुरुष प्रधान देश की बजाय समान रूप से प्रभुत्व वाले देश में बदलना संभव हो सकता है। महिलाओं को सशक्त बनाना बिना किसी अतिरिक्त आय और प्रयास के अपने परिवार के हर सदस्य को विकसित करना आसान बनाता है। एक महिला मुख्य रूप से जिम्मेदार होती है और अपने परिवार की हर एक चीज और हर गतिविधि को जानती है, इसलिए वह अपने ज्ञान से सभी समस्याओं को बेहतर ढंग से समझ सकती है और उनका समाधान कर सकती है। महिला सशक्तीकरण

को मानव, अर्थव्यवस्था, समाज और पर्यावरण से जुड़ी किसी भी छोटी-बड़ी समस्या का बेहतर समाधान माना जा सकता है। अगर हम पिछले कुछ सालों की रिपोर्ट की बात करें तो महिला सशक्तिकरण के फायदे हमारे सामने आ रहे हैं। महिलाएं अब अपनी शिक्षा, स्वास्थ्य, नौकरी, करियर और परिवार, समाज और देश के प्रति अपनी जिम्मेदारियों को संभालने के बारे में अधिक जागरूक हो गई हैं। आज के समय में महिलाएं हर तरह की गतिविधियों में हिस्सा ले रही हैं और आगे बढ़ रही हैं। वे हर क्षेत्र में हिस्सा ले रही हैं और हर क्षेत्र में अपनी बड़ी मेहनत दिखा रही हैं। आखिरकार, लंबे समय के कठिन संघर्ष के बाद उन्हें इस तरह से सही रास्ते पर आगे बढ़ने का अधिकार मिल रहा है। भारत की केंद्र सरकार और बाल एवं महिला विकास मंत्रालय ने महिलाओं के पक्ष में कई योजनाएं शुरू की हैं ताकि वे सशक्त बनें और आसानी से कोई भी काम कर सकें। इससे वे आत्मनिर्भर बन रही हैं। बेटी बचाओ बेटी पढ़ाओ, प्रधानमंत्री मातृ वंदना योजना, किशोरियों के लिए योजना, प्रधानमंत्री महिला शक्ति केंद्र योजना, राष्ट्रीय क्रेच योजना, राष्ट्रीय महिला कोष, स्वाधार गृह, उज्ज्वला, कामकाजी महिला छात्रावास, वन स्टॉप सेंटर योजना, जेंडर बजटिंग योजना, एकीकृत बाल विकास योजना, एकीकृत बाल संरक्षण योजना, राष्ट्रीय पोषण मिशन, स्वयंसिद्धा, प्रियदर्शनी, महिलाओं के लिए प्रशिक्षण और रोजगार कार्यक्रम को समर्थन, महिला ई-हाट। ये सभी वे योजनाएं हैं जो सरकार द्वारा शुरू की गई हैं, लेकिन सभी सीधे सशक्तिकरण कार्यक्रम में सहायक नहीं हैं। उनमें से कुछ बालिका शिशु, गर्भावस्था और क्रेच कार्यक्रम से संबंधित हैं। इसमें कोई संदेह नहीं है कि वे किसी भी महिला के जीवन में महत्वपूर्ण भूमिका निभा रहे हैं।

शोध साहित्य समीक्षा

रेहाना (2018): पुस्तक का वर्तमान अध्याय भारत में दहेज हत्या की समस्या का अध्ययन करता है। महिलाओं के खिलाफ दुर्दशा देश तक ही सीमित नहीं है, बल्कि यह दुनिया भर में व्याप्त है। देश में महिलाओं के खिलाफ विभिन्न अपराध किए जाते हैं। इन अपराधों में न केवल मानसिक अपमान, बल्कि शारीरिक और मनोवैज्ञानिक हिंसा भी शामिल है। यहां तक कि हत्या और दहेज हत्या जैसे जघन्य अपराध भी किए जाते हैं।

विमोचना (2018): महिलाओं के खिलाफ होने वाली विभिन्न पारिवारिक और बाहरी हिंसा के कारण उनकी शक्ति कम हो जाती है। पारिवारिक हिंसा की शिकार महिलाओं को न्याय के लिए बहुत लंबा इंतजार करना पड़ता है। इसके परिणामस्वरूप महिलाओं की मानसिक और शारीरिक दुर्दशा बढ़ जाती है। उन्हें पीड़ा सहनी पड़ती है। उनके लिए आशा और आकांक्षा के साथ अपने जीवन को पुनर्जीवित करना बेहद मुश्किल है। वे निराश और पराजित हैं और इससे ऊपर उठना एक कठिन काम है।

वेरोनिका (2019): दुनिया की कई संस्कृतियाँ महिलाओं पर नियंत्रण रखने के लिए उनके खिलाफ हिंसा की मौन अनुमति देती हैं। समाज भी ऐसी हिंसा को मंजूरी देता है। शोधकर्ता ने दिल्ली के झुग्गी-झोपड़ियों वाले इलाकों में पारिवारिक हिंसा के ज्वलंत उदाहरणों पर चर्चा की है और शिकायतकर्ता महिलाओं के आंकड़े भी लिखे हैं और यह भी कि उनमें से कितनों को न्याय मिला।

चम्पा (2020): पुस्तक ने अविवाहित या अवैध मातृत्व की पीड़ा पर प्रकाश डाला है। यह बहुत ही नाजुक सवाल है। इसका जवाब देना मुश्किल है। यह प्राचीन काल से वैवाहिक प्रणाली में विकास पर भी प्रकाश डालने का प्रयास करती है।

मायजा और डेनिस (2022): सार यह लेख दिखाता है कि एड्स महिलाओं की भेद्यता को भी उजागर करता है, एड्स से प्रभावित पुरुष और महिला दोनों उम्र के आंकड़ों से यह कहा जा सकता है कि विभिन्न तरीकों से, सामाजिक-आर्थिक स्थिति, लिंग, आयु और वैवाहिक स्थिति भेद्यता का एक जटिल जाल बनाने के लिए आपस में जुड़ती हैं।

उद्देश्य

- महिलाओं के उत्थान हेतु संचालित सरकारी योजनाओं के प्रभावों का विश्लेषण करना।
- महिलाओं हेतु संचालित सरकारी योजनाओं के क्षेत्रों का विश्लेषण करना।

शोध विधि

प्रस्तुत शोध द्वितीयक तथ्यों पर आधारित है। इसमें सरकारी योजनाओं से प्राप्त आंकड़ों का विश्लेषण किया गया है।

• बेटी बचाओ बेटी पढ़ाओ

2011 की जनगणना के अनुसार भारत में लिंगानुपात में तेजी से गिरावट आ रही है (2011: 1000 लड़कों पर 918 लड़कियाँ)। इस संबंध में भारत सरकार ने अक्टूबर 2014 में बेटी बचाओ बेटी पढ़ाओ परियोजना की शुरुआत की जिसका उद्देश्य बालिकाओं को शिक्षित करना और बचाना तथा घटते बाल लिंगानुपात के मुद्दों का समाधान करना है। इस नीति के पीछे लिंग-चयनात्मक गर्भपात या कन्या भ्रूण हत्या द्वारा लड़कियों के अनुपात में तेज गिरावट है। अल्ट्रासाउंड तकनीक ने गर्भवती महिलाओं के लिए उस बच्चे के लिंग को जानना संभव बना दिया है। यह प्रवृत्ति पहली बार तब देखी गई जब 1991 में जनगणना के परिणाम जारी किए गए और 2001 में जनगणना के परिणाम जारी होने पर इसकी पुष्टि हुई। 2011 में भी महिलाओं की जनसंख्या में कमी का सिलसिला जारी है। जनगणना के इस प्रकार के परिणाम को देखते हुए जनवरी 2015 में महिला एवं बाल विकास मंत्रालय, स्वास्थ्य एवं परिवार कल्याण मंत्रालय तथा मानव संसाधन विकास मंत्रालय की संयुक्त पहल पर बेटी बचाओ बेटी पढ़ाओ योजना शुरू की गई। इस योजना को सफल बनाने के लिए बालिकाओं के लिए समान मूल्य बनाने तथा उनकी शिक्षा को बढ़ावा देने के लिए सामाजिक लामबंदी तथा संचार अभियान चलाया जाता है। उन शहरों तथा जिलों को शामिल किया जाता है जहाँ बाल लिंगानुपात में गिरावट की समस्या है, इसलिए मूल रूप से इस प्रकार की रणनीतियों का उपयोग इस योजना में किया जाता है।

• कामकाजी महिला छात्रावास

देश के सामाजिक-आर्थिक ढांचे में तेजी से हो रहे बदलाव के कारण देश की अधिक से अधिक महिलाएं रोजगार की तलाश में अपने घरों को छोड़कर शहरी औद्योगिक क्षेत्रों में जा रही हैं। दूसरे शहरों में रोजगार के क्षेत्र में उन्हें कई कठिनाइयों का सामना करना पड़ रहा है और उन महिलाओं के सामने सबसे बड़ी कठिनाई उनके लिए सुरक्षित और सुविधाजनक आवास की है। भारत सरकार ने वर्ष 1972-73 में इस बारे में चिंता व्यक्त की और कामकाजी महिलाओं के लिए भवनों के निर्माण के लिए एक नीति लागू की, ताकि उन्हें शहरों, छोटे शहरों और ग्रामीण क्षेत्रों में भी छात्रावास की सुविधा प्रदान की जा सके, जहाँ महिलाओं के लिए रोजगार के अवसर मौजूद हैं। मौजूदा योजना के मूल्यांकन और संशोधन के आधार पर कामकाजी महिलाओं की सुरक्षा और सुविधाजनक आवास के स्थान पर ध्यान केंद्रित किया गया है, जिन्हें अपने परिवारों से दूर रहने की आवश्यकता है। उनकी नीति के पीछे मूल उद्देश्य कामकाजी महिलाओं को सुरक्षा और सुविधाजनक तरीके से अपने बच्चों की देखभाल की सुविधा के साथ आवास प्रदान करना है। यह परियोजना नए छात्रावास भवन के निर्माण और किराए के परिसर में मौजूदा भवन के विस्तार के लिए मूल्यांकन कर रही है। यह परियोजना जाति, राज्य, धर्म आदि के किसी भी भेदभाव के बिना सभी महिलाओं के लिए उपलब्ध कराई जाएगी। इस परियोजना से उन महिलाओं को लाभ मिलेगा जो अकेली, विधवा, तलाकशुदा, विवाहित हैं, उनके पति या परिवार उसी शहर में नहीं रहते हैं। यह समाज के वंचित वर्ग के शारीरिक रूप से विकलांग लाभार्थियों को वरीयता देता है।

• उज्ज्वला

प्रधानमंत्री उज्ज्वला योजना वर्ष में पेट्रोलियम और प्राकृतिक गैस मंत्रालय द्वारा उन महिलाओं को एलपीजी कनेक्शन प्रदान करने के लिए शुरू की गई एक परियोजना है जो बीपीएल परिवारों से संबंधित हैं। हमारे देश में, गरीब लोगों के पास रसोई गैस की सीमित पहुंच है। एलपीजी सिलेंडरों का प्रसार मुख्य रूप से शहरी और अर्ध शहरी क्षेत्रों में रहा है, जिसका कवरेज ज्यादातर मध्यम वर्ग और समृद्ध परिवारों में है। लेकिन हमारे देश में जीवाश्म ईंधन द्वारा खाना पकाने से स्वास्थ्य को गंभीर खतरा है। विश्व स्वास्थ्य संगठन के आंकड़ों के अनुसार हर साल लगभग 5 लाख मौतें कम खाना पकाने वाले ईंधन के कारण होती हैं इससे खाना पकाने में

लगने वाला समय और मेहनत भी कम होगी। इससे ग्रामीण युवाओं को रसोई गैस की आपूर्ति श्रृंखला में रोजगार भी मिलेगा।

- **वन स्टॉप सेंटर योजना**

भारत के वर्तमान परिदृश्य में लिंग आधारित भेदभाव और हिंसा अभी भी मौजूद है और यह एक वैश्विक स्वास्थ्य, मानवाधिकार और विकास का मुद्दा है जो संस्कृति, वर्ग, आयु, धर्म आदि से परे है और दुनिया के हर समुदाय और देश को प्रभावित करता है। संयुक्त राष्ट्र ने हिंसा-आधारित दुर्व्यवहार के उन्मूलन पर लिंग घोषणा की परिभाषा दी है, इसे लिंग-आधारित हिंसा का कोई भी कार्य जो महिलाओं को शारीरिक, यौन या मनोवैज्ञानिक नुकसान या पीड़ा पहुंचाता है या पहुंचा सकता है, जिसमें ऐसे कृत्यों की धमकी, जबरदस्ती या मनमाने ढंग से स्वतंत्रता से वंचित करना शामिल है, चाहे वह सार्वजनिक या निजी जीवन में हो। भारत में, लिंग आधारित हिंसा की कई अभिव्यक्तियाँ हैं बलात्कार सहित यौन और घरेलू हिंसा के अधिक लोकप्रिय रूपों से लेकर, हानिकारक प्रथाएँ जैसे, ऑनर किलिंग, दहेज, एसिड अटैक, यौन उत्पीड़न, बाल यौन शोषण, व्यावसायिक यौन शोषण के लिए तस्करी, बाल विवाह आदि। योजना का उद्देश्य हिंसा से प्रभावित महिलाओं को एक ही छत के नीचे निजी और सार्वजनिक दोनों जगहों पर एकीकृत सहायता प्रदान करना और किसी भी प्रकार की हिंसा के खिलाफ चिकित्सा, कानूनी और मनोवैज्ञानिक सहायता सहित कई सेवाओं तक तत्काल, आपातकालीन और गैर-आपातकालीन पहुँच की सुविधा प्रदान करना है। 2015 में 1 अप्रैल को महिला और बाल विकास मंत्रालय ने इंदिरा गांधी महिला सशक्तिकरण मिशन की एक उप-योजना वन स्टॉप सेंटर की स्थापना के लिए एक केंद्र प्रायोजित योजना शुरू की है। मातृत्व सहयोग योजना। यह योजना लोकप्रिय रूप से सखी केन्द्रों के रूप में जानी जाती है, क्योंकि इन्हें पूरे देश में चरणबद्ध तरीके से निजी और सार्वजनिक दोनों स्थानों पर हिंसा से प्रभावित महिलाओं को एक ही छत के नीचे एकीकृत सहायता और सहयोग प्रदान करने के लिए स्थापित किया जा रहा है।

- **स्टेप (महिलाओं के लिए प्रशिक्षण एवं रोजगार कार्यक्रम)**

महिला एवं बाल विकास मंत्रालय ने महिलाओं के लिए प्रशिक्षण एवं रोजगार कार्यक्रम (जच्चे) योजना के संशोधित दिशा-निर्देशों के अनुसार संगठनों और सरकारी संगठनों से आवेदन आमंत्रित किए हैं। दिशा-निर्देशों को दिसंबर 2014 में संशोधित किया गया था। मंत्रालय 1986-87 से 'केंद्रीय क्षेत्र योजना' के रूप में 'महिलाओं के लिए प्रशिक्षण एवं रोजगार कार्यक्रम योजना' का संचालन कर रहा है। जच्चे योजना का उद्देश्य महिलाओं को रोजगार के योग्य बनाने वाले कौशल प्रदान करना तथा महिलाओं को स्वरोजगार/उद्यमी बनने में सक्षम बनाने वाली योग्यताएं और कौशल प्रदान करना है। इस योजना का उद्देश्य ग्रामीण महिलाओं सहित देश भर में 16 वर्ष या उससे अधिक आयु वर्ग की महिलाओं को लाभ पहुंचाना है। इस योजना के तहत अनुदान सहायता गैर सरकारी संगठनों सहित संस्थानों/संगठनों को दी जाती है। स्टेप योजना के अंतर्गत सहायता किसी भी क्षेत्र में रोजगार और उद्यमिता से संबंधित कौशल प्रदान करने के लिए उपलब्ध होगी, जिसमें कृषि, बागवानी, खाद्य प्रसंस्करण, हथकरघा, सिलाई, कढ़ाई, जरी आदि, हस्तशिल्प, कंप्यूटर और आईटी सक्षम सेवाएं और साथ ही सॉफ्ट स्किल और कार्यस्थल के लिए कौशल जैसे बोली जाने वाली अंग्रेजी, रत्न और आभूषण, यात्रा और पर्यटन, आतिथ्य शामिल हैं। स्टेप के तहत प्रस्तावों पर योजना के दिशानिर्देशों के अनुसार विचार किया जाता है। पूर्वोत्तर राज्यों के संगठनों के प्रस्तावों के लिए, धनराशि जारी करने से पहले गृह मंत्रालय के माध्यम से प्रमाण-पत्रों का सत्यापन कराया जाता है। महिला और बाल विकास मंत्रालय द्वारा दिसंबर, 2014 में स्टेप योजना के दिशानिर्देशों को संशोधित किया गया है। इसके अतिरिक्त, अन्य क्षेत्र विशिष्ट मंत्रालयों और राज्य सरकारों के अपने कौशल विकास कार्यक्रम हैं। योजना के उचित कार्यान्वयन के लिए, दिशानिर्देशों में योजना के तहत वित्त पोषित परियोजनाओं की समवर्ती निगरानीधूम्रपान की परिकल्पना की गई है। स्टेप कार्यक्रम के तहत कवर किए जाने वाले लक्षित समूह में हाशिए पर रहने वाली संपत्तिहीन ग्रामीण महिलाएं और शहरी गरीब शामिल हैं। इसमें दिहाड़ी मजदूर, अवैतनिक दैनिक कर्मचारी, महिला मुखिया वाले परिवार, प्रवासी मजदूर, आदिवासी और अन्य वंचित समूह शामिल हैं, जिनमें एससी/एसटी परिवारों और गरीबी रेखा से नीचे के परिवारों पर विशेष ध्यान दिया गया है।

निष्कर्ष

सरकारी नीतियों को देश में महिलाओं के समग्र विकास के उद्देश्य से शुरू किया गया था। ये नीतियाँ भारत में महिला उद्यमिता के विकास के मूल रूप से सामाजिक और आर्थिक कारकों पर केंद्रित थीं। सामाजिक कारकों में महिला सशक्तिकरण में सुधार शामिल है। महिला सशक्तिकरण के लिए सरकार द्वारा चलाए जा रहे कार्यक्रम प्रत्यक्ष या अप्रत्यक्ष रूप से SHG का समर्थन करते हैं और जिसमें उन्हें प्रशिक्षण प्रदान करना, अपना व्यवसाय शुरू करने के लिए ऋण देना, बैंक खाते खोलना, व्यवसाय से संबंधित शिक्षा प्रदान करना, बाजार उपलब्ध कराना जैसी कई सुविधाएँ प्रदान करता है। इन सरकारी नीतियों की मदद से अब उस समय भारत महिला सशक्तिकरण के क्षेत्र में विकास कर रहा है। ये महिलाएँ एक अच्छा जीवन जी रही हैं और अपने परिवार को एक अच्छा भविष्य भी दे रही हैं। न केवल महिलाओं के जीवन में विकास हुआ है, बल्कि उनके परिवार और समाज का भी विकास हुआ है। देश बदल रहा है और महिलाएँ इसमें अच्छी भूमिका निभा रही हैं। आज के समय में महिलाओं ने अपनी खुद की परिभाषा बदल दी है। अब महिलाएँ घर से बाहर निकलती हैं और समाज में पुरुषों के साथ जुड़कर पैसा कमाती हैं और समाज को आगे बढ़ाती हैं।

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ENVIRONMENTAL HEALTH AND SOCIO-ECONOMIC STATUS OF URBAN SLUM DWELLERS IN HARI NAGAR, NEW DELHI

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ABSTRACT

The study conducted scrutinizes the environmental health conditions and socio-economic challenges of slum dwellers in Hari Nagar, New Delhi. Through a survey of 40 households comprising 248 residents, the research identifies critical issues such as health hazards, poor sanitation, availability of resources and education, housing inadequacies, and caste-based discrimination. The following study has been further classified into different sections being; Role of caste in slum community, Structural safety and housing, environmental health hazards, health and nutritional status and socio-economic intersection. The findings underscore the dire implications of these conditions, specifically for women and children, emphasizing the need for systematic interventions. Primary observations encompass inadequate access to clean water, high prevalence of respiratory issues, improper waste management and gaps in reproductive health care which reveals a significant difference in living standards compared to formal urban areas. The study proffers actionable recommendations to address these multifaceted challenges aiming to enhance community well-being. Recommendations include targeted infrastructure investments, community education and stronger public-private partnership to amplify living conditions and community resilience. The role of government programs and NGOs is explored revealing a mix of success and gaps in addressing these challenges.

KEYWORDS: *Environmental Health, Sanitation, Socio- Economic, Health and Hygiene in Slum, Social Issues, Reproductive Health, Water Quality, Over all Community well-Being.*

Introduction

As a result of industrialization, many people migrate from rural areas to the cities to look for better job opportunities, education and livelihood. Unable to cope with increasing inflation, such populations often led to informal settlements with poorly built tenements which are mostly temporary in nature. This area is known as slum or "Jhuggi jhopri". The areas are crowded together usually with inadequate sanitation and water facilities in an unhygienic conditions packed into a compact settlement. (Shri Sabir Ali, 2015) With rapid influx of people, Delhi as a capital faces several challenges when it comes to accommodating the immigrant population.

In India, as per the 2001 Census it has been reported that 42.6 million were living in slums across 640 towns and cities. (Kumar, 2014) With passing time this problem has only intensified with metropolitan cities like Mumbai, Kolkata, Delhi and Hyderabad experiencing high concentrations of slum dwellers. (Kumar, 2014)

Informal settlements, often characterized by overcrowding, poor sanitation, and inadequate infrastructure, pose significant challenges to urban development and public health. These settlements lack basic amenities like clean water, sanitation, and waste management, leading to various health issues and social problems. These settlements are often located in hazard-prone areas, making them

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vulnerable to natural disasters. Additionally, residents face discrimination and limited opportunities for education and employment. To address these challenges, governments and NGOs need to implement comprehensive strategies that include urban planning, infrastructure development, community empowerment, and social and economic upliftment.

The 2001 Census marked a significant milestone in understanding the extent and characteristics of informal settlements in India. For the first time, detailed demographic data on slum areas was collected, providing valuable insights into the challenges faced by slum dwellers. While progress has been made in recent years, the issue of informal settlements remains a pressing concern, requiring sustained efforts to improve the living conditions of millions of people.

Overall, with the hopes of leading a better life, migrants from rural regions migrate to metropolitan cities, ultimately settling down in slums. The wide establishment of such slums comes at the high cost of poor living conditions and deteriorating environmental health. At the end, there comes the question of is the establishment of slums worth the environmental and health collapse?

Aim and Objectives

The Purpose of the study is

- To analyze the environmental and hygiene conditions of people living in slum area: Pilli Kothi, Hari Nagar, New Delhi.
- To evaluate the health implications of these conditions on people, especially women and children.
- To identify social Challenges along with their impact on community dynamics.
- To understand how the socio-economic status impacts the health and lifestyle of slum residents.
- To propose actionable solutions to address these multifaceted issues.

Methodology

Amongst the slum, 40 households were randomly selected to be surveyed. The residents were asked basic demographic questions such as name, age, gender, occupation, etc. Along with that structured interviews were conducted and the open-ended responses were recorded by the interviewer. The questionnaire also included gender-specific questions and depending on the interviewee the questionnaire was modified. Additionally, data was collected via observational walks around the slum area in the form of photographs.

The accuracy of data pertaining to children's education up to age five, nutritional health of child and pregnant women and vaccination records were confirmed by Slum Anganwadis (Courtyard shelter).

The study was conducted in Hari Nagar slum area with total population approximately being >1000. For study sample, 40 households were interviewed with 248 residents. Each household was accessed based on prior set criteria's such as ventilation, room carrying capacity, furniture and appliances available, structural integrity of the house, number of people residing, sanitation and availability of drinking water. According to the living conditions, gender based interviews were conducted to collect data of health conditions or problems caused due to their primary surroundings. After the data was analyzed, the following observations were recorded.

Role of Caste in Slum Community

Among 40 households, major caste population belongs to Kushwahi.e, 45%, and then at 23%, Paswan becomes the second major caste followed by Brahmin [General] at 15%. Daas and other residents belonging to U.P and Bihar are 12% and 5% respectively.[Figure 1]

Caste plays a key role in shaping the socio-economic landscape of a urban slum. These marginalized groups often fall victim to historical discrimination and systemic exclusion in addition to facing stigmatization, limiting their opportunities for social mobility. These communities are devoid of basic amenities such as clean washrooms and drinking water. In these slums, caste-based dynamics influence access to resources such as food, water, education and sanitation. The Hari Nagar slum is no exception to caste-based stigma itself, but their strong sense of social capital creates a more adaptable and resilient way of living. In this slum, people belong to Hindu religion and are further bifurcated into separate caste depending upon their native places. Due to lack of diversification in community, the same orthodox way of living and thinking is being passed to the upcoming generation.

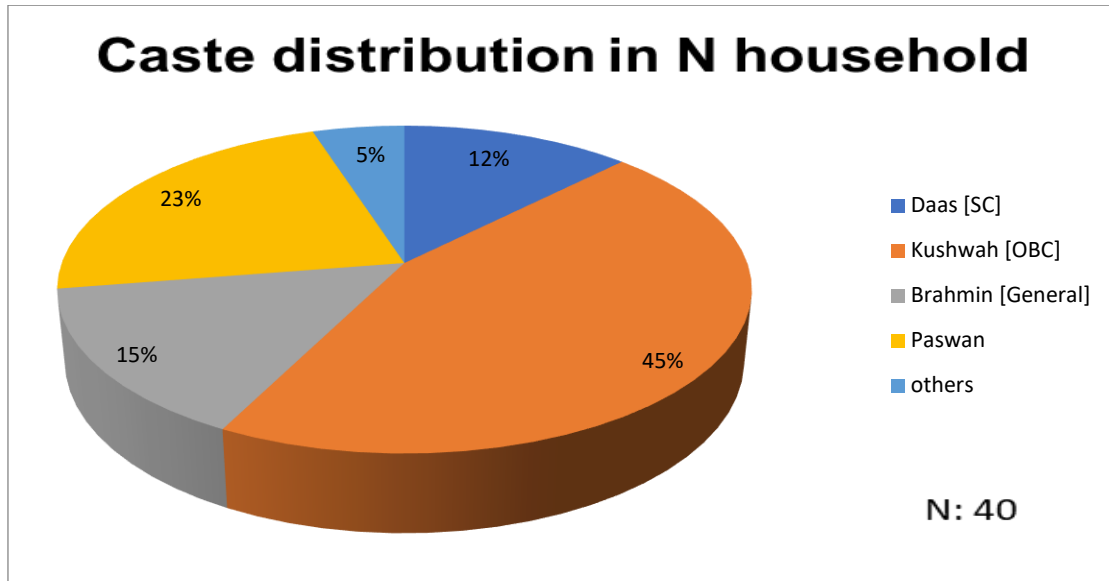


Figure 1: Caste Distribution in 40 Households of Hari Nagar Slum

Structural Safety and Housing

Pilli Kothi is a combination of Kachha (temporary), pakka (permanent) and a mixture of Kachha and pakka. As the Kachha houses are typically made of materials such as sand, mud, sticks, etc. [Figure 3] and are vulnerable to harsh weather, structural collapse and natural disasters, they lack basic safety and can be proven to increase the risk of injuries and fatalities. On the other hand, pakka houses are more stable but are often overcrowded and poorly constructed, which is a direct reflection of the financial constraints of slum residents [Figure 4]. Often living in close proximity can exacerbate health risks such as suffocation, spread of infectious diseases, etc. Poorly constructed houses are more likely to be affected by climate action, such as heavy rainfall, and can even lead to collapse of structure followed by loss of life [Figure 2]. For example; around August 2024, the temple which was constructed by pooled community resources collapsed due to heavy rainfall and is now being supported with the help of pillars [Figure 5]. Depending on their financial output, the slum population is replacing kachha houses with pakka, ensuring a safer living environment.



Figure 2: Collapsed temporary house due to heavy rainfall in August 2024



Figure 3: Construction of Mixed (Kachha and Pakka) Houses with lack of Safety and Connectivity



Figure 4: Private Constructional Activity to Transition from Temporary to Permanent



Figure 5: The Temple in Hari Nagar slum Collapsed Due to Heavy Rainfall in August to September 2024

The temple is provided temporary support with wooden logs to prevent the roof from collapsing again.

Environmental Health Hazards

These environmental health issues are further divided into three categories to understand the intensity of each factor and how they influence the human health.

- **Kitchen and Cooking Fuels**

The houses are very closely constructed in a slum area and are not according to government authorised plans. Therefore, it is almost impossible to supply PNG (Piped natural gas) to each household. Cooking practices in slums involve the use of traditional biomass fuels such as wood and cow dung [Figure 6] or LPG cylinders. Despite LPG being a cleaner and environment friendly alternative, its improper use in poorly ventilated spaces can lead to significant indoor air pollution and respiratory problems [Figure 7]. Whereas, using Traditional biomass fuels produces harmful smoke, which further contributes to respiratory problems like, asthma, bronchitis and chronic obstructive pulmonary disease (COPD).

Moreover, the already compromised indoor air quality is further deteriorated by the influx of outdoor pollution. This cumulative effect of outdoor and indoor pollution puts the children, women and the elderly at a greater risk .



Figure 6: Use of Traditional Stove for Cooking by Wood



Figure 7: Indoor Cooking using LPG Cylinder with Lack of Ventilation in the Room

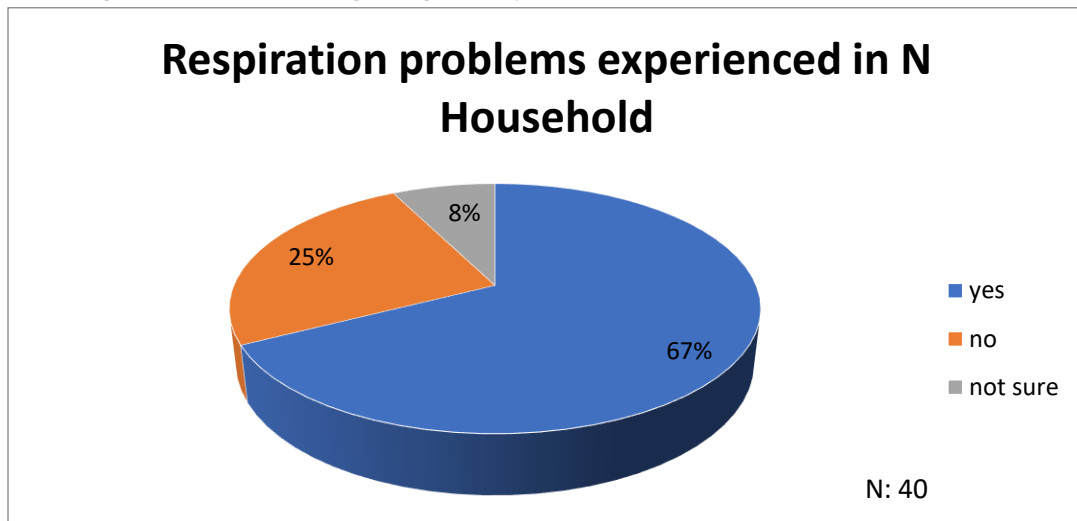


Figure 8: Cases of Respiratory Problems in 40 Households (Pooled)

According to the given data, out 40 households, 67% agreed upon having respiratory difficulties. While 25% did not encounter and issue the remaining 8% were unsure about the cause or time duration for which they were facing difficulties while breathing. Amongst the given statistics, major group that was affected were children. [Figure 8]

- **Water Sources and Contamination**

Due to limited access of water in slums, scarcity compels the residents to store water in plastic containers and drums, which not only releases microplastics but also serve as breeding grounds for mosquitoes. A field visit to Hari Nagar slum revealed that three primary water sources are available out of which one is privately owned by the Slum Head (Pradhan) while remaining taps were communal [Figure 10]. According to the data, 95% of sample population uses public taps for collection of drinking water whereas, only personal taps with storage facility and personal tap with out storage facility is 3% and 2% respectively. Due to inadequate storage infrastructure, people were observed to store the water in plastics containers [Figure 9]. Uncovered storage of water leads to exposure with air contaminants and is ideal for disease-causing mosquitoes to breed. According to Figure 11, out of 40 households, 58% have reported a case of dengue for one or more individuals, whereas, remaining 42% have not experienced dengue for any family member.



Figure 9: Water Storage into Plastic Containers Becoming a Breeding- Ground for Disease Causing MOSQUITOES

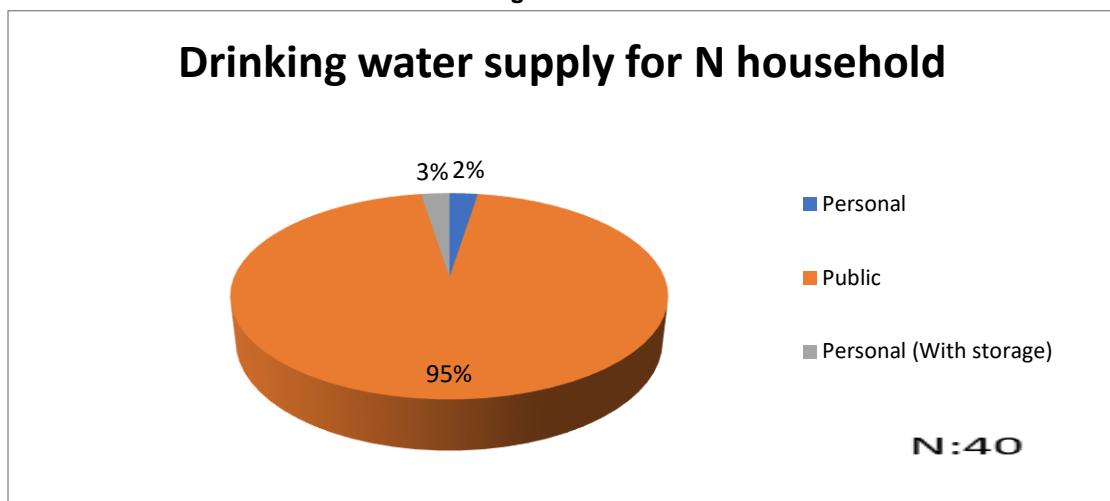


Figure 10: Availability of Drinking Water for 40 Households

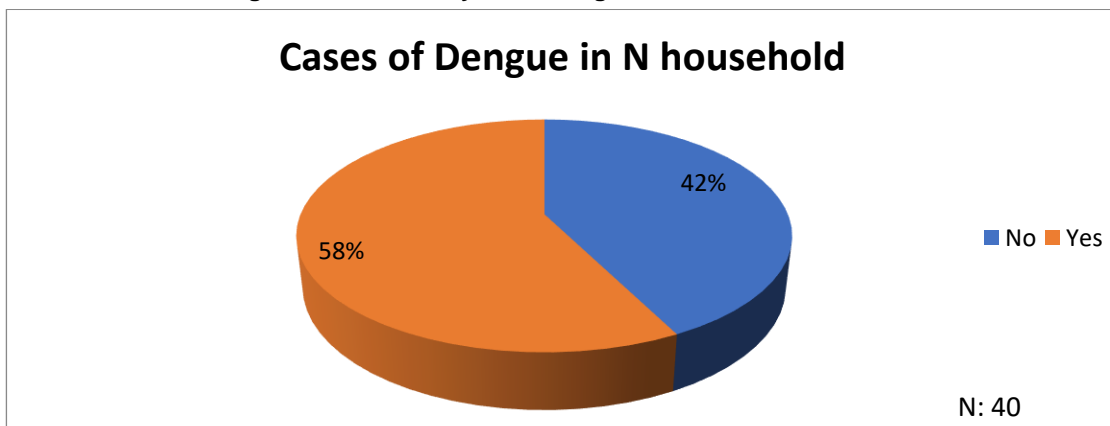


Figure 11: Cases of Dengue recorded in 40 households (Pooled)

- **Sanitation and Solid Waste Management**

Slum areas worldwide ,grapple with severe sanitation and waste management challenges. Due to no access to personal water supply and washrooms, these people use public washrooms, which are often lacking or poorly maintained. Limited access to clean water exacerbates the issue and open defecation further contaminates the environment. Additionally, women and girls facing challenges due to lack of privacy and unhygienic conditions can further lead to reproductive health issues. Despite 7% of 40 households having access to a personal bathroom [Figure 14] , they still use government constructed washroom facility throughout the day. During the night, the residents can access the emergency washroom which are severely unhygienic and are not being maintained properly [Figure 12]. In New Delhi, DUSIB (Delhi Urban Shelter Improvement Board) is responsible for improvement and clearance of slum for the protection of tenants in such areas from eviction, under The Slum Areas (Improvement and Clearance)Act, 1956 (DUSIB, 2010). They have also provided a free public toilet for the residents of Hari Nagar Slum which can be used during the day i.e, 5am to 11 pm.

Similarly, open dumping of solid waste in sewage or roadsides is a severe problem as it can have long- lasting consequences on both environment as well as public health. [Figure 13]

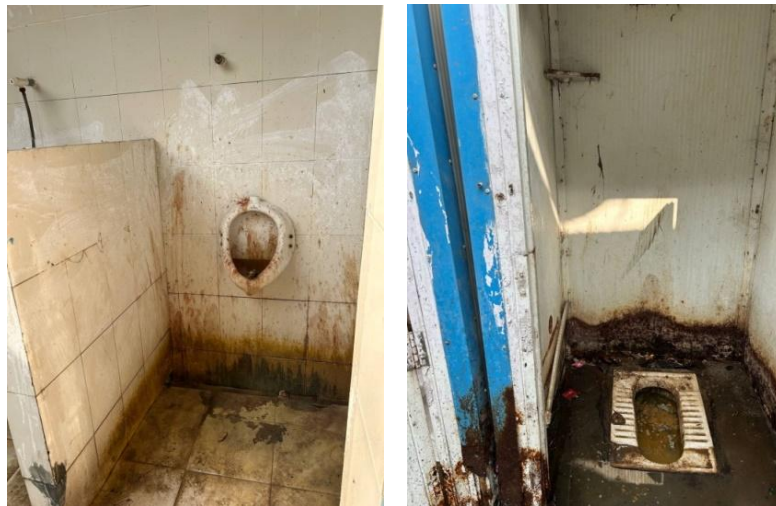


Figure 12: Conditions DUSIB Public Washrooms in Hari Nagar Slum



Figure 13: Solid Waste on Road Side and in Open Sewage

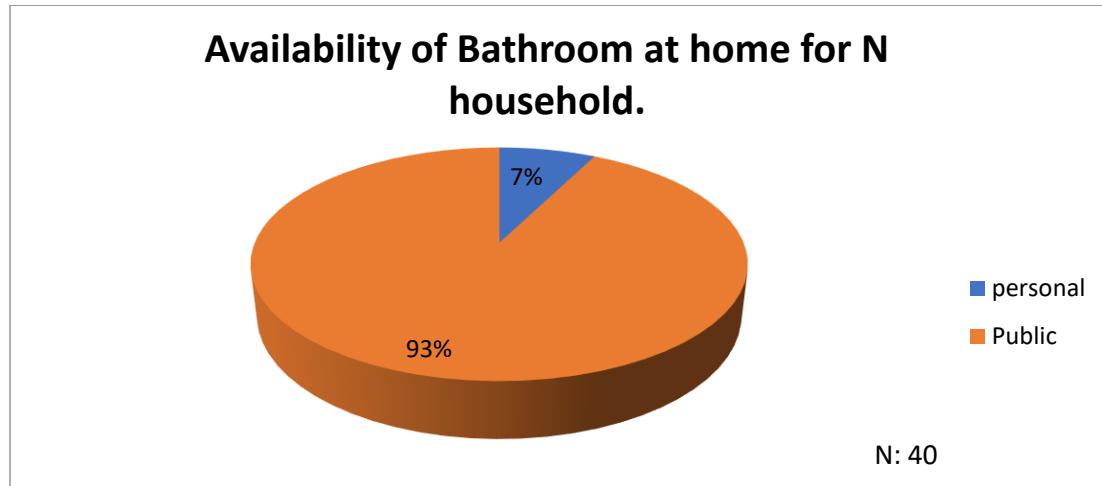


Figure 14: Availability of Bathroom at Home for 40 Households

Health and Nutritional Status

- **Maternal Health and Vaccination:** According to the given [Figure 15], despite the numerous challenges faced by the slum residents, vaccination coverage has remained a notable success, major thanks to the efforts of local anganwadis and healthcare workers. Anganwadis (Courtyard shelters) are centrally funded institutions that play a vital role in tracking immunization records, providing nutritional support for children upto the age of three and even offering maternal care services to the women (Development, 2022). There are three Anganwadis in the Pilli Kothi slum, depending on the distribution of houses being covered by each. The Courtyard shelters have been appointed with social workers to manage the requirements of children and pregnant women. On the basis of kept records, the Wera-Shishu Aahar is distributed with is to be consumed within 45 days [Figure 16]. New initiatives under the Mission Saksham Anganwadi and Poshan 2.0 have been sponsored by the central, emerged out of the convergence of erstwhile integrated Child Development Services, Poshan Abhiyan and nutrition oriented initiatives which is being implemented on sharing of Grant-in-aid between the Central and State Governments.

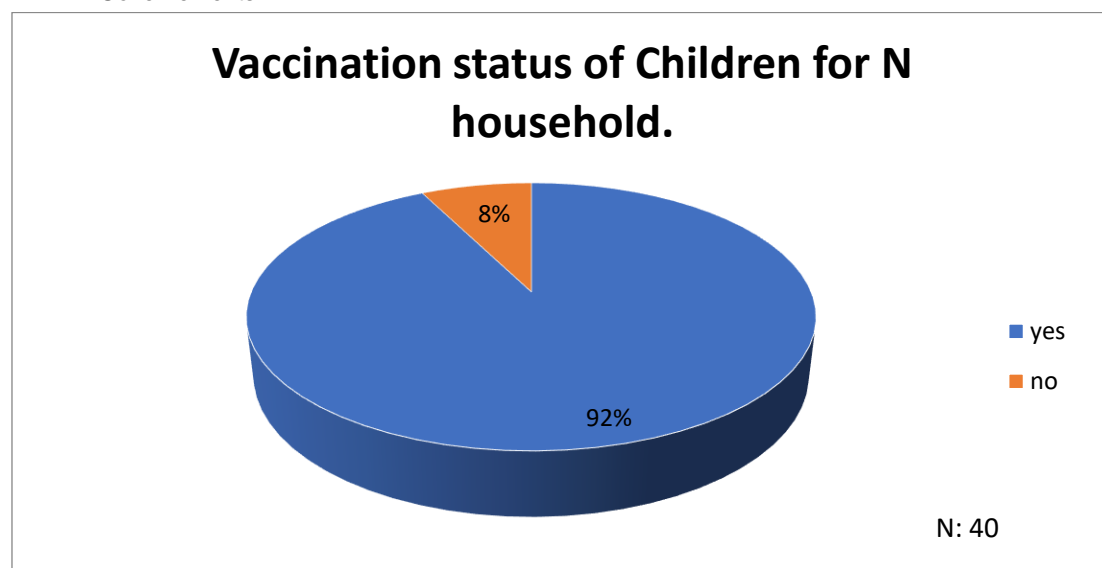


Figure 15: Status of Vaccination of Children for 40 Households



Figure 16: Food Supplement Provided by the Government to Local Anganwadi for Distribution in Slums

- Reproductive Health Issues:** According to the collected data [Figure 17], reproductive health issues are prevalent among females in Hari Nagar slum. Amongst 40 households, a concerning 47% have reported to have experienced reproductive issues, whereas, 15% have faced minor inconvenience over the time interval. Notably, 28% have faced no issues which is an indication of fluctuating pattern. On the other hand, 10% of women did not respond, which potentially indicates sensitivity or reluctance to disclose such information.

The reproductive issues included unintended pregnancies, untreated infections, menstrual issues (such as heavy bleeding, irregular periods, excessive pain), lack access to maternal healthcare, etc. The collected data contains a pooled record of reproductive health of women in N households. [Figure 17]

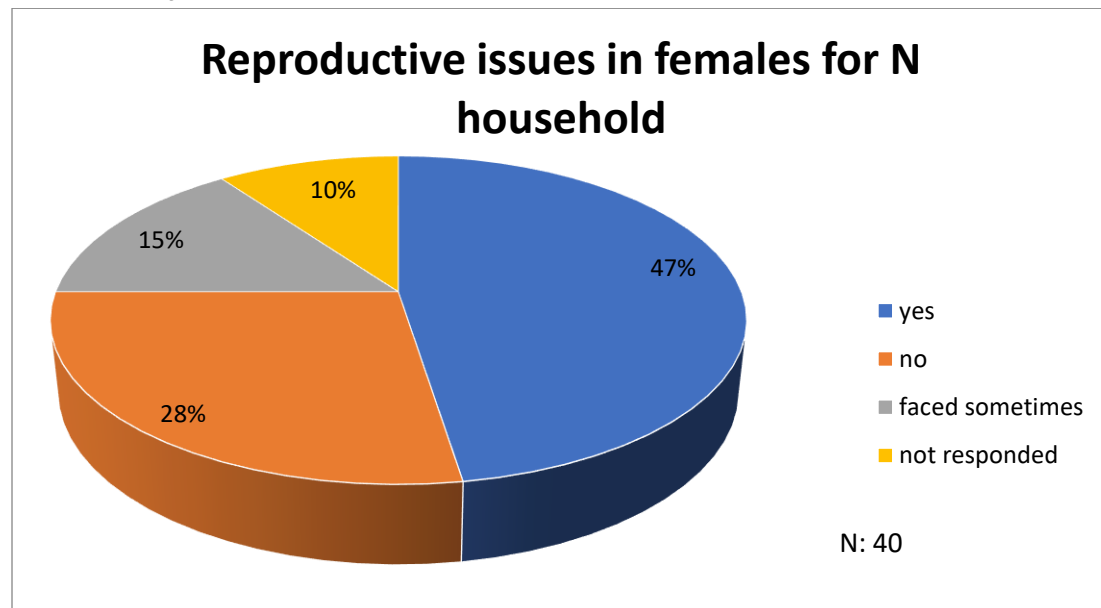


Figure 17: Reproductive Issues Faced by Women in 40 Households (Pooled)

Socio-Economic Intersection

The interconnected nature of social and economic challenges in slums creates a feedback loop that perpetuates marginalization. Despite several government initiatives and welfare programs for slums, the effectiveness is still limited. Caste-based discrimination has often intersected with job stability and poverty, which further results in the static conditioning of these marginalized groups. Most of the slum residents rely on informal employment which leads to irregular or long hours, low wages, and close to no social security. These conditions perpetuate the vicious cycle of poverty and ultimately lead to limited access to resources such as education, healthcare, food security, etc. Stagnant economic growth of the slum dwellers, adds up to the cause of social exclusion which in turn has a detrimental effect on community stability and typically has a greater impact on women and children.

Access to clean water, electricity, and internet connectivity remains a significant challenge for slum residents. These resource gaps exacerbate social exclusion, limiting opportunities for education, employment, and overall quality of life. Bridging these gaps through targeted infrastructure investments and policy interventions is crucial for promoting equity and inclusion.

Results and Discussion

The Environmental health conditions in the Hari Nagar slums acquaint a complex and interlinked set of challenges with significant implications for human well-being. The Lack of poor housing and infrastructure such as poorly ventilated spaces and the co-existence of kachha(temporary) and pakka (permanent) structures exposes residents to physical hazards like building collapses due to extreme weather conditions and respiratory issues due to poor air quality. Conservative cooking practices followed by the households further deteriorates indoor air quality, disproportionately affecting women and children who spend more time indoors. Water scarcity constraints residents to store water in makeshift containers creating breeding grounds for mosquitoes and increasing the risk of waterborne like dengue. Additionally, Solid waste accumulation on roadsides and in open sewages added another layer of environmental degradation contributing to the contamination of the living environment and posing serious health risk such as diarrhoeal disease, nausea, vomiting, etc. (WHO)Due to houses being in an unplanned manner and proximity, if another pandemic way of any infectious disease strikes, such as COVID-19, it would be an absolute holocaust. However, the efforts of NGOs and community initiatives play an indispensable role in alleviating some of the adverse conditions. They provide support in the form of healthcare awareness campaigns, and nutritional assistance. As per the interviews conducted, 85% of households are consuming proper meals thrice a day while the remaining 15% are also consuming twice a day but the reason is not due to lack of food availability but lack of time management due to their irregular working hours [Figure 18].For instance, collaborations with Anganwadis have been influential in improving vaccination coverage and maternal care. However, the limited scale and irregular nature of these interventions inscribes the need for more consistent and comprehensive support.

Moreover, environmental health in slums is entangled with extensive ecological and social dynamics, these conditions have a direct implication on residents' physical health as exposure to unsafe water, pollutants, and poor sanitation intensifies vulnerabilities.

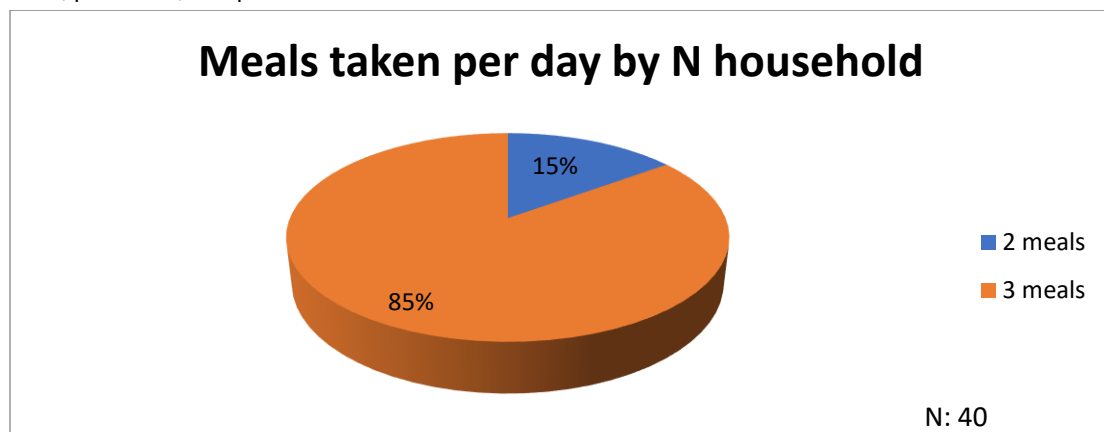


Figure 18: Meals Consumed by 40 Households on a Daily basis in Hari Nagar Slum

Interventions targeting these issues can yield dual benefits by improving individual health outcomes and reducing the communities' environmental footprint. Initiatives by government, such as construction of public washrooms under DUSIB and nutritional support under Mission Saksham Anganwadis have made noteworthy contributions, yet false short due to underfunding and poor implementation. Strengthening collaboration between NGOs, local authorities and residents is pivotal for driving impactful change.

Monitory factor plays a vital role in determining the socio-economic status of households, as many people migrate to urban cities with the primary aim of seeking better opportunities to earn a comparatively better livelihood but in turn, face a major lifestyle compromise. Job instability often entices the male members towards gambling, drug addiction, etc. which tends to amplify domestic abuse, and mental health issues in the family (anxiety, stress, depression). These situations can influence a child's conscience, leading them to view such behaviour as normal.

The orthodoxical stigma related to conceiving a male child prevails in society which has led to a spike increase in the population rate of slums due to poor financial background it further deteriorates various aspects like infant mortality rate and due to lack of awareness, a majority of the households are unable to provide essential healthcare and nutrition to women. Poor sanitation and social stigma adversely affect the mind-set of women in slums which normalises the social and mental abuse.

Overall, these factors impact the long-term physical and mental conditions of the slum residents shaping their future to a similar line that is, not being able to overcome the challenges and get beyond the slums.

Conclusion

The Urban slum is a little world of broader social, economic, and environmental inequalities, and the Hari Nagar slum holds a mirror to this concept. The challenges faced by these communities are deeply interconnected, requiring integrated and inclusive solutions. Addressing issues such as caste-based discrimination, poor housing conditions, environmental health hazards, and socio-economic disparities necessitates a collaborative effort among governments, NGOs, and community members.

Investments in better and more sustainable infrastructure, equitable access to resources, and targeted welfare programs are essential for fostering long-term well-being in slum communities. By prioritizing inclusivity and sustainability, we can create pathways for marginalized populations to achieve social and economic mobility, ultimately contributing to a more equitable and resilient urban future.

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CONSUMER PREFERENCES AND TRENDS IN FAST-FOOD CONSUMPTION: A STUDY OF DELHI NCR

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Dr. Gaurav Bathla**
Dr. Varinder Singh Rana***

ABSTRACT

This research, Consumer Preferences and Trends in Fast-Food Consumption: A Study of Delhi NCR, examines fast-food culture within a changing Indian city. It looks at consumer demographics and trends, including urban lifestyles and global influences. The data from 162 usable responses (of 200 distributed) were gathered through an online questionnaire with a 5-point Likert scale to measure preferences for 20 top fast-food items. Results show Chaat/Gol Gappe as the most popular, followed by Pizza, Paneer Tikka, Momos, and Pasta, showing a combination of local and international tastes. Moderately popular dishes like Dosa/Idli, Burger/Sandwiches, and Pav Bhaji strike a balance between health and convenience. Least popular items such as Chowmein and Bread Pakora show changing tastes. Affordability, convenience, and taste are the most important decision drivers. This research offers suggestions for quick-service companies to position themselves with the consumer, merging classic tastes with contemporary trends to suit Delhi NCR's multicultural food scene.

KEYWORDS: Consumers, Preferences, Trends, Fast-Food, Consumption.

Introduction

Fast food has become an integral part of urban living, fueled by rapid urbanization, increasing disposable incomes, and convenience demands (Ghai & Jha, 2019; Janssen et al., 2018). In India, especially Delhi NCR, the fast-food sector has prospered, based on affordability, accessibility, changing tastes, cultural changes, and international fast-food chain expansion (Maumbe, 2012; Saraswat et al., 2024). Being a melting pot of diverse cultures, Delhi NCR's fast-food culture is a mixture of traditional and modern tastes with choices ranging from burgers and pizzas to chaat and kebabs (Kraig & Sen, 2013). Fast food is driven by young working professionals, students, and families, with food delivery apps and digital marketing maximizing accessibility and power (Miller, 2014; Ecker & Strüver, 2022). Determinants of consumer preferences are taste, price, health awareness, brand loyalty, and social media influence (Burns et al., 2013; Guthrie et al., 2013). Convenience continues to rule, but growing health awareness has fueled demand for healthy fast food (Amith et al., 2021). This research examines consumer reactions to 20 leading fast foods in Delhi NCR, determining the main determinants of choice, most popular items, and demographic differences. Findings will contribute to understanding urban food consumption trends and provide insights for marketers, policymakers, and industry stakeholders to adapt to evolving consumer demands.

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Review of Literature

• Concept of Fast Food

Fast food offers speed, convenience, and affordability in contemporary life (Zheng, 2004). It originated in the West and spread across the world because of standardized menus, rapid service, and mass production (Peiranova, 2010). Hamburgers, pizza, fried chicken, and snacks are popular fast foods offered for dine-in or take-away (Turbutt, 2020). Fast food provides taste uniformity throughout outlets (Akram et al., 2020) but tends to be rich in calories, saturated fats, sugars, and sodium but poor in nutrients (An, 2016). Fast food has been influenced by globalization, incorporating traditional tastes and regional tastes (Grosalik & Ram, 2013; Mak et al., 2012). It suits cosmopolitan consumers who are urban-based, including students and working individuals (Rai et al., 2023; Middha et al., 2021). But its associations with obesity, diabetes, and the environment have created pressure for healthier food and more sustainable production methods (Garnett et al., 2014), demonstrating changing consumer aspirations.

• Fast-food in Indian Context

India's fast food has grown very fast as a result of urbanization, increased income, and youthful workforce (Mohamed, 2024). It mixes Indian flavor with the fast-food culture from across the globe to appease different palates (Kumari, 2024). Foreign fast-food chains such as McDonald's and KFC modified menus by offering vegetarian items and spicier alternatives (Arup, 2019; Krishna, 2014), whereas Indian chains such as Haldiram's and Bikanervala revolutionized old-style snacks (Muramalla, 2013). Street food continues to lead the way with cheap favorites such as samosas, vada pav, and pani puri, combining tradition with fast-food culture (Dalal, 2016; Mall, 2014). Yet industry expansion is compounded by concerns for obesity, lifestyle diseases, food safety, and environmental degradation (Senapati et al., 2015; Omari & Frempong, 2016). With increasing awareness of health and sustainability, the demand for healthier choices and environmentally friendly practices is driving India's fast-food industry (Samaddar & Mondal, 2024), and thus it is a dynamic and changing sector.

• Famous Fast-Food Dishes in India

India's fast food culture combines classic flavors with contemporary convenience, providing variety and popular dishes. Chole Bhature and Kulche Chole are classic North Indian dishes consisting of spiced chickpeas served with deep-fried or flaky bread (Gautam et al., 2022; Mukherjee, 2024). Aloo Tikki, Chaat, and Gol Gappe are street foods, filled with sour, spicy flavors (Kushwaha & Singh, 2020). Other popular ones are Paratha Rolls filled with spiced fillings (Srivastav et al., 2021), crispy Samosas (Kalra, 2004), and fried Bread Pakora (Chakkaravarth et al., 2021). Smoky, grilled goodness comes from Paneer Tikka and Chicken Tikka (Gupta et al., 2020). South Indian treats such as Dosa and Idli with Sambhar provide a lighter option (Ananthanarayan et al., 2019). Street foods such as Momos, Pav Bhaji, and Kebabs are favourites with the crowds (Jain & Saini, 2020; Rana, 2022). Western flavours mix with Pizza, Burgers, and Pasta, commonly had with Indian seasoning (Balkaran et al., 2016). They reflect India's diverse and dynamic fast-food culture.

Objectives of the Study

- To examine the profile of consumers related to their fast-food consumption in Delhi NCR.
- To examine consumers preferences towards fast-food dishes in Delhi-NCR.

Research Methodology

The research study Consumer Preferences and Trends in Fast-Food Consumption: A Study of Delhi NCR explores fast-food preferences and consumer profiles within the region. Information was gathered through a Google Forms questionnaire that was distributed through social media by means of convenience sampling. Out of 200 questionnaires that were distributed, 170 were received back, with 162 being usable for analysis. The survey consisted of three parts: demographics (age, gender, profession, income), fast-food eating habits, and 20 common dishes rated on a 5-point Likert scale. Percentage analysis was applied to examine consumer profiles, whereas measures of central tendency calculated the mean preference for each dish. This method assisted in identifying the most and least preferred fast foods. The research offers an organized framework to analyze fast food eating habits in Delhi NCR using qualitative and quantitative approaches in order to present consumer behavior and demand patterns within the fast food market.

Data Analysis and Interpretation

- Demographic Profile of Respondents**

Table 1: Demographic Profile of Respondents

Parameter	Variables	Frequency	Percentage
Gender	Male	109	67.3
	Female	53	32.7
Age	18-25 Years	61	37.6
	26-35 Years	55	33.9
	36-45 Years	32	19.7
	46-55 Years	14	8.6
Marital Status	Single	90	55.5
	Married	72	44.5
Educational Qualification	Intermediate	34	20.9
	Graduate	86	53
	Postgraduate	33	20.3
	Doctorate	5	3
Occupation	Others	4	2.4
	Student	72	44.4
	Government Employee	31	19.1
	Private Job	34	20.9
	Self-Business	18	11.1
Annual Income	Others	7	4.3
	Not Earning	74	45.6
	Up to 3 Lakhs	18	11.1
	3-6 Lakhs	26	16
	6-10 Lakhs	22	13.5
Family Status	More than 10 Lakhs	22	13.5
	Nuclear Family	99	61.1
	Joint Family	63	38.2
Residential Status in Delhi NCR	Local Resident	100	61.7
	Visitor	62	38.2

The socio-demographic profile of consumers of fast food in Delhi-NCR, based on 162 responses, is highly informative regarding their composition. Males predominate in the sample (67.3%), and females account for 32.7%. Younger age groups—18-25 years (37.6%) and 26-35 years (33.9%)—are most enthusiastic about fast food, with the incidence of consumption declining with increasing age. Singles (55.5%) report higher consumption of fast food than married people (44.5%), suggesting lifestyle impacts. Educationally, the majority of consumers are graduates (53%), followed by intermediate (20.9%) and postgraduates (20.3%). The largest consumer group is students (44.4%), followed by private employees (20.9%) and government employees (19.1%). Income-wise, 45.6% are non-earners (most likely students), while earners range across various brackets, with the largest segment earning ₹3-6 lakhs (16%). The majority of respondents reside in nuclear families (61.1%), and 61.7% are locals, while 38.2% are visitors. In general, young, single, educated people, especially early professionals and students, are in favor of eating fast food at all income and family levels.

- Profile of respondents related to Fast-food Consumption**

Table 2: Profile of Respondents related to their Fast-Food Consumption

Parameter	Variables	Frequency	Percentage
Frequency of Eating Fast Food	Daily	17	10.5
	2-3 times a week	63	38.9
	Once a week	39	24.1
	Occasionally	30	18.5
	Rarely	13	8

Normally Preferred Fast Food	North Indian (Samosa, Chole Bhature etc.)	70	43.2
	South Indian (Idli/Dosa with Sambhar)	22	13.6
	East Indian (Momos)	23	14.2
	West Indian (Pav Bhaji, Vada pav etc.)	4	2.5
	Italian (Pasta)	7	4.3
	Chinese (Chowmein, Chilli Paneer)	20	12.3
	Others	16	9.9
How do you usually order fast food?	Online Delivery Apps	70	43.2
	Visiting Outlets	77	47.5
	Drive Through	2	1.2
	Others	13	8
Place you prefer to eat fast food	Quick Service Restaurants (McDonald's, Domino's Pizza, KFC etc.)	56	34.6
	Cafes and Coffee Shops (Starbucks, Costa Coffee etc.)	19	11.7
	Food Courts in Malls	10	6.2
	Street Food Vendors	64	39.5
	Others	13	8

The first aim of the study analyzes the profile of fast-food consumers in Delhi-NCR. Of 162 respondents, 38.9% eat fast food 2-3 times a week, which is the most frequent. 24.1% eat it once a week, 18.5% sometimes, 10.5% daily, and 8% seldom, indicating that fast food is deeply ingrained in urban living patterns, especially for students and working professionals. When it comes to food preferences, 43.2% prefer North Indian fast foods such as samosas and chole bhature, which indicate a strong inclination toward known tastes. Momos (14.2%) are also very popular, followed by South Indian foods (13.6%) and Chinese food (12.3%). Western fast food, including pasta (4.3%) and pav bhaji (2.5%), is less in demand, showing Delhi-NCR's leaning toward traditional and pan-Asian cuisine. With regard to ordering channels, 47.5% opt for visiting outlets, 43.2% rely on online delivery apps, and 8% choose takeaways. The fact that drive-through usage is low (1.2%) indicates limited infrastructure support for this channel. The growth in the use of delivery apps points to convenience, promotions, and time saving. In choosing where to eat, street food vendors (39.5%) lead, followed by quick-service restaurants (34.6%), indicating affordability and brand loyalty. Cafés (11.7%) and food courts (6.2%) cater to those seeking ambiance or variety. Overall, Delhi-NCR's fast-food landscape is shaped by affordability, convenience, and evolving technology, balancing traditional street food with modern digital dining trends.

• Consumers Preferences for Fast-Food Dishes in Delhi-NCR

The second aim of the research explores consumer choice for fast foods in Delhi-NCR, using a five-point Likert scale evaluation of 20 top items among 162 respondents. Chaat/Gol Gappe is the most preferred (3.59), indicating its spicy, sour appeal and cultural popularity. Pizza is next (3.41), indicating Westernization of urban tastes. Paneer Tikka (3.34) and Momos (3.31) are third and fourth, reflecting the high demand for smoky flavors and Tibetan-origin street food. Pasta (3.25) is fifth, being popular due to versatility. Dosa/Idli with Sambhar (3.22) is sixth, enjoyed as a light and healthy meal. Burger/Sandwiches (3.19) are seventh, being preferred for convenience. Aloo Tikki and Paratha Rolls (3.15) are jointly eighth as snacks. Pav Bhaji and Kebabs (3.14) take ninth place, giving rich tastes. Dahi Bhalla (3.13) completes the list of the top ten. Some other favorite food items are Fried Rice with Chilli Paneer/Chicken (3.11), Chole Bhature (3.06), Samosa (3.02), and Kachori (3.01). Lower-ranking dishes include Chicken Tikka (2.99), Kulche Chole (2.93), and Chowmein (2.91). Least favorite is Bread Pakora (2.62), possibly as a heavy snack. Generally, tastes are a balance between traditional, street, and international fast foods, influenced by taste, convenience, and cultural familiarity.

Delhi-NCR fast-food choices mirror a combination of lifestyle, economic, and cultural influences. Chaat/Gol Gappe tops the list because it is cheap, nostalgic, and liked by everyone. Likewise, Paneer Tikka and Momos are popular as convenient, protein-filled snacks for vegetarians and non-vegetarians alike. Western fast foods such as Pizza and Burgers appeal to younger generations due to globalization, quick-service restaurants, and home delivery systems. At the same time, Dosa/Idli with Sambhar continues to be in vogue for its image as a healthy, light meal. Old-time favorites such as Chole Bhature, Samosa, and Kachori fall behind, perhaps because of their richness, which could go against urban consumers' penchant for light foods. Indo-Chinese options such as Chowmein and Fried Rice continue to have steady demand but compete within their category. On the whole, Delhi-NCR's fast food culture is transforming, combining classic favorites with international influences, health-conscious options, and the ease of food delivery services.

Table 3: Consumers Preferences for Fast-Food Dishes in Delhi-NCR

Fast Food Items	Not at all Preferred (1)	Slightly Preferred (2)	Somewhat Preferred (3)	Moderately Preferred (4)	Extremely Preferred (5)	Total	Weighted Total	Weighted Mean	Rank
Chole Bhature	29	41	22	31	39	162	496	3.06	12
Kulche Chole	30	45	27	26	34	162	475	2.93	16
Aloo Tikki	27	34	32	26	43	162	510	3.15	8
Chaat/Gol Gappe	16	33	18	30	65	162	581	3.59	1
Paratha Rolls (Kathi Rolls, Chicken Roll)	31	33	23	30	45	162	511	3.15	8
Samosa	32	38	22	34	36	162	490	3.02	13
Bread Pakora	47	35	33	26	21	162	425	2.62	18
Paneer Tikka	20	34	26	35	47	162	541	3.34	3
Chicken Tikka	51	24	15	20	52	162	484	2.99	15
Dosa/Idli with Sambhar	27	27	38	24	46	162	521	3.22	6
Chowmein	38	32	28	34	30	162	472	2.91	17
Burger/Sandwiches	23	37	33	25	44	162	516	3.19	7
Fried Rice with Chilli Paneer/Chilli Chicken/Manchurian)	28	34	28	36	36	162	504	3.11	11
Pizza	17	34	25	37	49	162	553	3.41	2
Pasta	26	29	26	40	41	162	527	3.25	5
Momos	25	32	22	34	49	162	536	3.31	4
Pav Bhaji	32	27	27	38	38	162	509	3.14	9
Kebabs	30	33	26	30	43	162	509	3.14	9
Dahi Bhalla	28	27	35	40	32	162	507	3.13	10
Kachori	32	36	24	38	32	162	488	3.01	14

Conclusions

The results of the first objective show that the consumption of fast food in Delhi-NCR is frequent for most consumers, which means it is part of their urban lifestyle. The preference for ordering modes is divided between online delivery apps and visiting outlets, but street food vendors and quick-service restaurants are the most preferred places to dine at, showing a mix of convenience and traditional appeal. The primary objective of the study is to examine consumer preferences for fast-food dishes in Delhi-NCR, which indicates a diverse and dynamic food culture. Based on a survey of 162 respondents and their ratings of 20 fast-food items, Chaat/Gol Gappe emerged as the most preferred dish, reflecting its cultural and sensory appeal as a tangy, affordable street food. Pizza and Burgers from the West took

high ranks, signifying how globalization and easy accessibility to quick service have affected consumer preference, especially among the youth. Paneer Tikka and Momos highlighted the increased need for protein-rich snacks with flavor, appealing to both vegetarians and non-vegetarians. Samosas and Chole Bhature still hold their ground as classic North Indian favorites, even if their richness may not resonate as much with the increasingly health-conscious, time-scarce urban consumer. At the same time, there's increasing interest in healthy options like Dosa/Idli with Sambhar and also versatile, urban-friendly items like Pasta. Affordability and convenience played a huge role in shaping preferences, with street food items dominating for accessibility, while delivery-friendly foods like Pizza gained popularity for their compatibility with modern lifestyles. The findings point toward the evolving fast-food culture of the region, striking a balance between strong traditional roots and global trends, modern convenience, and diversified culinary influences. Consumer preference analysis for fast-food dishes in Delhi-NCR presents some interesting trends. The top five is found to be Chaat/Gol Gappe, pizza, paneer tikka, Momos, and Pasta indicating the diversity of this mixed influence from traditional Indian roadside eateries to international influences. Of moderate interest are Dosa/Idli with Sambhar, burger/sandwiches, Aloo tikki, Paratha Rolls, and Pav bhajji showing a mid-interval of interest by category. The bottom three preferences are Chowmein, Kulche Chole, and Bread Pakora, which may be credited to competition, perceived weight, or less dynamic appeal in urban settings.

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WOMEN AS CONSUMERS: ANALYSING GENDER DIMENSIONS IN CONSUMER PROTECTION LAWS

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ABSTRACT

Consumer Protection Laws have been designed to protect the rights and interest of consumers and to guarantee them for product safety and legal system. But these rules often ignore the particular difficulties that women face. There are some issues such as dangerous products, discriminatory pricing, misleading advertising that women face. This research paper discovers gender- based dimensions of consumer protection laws that focuses on the challenges faced by women. This explains the main parts of the Consumer Protection Act, 2019 in India and looks at how it helps to protect the women's rights as consumers. It examines problems like unfair practices targeted at women, false advertisements. This study helps to understand how consumer protection is connected to gender equality. To show how systematic bias and regulatory flaws affect women inconsistently, Case studies from areas such as healthcare and cosmetics are used. For example, misleading advertisements often take advantage of social beauty standards to target women buyers and "pink tax" increases the cost of goods sold to women. Women also faces problems such as ignorance of their rights or low representation in the public policy are also consider in this study. Studies suggest many ways to overcome these problems such as maintaining anti- discrimination laws, improving financial and digital literacy initiatives. The purpose of these actions is to promote a more fair and inclusive market that accepts special difficulties experienced by women. This paper ends with recommendations to strengthen the legal structure and empower women consumers.

KEYWORDS: *Consumer Protection, Gender Dimensions, Women Consumers, Consumer Rights, Misleading Advertisements, Pink Tax, E-Commerce, Product Liability, Legal Frameworks.*

Introduction

The goal of the Consumer Protection Act is to maintain fair commercial practices and protect consumers' rights. But consumer's weaknesses often vary depending on demographic factors. Women in the form of a separate consumer group face some specific challenges such as exploitation, targeted fraud.

For consumer rights, The Consumer Protection Act, 2019 made significant changes in India's legal framework and addressed issues such as unfair trade practices, and misleading advertisements. This paper attempts to analyze these provisions from a gender perspective, highlighting the importance of recognizing and addressing the specific requirements of women as consumers.

Contextualising Women as Consumers

Numerous factors influence women's consumption patterns, such as changing family dynamics, cultural standards, and social status.

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In the past, patriarchal systems have frequently restricted women's economic autonomy and placed them in secondary roles when it came to market participation.

But in the present day, a paradigm change has occurred, and women now have greater access to financial independence, work, and education.

Research indicates that between 70 and 80 percent of consumer purchases worldwide are made by women, highlighting their critical role in promoting economic expansion (Silverstein & Sayre, 2009).

Women confront particular difficulties as consumers despite their economic importance because of systematic and structural restrictions. Discriminatory pricing practices (usually referred to as "pink tax"), stereotype-promotion targeted marketing strategies and limited access to requirements including digital technologies, healthcare and financial products are the examples of these difficulties. In addition, financial theft, women, misleading advertising and product safety issues affect women, requiring a gender-sensitive approach to consumer protection.

Consumer Protection Laws and Gender Dimension

There is consumer protection law that works to protect consumers from exploitation, unfair trade practices and faulty goods. But these rules often work within a structure that ignores the unique needs of women. Rules related to product safety requirements usually ignore the different effects of dangerous products on women's health such as dangerous cosmetics or events associated with gender-specific drugs show. Consumer protection rules with a lack of gender-sensitive approach not only lose their effectiveness but also strengthen gender inequality. We need to understand the unique experiences women have as consumers to create fair laws and policies that support justice and diversity. A gender-sensitive strategy includes the components such as addressing gender-specific weaknesses, checking how consumer law affects men and women in different ways and ensure that women have the same access to prevention channels and legal measures.

International And Regional Perspectives

There is need to include gender ideas in consumer protection systems at global level. Gender equality is important in consumer policies according to international organizations such as United Nations (UN) and Economic Cooperation and Development Organization (OECD). For the protection of disadvantaged and weak consumers, it is a way to address gender specific issues, according to the United Nations Guidelines (2016). Various strategies have been implemented by countries at regional level for gender sensitive consumer protection. For example, the European Union has taken action to remove gender inequality in financial services and digital markets, while India's Consumer Protection Act (2019) includes security measures to protect consumers from improper trade practices, but it especially does not address gender issues.

Rationale and Objectives of the Study

Through an analysis of the gender characteristics inherent in consumer experiences, this study aims to close the gap between gender equality and consumer protection regulations. The study intends to:

- Analyze the particular difficulties that women consumers in various industries confront.
- Determine whether current consumer protection rules adequately address challenges unique to a given gender.
- Make policy proposals for the development of frameworks for consumer protection that take gender into account

By emphasizing the relationship between gender and consumer rights, this study adds to the larger conversation about economic empowerment and gender justice.

In order to create an egalitarian marketplace that respects and defends the rights of all customers, regardless of gender, it emphasizes the necessity for lawmakers, corporations, and advocacy organizations to work together.

Literature Review

The literature on gender aspects and consumer protection emphasizes the particular difficulties faced by women in a market where discriminatory behaviors and gendered marketing predominate. This literature review examines existing research on the subject, focusing on key themes such as gender-

based pricing, discrimination, financial inclusion, consumer awareness and the need for gender –sensitive policy frameworks.

Gender based Pricing Discrimination (Pink Tax)

Literature reveals the widespread practice of gendered pricing, with higher prices being charged for products marketed specifically to women (Gupta, 2020).

The problem of gender-based pricing discrimination, also known as the "pink tax," is one of the most extensively researched gender aspects in consumer protection laws.

According to a 2015 study by the New York City Department of Consumer Affairs, women's items are 43 percent more expensive than comparable male products, yet men's products are only 18 percent more expensive.

Clothing, personal care items, and services like haircuts and dry cleaning are all affected by these differences.

Additionally, a UN Women report from 2021 emphasizes that discriminatory pricing like this is not only a problem for consumers but also a larger economic issue that lowers women's purchasing power and maintains financial inequality (UN Women, 2021).

To alleviate these inequities, policy solutions have been offered, such as the Pink Tax Repeal Act in the US, although enforcement is still difficult (Smith & Jones, 2022).

Financial Inclusion and Gender Sensitive Product Design

Studies have also revealed gender disparities in financial services, where women encounter more obstacles when trying to obtain credit, loans, and investment opportunities.

Many financial products are created without taking into account the particular demands of women, which results in their exclusion from necessary services, according to a Women's World Banking (2023) research.

According to the European Parliament's 2023 Gender Impact Report, financial institutions frequently neglect to incorporate gender-sensitive policies into their frameworks for protecting consumers, which exposes women to predatory lending practices (European Parliament, 2023).

The global gender wealth gap and economic empowerment are hampered by the absence of inclusive financial services.

Awareness of Consumer Rights among Women

Depending on socioeconomic status, education level, and gender, there are notable differences in consumer rights awareness.

Women are less aware of their rights as customers than men, especially in developing nations, according to a ComFin Research research from 2022 (ComFin Research, 2022).

Women are more vulnerable to exploitation since they are unable to seek compensation for unfair trade practices due to this knowledge gap.

The research indicates that special education policies and programs are needed to help women for understanding their rights and access legal protection (Kumar&Patel, 2021)

Policy Recommendations for Gender-Responsive Consumer Protection

It is becoming clear that consumer protection laws should consider gender differences. According to UNCTAD (2022), The inequalities such as fair prices, increasing consumer awareness can be fixed with the help of gender sensitive rules.

According to the research, governments should take the following actions:

- Strengthening legislative mechanisms to forbid discrimination in price based on gender
- Encouraging banks to provide financial products that are inclusive of all genders.
- Launching awareness-raising efforts to inform women of their rights as consumers.
- Putting in place gender-sensitive data gathering to guide policy decisions.
- **Consumer Vulnerabilities:** Research, like that published in the Journal of Consumer Studies in 2021, has highlighted how stereotypes and cultural norms disproportionately affect women customers' purchasing habits and vulnerabilities.

This paper is based on existing research by examining the consumer protection Act, 2019 in India. It focuses on how the law can help to address gender – based challenges.

Research Methodology

This study is based on secondary data analysis and qualitative research methodology. The research methodology is based on various research papers and publications.

Key Issues Faced by Women Consumers

- **Misleading Advertisements and Gender Stereotypes**

To sell the products, there is use of societal norms and stereotypes ads that targets the women items like fairness creams, weight-loss supplements and anti-aging treatments often make false promises that leads to consumer exploitation.

- **Gender-Specific Unfair Trade Practices**

When the products for women cost more than similar products for men is known as “Pink Tax”. The things like clothing, accessories, personal care items are often priced higher just because they are marketed to women.

- **E-Commerce and Digital Fraud**

Women are being targeted by online scams, fake deals and false reviews with the rise of e-commerce. Marketing tricks aimed at women can make them more likely to fall these scams.

- **Safety Concerns in Products**

If the products such as personal care items, childcare products and health devices are poorly made or defective can be unsafe for women because they can seriously harm women's health and safety.

Legal Protections for Women Consumers

- **Provisions in the Consumer Protection Act, 2019**

To stop unfair trade practices like false advertising, many rules are introduced in the law. To investigate and punish offenders, the law creates the central consumer protection authority (CCPA). Also the law makes the companies responsible for any harm that is caused by defective products.

- **Accessibility of Redressal Mechanisms**

To benefit women consumers, the process of filing complaints are made easier by the laws which includes mediation to settle disputes quickly.

- **Role of Regulatory Bodies**

The CCPA helps to regulate ads and make sure that safety rules are followed. However, there is need to study more to handle the issues related to women very well.

Case Studies and Examples

- **Landmark Cases**

A company that included misleading advertisements specially targeting the women's beauty standards was penalized by the consumer forum. That type of cases need strict implementation of consumer protection laws.

- **Sectoral Analysis**

The complaints about unsafe or ineffective women's health products have been made in healthcare sectors. Likewise, By targeting the women in online shopping, many scams are done that show the weaknesses in the rules and regulations.

Challenges in Implementation

- **Insufficient Knowledge**

Under the 2019 Consumer Protection Act, many women who are living in rural areas are still ignorant of their rights. Because of this, they restricts for the compensation.

- **Social and Cultural Barriers**

Because of social expectations, women often hesitate to take legal action, even when their consumer rights are violated. Because of the fear of punishment, their problems get worse.

- **The Digital Divide**

The women's limited access to digital resources make their online complaint procedures difficult.

Recommendations

- **Awareness Campaigns**

Women should be educate about their consumer rights and legal remedies through campaigns. This can be done by collaborating with NGOs.

- **Strengthening Legal Frameworks**

The gender- sensitive guidelines can be introduced within consumer protection laws such as "Pink Tax" can be ban.

- **Technology-Based Solutions**

Different types of Apps or platforms can be develop to report grievances and for accessing the resources. The user-friendly tools can be develop.

- **Greater Representation in Policymaking**

For addressing the gender-specific issues women should be include in consumer protection bodies and policy making committees.

Conclusion

Consumer protection laws for an investigation into gender aspects suggests that women consumers will have to overcome constant obstacles such as lack of information, pricing discrimination, financial margins about their rights. A practice "Pink Tax" where the women often pay more for comparable objects and services, research makes economic inequality worse by showing that. Women often struggle to access important financial resources because financial policies and services do not always consider their specific needs. Stronger consumer protection laws should create by the governments and regulators that address gender-related issues to reduce these inequalities. Examples are designing financial products to meet women's needs, banning unfair pricing based on gender and educating people about their consumer rights. To make markets fairer and more inclusive, there is a support of global organizations like UN Women and UNCTAD.

In conclusion, adding a gender perspective to consumer protection laws helps to promote gender equality and economic fairness. To create a fairer economy, women face the challenges so policymakers should recognize and address these challenges. It is important to strengthen laws, improve financial access and increase consumer awareness to support women and build fairer markets.

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A STUDY ON GREEN INNOVATION AND ENTREPRENEURSHIP: A THEORETICAL PERSPECTIVE TOWARDS SUSTAINABLE DEVELOPMENT

Jyoti Pahariya*

ABSTRACT

This paper explores the concept of green innovation and entrepreneurship, focusing on their pivotal role in addressing environmental sustainability challenges. With rising concerns over climate change and resource depletion, green entrepreneurship is becoming a transformative force that drives innovation, aligning economic growth with ecological sustainability. The study employs a theoretical approach, using an integrative literature review to identify emerging trends, key concepts, green initiatives taken by entrepreneurs, institutional frameworks, financing, and decision-making processes.

KEYWORDS: *Green Entrepreneurship, Sustainability, Green Innovation, Business Performance.*

Introduction

"In recent years, the intersection of green innovation and entrepreneurship has become a focal point for new and established businesses. This shift is driven by increasing environmental concerns, regulatory pressures, and a growing consumer demand for sustainability (Cohen & Winn, 2007; Schaper, 2016). Green innovation refers to developing products, services, and processes that create value while reducing environmental impact. Entrepreneurs play a vital role in this landscape by spearheading innovative solutions that can bring significant environmental benefits (Farinelli et al., 2011)." Green entrepreneurship, defined as integrating ecological considerations into business innovation, is critical in addressing these concerns while fostering economic growth (Farinelli et al., 2011). Climate change, resource depletion, and social inequities demand innovative solutions that balance environmental, social, and economic objectives (Schaper, 2016). Green entrepreneurship has emerged as a solution to these issues, combining business innovation with environmental conservation (Cohen & Winn, 2007). Defined as ventures that prioritize sustainability, green entrepreneurship fosters innovation while addressing societal challenges. This paper examines how green entrepreneurship contributes to sustainable development by exploring environmental practices, social impacts, and economic outcomes (Schaper, 2016). Green entrepreneurship is increasingly recognized as a transformative force for sustainable development (Farinelli, Bonacini, & Richey, 2011). By leveraging green innovation, entrepreneurs can create eco-friendly solutions that not only address environmental concerns but also promote economic growth (Cohen & Winn, 2007). This research seeks to conceptualize the role of green innovation in entrepreneurial strategies. This paper examines the multidimensional contributions of green entrepreneurship to sustainable development. Drawing from existing literature, it explores various dimensions.

Objectives

- To conceptualize "green entrepreneurship" and its role in sustainable development.
- To examine the environmental, social, and economic contributions of green entrepreneurship.
- To explore the initiatives and impacts of green entrepreneurship.

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Methodology

This study uses a descriptive and exploratory method by analyzing information from research articles, case studies, and industry reports. It applies a literature review approach to identify trends, important ideas, and theoretical foundations related to green entrepreneurship.

Literature Review

Conceptual Framework of Green Innovation and Green Entrepreneurship

Green entrepreneurship focuses on solving environmental problems through innovative and financially viable solutions (Schaper, 2002). These ventures integrate sustainability into their business models by offering eco-friendly products or services that promote resource conservation and encourage behavioral changes among consumers (Cohen & Winn, 2007). Innovation in green entrepreneurship goes beyond traditional business models, providing added value to customers, fostering stakeholder relationships, and creating competitive advantages.

Environmental Contributions of Green Innovation Green innovation is vital for mitigating environmental degradation. Some key contributions include:

- **Renewable Energy Adoption:** Entrepreneurs, such as Fourth Partner Energy in India, promote decentralized renewable energy projects, reducing fossil fuel dependency and lowering carbon emissions (Herrera et al., 2018).
- **Waste Management:** Companies like Banyan Nation focus on recycling industrial plastics, contributing to waste management and supporting the circular economy (Antonetti & Maklan, 2016).
- **Eco-Friendly Products and Processes:** Companies like Mitti Cool produce energy-efficient, clay-based refrigerators, offering sustainable alternatives to conventional cooling systems (Prajapati, 2002).

Social Contributions of Green Entrepreneurship

Green entrepreneurship contributes to societal well-being by creating jobs, empowering marginalized communities, and fostering inclusive growth (Bansal & Song, 2017). Examples include:

- **Job Creation:** Green industries, such as renewable energy and eco-tourism, generate significant employment opportunities (Bansal & Song, 2017).
- **Community Empowerment:** Initiatives like Digital Green use technology to teach rural farmers sustainable agricultural practices, enhancing productivity and fostering self-reliance (Lechner & Gudmundsson, 2014).
- **Social Equity:** Green ventures promote fair trade and ethical sourcing, ensuring that economic benefits are distributed equitably across communities (Moccero et al., 2019).

Economic Contributions of Green Entrepreneurship

Green entrepreneurship drives economic sustainability through innovation and resource efficiency. Contributions include:

- **Driving Innovation:** Companies like Tesla lead the way in green innovation by producing energy-efficient vehicles and expanding renewable energy solutions (Cohen & Winn, 2007).
- **Circular Economy:** Initiatives like Banyan Nation's recycling programs demonstrate how businesses can adopt circular economy models, benefiting both the environment and the economy (Antonetti & Maklan, 2016).
- **Cost Optimization:** Green practices, such as adopting renewable energy and recycling, help businesses reduce operational costs and enhance profitability (Dangelico & Pujari, 2010).

Environmental Practices

Green entrepreneurship incorporates a range of environmentally friendly practices aimed at minimizing ecological damage and promoting sustainability. These include:

- **Energy Conservation:** Entrepreneurs like Tesla develop energy-efficient vehicles, helping to reduce fossil fuel dependency (Cohen & Winn, 2007).
- **Recycling:** Banyan Nation's industrial plastic recycling initiatives contribute to waste reduction and support a circular economy (Antonetti & Maklan, 2016).

- **Resource Optimization:** Green ventures, such as Uravu Bamboo Housing, use renewable materials to reduce the carbon footprint of traditional building practices (Bansal & Song, 2017).

Innovative Business Practices for Green Entrepreneurship

Green entrepreneurs innovate in various sectors, from renewable energy to waste management. Some key practices include:

- **Renewable Energy Solutions:** Entrepreneurs are pioneering sustainable energy sources, such as solar, wind, and hydropower, to replace fossil fuels (Cohen & Winn, 2007).
- **Circular Economy:** Companies like Patagonia advocate for sustainable consumption by encouraging product repairs and recycling (Pujari, 2010).
- **Eco-Friendly Product Development:** Green businesses are designing biodegradable products and adopting non-toxic production methods, such as Ecover's eco-friendly cleaning products (Pujari, 2010).

Green Entrepreneurial Initiatives and Their Impact on Sustainable Development

Green entrepreneurs worldwide have spearheaded initiatives that address environmental challenges while fostering economic and social progress. Some examples include:

- **Mitti Cool (India):** Developed by Mansukh Prajapati, Mitti Cool's clay refrigerators offer an eco-friendly alternative to conventional cooling systems. These refrigerators require no electricity, reducing energy consumption and benefiting rural communities with limited access to power (Prajapati, 2002).
- **Uravu Bamboo Housing (India):** This initiative uses bamboo, a renewable resource, to construct affordable and sustainable housing. It reduces reliance on environmentally damaging materials and provides rural employment opportunities (Bansal & Song, 2017).
- **Banyan Nation (India):** Specializing in recycling industrial plastics, Banyan Nation transforms waste into high-quality reusable materials. Their operations contribute to reducing landfill dependency and promoting a circular economy (Antonetti & Maklan, 2016).
- **Digital Green (India):** Through multimedia tools, Digital Green educates farmers on sustainable farming practices, fostering economic independence and reducing the environmental impact of agricultural activities (Lechner & Gudmundsson, 2014).
- **Tesla, Inc. (USA):** Tesla's leadership in electric vehicles and renewable energy solutions highlights the role of green entrepreneurship in addressing global environmental challenges and setting industry standards for sustainability (Cohen & Winn, 2007).

Green practices form the foundation of these initiatives, incorporating actions such as resource optimization, waste management, energy efficiency, and pollution reduction. These efforts collectively contribute to sustainable development by balancing environmental conservation with economic progress.

Challenges of Green Entrepreneurship

Green entrepreneurship, while pivotal for achieving sustainable development, faces numerous challenges that hinder its growth and impact. These challenges arise from factors such as market dynamics, regulatory frameworks, technological limitations, and social acceptance. Understanding these barriers is essential to formulate effective strategies for promoting green entrepreneurship.

Financial Constraints

One of the most significant challenges for green entrepreneurs is accessing adequate funding. Green ventures often require substantial initial investments in sustainable technologies, renewable energy systems, and eco-friendly production processes (Dangelico & Pujari, 2010). Traditional financial institutions are often hesitant to invest in green projects due to perceived risks, longer payback periods, and uncertainties about market viability (Hockerts & Wüstenhagen, 2010). For instance, renewable energy projects may face delays in securing funding due to fluctuating government policies and market demand.

Market Competition

Green products and services often face stiff competition from conventional, less expensive alternatives. The higher cost of eco-friendly materials and production processes can make green products less competitive in price-sensitive markets (Kirkwood & Walton, 2010). Additionally, the lack of

consumer awareness about the long-term benefits of sustainable products further exacerbates the challenge, making it difficult for green entrepreneurs to capture significant market share (Schick, Marxen, & Freimann, 2002).

- **Regulatory and Policy Barriers**

While many governments support green initiatives, inconsistencies and gaps in policy frameworks can pose significant obstacles. For example, unclear regulations, insufficient incentives, and bureaucratic hurdles can delay project implementation and discourage investment in green ventures (York & Venkataraman, 2010). Moreover, variations in environmental policies across regions create challenges for entrepreneurs seeking to scale their operations globally.

- **Technological Limitations**

Developing and deploying green technologies often involves high costs and extended research and development (R&D) timelines. Many small and medium-sized enterprises (SMEs) lack the resources to invest in cutting-edge sustainable technologies, limiting their ability to innovate and compete effectively (Hall et al., 2010). Furthermore, the rapid pace of technological advancements can render existing solutions obsolete, increasing the financial risks for green entrepreneurs.

- **Consumer Awareness and Behavior**

A lack of consumer awareness and understanding about the environmental impact of their choices is a persistent challenge for green entrepreneurs. Despite growing interest in sustainability, many consumers prioritize cost and convenience over environmental considerations (Ottman, Stafford, & Hartman, 2006). Changing consumer behavior requires significant investments in education and marketing, which can strain the limited resources of green startups.

- **Supply Chain and Resource Availability**

Establishing a sustainable supply chain is often challenging for green entrepreneurs. Sourcing eco-friendly raw materials can be expensive and logistically complex, especially in regions with underdeveloped green infrastructure (Pacheco, Dean, & Payne, 2010). Additionally, ensuring that suppliers adhere to environmental standards can be difficult, particularly in globalized supply chains.

- **Cultural and Social Barriers**

Cultural resistance to change can hinder the adoption of green products and practices. In many communities, traditional practices and mindsets may conflict with the principles of sustainability, creating barriers to acceptance and collaboration (Hockerts & Wüstenhagen, 2010). Moreover, green entrepreneurs often face skepticism from stakeholders who doubt the viability and effectiveness of their initiatives.

- **Measurement and Reporting Challenges**

Assessing the environmental and social impact of green ventures is complex and often requires sophisticated metrics and tools. Many green entrepreneurs lack the expertise or resources to measure their contributions accurately, which can undermine their credibility and ability to attract investors (Dangelico & Pujari, 2010).

Conclusion

Green entrepreneurship plays a crucial role in integrating environmental, social, and economic objectives to achieve sustainable development. By promoting innovation and collaboration, green entrepreneurs contribute to environmental sustainability, create economic opportunities, and foster social inclusion. Continued efforts to support green entrepreneurship will be instrumental in addressing global sustainability challenges and achieving long-term development goals.

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AN ANALYTICAL STUDY OF ESG REPORTING: COMPLIANCE WITH SEBI GUIDELINES AMONG INDIAN COMPANIES

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ABSTRACT

This research aims to explore the concept of ESG reporting and how companies follow SEBI's guidelines to disclose their sustainability practices. The study explored environmental, social, and governance (ESG) specific factors from the business responsibility and sustainability reporting compliance by the top 100 companies as per their market capitalization. Selected companies have been filtered from the BSE index as on 19th November 2024, and BRSR reports of the chosen companies collected from the website of the respected business entity. The research work also aims to test the relationship between the specific commitment set by the business entity to perform sustainability practices and the performance against the commitment set by the companies. Basic concept and format of the BRSR disclosure analysed and ESG factors were classified from each principle to compare different components of each factor with percentage analysis. To test the hypothesis, chi-square test and Fisher's exact Test were performed using SPSS software. The findings reveal that the majority of companies are adopting the BRSR framework, showcasing strong adherence to SEBI's guidelines. Environmental and governance metrics demonstrate robust compliance, with high scores across policies, emissions management, and anti-bribery measures. Social metrics reflect a strong focus on employee well-being and equality, although areas like community engagement and customer support show room for improvement. The study also establishes a significant relationship between the commitments set by businesses and their performance, underlining the importance of clear and achievable sustainability goals. However, challenges such as limited implementation of environmental impact assessments and moderate investment in ESG-focused R&D indicate areas that require more attention to achieve a comprehensive sustainability framework.

KEYWORDS: *Business Responsibility and Sustainability Reporting, Sustainability Practices, ESG Reporting, Sustainability Disclosure and Format.*

Introduction

Sustainable development initiatives at worldwide, leads to enhance footprint of sustainability reporting (Debnath & Kanoo, 2022). Companies in developing countries are playing important role in many aspects like, performing best governance practices, ensuring trust of stakeholders and also contributes to the economic development of the country for that it is necessary to follow reporting practicing to ensure sustainable business entity. (Agnihotri, Kumar, & Attree, 2022). For any business entity non-financial reporting is as important as financial reporting (Menghnani & Babu, 2022). As India is

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moving toward sustainable development, there should be mandatory regulations for the sustainability reporting rather than voluntary (Mahajan, 2022). Annual reports of each MNCs and large companies should cover sustainability practices and issues related to sustainability (Agnihotri, Kumar, & Attree, 2022).

Since the Securities and Exchange Board of India (SEBI) mandated disclosure requirements for the top 1,000 listed businesses, environmental, social, and governance (ESG) reporting has become increasingly popular in India. In 2021, SEBI launched the Business Responsibility and Sustainability Reporting (BRSR) framework with the goal of improving corporate sustainability reporting's accountability and transparency. ESG compliance is now a crucial part of company governance that affects risk management, investor trust, and long-term financial performance; it is no more merely a voluntary endeavour (SEBI, 2021). The growing regulatory emphasis on ESG disclosures is consistent with worldwide patterns in which institutional investors and regulators highlight the benefits and dangers associated with sustainability.

The importance of ESG compliance for business sustainability and financial performance has been the subject of numerous studies. Eccles and Serafeim (2013), for example, contend that businesses with robust ESG policies typically outperform their counterparts over time, thanks to improved stakeholder trust and risk management.

According to scholars like Ghosh (2022), SEBI's ESG disclosure guidelines are an essential first step in bringing Indian businesses into compliance with international sustainability standards like the Task Force on Climate-related Financial Disclosures (TCFD) and the Global Reporting Initiative (GRI). Nonetheless, there are still issues with compliance because many businesses have trouble standardising data, implementing assurance procedures, and incorporating ESG measures into their business plans.

The degree of ESG reporting compliance varies greatly among Indian corporations, even with SEBI's regulatory pressure. While small and mid-sized businesses frequently struggle to comply with SEBI's BRSR regulations, larger companies with more resources and international exposure typically implement more robust ESG disclosure policies (Kumar & Sharma, 2023). This discrepancy emphasises the necessity of regulatory incentives, standardised reporting standards, and capacity-building programs to promote broader use. Furthermore, research by Mishra et al. (2022) shows that investor perception is positively impacted by ESG compliance, which raises stock values and lowers capital costs for compliant companies.

This study intends to evaluate the degree of ESG reporting compliance across Indian corporations in accordance with SEBI's rules, given the changing regulatory landscape. This study adds to the expanding corpus of research on sustainability reporting in emerging economies by examining disclosure patterns and assessing the effect of ESG compliance on business. Policymakers, investors, and companies can all benefit from knowing the elements that affect ESG disclosure compliance as they formulate plans to improve long-term value generation and company sustainability.

Literature Review

(Oware & Worae, 2023) study aimed to study the impact of mandatory sustainability reporting disclosure on the performance of firm. Based on secondary data which sampled with 80 listed companies. Researcher employed least square, panel correlation and probit regression. The findings of the study show that, the BRR mandatory disclosure of sustainability reporting have positive relation with business performance and market value of companies. It also added that it can reshape long term performance and rise business value.

(Mahajan, 2022) Main object of the researcher is to investigate and do critical assessment of ESG reports of top 100 companies in India. Adopted descriptive analysis of BRR disclosure of top 100 listed companies in India and semi-structured interview of experts. The study finds that there was more transparency in social in social disclosure compare to environmental and supply chain. It also found that many leading companies has not published their BRR though it is mandatory.

(Sharma, 2023) The aim of researcher is to study the BRSR of selected metal and mining companies. And to study conceptual framework of BRSR. The study follows quantitative as well qualitative research technique. Content analysis has been done to interpreted collected data. The research indicates that the public company complied 91.42% with BRSR framework and private company complied 94.28% with BRSR framework. It concludes private sector companies performs good with BRSR disclosure of SEBI in selected industry.

(Agnihotri, Kumar, & Attree, 2022) Object of the study is to understand BRR of selected banks and to know the concept of ESG in regards with BRR. Research follows secondary data, collected from the website of relative banks and analysed through content analysis. As the study shows, public sector bank has not published detailed BRR compare to private sector bank. It suggests that SEBI should regulate prescribed disclosure for companies and auditor as well.

(Darnall, Ji, Iwata, & Arimura, 2022) Main aim of research is to examine whether ESG guidelines affects firm's sustainability information disclosure or not. Study follows secondary data, sustainability reports which collected from Tokyo stock market. Data analysed by correlation and descriptive statistics. The research indicates that the firm which follows ESG disclosure were more likely provide sustainability disclosure. And if the option is given to choose, more firms go with content focused verifications than process focused.

Need of the Study

An essential tool for managing an organization's effect and sustainable growth is its sustainability performance report. Upon reviewing previous study, the investigator has found that very few studies have been carried out with regard To Environmental, Social and Governance Reporting framework and disclosure. And mostly exists studies are based on the ESG impact on financial performance and capital decision so there is more scope to conduct impactful analytical research for BRSR disclosure.

Objectives

- To explore the concept BRSR guideline.
- To highlight ESG factor specific reporting.
- To identify relationship between commitment & targets set by business entity and performance against the commitment & targets set by business entity as per policy.

Hypothesis

H₀: There is no relationship between commitment & targets set by business entity and performance against the commitment & targets set by business entity as per policy.

H₁: There is relationship between commitment & targets set by business entity and performance against the commitment & targets set by business entity as per policy.

Research Methodology

Study is qualitative in nature as it examines the sustainability reports and its trend from Indian companies. Top 100 companies as per their market capitalisation, were selected as a sample from the BSE index as on 19th November 2024. Out of 100 selected companies, 98 companies' sustainability reports were available on the company's website. As the study aims to identify reporting trend after mandating BRSR guidelines by SEBI with effect from financial year 2022-23, Sustainability reports for the financial year 2022-23 of 98 companies were collected from the website of respective company. out of 98 companies, 81 were following business responsibility and sustainability reporting (BRSR) framework while remaining were following Global Reporting Initiative (GRI) index to report sustainability practices. Content analysis has been adopted to evaluate BRSR guidelines and to explore the concept of sustainability reporting. Chi – square test and Fisher's Exact Test has been done to test the hypothesis. ESG factor specific analysis has been done through percentage analysis. Content analysis has been undertaken to identify policies and procedures of business entity to cover core elements of each principle stated in the guideline. Percentage analysis has been performed to study ESG factor specific practices.

Result and Discussion

Followed by the objective of the study, very first one is to explore BRSR guideline which has specific format given by SEBI according to that in India, the top 1000 companies having highest market capitalization have to include sustainability report in the standalone or in the consolidated format in every year with their annual financial reports (SEBI, 2021).

As per the sample of the research, 81 companies have reported their sustainability practices as per BRSR format out of top 100 companies listed on BSE index.

Following criteria are included in the format of the business responsibility and sustainability reporting guideline.

- **Section A: General Disclosure**

It includes basic details of listed entity and product, service, market served by entity, employees, transparency disclosure, holding, subsidiary companies, overview of company's material responsible business conduct issues, companies' turnover etc (SEBI, 2021).

- **Section B: Management and Process Disclosure**

In this section company has to disclose structure of the business, policies and process to adopt and implement NGRBC principles and the core elements of business. Table also includes governance and leadership oversight, details of review of NGRBC by the company and also the clarification and reason if company failed to cover any principles mentioned above in policies. Business entity has to show all the principle specific goals, targets and commitment set by the company and disclose the work done very specifically (SEBI, 2021).

- **Section C: Principle Wise Performance Disclosure**

This section business entity requires to disclose their outcomes and results and companies have to defend their commitments and target by showing intent to conduct responsible and sustainable business practices. the section covered by nine principles which indicates environmental, social and governance factors related information. Each principle has two part one is essential indicators and another one is leadership indicators.

- **Essential Indicators**

Company has to report all the essential indicators mandatorily. It requires environmental data like water, energy consumption, pollution, waste management, emission, and use of natural resource etc. other than it also includes social and environmental impact created by the business and accountability of business toward stakeholders.

- **Leadership Indicators**

At this time, the firm is not required to report these metrics mandatorily. There is a wider expectation, nevertheless, that businesses will adhere to these metrics for enhanced accountability and transparency. This might involve disclosing scope 3 emissions, breaking down energy use, and evaluating the health and safety of value chain participants. Giving a more comprehensive view of the business's activities in terms of sustainability is the main goal of the leadership indicators.

Principle Specific

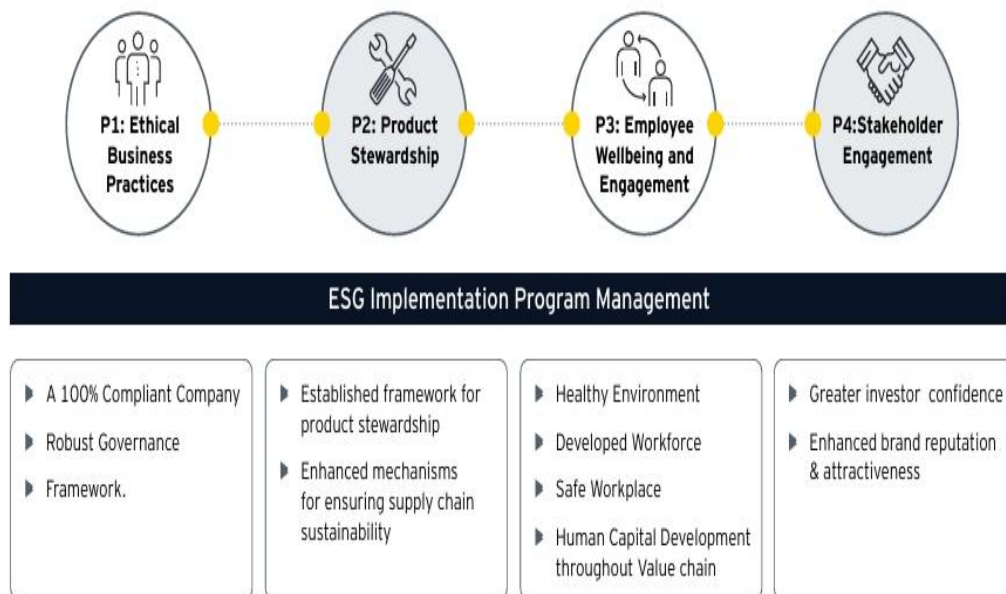


Figure 1: from Government report, Indian Chamber of Commerce



Figure 2: from government report, Indian Chamber of Commerce

Analysis of ESG Factor Specific Reporting

As per the SEBI's guideline on sustainability reporting business entities required to report all the essential indicators compulsorily which are classified in 9 principles in the section C of the business responsibility and sustainability reporting guidelines. It includes environmental, social and governance factors to report position of business entity. This analysis shows how many companies has translated their policies in to performance and which elements are reported by the business.

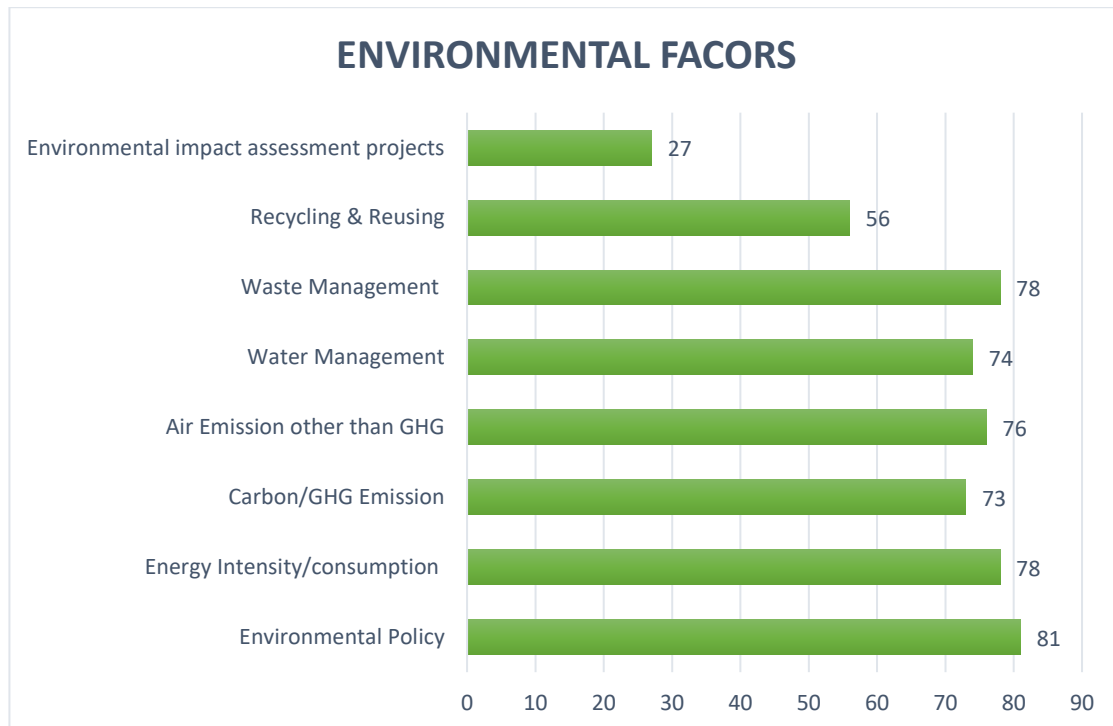


Figure 3: Analysed by Researcher from Secondary Data



Figure 4 Analysed by Researcher from the Secondary Data

Above analysis indicates environmental factor specific essential indicators reported by 81 companies out of the top 100 companies reported on sustainability for the financial year 2022-23. From the all nine principles environment specific indicators were classified by the researcher and analysis has been done on the percentage basis to clarify the difference between different components in the environmental factor itself. Key metrics such as Environmental Policy, Energy Intensity, Carbon/GHG Emission, and Waste Management are rated relatively high, with scores ranging from 73 to 81. Lower scores are observed for Environmental Impact Assessments 27, suggesting room for improvement in project-level environmental considerations.

Above figure defines social factors reported by the business under the essential indicators. From the given nine principles in the section, social factors have been classified and analysed with percentage analysis to draw the result for the social factors reported by the business in their BRSR. Social metrics such as Well-being of Employees, Equal Opportunity, and Health & Safety Management score above 75, indicating strong performance. Community grievance redressal and customer support are rated comparatively lower 77, suggesting moderate engagement in these areas.

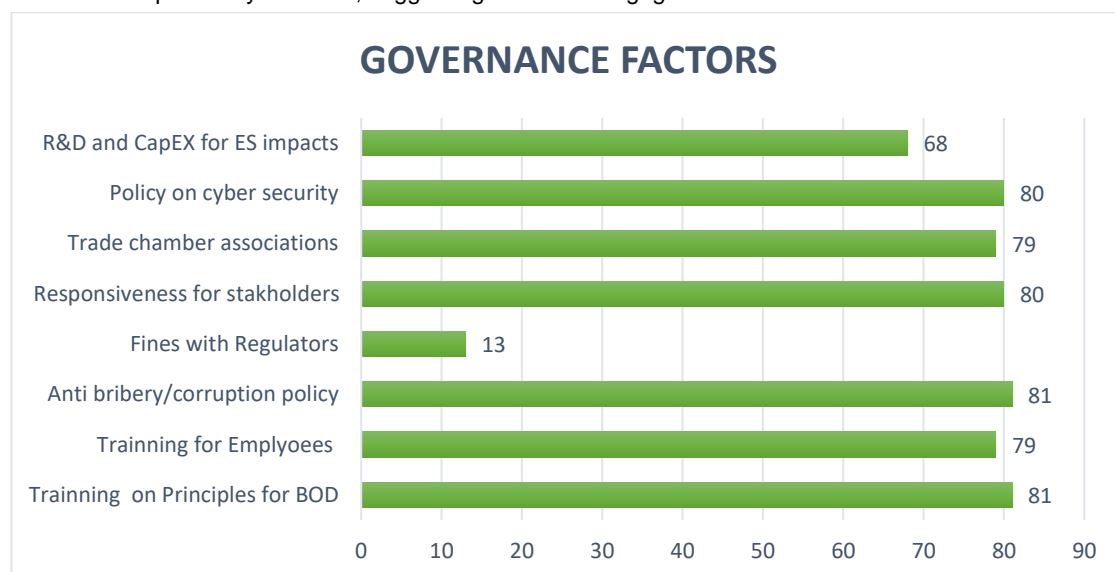


Figure 5: Analysed by Researcher from the Secondary Data

Governance factors has been classified from the principles disclosed in section C of BRSR format. Analyses deals with governance factors reported by the selected companies in their sustainability reports. Governance scores are generally strong, with most metrics scoring above 79, particularly in areas like training, anti-bribery policies, and responsiveness to stakeholders. The score for R&D and capital expenditure on ESG impacts 68, highlights an opportunity to increase investments in innovative solutions aligned with ESG goals.

The organization demonstrates a strong commitment to ESG principles, especially in governance and environmental sustainability. However, areas like environmental impact assessments, community engagement, and ESG-focused R&D require more attention to achieve a balanced and holistic ESG performance.

Hypothesis Testing

Third objective of the study is to identify relationship between commitment & targets set by business entity and performance against the commitment & targets set by business entity as per policy. For this hypothesis has been formulated to drawn result. Int the section B of the BRSR format, companies require to report principle specific commitment and targets set by the business and the outcome and performance against the commitment and target set by the companies.

This hypothesis defines the relationship between commitment set by the companies and the performance against the commitment.

H₀: There is no relationship between commitment & targets set by business entity and performance against the commitment & targets set by business entity as per policy.

Data driven from the BRSR reports of the selected businesses. From the sustainability reports section B, below table has been prepared to classify the required data.

Specific commitment set by entity. * Performance against commitment Crosstabulation

Table 1: Calculated with SPSS Software from the Secondary Data

			Performance against the commitment		Total
			Yes	No	
Specific commitment set the by entity.	Yes	Count	67	5	72
		Expected Count	62.2	9.8	72.0
	No	Count	3	9	9
		Expected Count	7.8	1.2	9.0
Total		Count	70	11	81
		Expected Count	70	11	81.0

Hypothesis includes two variables, specific commitment set by the companies and the performance against the commitment. As per the analysis 67 business has reported specific commitment and also performed against the commitment set by the business. 3 business has not set any commitment but they performed sustainability principles as followed by the government guidelines and other projects related with sustainability practices. For the further analysis chi square test has been performed to identify relationship between selected variable.

Below table shows the calculation of chi-square test to test the hypothesis.

Chi-Square Tests

Table 2: Calculate with SPSS Software from the Secondary Data

Test	Value	d.f.	Asymp. Sig. (2-sided)	Exact Sig. (2 sided)	Exact Sig. (1 sided)
Pearson Chi-Square	24.313 ^a	1	.000		
Continuity Correction	19.491	1	.000		
Likelihood Ratio	16.584	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	24.013	1	.000		
N of Valid Cases	81				

- 1 cell (25.0%) have expected count less than 5. The minimum expected count is 1.22.
- Computed only for a 2x2 table.

Pearson Chi-Square: 24.313, p-value < 0.001 Indicates a significant association between the two variables. Continuity Correction: 19.491, p-value < 0.001 (for 2x2 tables) Likelihood Ratio: 16.584, p-value < 0.001. Fisher's Exact Test: p-value < 0.001. This is particularly reliable for smaller cell counts. Linear-by-Linear Association: 24.013, p-value < 0.001. Indicates a strong linear relationship between the variables. The Chi-Square test results indicate a statistically significant relationship between "Specific commitment set by entity" and "Performance against commitment" ($p < 0.001$). However, 25% of cells have expected counts less than 5, which can affect the validity of the Chi-Square approximation. Fisher's Exact Test provides a robust alternative, and its results confirm the significance. Based on the results, the null hypothesis can be rejected, concluding a significant association between the two variables. By rejecting (H_0), it is concluded that:

- The way specific commitments are set by the entity *does influence* or is associated with the performance outcomes.
- This means there is a *dependence* or relationship between the two variables, implying:
 - Entities that establish commitments in a certain way (e.g., clear, achievable, or collaborative goals) are more likely to achieve better performance against those commitments.

Conclusion

This study highlights the significant strides Indian businesses have made in aligning their operations with sustainability principles. The findings reveal that the majority of companies (80%) are adopting the BRSR framework, showcasing strong adherence to SEBI's guidelines. Environmental and governance metrics demonstrate robust compliance, with high scores across policies, emissions management, and anti-bribery measures. Social metrics reflect a strong focus on employee well-being and equality, although areas like community engagement and customer support show room for improvement.

The study also establishes a significant relationship between the commitments set by businesses and their performance, underlining the importance of clear and achievable sustainability goals. However, challenges such as limited implementation of environmental impact assessments and moderate investment in ESG-focused R&D indicate areas that require more attention to achieve a comprehensive sustainability framework.

Overall, the research emphasizes the importance of mandatory sustainability reporting in fostering accountability and transparency. By integrating the BRSR framework, Indian businesses are not only meeting regulatory requirements but also setting benchmarks for responsible corporate behaviour. The study contributes valuable insights for policymakers, stakeholders, and researchers to further refine and enhance sustainability practices in India.

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ECOLOGICAL SIGNIFICANCE OF LIVE FENCE

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ABSTRACT

Live fence are sustainable methods of planting native desert plants to prevent soil erosion, pests, and wildlife damage. They preserve arid ecosystem diversity and regulate microclimate. Live fence systems in crop lands regulate temperatures, support protected plants, and enrich soils. They promote biodiversity, soil health, and economic development. It is crucial to educate locals and farmers about the health benefits and financial potential of these underutilized shrubs to preserve the dry environment's ecological balance.

KEYWORDS: Biodiversity, Ecosystem, Sustainable.

Introduction

Live fence is an inventive method of erecting rows of trees or other suitable vegetation planted on farm boundaries, along the edges of waterbodies, along shorelines, etc. as opposed to conventional fences composed of metal or wood. Ecological principles and useful applications are combined in this sustainable solution. Live fencing produces a multifunctional living barrier by carefully choosing and planting vegetation. It can stop soil erosion, keep pests out of crops, discourage wildlife from entering areas, used as wind breaks and increase biodiversity by providing habitat for birds and other small fauna, as well as contributing to aesthetics and a healthy microclimate. Furthermore, live fences encourage environmental conservation while providing an attractive substitute for traditional fencing techniques.

The native desert plants like *Balanites aegyptiaca*, *Leptadeniapyrotechnica*, *Capparis decidua*, *Ziziphus nummularia*, *Euphorbia caducifolia*, *Opuntia ficus-indica*, *Maytenusemarginata*, *Clerodendrum phlomidis*, *Calligonumpolygonoides*, *Aerva persica*, *Calotropis procera*, *Lyciumbarbarum*, *Mimosa hamata*, *Grewia tenax* etc. are essential for preserving the diversity of the arid eco-systems. These desert plants could be used for live fencing in addition to being used as food and fodder. They make excellent specimen plants at the field's edge because of their unusual characteristics that they have acquired through changes to their leaves, stems, or other parts (Bhandari, 1990). These drought hardy plant species are selected by farmers as per the land and soil types and adopted in traditional farming system. The desert eco-system's arid vegetation also has the advantage of requiring less water, which makes it easier to maintain and care (Meher - Homji, 1977).

Apart from delineation of the boundary and protective functions, the live fence provides many others benefits, which vary according to species, height, density, and management practices. Some important significances of live fence are:

Ecological Significances

- **Microclimate:** Live fence systems in crop lands alter the microclimate by regulating extreme temperatures and wind velocity, supporting protected plants. *Capparis decidua*, *Ziziphus nummularia* and *Maytenusemarginata* shelterbelt protect crops from animals, reduce wind

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erosion, and conserve soil and water, enhancing biological activities and plant growth (Kumari and Gehlot, 2022).

- **Soil Fertility:** Live fences enrich soils by adding organic matter and plant nutrients, which are compensated by transferring biomass as green manure. Competition for water and nutrients exists between live fences and crops, but varies by species. Foliage from live fences is traditionally used as mulch in crop fields to increase soil fertility and crop yields.
- **Biodiversity Conservation:** Live fences play a crucial role in conserving and promoting floral and faunal diversity in the Thar desert region. They moderate microclimate, improve soil properties, and protect against herbivores, enhancing phyto-diversity. *Maytenusemarginata*, a traditional agroforestry tree, provides ideal habitat for climber plants like *Momordica balsamina*, *Cocculuspendulus*, *Coccinia grandis*, *Ephedra foliata* and *Rhynchosia minima*. Its thick canopy provides shade, shelter, and food for various creatures, including birds. Lord Jambheshwar ji, a Bishnoi sect saint, remarked on its location. Many shrubs used in live fences are also good sources of bee forage (Gehlot and Kumari, 2018).

Economic Value

- **Food:** *Calligonumpolygonoides* (Phog) flower buds, unripe fruits of *Leptadeniapyrotechnica* (Kheep), *Capparis decidua* (Kair) fruits, and ripe fruits of *Ziziphus nummularia* (Bordi) are nutritious and popular in the market. Ker -Sangri is a popular Rajasthan dish made with boiled fruit and Sangri (Gehlot, 2006). *Capparis decidua* blooms three times in a year but the peak flowering takes place in the month of summer which attract the pollinators, bird and animal species (Singh and Singh, 2011). *Opuntia* fruit juice contains ascorbic acid, carotene, citric acid, pectic substance, and gum. Young fruits of *Momordica balsamina* are cooked and eaten (Ghosh, 2014).
- **Fodder:** Live fence species like *Calligonumpolygonoides*, *Clerodendrum phlomis*, *Ziziphus mauritiana*, and *Opuntia* provide nutritious fodder and browse for livestock. Green shoots and young fruits of *Calligonumpolygonoides*, *Maytenusemarginata*, *Lyciumbarabarum* and *Capparis decidua* are relished by camel. *Calligonumpolygonoides* and *Zizyphus* foliage is harvested and stored for fodder during normal and drought years, while camels, sheep, and goat feeds *Clerodendrum phlomis* during drought (Gaur *et al.*, 1982). *Ziziphus mauritiana* leaves contain 5.6% digestible crude protein and 49.7% total digestible nutrients, while *Opuntia* seeds are nutritious and can be used as animal feed after grinding (Khan, 2005).
- **Ethno-Medicine:** The species like Arni (*Clerodendrum phlomis*), Hingot (*Balanites aegyptiaca*), Kankera (*Maytenusemarginatus*), Kheep (*L. pyrotechnica*), Kair (*Capparis decidua*) etc. possess medicinal value and can be exploited for supplying the raw material to the pharmaceutical. Processed seed oil of *Capparis decidua* is used to cure skin diseases. Traditionally, *Capparis decidua* used to cure toothache, arthritis, asthma, cough, inflammation, malaria, constipation, and swelling. It is also used as a remedy for bad breath and cardiac issues (Singh *et al.*, 2005). Seed extract of *Ziziphusnummularia* may help manage diabetes regulating blood sugar levels. Fruits of *Opuntia* are used to prepare sweets and fermented liquor. Slices of *Opuntia* stem are heated and placed in water that is used to treat stomach inflammation. An essential component of the well-known Ayurvedic medication "Dasamul," is obtained from the root of *Clerodendrum phlomis*. When recovering from measles, it is administered. Leaf extract treats flatulence, and leaf paste bandages injuries. To treat piles, apply a poultice and make a leaf decoction (Kumar *et al.*, 2005). Green branches of *Clerodendrum phlomis* fed to cattle as a cure for diarrhoea and worms (Kirtikar and Basu, 1935). The Garasia tribal people in Rajasthan use *Clerodendrum phlomis* seed oil as a hair tonic (Singh and Pandey, 1998) and seed powder helps treat rheumatism.

Live fence consisting of indigenous plant species is a vital component of traditional farming system. The system effectively protects the crops against stray and wild animals, high wind velocity and checks soil erosion. Apart from protective function, live hedge can play a vital role in improving the quality of life to small farmers by providing variety of economic products e.g., food, fodder, fibre, medicine, gum etc., and enhancing the sustainability of ecosystem through promoting biodiversity and improving soil health.

Conclusion

Economic development and the preservation of the dry environment's ecological balance can both be aided by planting drought-resistant, underutilised shrubs with medicinal value. Therefore, it is important to educate locals and farmers about the health benefits and financial potential of these underutilised, readily available shrubs (Narain, 2005).

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IMPACT OF MERGERS AND ACQUISITIONS ON STOCK PERFORMANCE OF SELECT PHARMACEUTICAL COMPANIES

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ABSTRACT

In recent years, there has been a surge in the number of mergers and acquisitions in the industry, with companies seeking to gain a competitive advantage by combining resources and expertise. The merger and acquisition activities are on a resurgence and the complete impact on the economy is quite intense and yet to be seen. The relationship between mergers and acquisitions (M&A) and stock performance can be complex and can vary depending on a variety of factors, such as the specific companies involved, the terms of the deal, the industry trends, and the broader economic environment. In general, M&A activity can have a significant impact on stock prices in both the short and long term. If a merger or acquisition is perceived to be beneficial for both companies, it can lead to increased investor confidence and a boost in stock prices. Conversely, if the deal is seen as unfavourable or risky, it can result in a decline in stock prices. The Indian pharmaceutical market has enormous growth potential and plays a vital role in both the nation's economy and the global healthcare sector. India is a significant pharmaceutical exporter. India meets nearly 50% of Africa's need for generic drugs, over 40% of the US's demand for generics, and about 25% of the UK's total demand for drugs. This research paper provides insights into the financial performance of company's post-merger and acquisition in the pharmaceutical sector, which can be useful for decision-makers, policymakers, and investors. The focus of study is on how mergers and acquisitions affect the stock performance of the chosen companies.

KEYWORDS: Mergers, Acquisitions, Healthcare Sector, Pharmaceutical Sector, Pharmaceutical Exporter.

Introduction

A number of recent acquisition and merger deals have been driven by the development of new technology in the communications and aerospace industries. the study of new medical advancements in the medical device and pharmaceutical industries, or gaining access to new energy sources in oil and gas exploration and drilling. the announcement of an M&A deal can led to a significant increase in stock prices for the acquiring company, while the target company's stock prices typically rise to the level of the acquisition offer price. However, the long-term impact of Merger and Acquisition on stock prices can be more difficult to predict, as it depends on the success of the integration and the ability of the combined company to generate growth and create value for shareholders. the relationship between Merger and Acquisition and stock performance is complex and depends on many factors. It is important for investors to carefully consider the terms and potential outcomes of any Merger and Acquisition deals they are considering, as well as the broader market and economic conditions.

Pharmaceutical Industry

A considerable portion of India's GDP is contributed by the pharmaceutical business, making it a vital economic sector. After China and the United States, it is the world's third-largest manufacturer of

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pharmaceuticals in terms of volume. The industry has had substantial growth over the last few decades, and it is anticipated that this growth will continue. Generic medications, which are less expensive versions of proprietary medications created by multinational pharmaceutical corporations, are the main emphasis of the Indian pharmaceutical sector. India is now a significant provider of inexpensive pharmaceuticals to developing nations globally thanks to its emphasis on generic medications.

India is home to numerous pharmaceutical firms, both domestic and international, that offer a wide variety of goods. Aurobindo Pharma, Dr. Reddy's Laboratories, Lupin, Sun Pharma, and Cipla are a few of the top pharmaceutical firms in India. Both domestic and foreign markets are heavily served by these businesses. The Indian government has put into place a number of measures and policies to encourage the expansion of the pharmaceutical sector. They consist of expedited regulatory procedures, tax incentives for R&D, and the establishment of special economic zones for the production of pharmaceuticals.

The Indian pharmaceutical market has enormous growth potential and plays a vital role in both the nation's economy and the global healthcare sector.

By 2024 and 2030, respectively, the Indian pharmaceutical market is projected to grow to \$65 billion and \$130 billion. India's pharmaceutical market is presently valued at \$50 billion. With almost 200 nations receiving Indian pharmaceutical exports, India is a significant pharmaceutical exporter. India meets nearly 50% of Africa's need for generic drugs, over 40% of the US's demand for generics, and about 25% of the UK's total demand for drugs.

Literature Review

The study conducted by **Ashima and Rachna (2021)**¹, found that M&A can have a positive impact on a company's financial performance in the pharmaceutical sector.

The study conducted by **Pallavi and Ritika (2019)**², provides insights into the nuances of M&A processes in the Indian pharmaceutical industry.

Patricia et al. (2007)³, the study found that among large firms, mergers are a response to excess capacity due to anticipated patent expirations and gaps in a company's product pipeline. The study also found that there is a significant difference in operating profit between firms that did and did not merge, suggesting that post-merger integration is easier for small firms than for large firms.

Mergers and Acquisition's Selected for the Study

The following table includes the merger and acquisitions deals:

Sr.No.	Acquiring Company	Acquired Company
1	Sun Pharmaceutical Industries	Ranbaxy Laboratories
2	Cipla Limited	InvaGen and Exelan
3	Dr. Reddy's Laboratories	UCB Pharma
4	Lupin Limited	Gavis Pharmaceuticals
5	Torrent Pharmaceutical	Elder pharma

Objectives of the Study

- To understand the Mergers & Acquisition deals of selected companies
- To analyse the trend of the stock price of pharmaceutical companies during Merger and Acquisition transactions
- To study the impact of Merger and Acquisition activity on the stock price of the acquiring company and the target company.
- To provide insights for investors and decision-makers in the pharmaceutical industry who are considering Merger and Acquisition activity as a means of achieving strategic objectives or creating value for shareholders.

¹ Ashima Verma and Rachna Agarwal (2021). "A study of financial performance Post merger and Pharmaceutical Sector: ACACA Approach". Pacific Business Review International

² Pallavi and Ritika Sinha (2019), "Determinants of Merger and Acquisition: An Indian Pharmaceutical Industry Perspective." International Journal of Recent Technology and Engineering.

³ Patricia M Danzon, Andrew Epstein and Sean Nicholson (2007), "Mergers and Acquisitions in the Pharmaceutical and Biotech Industries."

Statement of the Hypothesis

The following are the hypothesis which are the assumptions of the research developed with the intend of testing:

- **Null Hypothesis (H0):** There is no significant impact on the stock prices of the companies before and after a merger or acquisition.
- **Alternative Hypothesis (Ha):** There is a significant impact on the stock prices of the companies before and after a merger or acquisition.

Universe and Sample Size

The population and the selected sample size for the research "Impact of Mergers and Acquisitions on stock performance of select pharmaceutical companies" are

- **Universe:** The universe would refer to the entire population of pharma companies that have engaged in mergers and acquisitions.
- **Sample Size:** 5 Leading companies in Pharmaceutical Sector.

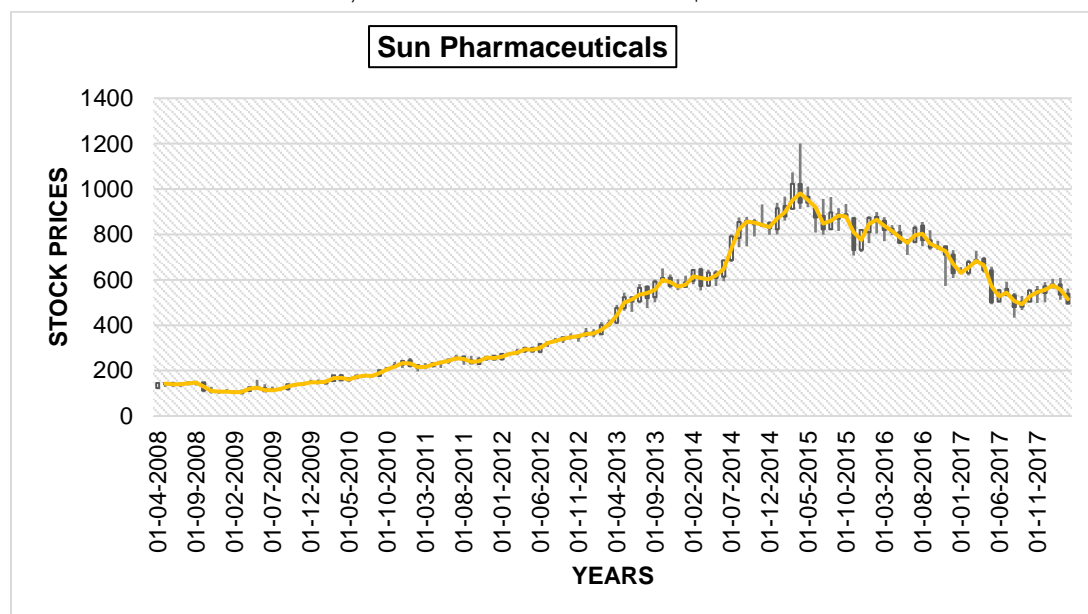
Sources of Data Collection

The Stock market data used to track the changes in stock prices and trading volumes of the selected pharma companies before and after the mergers and acquisitions from stock exchanges, financial news websites, and stock market data providers, Financial Statements. The data collected from secondary sources such as company annual reports, financial statements, and press releases to analyze the impact of M&A on the stock performance of selected pharma companies.

Analysis and Interpretation of Data

• Sun pharma And Ranbaxy

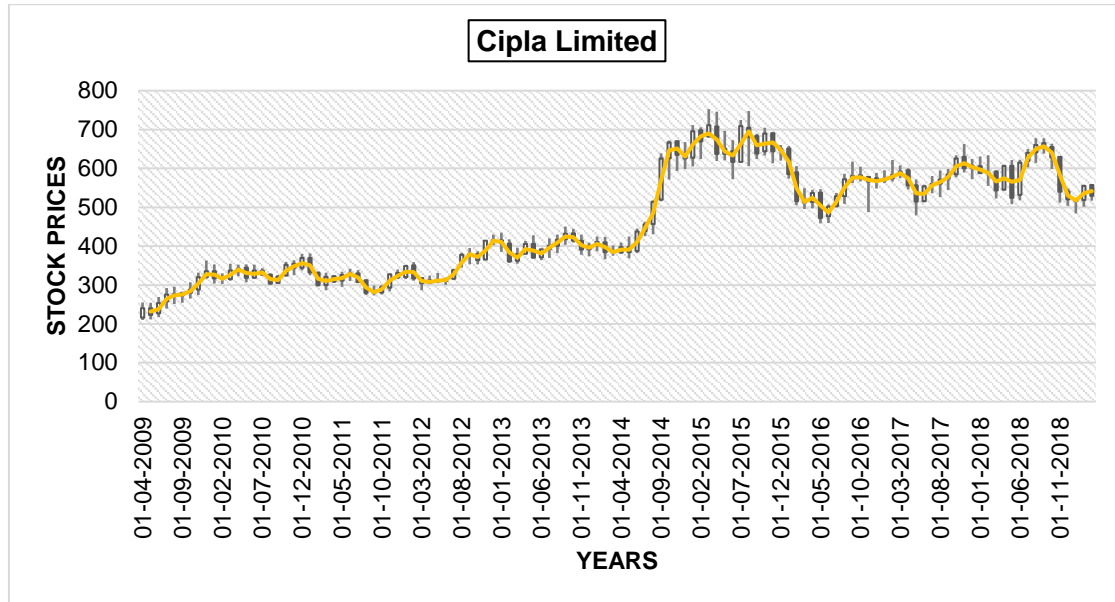
In 2014, one of India's top pharmaceutical firms, Sun Pharmaceutical Industries Ltd., purchased Ranbaxy Laboratories Ltd., another significant firm. One of the largest purchases in the Indian pharmaceutical sector at the time, the deal had a value of almost \$4 billion.



The deal between Sun pharma and Ranbaxy was completed by the end of 2014, so the stock prices from 2008 to 2013 will be the pre-merger and acquisition phase and 2014 to 2018 will be the post-merger and acquisition phase. The graph is an open high low close stock chart and the yellow line represent the two period moving average trendline. The graph has an upward slope till mid-2014 and after 2014 a downward slope. The certain difficulties provided after the acquisition had some adverse effect on the stock price. The stock prices were highest during the 2015- 16 at the value of Rs.1200.

- **Cipla And InvaGen and Exelan**

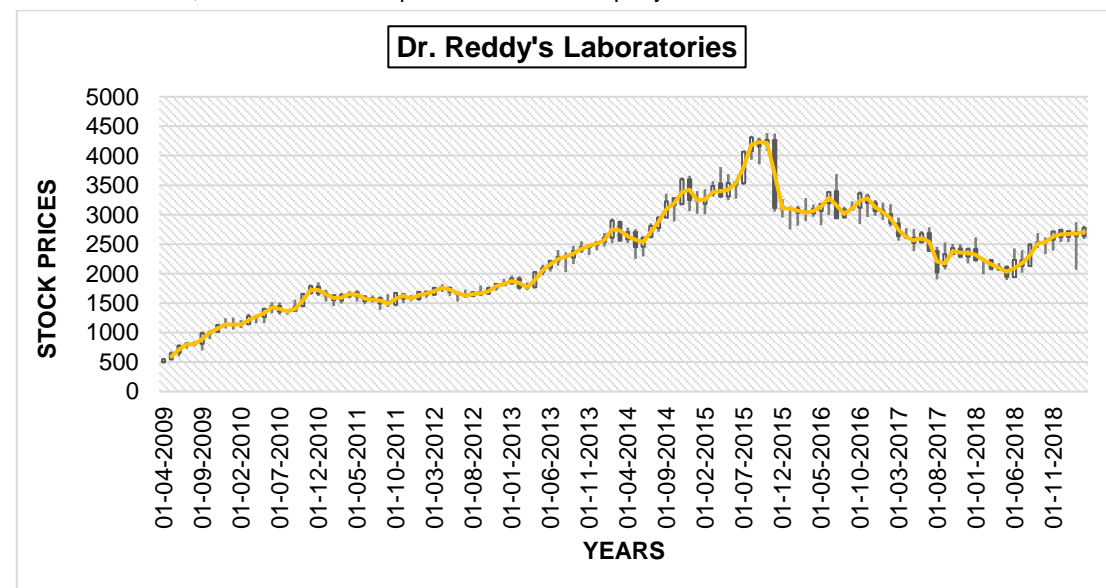
One of the top pharmaceutical firms in India, Cipla Limited, purchased the American firms InvaGen Pharmaceuticals Inc. and Exelan Pharmaceuticals Inc. in 2015 for a combined sum of over \$550 million.



It can be seen the stock had upward trend during the 2013-14 year which was the acquisition announcement year which had results bullish situation for the stock in the market. After the 2014- 2015, the stock started slowing down and also the fall in the stock price. Thereafter, the stock has been stable in the stock market as per the graph.

- **Dr. Reddy's Laboratories and UCB Pharma**

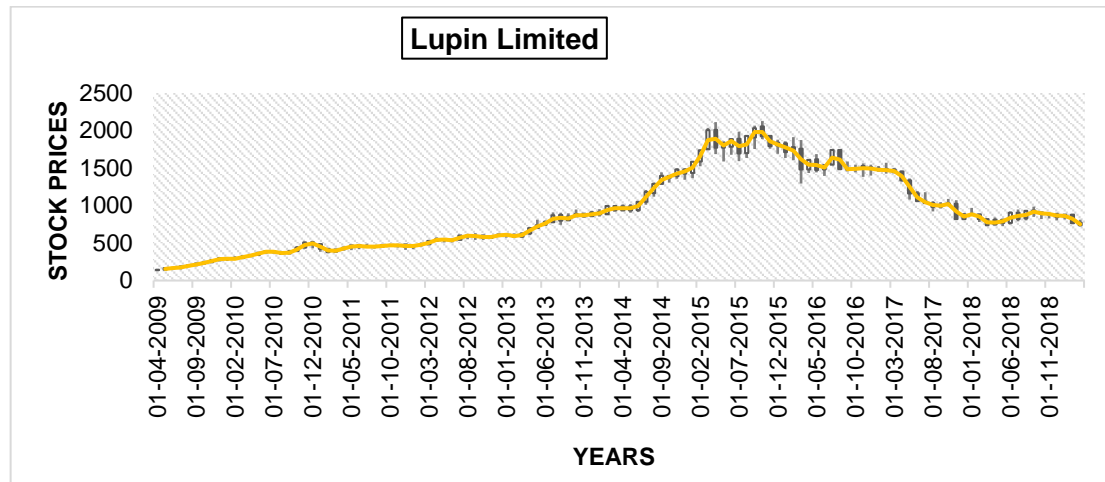
For a total of \$128 million in 2015, Dr. Reddy's Laboratories, an Indian multinational pharmaceutical business, purchased a portfolio of eight Abbreviated New Drug Applications (ANDAs) in the US from UCB, a multinational biopharmaceutical company.



The stock performance of Dr. Reddy Laboratories had an upward trend from the financial year 2009 to 2014. The stock had a stable growth during the time period. The acquisition was completed in the 2015 during the stock was being valued around Rs.4200 and bullish in the stick Market.

- **Lupin Limited and Gavis**

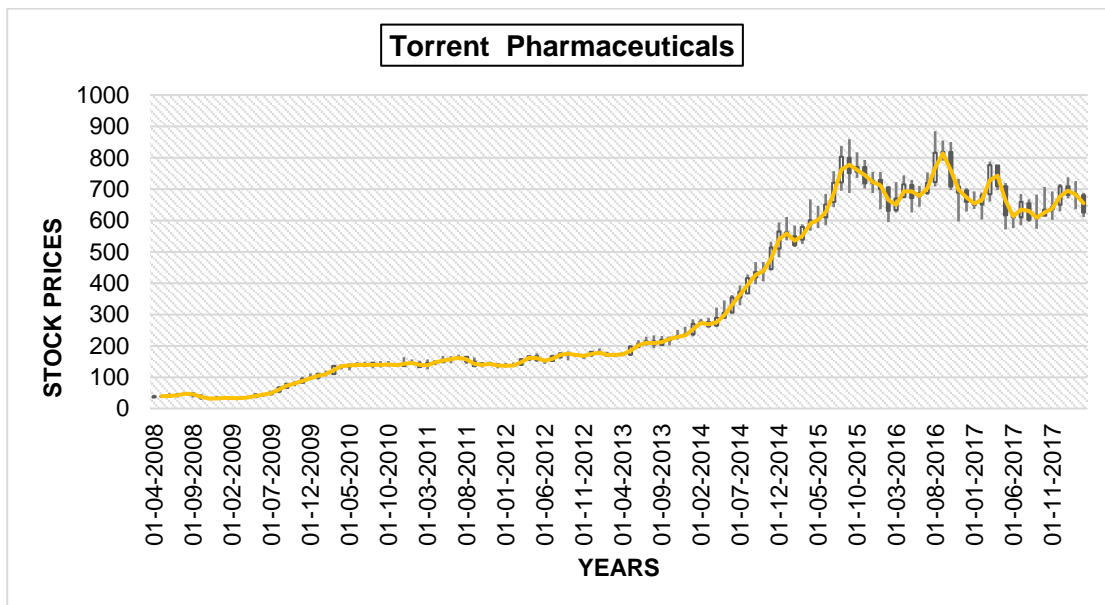
Gavis Pharmaceuticals LLC, a US-based speciality pharmaceutical company, was purchased by Lupin Limited, an Indian pharmaceutical company, in 2015 for about \$880 million. The acquisition was made in order to boost Lupin's generic and specialty medicine portfolio and increase its market share in the US.



The graph shows the stock performance for 10 years duration of Lupin Limited. The phase of 2008 to 2014 has stable upward slope which represents the stock having stability and consist growth throughout those years. After the merger and acquisition of Gavis the stock have been stagnant.

- **Torrent Pharmaceutical and Elder Pharma**

An Indian pharmaceutical company, Elder Pharmaceuticals Ltd., sold its branded domestic formulations division to Torrent Pharmaceuticals, a major Indian pharmaceutical company, for \$330 million in 2014.



It can be seen the stock prices of Torrent Pharmaceutical had a consistent growth from 2008 to the mid of 2015. During the year 2014 the stock had a faster growth rate which represents the stock made short term gains from the deal. After 2015 the stock has been stagnant and minimal decrease from 2016 to 2018.

Testing of Hypothesis

To evaluate the impact of merger and acquisition on stock performance the yearly average return percentage is calculated of all the 5 firms in pre and post phases of the deal. The Paired T test is conducted industry wise.

Yearly Average Returns Percentage									
Sun Pharmaceutical		Cipla Limited		Dr. Reddy's Lab		Lupin Limited		Torrent Pharma	
Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
-0.29%	3.27%	3.89%	3.89%	8.74%	2.91%	7.71%	6.79%	0.21%	3.72%
4.52%	5.20%	-0.09%	-0.09%	2.39%	-0.60%	2.53%	-2.13%	12.87%	7.11%
2.11%	-1.46%	-0.17%	-0.17%	1.20%	-0.94%	2.20%	0.07%	0.64%	1.52%
2.33%	-1.29%	2.12%	2.12%	0.19%	-1.54%	1.59%	-5.12%	0.96%	1.58%
3.24%	-2.22%	0.25%	0.25%	3.38%	2.75%	3.66%	0.47%	1.05%	-1.50%

t-Test: Paired Two Sample for Means		
Industry Analysis	Pre-Percentage	Post-Percentage
Mean	0.02689073	0.009142299
Observations	25	25
Hypothesized Mean Difference	0	
df	24	
t Stat	3.120498968	
P(T<=t) one-tail	0.002326361	
t Critical one-tail	1.71088208	
P(T<=t) two-tail	0.004652722	
t Critical two-tail	2.063898562	

Based on the output, the mean pre-percentage is 0.02689073 and the mean post-percentage is 0.009142299. The t-statistic is 3.120498968, and the degrees of freedom (df) are 24.

The one-tailed p-value is 0.002326361, which is less than the significance level of 0.05, indicating that there is a significant difference between the mean pre- and post-percentage values.

Since the calculated t-value (3.120498968) is greater than the critical t-value (1.71088208) at a 0.05 significance level, we can reject the null hypothesis (that there is no significant difference between the mean pre- and post-percentage values) and conclude that the mean post-percentage is significantly lower than the mean pre-percentage. **Therefore, alternative hypothesis "There is a significant impact on the stock prices of the companies before and after a merger or acquisition" is accepted.**

Findings and Conclusions

After conducting the research, the following are findings of it:

- **Negative trend:** All the five companies selected for the research had a negative impact on the stock performance of the companies. The growth rate of stock becomes stagnant or constantly decreased after the merger and acquisition deal.
- **Short term Gain:** Every selected company for research experienced a short-term gain during the time period from merger and acquisition announcement till the completion of the deal.
- **Average Return:** After the merger and acquisition deals the acquiring companies were having decreasing or negative average returns on the stock price.
- **Impact on Market Share:** The negative impact on the stock price of companies created a bearish market for pharmaceutical stocks that resulted in the negative impact on its market share.

Merger and Acquisition activity in the pharmaceutical industry has been on the rise, with several major deals completed during the period of our analysis. The impact of merger and acquisition activities on the stock performance of select pharmaceutical businesses have been studied in research. Some key findings were identified using trend analysis and hypothesis testing using paired t-test.

The study found that the stock prices of acquiring companies experienced significant changes during Merger and Acquisition transactions, with a tendency for acquiring companies to experiencing short term gains but in the long run the acquiring company experienced negative average returns.

Research adds to the body of knowledge on how Merger and Acquisition activity affects stock performance and offers concrete data to help decision-makers in the pharmaceutical sector. For investors and decision-makers in the pharmaceutical industry who are thinking about Merger and Acquisition activity, research offers useful information.

In particular, findings indicate that care should be used when contemplating Merger and Acquisition activity as a strategy of generating value for shareholders because such activity can have a major impact on the stock performance of both acquiring and target companies.

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EFFECTIVENESS OF TELECONFERENCING AS A LEARNING METHOD FOR THE STUDENTS OF INDIRA GANDHI NATIONAL OPEN UNIVERSITY

Dr. Manju Gera*
Anju Sharma**

ABSTRACT

The goal of the current study was to investigate teleconferencing as a postgraduate learning method for IGNOU students. In order to study this, students were given homework and a self-made questionnaire. Fifty questions covering seven facets of the teleconference session were included in the questionnaire. These included student perception, presentation and content, concerns pertaining to program design, interactivity, efficacy, adaptability, and appropriateness. Second, the researcher assessed the learning differences between postgraduate participants and non-participants based on the grades they received on assignments. A sample of 200 IGNOU postgraduate students was selected. Regional and study centres that provide video teleconferencing were selected. To make the conclusions, pertinent means, S.D.s, and t values were computed. Based on this, it can be said that teleconferencing is a useful learning tool.

KEYWORDS: Teleconferencing, Learning Method, Efficacy, Adaptability, Questionnaire.

Introduction

In the beginning, the educational systems lacked technology support. Following technological developments, distant education researchers investigated the potential of technology mediation for interactive teaching and learning approaches in online distance learning. In the beginning, the educational systems lacked technology support. Following technological developments, distant education researchers investigated the potential of technology mediation for interactive teaching and learning approaches in online distance learning. Additionally, the use of ICT (information and communication technology) significantly expedited the growth of remote learning. In the upcoming decades, distant learning will play an increasingly significant role (Garg et al, 2006). In addition to offering quick feedback that improves counselling and evaluation, technology use in ODL greatly supports the teaching and learning process by boosting interactivity, improving the structure and organisation of materials, removing barriers related to cost and distance, and giving access to remote databases and the knowledge pool.

IGNOU and the Use of Teleconferencing

A key instrument for raising India's Gross Enrolment Ratio (GER) would be Open and Distance Learning (ODL) instruction. Various nations are currently at varying levels of development. Given their advanced infrastructure in the traditional system, western nations might not need distant learning to the same degree. However, in a nation like ours, where expanding the traditional system would be expensive, the ODL system will quickly offer access to high-quality education in distant locations. The

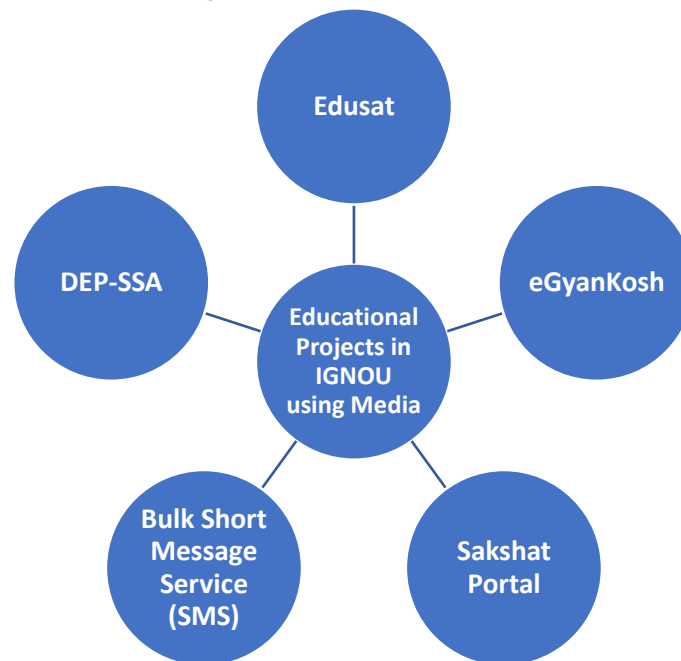
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Indira Gandhi National Open University (IGNOU) was founded on September 20, 1985, by an Act of Parliament, with the help and encouragement of UKOU and the Open University of Japan (OUJ). Through the ODL technique, IGNOU makes a substantial effort to advance higher education in the nation. Approximately 225 academic, professional, vocation-generating, and skill-oriented programs are offered by IGNOU, often known as the "People's University," which leads to certificate diplomas and degrees (at the bachelor's, master's, and doctoral levels). The programs' main goal is to address people's diverse academic and career demands, particularly those of underprivileged groups in society. IGNOU provides programs to both its employees and the ODL institutes through its well-established training section, STRIDE (Staff Training and Research Institute of Distance Education).

IGNOU offers programs at several levels, including bachelor's degree programs, post-graduate and doctoral levels, certificates, diplomas, and P.G. diplomas. The institution offers multi-media assistance for all of its academic programs, including teleconferencing, audio, video, radio, TV, and interactivity radio and video counselling. In partnership with other higher education institutions, IGNOU operates the 24-hour educational television channel Gyan Darshan. A vast cooperative network of FM radio stations solely focused on education is called Gyan Vani.

Educational Projects in IGNOU Using Media



Objectives of the Study

- To study the perception of post-graduate level of IGNOU students about teleconferencing.
- To assess the effectiveness of Teleconferencing as a learning method for post-graduate level of IGNOU students.

Hypotheses of the Study

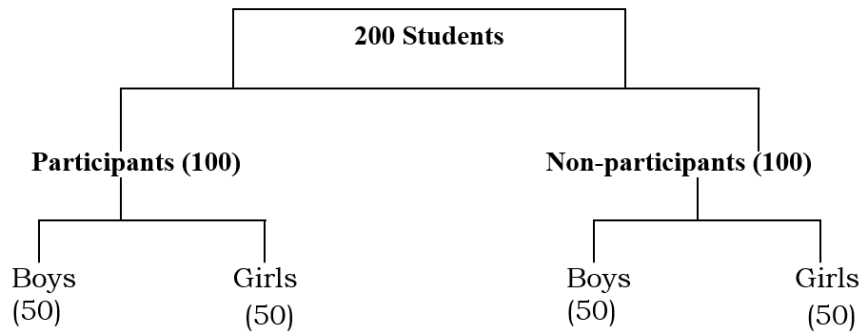
- There is insignificant difference between learning of post-graduate level of IGNOU students participating and non-participating in Teleconferencing.
- There is insignificant difference between learning of boys and girls students participating in teleconferencing.

Methodology

Sample

Two hundred postgraduate students from IGNOU were enrolled. Regional and study centres that provide video teleconferencing were selected.

Research design is of 2 x 2.



Tools

- Self-made Questionnaire
- Assignments

Statistical Techniques

The following statistical methods are used to process the raw scores and determine the outcome:

* Mean $(M) = \sum X / N$

* SD or $\sigma = \sqrt{\sum X^2 / N}$ (Standard deviation of ungrouped data)

* Mean difference $D = M_1 - M_2$

* SE_D or $\sigma_D = \sqrt{\sigma_1^2 / N_1 + \sigma_2^2 / N_2}$

* C.R or $t = D / \sigma_D$

Where

C.R. = Critical Ratio

$\sum X$ = Sum of raw Scores

N = Total No. of respondents

σ_D = Standard error of difference between uncorrelated means

σ_1 = Standard deviation of first sample

σ_2 = Standard deviation of second sample

N_1 = Total no. of respondents from first sample

N_2 = Total no. of respondents from second sample

* Degree of freedom (df) = $(N_1 - 1) + (N_2 - 1)$

Where N_1 and N_2 are two Sample sizes.

Table 1: Showing the Disparity in Learning Levels between Students who Participated and those who did not based on their Assignment Scores

Group	Sample (N)	Mean (M)	Standard Deviation (σ)	Mean Difference (D)	Standard error of difference of means (σ_D)	t-value or critical ratio
Participant	100	54.85	13.29	6.59	1.76	3.74
Non participant	100	48.26	11.61			

This is clear from the data that the mean scores of participants are 54.85 with a standard deviation of 13.29, whereas the mean scores of non-participants are 48.26 with a standard deviation of 11.61. The table's results unequivocally show that the accomplishment levels of the participation and non-participant groups differ significantly. The t value, or crucial ratio, 3.74, which exists significant at the 0.01 threshold of significance, further supports this.

Participant mean scores are 54.85 with a standard derivation of 13.92, whereas non-participant mean scores are 48.26 with a standard deviation of 11.61, as the data makes evident. The results in the above table clearly demonstrate that here is a considerable difference in the accomplishment levels of the participation and non-participant groups. This is further supported by the t value, or critical ratio, 3.74, which exists significant at the 0.01 level of significance.

The t-test is used to test this. Table 1 displays the results, which suggest that there are notable differences between the two groups when categorised according to their learning levels using the distinctions in grades earned on the assigned task. Consequently, first hypothesis is rejected.

Table 2: Showing the Disparity in Learning Levels between Students who Participated and those who did not based on their Assignment Scores

Group	Sample (N)	Mean (M)	Standard Deviation (σ)	Mean Difference (D)	Standard error of difference of means (σ_D)	t-value or critical ratio
Male	50	57.38	13.89	5.06	2.60	1.95
Female	50	52.32	12.14			

Table 2 shows that there is a negligible difference in the learning outcomes of the 2 groups of Boys and Girls participants based on the marks they received on the assigned tasks. "There is an insignificant difference between the learning of boys and girls students participating in teleconferencing," reads the second hypothesis. The t-test is used to test this.

Table 2 displays the results, which suggest that, at the 0.01 level of significance, the assignment scores for the 2 groups of boys and girls participants do not differ significantly. Consequently, our second hypothesis is accepted.

Additionally, a self-made questionnaire given to pupils who took part in teleconferencing shows that the majority of respondents (80%) agreed that teleconferencing had a positive impact and that the various aspects of teleconferencing—student perception, presentation and content, program design-related issues, interaction aspect, effectiveness, flexibility, and correctness—were effective. It is possible to get the conclusion that teleconferencing is a useful learning tool. Therefore, we can conclude that, with the help of the teleconferencing strategy, students who participate will learn significantly more than those who do not, but that there will be no difference in the learning levels of male and female participants.

Thus, a key determinant of postgraduate students' learning level is the teleconferencing approach.

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WELLNESS AND HAPPINESS IN WOMEN MIGRANT WORKERS: A STUDY FROM GANJAM, ODISHA

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Dr. Sumitra Murmu**

ABSTRACT

The migration of women workers has become an increasingly significant phenomenon in India, particularly in regions like Ganjam, Odisha. This study aims to examine the challenges faced by women migrant workers and their impact on wellness and happiness. By focusing on socio-economic factors, occupational challenges, and emotional well-being, this research seeks to provide a comprehensive understanding of the lives of these women. The findings of this study will offer insights into the causes and consequences of migration and propose strategies to improve the wellness and happiness quotient of women migrant workers. The study employs both qualitative and quantitative methods to capture a holistic picture, ensuring that the voices of the women are at the centre of the analysis.

KEYWORDS: *Migrant Workers, Women Workers, Mental Health, Social Support, Labour Policies.*

Introduction

Migration has been an essential aspect of human civilization, shaping economies, societies, and cultural landscapes. In India, internal migration is a widespread phenomenon, with millions of people moving in search of better employment opportunities, improved living conditions, and economic security. Odisha, a state known for its rich cultural heritage and natural resources, has also witnessed significant migration trends, particularly among women. Women migrant workers play a crucial role in various sectors, including agriculture, construction, domestic work, and manufacturing. However, their movement is often accompanied by numerous challenges that affect their overall wellness and happiness. Understanding the well-being and happiness quotient of women migrant workers in Odisha is critical in assessing the socio-economic and psychological impact of migration on their lives. The concept of wellness extends beyond physical health to include mental, emotional, and social well-being. For women migrant workers, wellness is often influenced by factors such as workplace conditions, job security, wages, access to healthcare, social support systems, and family dynamics. Many women experience precarious employment conditions, long working hours, and wage disparities, leading to stress and exhaustion. Additionally, their ability to access proper healthcare and nutritious food is often limited, further exacerbating health issues. The intersection of gender norms, economic necessity, and migration further complicates their well-being, making it essential to analyze the holistic impact of migration on their lives. Happiness, on the other hand, is a multidimensional concept that encompasses life satisfaction, personal fulfillment, and emotional stability. Migration, while offering opportunities for financial independence and exposure to new environments, can also create emotional distress due to separation from family, cultural displacement, and workplace exploitation. Women migrant workers often struggle with loneliness, discrimination, and social alienation, which can negatively impact their overall happiness. However, some women find empowerment and personal growth through migration, gaining financial

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independence, new skills, and a sense of agency in their decision-making. The balance between these positive and negative experiences plays a crucial role in determining their happiness levels. In the context of Odisha, women migrant workers frequently move from rural to urban areas or to other states in search of employment. Many of them originate from marginalized communities and lack formal education, making them vulnerable to exploitation and unsafe working conditions. The absence of strong labor laws and inadequate social protection mechanisms further exacerbate their struggles. At the same time, migration provides these women with an opportunity to support their families, educate their children, and break free from traditional societal constraints. Examining the wellness and happiness quotient of these women will provide valuable insights into the effectiveness of migration as a strategy for economic upliftment and social transformation. This study aims to explore the various economic, social, and psychological factors that influence the wellness and happiness of women migrant workers in Odisha. It seeks to identify the key determinants of their well-being, the challenges they face, and the coping mechanisms they adopt. Additionally, the study will analyze policy gaps and suggest measures to improve their quality of life, ensuring that migration becomes a pathway to empowerment rather than a source of distress. By shedding light on their lived experiences, this research will contribute to the broader discourse on gender, migration, and labor rights, advocating for inclusive policies that prioritize the welfare of women workers.

Literature Review

Hyun-Jin Cho, Kyoungrim Kang & Kyo-Yeon Park, 2023 has examined the prevalence of severe mental health conditions among migrant workers in Western Odisha, revealing a higher incidence among female respondents compared to their male counterpart. Social factors such as social support and cultural adaptation stress affect the HRQoL of migrant workers. Therefore, the social integration program should be expanded to ensure that migrant workers can adapt to the domestic culture at an early stage.

In the report by **Aajeevika Bureau** delves into the health and well-being of migrant workers in Odisha, highlighting the challenges faced by those engaged in manual labour under repressive conditions.

Anuj Kapilashrami and Ekatha A John, 2023 This study examines the association of migrants' health with their work environment, reporting a high prevalence of undiagnosed chronic diseases caused or aggravated by the nature of work migrants perform.

Tarak Nath Sahu, Sudarshan Maity and Manjari Yadav has examined the study examines the consequences of the COVID-19 pandemic-induced lockdown on the socio-economic status of 212 female migrant workers.

Gurvinder Pal Singh, 2021 The mental health issues found among migrants during the COVID-19 pandemic included psychological distress, depressive disorders, anxiety disorders, and substance abuse. The objective of this review was to identify and synthesize the findings of the existing literature that highlighted the psychosocial and mental health issues of the migrants during the COVID-19 pandemic in India.

Archana Shukla Mukherjee & PV Narayanan, 2020 This article discusses the challenges faced by women migrant workers in India's garment industry, emphasizing the need for collaborative measures to ensure their well-being.

Celia McMichael, 2023 This review examines recent research on the climate change–mobility–health nexus, focusing largely on in-country mobility in Asia, Africa, and Pacific Island countries.

Kamlesh Singh, Sonika Dangi and Shilpa Bandyopadhy, 2020 This study compares the well-being of married migrant and non-migrant women in rural Haryana, providing insights into the impact of migration on women's well-being. The objective of the qualitative study was to understand the views of both groups of participants about certain aspects of Haryanvi society, and their married life.

Syara Shazanna Zulkifli and Hazalizah Hamzah, 2024 This review identifies the associations between work outcomes and psychological well-being among working women, discussing factors such as work stress and work-life balance. It provides recommendations for future research directions and informs organisations on the importance of work outcomes on the well-being of these working women.

Claudine Burton-Jeangros, Aline Duvoisin, Liala Consoli, Julien Fakhoury & Yves Jackson has examined life satisfaction among undocumented migrant workers, finding that regularized

workers report similar satisfaction levels to regular local residents. Despite the high satisfaction expressed by those who have recently been regularized, policy intervention still have to pay attention to their persisting difficult socioeconomic circumstances amidst a context of overall affluence.

Objectives

- To identify the primary causes of migration among women workers in Ganjam, Odisha.
- To assess the socio-economic and occupational challenges faced by these women.
- To evaluate the wellness and happiness quotient of women migrant workers.
- To analyze the consequences of migration on their physical, emotional, and social well-being.
- To propose policy recommendations for improving the quality of life of women migrant workers.

Theories

Capability Approach (Amartya Sen and Martha Nussbaum)-This approach focuses on individuals' freedom to achieve well-being by accessing opportunities and resources. It is particularly useful for understanding how social, economic, and institutional barriers limit women migrant workers' ability to lead fulfilling lives. **Push-Pull Theory of Migration** (Lee, 1966)-This theory helps explain the factors driving women to migrate (push factors like poverty and lack of opportunities) and attracting them to specific destinations (pull factors such as employment prospects and better living conditions). **Social Determinants of Health Framework** (World Health Organization)-This framework explores how conditions like income, education, employment, and social support impact health and well-being, especially for vulnerable groups such as migrant workers. **Theory of Intersectionality** (Kimberlé Crenshaw)-Intersectionality highlights how overlapping identities (e.g., gender, caste, class, and migration status) create unique experiences of marginalization and influence wellness and happiness outcomes. **Human Security Framework**-This framework emphasizes the importance of economic, health, and personal security for the well-being of individuals, particularly migrant workers who often face vulnerabilities in these areas. **Self-Determination Theory** (Deci and Ryan, 1985)-This theory focuses on intrinsic motivation and the fulfilment of basic psychological needs—autonomy, competence, and relatedness—as essential components of well-being. **Cultural-Ecological Theory** (Ogbu, 1981)- This theory examines how cultural and environmental factors influence individuals' adaptation and success, which can be applied to understand how women migrant workers adjust to their new environments. **Labor Market Segmentation Theory** (Piore, 1979)-This theory explains the division of labour markets into primary and secondary sectors, with women migrant workers often relegated to precarious, low-paying jobs that impact their well-being. **Bronfenbrenner's Ecological Systems Theory** to analyse the influence of contextual factors **Feminist Theory** to critique the intersectional dimensions of gender and migration.

Trends on the wellness and happiness of women migrant workers in Odisha

- **Increasing Migration Rates:** There has been a notable rise in the number of women migrating from Odisha, driven primarily by economic necessity. Many women are seeking employment opportunities due to the lack of viable options in their home regions, particularly in impoverished areas like the KBK (Kalahandi, Bolangir, Koraput) region, which faces severe agrarian crises and recurrent droughts.
- **Economic Independence:** Many women are migrating independently rather than as dependents of male family members. This shift reflects a growing desire for economic independence among women, despite facing numerous challenges in their migration journeys.
- **Mental Health Concerns:** The psychological well-being of these migrant workers is often compromised due to factors such as urban loneliness, social isolation, and the pressures of adapting to new environments. The COVID-19 pandemic exacerbated these issues, leading to heightened mental health challenges among this demographic.

Issues Faced by Women Migrant Workers

Women migrant workers encounter a variety of issues that impact their overall wellness and happiness:

- **Exploitation and Vulnerability:** Female migrants frequently face exploitation from employers and labor contractors, including trafficking and unsafe working conditions. Their lack of social networks and legal protections makes them particularly vulnerable to abuse.

- **Health Challenges:** Access to healthcare is often limited for migrant women, especially for pregnant and lactating workers. The harsh working conditions and lack of health facilities contribute to significant health risks.
- **Social Integration:** Many women experience hostility from host communities, which can lead to feelings of alienation and distress. This social distance further complicates their ability to establish supportive networks in new locations

Methodology

- **Research Design:** The study will adopt a mixed-methods approach, combining quantitative surveys and qualitative interviews to ensure a comprehensive understanding. Target Population: Women migrant workers from Ganjam, Odisha were taken as the targeted population. A sample size of 150 women migrant workers selected through stratified random sampling. Also, the Women who have migrated for work purposes within the last five years. For the data collection methods Surveys, Interviews and Focus Group Discussions methods were used.
- **Data Analysis Tools:** Quantitative Data was analyzed using SPSS, employing descriptive statistics, regression analysis, and correlation studies to determine patterns and relationships. And Qualitative Data analysis through Thematic analysis using NVivo to identify recurring themes and narratives from interviews and FGDs.

Results

- A majority of women migrants experienced economic upliftment post-migration, with increased household income. However, wage disparities and irregular payments were prevalent, leading to financial instability.
- Many women worked in low-paying, informal sector jobs such as domestic work, construction, and textile industries. Long working hours, unsafe conditions, and lack of job security significantly affected their well-being.
- Migrant women reported high stress levels, fatigue, and limited access to healthcare due to financial constraints. Reproductive health issues and nutritional deficiencies were common due to poor diet and lack of medical facilities.
- Separation from family and social alienation led to emotional distress and loneliness among women migrants. Social discrimination and workplace harassment were identified as major concerns.
- Despite challenges, some women reported a sense of empowerment, financial independence, and improved decision-making ability in their households. Those with strong social support networks and better living conditions reported higher happiness levels.

Suggestions & Recommendations

- **Policy Interventions-** Implement stronger labor laws ensuring minimum wage, equal pay, and social security benefits for women migrant workers. Establish grievance redressal mechanisms to address workplace exploitation and harassment.
- **Healthcare and Well-Being Programs-** Provide mobile healthcare services and insurance schemes specifically for women migrant workers. Promote mental health awareness and support networks to combat social isolation.
- **Skill Development and Livelihood Opportunities-** Organize vocational training programs to help women shift from low-paying informal jobs to more skilled employment. Encourage entrepreneurship opportunities among migrant women through microfinance and self-help groups.
- **Social Integration Measures-** Strengthen migrant community networks to offer emotional and social support. Encourage government and NGO partnerships to provide safe housing, child care facilities, and education programs for migrant women and their families.

Conclusion

The study on "Wellness and Happiness of Women Migrant Workers in Odisha" highlights the complex interplay of economic, social, and health-related factors that shape the lives of migrant women. Migration, while often seen as an opportunity for financial independence and empowerment, also

exposes women to various challenges, including job insecurity, workplace exploitation, social isolation, and inadequate healthcare access. The findings indicate that while some women experience economic upliftment and enhanced decision-making power, many others endure poor working conditions, wage disparities, and emotional distress due to separation from their families. The research underscores the gendered nature of migration, where patriarchal norms, limited legal protections, and social stigma continue to hinder women's ability to achieve well-being and happiness. Health concerns, including mental stress, reproductive health issues, and lack of access to basic services, further exacerbate the vulnerabilities of women migrant workers. Despite these challenges, those with better social support networks, access to education, and vocational training report higher levels of well-being and self-sufficiency.

To improve the wellness and happiness quotient of women migrant workers, it is crucial to implement stronger labor policies, ensure fair wages, enhance social security provisions, and promote access to healthcare and mental health services. Additionally, community-based interventions, self-help groups, skill development programs, and legal awareness initiatives can empower women and enable them to negotiate better working conditions. Ultimately, migration can be a pathway to empowerment for women if adequate policies and support systems are in place. Ensuring dignified employment, social inclusion, and better living conditions can significantly enhance the overall quality of life, well-being, and happiness of women migrant workers in Odisha.

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STUDY OF ORGANIZATIONAL BEHAVIOUR - IMPACTS AND EFFECTS

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ABSTRACT

Organisational behaviour is a fundamental field of study that examines the complexities of human interactions in the workplace. This abstract underlines its effects on individuals, teams, and organisations as a whole. Understanding organisational behaviour facilitates the comprehension of human motivation, decision-making processes, and group dynamics, resulting in a more productive and harmonious workplace. Organisational behaviour studies enable leaders to improve employee satisfaction, productivity, and overall performance by applying various theories and models. In addition, by identifying and resolving potential conflicts and obstacles, this discipline enables organisations to optimize their strategies, adapt to change, and foster a positive corporate culture. Ultimately, a comprehensive study of organisational behaviour contributes substantially to the long-term success and sustainability of any organization through increased employee engagement, decreased turnover rates, and enhanced organisational effectiveness.

KEYWORDS: *Organizational Behavior, Decision-making, Customer Loyalty, Leadership.*

Introduction

As a multidisciplinary discipline, organisational behaviour has long fascinated researchers and practitioners attempting to decipher the complexities of human behaviour within the context of workplaces. Its exhaustive investigation of how individuals and groups interact, make decisions, and react to a variety of stimuli has yielded valuable insights for enhancing organisational effectiveness and employee well-being. Organisational behaviour research has profound effects on employee motivation, job satisfaction, and overall performance, as well as group dynamics, leadership strategies, conflict management, and organisational culture.

It is impossible to overstate the significance of researching organisational behaviour and comprehending its impacts and effects. By identifying key motivators and factors influencing employee engagement, organisations can nurture commitment and productivity (Hague, P & Hague, 2016). In addition, understanding group dynamics and communication patterns is essential for optimising team collaboration and efficiently attaining group objectives. Effective leadership and management strategies play a central role in influencing organisational culture and employee behaviour (Humphrey, Nahrgang, & Morgeson, 2007). In addition, resolving conflicts constructively ensures a harmonious workplace and reduces the likelihood of disruptions (Jehn, 2019). Organisations can increase employee satisfaction, retention, and overall success by examining the function of organisational behaviour in forming corporate culture (Denison, 1990).

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This paper intends to delve into the study of organisational behaviour - its effects and consequences. Through a comprehensive review of extant literature, empirical research, and case studies, we will investigate the crucial role organisational behaviour plays in promoting organisational success and employee well-being. By addressing these crucial aspects, this paper aims to contribute to the expanding body of knowledge in organisational behaviour and provide leaders and organisations seeking to establish thriving and sustainable workplace cultures with valuable guidance.

Objective of the Study

- To Study the impacts and effects of organizational behavior on customer loyalty and satisfaction.

Research Methodology

The study employs secondary data analysis to investigate the impact and effect of organizational behavior on customer loyalty and satisfaction. The data has been sourced from existing published reports, academic journals, industry publications, government databases, and online resources. The data selection process will involve identifying relevant and recent data that aligns with the research objective of exploring the relationships between organizational behavior indicators, such as employee engagement, communication, and leadership, and customer loyalty and satisfaction metrics.

Employee Engagement, Communication, and Leadership: Impact on Customer Loyalty and Satisfaction

Employee engagement, effective communication, and strong leadership are crucial aspects of organizational behavior that significantly impact customer loyalty and satisfaction. When employees are engaged and motivated, they are more likely to deliver exceptional customer experiences, fostering loyalty among customers (Gallup, 2021). Furthermore, open and effective communication within the organization enables employees to better understand customer needs and preferences, leading to improved service delivery (Musheke, 2021). Effective leadership plays a pivotal role in shaping the organization's culture, which, in turn, influences employees' attitudes and behaviors towards customers (Avolio et al., 2009). By exploring the relationships between these organizational behavior indicators and customer loyalty and satisfaction metrics, organizations can develop strategies to enhance customer relationships and drive business success.

Employee engagement is a critical factor influencing customer loyalty and satisfaction. Engaged employees feel a strong connection to the organization, exhibit enthusiasm for their work, and are willing to go the extra mile to meet customer needs (Phiri, 2021). Engaged employees are more likely to display positive attitudes during customer interactions, resulting in enhanced customer experiences and increased customer loyalty. Moreover, engaged employees are motivated to maintain high service standards, leading to higher customer satisfaction and repeat business.

Effective communication is essential in ensuring a positive customer experience. When employees communicate clearly with customers, they can better understand customer requirements and preferences, leading to personalized and satisfactory solutions. A lack of communication or miscommunication can result in customer dissatisfaction and negatively impact loyalty (Avino, 2013). Therefore, organizations that prioritize effective communication and equip employees with the necessary communication skills are more likely to build stronger customer relationships and foster loyalty.

Leadership plays a crucial role in shaping the organization's culture and values, which, in turn, influence employee behavior towards customers (Avolio et al., 2009). Transformational leadership, characterized by visionary and supportive leadership, has been associated with higher levels of employee engagement and improved customer service. Leaders who embody the organization's mission and values create a sense of purpose among employees, encouraging them to deliver exceptional service and build customer loyalty (Belás J. & Gabčová, L. 2016).

In conclusion, employee engagement, communication, and leadership are key determinants of customer loyalty and satisfaction. Engaged employees who communicate effectively and are supported by visionary leadership are more likely to create positive customer experiences, leading to increased customer loyalty and satisfaction. Organizations that recognize the importance of these factors can design strategies to enhance customer relationships and drive sustainable business growth.

Discussion and Analysis

According to the Saravanakumar, 2019, when you look at how the implementation of organizational behavior has affected employees, employers, and the company as a whole, you can learn a lot about how people act at work. By learning the basic ideas and rules of organizational behavior, we can learn important things about how these things affect different parts of the business world.

First, on the employee side, good application of organizational behavior practices can lead to more employees being motivated, happy with their jobs, and engaged in general. When employees are involved and committed to their jobs, they are more likely to be productive, efficient, and come up with new ideas. They tend to be happier at work, which makes it easier to keep employees and reduces the number of people leaving the company. Also, organizational behavior initiatives that encourage good communication, teamwork, and professional growth give employees a feeling of belonging and fulfillment. This, in turn, makes the workplace a better place to work.

Second, the influence of organizational behavior implementation on employers and leaders can be seen in more effective leadership and better ways to run a business. Leaders who use transformational and inclusive types of leadership tend to make the work environment more supportive and empowering. They motivate employees to work toward the organization's goals and vision, which leads to more loyalty and dedication. Also, leaders who put the well-being of their employees first and appreciate what they do can build stronger relationships and trust, which is good for employee performance and the success of the business as a whole.

Lastly, good application of organizational behavior practices at the organizational level helps the organization be more productive, efficient, and competitive as a whole. When workers are motivated, happy, and committed, they are more likely to work hard to help the company reach its goals. A positive work culture also gives employees a feeling of pride and loyalty, which helps them work together as a team. This, in turn, leads to better team dynamics, better ways to work together, and better ways to make decisions, all of which are important for improving company performance and success.

In the end, the analysis of how implementing organizational behavior affects employees, employers, and the company as a whole shows how important this field is for making a workplace culture that is strong and lasts. By adopting the basic ideas and principles of organizational behavior, businesses can create an environment that helps employees feel good, helps them grow professionally, and makes the business as a whole as effective as possible. The positive results of this kind of implementation lead to higher levels of employee happiness, better organizational performance, and long-term success in a business world that is always changing and getting more competitive (Saravanakumar, 2019).

Another study Fløvik, L., Knardahl, S., & Christensen, J. O. (2019), it was to investigate the prospective effects of different types and frequencies of organizational changes on various aspects of the psychosocial work environment. The study's findings indicate that both individual and repeated organizational changes can have significant impacts on various psychological and social work factors. Notably, the most pronounced effects were observed following repeated changes. These results suggest that implementing organizational change, particularly when it occurs repeatedly, may have adverse effects on different aspects of the psychosocial work environment. Such negative effects on the employees' working conditions may contribute to the adverse health outcomes often observed after organizational changes and help explain why many change initiatives fail to achieve their intended results.

finally, this study sheds light on the complex relationship between organizational changes and the psychosocial work environment. The findings underscore the importance of carefully managing and considering the potential impacts of organizational changes on employees' well-being and work-related factors. By understanding these dynamics, organizations can better navigate change initiatives and create a more supportive and conducive work environment for their employees.

Moreover, in the study of Yildiz, Yunus, and Hiwa, Hastyar (2020), The aim of this study was to investigate the impact of organizational citizenship behavior (OCB) on customer satisfaction in small-medium enterprises (SMEs) in Sulaimani and Erbil cities of the Kurdistan Region of Iraq. The findings of the study demonstrated that the organizational citizenship behaviors of employees strongly influence customer satisfaction. This indicates that when employees exhibit positive OCB, going beyond their formal job responsibilities to contribute to the organization and its customers, it enhances the overall satisfaction of customers. The study also delved into the dimensions of organizational citizenship

behavior, which include Altruism, Conscientiousness, Sportsmanship, Civic virtue, Respect, and Reverence. It was observed that all these dimensions had positive and meaningful impacts on customer satisfaction.

The significance of these findings is noteworthy as it highlights the importance of fostering organizational citizenship behaviors within SMEs. When employees engage in behaviors such as helping others (Altruism), being diligent and reliable (Conscientiousness), displaying a positive attitude even during challenging situations (Sportsmanship), actively participating in organizational activities (Civic virtue), showing respect towards colleagues and customers, and demonstrating a sense of awe and admiration for the organization (Reverence), it positively influences customer satisfaction.

The implications of this study suggest that SMEs can enhance customer satisfaction by promoting a work culture that encourages and rewards organizational citizenship behaviors among employees. By recognizing and encouraging these positive behaviors, SMEs can foster a more positive and productive work environment, leading to improved customer experiences and loyalty. However, it's important to consider the limitations of this study, such as the focus on SMEs in a specific region and the reliance on self-reported data, which may introduce response biases. Further research could explore the impact of OCB on customer satisfaction across various industries and regions to gain a more comprehensive understanding of its implications for organizational success.

In conclusion, this study provides valuable insights into the relationship between organizational citizenship behavior and customer satisfaction in SMEs. The positive and meaningful impact of various dimensions of OCB on customer satisfaction highlights the significance of promoting these behaviors within organizations. By doing so, SMEs can create a more customer-centric and thriving business environment, ultimately contributing to their long-term success and growth.

The study of organizational behavior (OB) is a field that explores the behavior of individuals and groups within an organization and how it influences the organization's overall functioning and performance. OB draws from various disciplines such as psychology, sociology, anthropology, and management to understand the complexities of human behavior in the workplace.

- **Impact of Employee Behavior on Organizational Performance** - Employee behavior plays a crucial role in shaping an organization's overall performance and success. Several studies have highlighted the significant impact of employee behavior on key organizational outcomes. For instance, a comprehensive meta-analysis by Judge and Bono (2001) examined the relationship between various employee behaviors and job performance. The study found that positive employee behaviors, such as task performance, organizational citizenship behavior, and proactivity, were strongly correlated with higher levels of job performance.
- **Influence of Organizational Culture on Employee Behavior** - Organizational culture plays a fundamental role in shaping employee behavior within a company. Numerous studies have explored the influence of organizational culture on various aspects of employee behavior. A study by Denison (1991) examined the relationship between organizational culture and employee commitment. The research highlighted that organizations with a strong, positive culture tend to have more committed employees who are motivated to go beyond their formal job requirements.

The research conducted by Cameron and Quinn (2006) emphasized the impact of culture on employee behavior during times of change. The study found that organizations with adaptive cultures, where innovation and risk-taking are encouraged, tend to have employees who are more open to change and actively participate in organizational transformation efforts.

Additionally, a review by Schneider et al. (2017) discussed the link between organizational culture and employee attitudes and behavior. The study demonstrated that a supportive and inclusive culture fosters positive employee attitudes, job satisfaction, and overall well-being, leading to better job performance and reduced turnover.

- **Role of Leadership Behavior in Organizational Success** - Leadership behavior plays a pivotal role in determining an organization's success and performance. Extensive research has explored the impact of leadership behavior on various organizational outcomes. For instance, a meta-analysis by Avolio and Bass (1991) examined the relationship between transformational leadership and employee performance. The study concluded that transformational leadership,

characterized by inspirational motivation and individualized consideration, positively influences employee performance and job satisfaction.

Furthermore, a study by Yukl (2013) explored the importance of leadership behavior in facilitating organizational change. The research highlighted that effective leadership behavior, particularly during times of change, can significantly impact employees' attitudes and commitment to change initiatives, leading to successful organizational transformation.

- **Linking Organizational Behavior to Performance** -The link between organizational behavior and performance has been extensively studied to understand how employee behavior affects overall organizational success. Several theories and empirical research have shed light on this relationship. A study by Podsakoff et al. (2009) examined the impact of organizational citizenship behavior (OCB) on performance. OCB refers to discretionary behaviors that go beyond formal job requirements, such as helping coworkers, showing loyalty, and volunteering for additional tasks. The research found that OCB is positively related to individual and team performance, as it enhances overall team cohesion and productivity.

Moreover, a review by Luthans and Youssef (2007) discussed the role of positive organizational behavior (POB) in enhancing performance. POB focuses on fostering positive emotions, strengths, and virtues in the workplace, leading to increased employee well-being and better organizational outcomes.

Limitations

- **Complexity of Human Behavior:** Human behavior is intricate and influenced by various internal and external factors, making it challenging to predict and analyze consistently. Organizational behavior research often simplifies complex human interactions, which might not fully capture the intricacies of real-world scenarios.
- **Subjectivity and Bias:** Conducting research on organizational behavior involves gathering data from human participants, leading to potential biases and subjectivity in responses. Self-reporting methods or surveys might not always yield objective results, affecting the reliability of conclusions drawn from the data.
- **Cross-Cultural Differences:** Organizational behavior theories and models are often developed based on research conducted in specific cultural contexts, which might not be universally applicable. Cross-cultural differences can significantly impact the interpretation of behavior and the effectiveness of management strategies.
- **Lack of Generalizability:** Studies conducted in one organization or industry may not be directly applicable to other organizations or sectors. Each organization has its unique culture, leadership styles, and workforce composition, making it challenging to generalize findings across all contexts.
- **Dynamic and Changing Nature of Organizations:** The business landscape is constantly evolving, and organizations must adapt to new challenges and opportunities. Organizational behavior research might struggle to keep up with the rapid changes, leading to outdated or less relevant conclusions.
- **External Factors:** Organizational behavior research often focuses on internal dynamics, overlooking the impact of external factors such as economic trends, market competition, and technological advancements. These external factors can also significantly influence organizational behavior and performance.

Conclusion

The study of organisational behaviour and its impacts and effects is crucial to comprehending the complexities of human behaviour in the workplace. Throughout the course of this investigation, we have investigated a number of factors that cast light on the relationships between employee motivation, job satisfaction, and overall performance. We studied the dynamics of group interactions, leadership strategies, conflict resolution, and the influence of organisational culture on employee satisfaction and organisational success.

This study's findings indicate that organisational behaviour plays a crucial role in influencing employee engagement, commitment, and productivity. By understanding the factors that influence

employee motivation, organisations can create an environment that fosters a sense of purpose and fulfilment, resulting in greater job satisfaction and improved performance overall.

In addition, we found that effective group dynamics and communication play a crucial role in attaining group objectives and boosting team performance. Organisations with a strong emphasis on collaboration, open communication, and synergy among team members are more likely to achieve their objectives effectively. It was discovered that leadership and management strategies are crucial in shaping organisational behaviour and culture. Effective leaders whose leadership styles are transformational and inclusive have a positive influence on employee behaviour, which contributes to a positive work environment and increased productivity. Conflict management has emerged as a crucial aspect of sustaining a harmonious workplace. Organisations that employ constructive approaches to conflict resolution can reduce disruptions and foster a culture of cooperation.

The study also highlighted the importance of organisational culture in determining employee satisfaction, employee retention, and overall organisational success. A culture that is both positive and inclusive facilitates employee well-being, encourages loyalty, and attracts top talent. While this study provides valuable insights into the impacts and effects of organisational behaviour, it is important to acknowledge its limitations, such as possible sampling bias, self-reporting bias, and cross-sectional design. The study of organisational behavior—its impacts and effects—highlights the significance of comprehending the behaviour of individuals within organisations. Organisational leaders, human resource professionals, and management consultants can implement evidence-based strategies to optimise human resources, increase productivity, and cultivate a flourishing and sustainable work culture by leveraging the insights gained. As we progress, continued research in this area will further enrich our comprehension of organisational behaviour, allowing for the creation of more productive, harmonious, and successful workplaces in the ever-changing business environment.

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THE WORK HOURS AND THE LABOUR PRODUCTIVITY: A COMPLEX TASK

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ABSTRACT

Labour is a most important input in production function. The productivity of a firm depends on the efficiency of the labours and its maximum utilization. For acquiring of the labours services, the firm spends money on employment of labours. The firm ensures that the outcomes and gains from such employment should be maximum. The work hours of the labours also plays an important role in productivity. In general, it is assumes that more work hours produces more but it also increases the cost of production in the form of overtime payments. Thus, the determination of the optimum working day for a labour is a fairly complex task.

KEYWORDS: Production Functions, Productivity, Efficiency, Maximum Utilization, Employment of Labours, Work Hours, Cost of Procuction, Optimum, Complex Task.

Introduction

In today's world, work-life balance has emerged as a predominant issue in the workplace. Industrialists want more work hours while workers wants a balance between work hours and personal and family responsibilities. In the beginning of January, 2025, a video of Larsen and Tubro Chairman S.N. Subrahmanyam went viral in which he can be seen saying that "I regret that I can't make you work on Sunday. If I make you to work on Sunday I will be happy because I work on Sunday. What do you do while sitting at home? How long can you keep looking at your wife? How long does the wife look at her husband? Go to the office and start the work." However, it was said that he had said this in a light manner, which was made unnecessarily disputed. Larsen and Tubro HR head SonikMurlidharan said that MrSubrahmnyan protected every employee to his family members and unity and belonging, which today seems little work in the corporate world. But this statement gave rise a new debate, in which other industrialists have also entered.

Mahendra and Mahendra Chairman said instead of increasing of work hour we should talk on quality.

Meaning of Work Hour, Labour Productivity and Work-Life Balance

The length of working day is known as work hour. As per the Factory Act, 1948, hours of the adult workers in a factory, weekly hours of work should not be exceed 48 hours and daily hours of work should not be more than 9 hours which include an interval for rest for half an hour after continuous working of 5 hours. Female workers are allowed to work in factory for 8 hours and their working time should not be beyond 6 A.M. to 7 P.M. A child worker, not below the age of 14, is allowed to work for 4 hours only per day. Thus, Factory Act, 1948 has reduced the working hours of the workers. ¹

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Productivity is the main basis of modern and economic developed. According to J.M.S. Raik, "Productivity is a physical ratio related to quantity of goods produced or services given in comparison with the quantity of resources consumed." ² In other word, the labour Productivity is a ration between Net Output and Number of Workers of Number of Man Hours.

Work-life balance conflict seems to be quite high in industrial revolution. In industrial revolution, when workers spends more time hours at the workplace and have less time for personal and family matters the situation is called work-life imbalance. Work-life imbalance creates stressful condition among workers and can lead to sickness and absenteeism both. It inevitable affects productivity. ³ Amitabh Kant, former Chief Executive Officer of NITI Aayog and Sherpa of G-20, says that India needs hard work to make an economy of \$ 4 lakh crore to \$ 30 lakh crore. Whether it is 80 hours a week or 90 hours a week, you will also have to leave the worry of work life balance. ⁴

Objectives

- To study the challenges and problems faced by the workers.
- To know different laws for protection of workers at workplaces
- To provide suggestion for empowering workers.

Relationship Between Work Hour and Labour Productivity

• A Direct Relation-More Work Hour and More Productivity:

The founder chairman and Emeritus of Infosys, the country's renowned information technological company, N.R. Narayanmurthy said in October, 2023 that the countries that have made vigorous progress are having more productivity than our country. He said that India is among the most backward countries in the world in terms of productivity and the reason is that we do not increase our productivity. He has urged the youth to understand that this is my country and I will work for 70 hours in a week. ⁵ China people work for 90 hours per work. Americans 50 hours and if Indians want to stay on top of the world, they should work for 90 hours. The common employees working in the office found these statements as scares. These statements began to be criticized. Industrialists falling in this category believe that more work hours produced more production. Longer the length of working day more we expect the output of the workers. ⁶

• An Inverse Relation-Less Work Hour and More Productivity

Regarding the work like balance, some other industrialists talk about the quality of work instead of work hours. Anand Mahindra, the chairman of Mahindra and Mahindra, seriously said that we should pay attention to the quality of work and not on the quantity of work. Therefore, it is not a matter of 40 hours or 70 hours or 90 hours. What results are you giving? If it is 10 hours and you can change the world in 10 hours. ⁷

Former HCL CEO Vineet Nayyar also involved in the work-life balance debate. He believe that if mind feel do more work, then do more work. If mind feel do less work, then do less work. The real question is not this that how much work you do. The question is how much good life you live. We consider long hours of work, one after one meeting and staying on all the time very good. But if you are unable to live your life, then your energy, creativity and purpose, all are snatched away. Good thoughts, the biggest successes do not come to work continuously. It comes from a mind that is alive. It is busy and free to feel life. ⁸

The Demand for Better Job Conditions

Industrialist creates and provides jobs to the society. Therefore, it is important to understand what they think in the present corporate era. But it is also important to understand how much an employee is to work or what is the capacity of a worker? The powerful always decide that how much work should be taken from the weaker. But ever since the industrial revolution started, the voices of the welfare of the employees began to rise, especially in Europe. Many movements also took place. Work conditions were very bad. Long work hours, more exploitation of laborers in different forms are the dark aspects of the industrial revolution. Workers used to work for 100 hours. Children were also employed in cloth mills, coal mines and shipyards. In the beginning of 19th century, the welfare of workers has grown up speedily. The demand for 8 hours of work intensified. It was announced to celebrate Labour Day from 1st May, 1886 in St. Petersburg Conference which was held 1884 in United States of America. After this, in 1889, the International Socialist Congress announced the contemplation of 1 May as Labour Day.

Despite this, the conditions of laborers did not improve everywhere. Many institutions came in this direction by the 19th century.

In 1919, the International Labour Organisation recommended 8 hours a day and 48 hours in a week on the demand of labour organizations. In 1930, the International Labour Organisation set up the work limit in Work Hours (Commerce and Office) Convention, 1930 as 8 hours in a day and 48 hours in a week. After this, all the countries in the world made their own laws in accordance of this convention. ⁹

Steps taken in India for Labour Welfare

Trade unions were established in the beginning of the 19th century in India. These trade unions demanded labour welfares with their establishment. Thus, in India, many laws related to the welfare of laborers were made. The standard duration of work in the Factory Act in India is 48 hours per week and 9 hours per day. It also has one hour of lunch break. There is also a provision to give over time for more time working. But it is not necessary to implement any company or organization at the ground level. Even today, this is more or less the same situation. Exploitation is common in the unorganized sector.

Jamshedji Tata was at the forefront of implementing Labour Welfare in India. He determined the work hours. He provided the facility of creche. He, also, improved the working conditions of the workers. He implemented all these experiments by taking initiative in his company named India Spinning and Weaving Manufacturing, Pune. In 1886, he created a pension fund for workers. In 1895, TaTa started accidental insurance. Gratuity, Maternity benefits, bonuses were arranged on retirement. That is why Tata's name is still comes on the people's tongue. Now these provisions are included in Factory Act, 1948 and other labour laws. ¹⁰

Work Hour in the different Countries

According to the report of the International Labour Organisation of 2023, 51.5 percent of employees in **Southern Asia** work 49 hours per week, which is the highest in the world. Meanwhile, the world average was only 43.4 hours per week. **North America** has only 37.9 for working hours per week, which is the lowest in the world. Europe and Central Asia have 37.4 work hours per week while Northern South Europe has only 37.2 work hours. Working for a long time adversely affects on professional safety and health. Besides this, working with long time also affects the productivity and capacity of the work. ¹¹

Does increase in the working hours, increase productivity?

It is generally to be believed that productivity also increases due to increase in work hours. But there are several examples of different countries, where the work hours are less, yet their productivities have been increased. For example, in 2019, annual per employee work hours in India, Japan and Germany were 2122, 1691 and 1386 respectively. This proves that despite the short hours of work in Japan and Germany, their production capacities are more than India. After World War II, the people of Japan and Germany worked at 2200 to 2400 hours annually, which are 8 to 9 hours per day. This calculation has been based on 5 days a week and 243 days of the year. Thus, by working for 8 to 9 hours, Japan and Germany have done a great Job and the whole world knows where they have reached. ¹²

Does Productivity can be improved?

The productivity of a labour can be increased with the technology including AI (Artificial Intelligence). Productivity can also be improved by increasing the skills of the employees. In 2019, the productivity of India, was \$9 per hour while Germany has \$68 and Japan has \$42 per hour. This is the reason why the quality of work should be emphasized instead of work hours, only then its price will also increase. No matter how long the work is, it should be well. In the present competition era, work stress is more in the corporate world. There should be balance between work and life. Life has to live and work has to be done. In many countries, the work days have now been reduced from 5 days to 3 days. ¹³

Conclusion

Productivity and Quality is needed and not working hours. A healthy worker produces more outputs. There is no direct relation between productivity and work hours. This is reason why many countries increasing productivity by reducing the work hours. In Germany, 4 days in a week is being started from 01 April, 2024. The labour unions there believe that reduced work hours will increase productivity. Earlier, Belgium has also given its employees the option to work 4 days in a week since 2022. The lowest average working hour in the world is Netherland with only 29 hours of work. People work there for 4 days. People work there for 4 days. Denmark also has only 33 hours per week. Thus it is

also a favourite place of employees. Danish people leave the office at 4.00 pm. People of Japan are the most hardworking in whole world. Despite low resources, Japan is the 4th major economy. In Japan, it is encouraging to work 4 days instead of 5 days so that the deaths due to more work can be stopped. People could also spend time out of office. The youth of Japanese should be given an environment that does not think about only for office but should become more social. It will also stop the falling population of Japan.

If industrialist wants more work hours then they should hire more man power so that they can work in shifts. This will be an ideal situation for both, i.e. the employee and employer. Problem is arise when employer kept lion's share of profit and expect that same number of employee produce more output without increasing cost of production. The flexibility on the workplaces is to be given to the employees.

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BREAKING BARRIERS: EMPOWERING MUSLIM WOMEN ENTREPRENEURS IN MANIPUR FOR INCLUSIVE ECONOMIC GROWTH

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ABSTRACT

Entrepreneurship has emerged as a pivotal driver of socio-economic development, particularly among marginalized communities. This study examines the entrepreneurial experiences of Muslim women in Manipur, a minority group facing multi-dimensional challenges, including financial exclusion, market barriers, socio-cultural constraints, and inadequate policy support. Adopting a quantitative research design, data were collected from 160 women entrepreneurs across key sectors such as handloom, agriculture, and retail. The study is grounded in Empowerment Theory, Social Capital Theory, and the Sustainable Livelihoods Approach to analyze the complex interplay between entrepreneurial challenges, social capital, and empowerment outcomes. The results reveal a significant positive impact of entrepreneurship on empowerment outcomes, with women reporting enhanced financial independence, improved decision-making authority, and elevated social status. Overcoming entrepreneurial challenges shows a strong positive correlation with empowerment outcomes (Path Coefficient = 0.65), while social capital (Path Coefficient = 0.68) emerges as a critical enabler, amplifying the empowerment effect through networks, mentorship, and community engagement. The study underscores the transformative potential of entrepreneurship as a tool for economic and social empowerment in marginalized groups. Policy implications include the need for tailored financial inclusion programs, sector-specific skill development initiatives, and investments in physical and digital infrastructure to bridge systemic gaps. The study concludes with recommendations for collaborative efforts by policymakers, NGOs, and financial institutions to foster inclusive and sustainable entrepreneurial ecosystems. Future research is encouraged to explore the role of technology, longitudinal impacts, and comparative analyses across diverse regions to further enhance the understanding of entrepreneurship's transformative potential.

KEYWORDS: *Entrepreneurs; Social Capital; Financial Inclusion; Sustainable Livelihoods; Community Engagement; Marginalized Communities.*

Introduction

Entrepreneurship is universally acknowledged as a cornerstone of economic development, driving innovation, generating employment, and addressing systemic socio-economic disparities. It is more than just an economic endeavor it represents an empowering force that allows individuals to break free from cycles of dependency, embrace self-reliance, and contribute to societal progress. By fostering creativity and resourcefulness, entrepreneurship has the potential to transform lives, uplift marginalized

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communities, and promote equitable growth. Women's entrepreneurship is particularly significant in this context, as it not only fosters financial independence but also has far-reaching social implications. Empowered women entrepreneurs often become role models, catalysts for change, and contributors to the socio-economic fabric of their communities. For Muslim women in India, entrepreneurship is a pathway to challenging patriarchal norms, redefining gender roles, and asserting their agency in a society that has historically limited their opportunities. This dual role of entrepreneurship as a vehicle for economic growth and social empowerment makes it an indispensable element of sustainable development strategies.

Manipur, situated in India's culturally diverse northeastern region, is a state of immense natural beauty and rich heritage. Its economy primarily revolves around agriculture, supplemented by traditional industries such as handloom, handicrafts, and small-scale enterprises. The state is known for its artisanal skills, with products like the Manipuri saree and bamboo crafts gaining recognition nationally and internationally. However its cultural and economic potential, Manipur grapples with numerous challenges. These include inadequate infrastructure, political instability, and a lack of industrialization, which collectively contribute to high unemployment and low economic growth. Women, particularly from minority communities, often bear the brunt of these socio-economic constraints. The Muslim community in Manipur, forming a small percentage of the population, predominantly resides in rural areas. Muslim women, in particular, face multiple layers of marginalization due to their gender, religion, and socio-economic status. Their participation in economic activities is often confined to informal and unrecognized roles, which limits their potential to contribute meaningfully to the state's economy. However, with appropriate support and opportunities, Muslim women entrepreneurs could play a transformative role in bridging the socio-economic gaps and fostering inclusive growth in Manipur.

Specific Challenges Faced by Muslim Women Entrepreneurs in Manipur

The entrepreneurial aspirations of Muslim women in Manipur are significantly hindered by a combination of cultural, economic, and structural barriers:

- **Cultural and Religious Constraints:** Traditional norms, deeply rooted in both cultural and religious practices, often restrict women's mobility and limit their participation in decision-making processes. These constraints discourage women from pursuing entrepreneurial ventures, confining them to domestic roles.
- **Educational Inequalities:** Many Muslim women in Manipur lack access to quality education and skill development opportunities. This gap not only affects their confidence but also limits their ability to compete in a rapidly evolving business environment.
- **Financial Exclusion:** Access to capital remains a critical barrier. Women often face difficulties securing loans due to a lack of collateral, inadequate financial literacy, and discriminatory practices by lending institutions.
- **Market and Infrastructure Deficiencies:** Poor connectivity, limited access to technology, and inadequate market linkages significantly constrain the growth of women-owned enterprises. Many entrepreneurs struggle to scale their businesses due to these systemic inefficiencies.
- **Social Prejudices and Stereotypes:** Societal attitudes that question women's capabilities as entrepreneurs further exacerbate the challenges. Prejudices against women taking up leadership roles in business create additional psychological and social hurdles.
- **Lack of Policy Support:** While government schemes and programs exist to promote women's entrepreneurship, they often fail to address the specific needs of Muslim women. Awareness of these schemes is also limited in rural areas.

These barriers not only stifle the entrepreneurial potential of Muslim women but also prevent the region from harnessing their contributions to its socio-economic development.

Objectives of the Study

This study seeks to address the critical gaps in understanding and supporting Muslim women entrepreneurs in Manipur. Its objectives are as follows:

- **Identifying and Analyzing Barriers:** Conduct a detailed exploration of the socio-economic, cultural, and structural challenges that impede the entrepreneurial aspirations of Muslim women in Manipur.

- **Exploring Pathways to Empowerment:** Examine how entrepreneurial ventures can serve as a medium for personal and collective empowerment, enabling Muslim women to overcome systemic barriers and achieve socio-economic independence.
- **Providing Actionable Policy Insights:** Offer practical recommendations for policymakers, non-governmental organizations (NGOs), and financial institutions to create a more inclusive entrepreneurial ecosystem.
- **Showcasing Success Stories:** Highlight case studies and success stories of Muslim women entrepreneurs in Manipur to inspire others and demonstrate the potential for positive change.
- **Fostering Inclusive Growth:** Establish the link between empowering women entrepreneurs and achieving broader socio-economic development, emphasizing how their inclusion can drive equitable and sustainable growth in the region.

Literature Review

Women Entrepreneurship in India: A Focus on Minority Communities

Women entrepreneurship in India has gained significant attention due to its potential to address systemic socio-economic inequalities, drive regional development, and promote inclusive growth. Singh and Belwal (2008) emphasize that women-led enterprises in rural and semi-urban areas contribute to job creation and economic diversification. Tambunan (2009) further highlights the critical role of women in the micro, small, and medium enterprises (MSME) sector, noting their significant impact on local economies despite resource constraints. However, women entrepreneurs often face challenges such as limited access to credit, inadequate market linkages, and insufficient policy support. These challenges are more pronounced for women from minority communities. Sarfaraz et al. (2014) reveal that minority women face additional barriers, including social stigma, lack of financial inclusion, and restricted participation in entrepreneurial networks. Ali and Ali (2013) argue that government initiatives like *Stand-Up India* and microfinance programs, while effective in some cases, often fail to cater to the unique needs of marginalized women due to limited outreach and inadequate cultural sensitivity. In the northeastern region of India, infrastructural challenges and socio-economic isolation add another layer of complexity. Ahmed and Das (2018) highlight the logistical difficulties faced by women entrepreneurs in accessing markets and resources. Despite the presence of self-help groups (SHGs) and grassroots organizations, Gupta and Mirchandani (2020) observe that policies aimed at empowering women entrepreneurs remain largely generic and fail to address the unique realities of minority women, particularly Muslim women, in remote areas like Manipur.

Intersection of Gender, Religion, and Entrepreneurship

The intersection of gender and religion offers a unique perspective on the challenges and opportunities faced by women entrepreneurs. Jamali (2009) underscores that cultural and religious norms significantly influence women's participation in entrepreneurial activities. While religious teachings, such as those in Islam, advocate for equity and economic independence, patriarchal interpretations of these teachings often confine women to traditional domestic roles. Roomi and Harrison (2010) observe that Muslim women entrepreneurs frequently navigate these constraints by leveraging familial and community support. Haq and Hafeez (2020) highlight how women in Pakistan overcome socio-cultural barriers through home-based businesses and digital platforms. Similarly, Jabeen and Katsioloudes (2017) discuss the role of culturally sensitive entrepreneurial networks in supporting Muslim women in the Gulf region. In India, the intersectionality of gender and religion remains underexplored, particularly concerning Muslim women. Sharma and Varma (2018) argue that Muslim women often face dual discrimination stemming from both gender and religious identity which limits their access to entrepreneurial ecosystems. The lack of targeted policies addressing this intersectionality is a recurring theme in the literature, highlighting the need for focused interventions, especially in culturally diverse regions like northeastern India.

Gaps in the Literature

Despite the growing body of research on women entrepreneurs in India, the experiences of Muslim women entrepreneurs in Manipur remain largely underexplored. The state's unique socio-political and cultural landscape, characterized by ethnic diversity and economic challenges, demands a focused analysis that is absent in existing literature.

Key gaps include:

- **Lack of Disaggregated Data:** Most studies on women entrepreneurship in Manipur generalize findings without distinguishing between different ethnic and religious groups. Devi and Singh (2019) highlight the importance of collecting data that accounts for intersecting identities such as gender, religion, and socio-economic status.
- **Cultural and Religious Dynamics:** Meitei and Devi (2020) emphasize the role of cultural norms in shaping entrepreneurial aspirations but note the lack of research on how religious identities interact with these norms for Muslim women in Manipur.
- **Access to Resources and Markets:** Ahmed and Das (2018) identify infrastructural and financial barriers as significant constraints for northeastern women entrepreneurs. However, there is little examination of how these challenges specifically affect Muslim women, who often experience additional exclusion from financial systems.
- **Policy Impact and Awareness:** Singh and Devi (2021) argue that while government programs like *Stand-Up India* aim to empower women entrepreneurs, their effectiveness for Muslim women in rural and semi-urban Manipur remains unassisted. Awareness of these programs among marginalized communities is particularly low.

Addressing these gaps is essential for understanding the unique challenges faced by Muslim women entrepreneurs in Manipur. By doing so, this study aims to provide actionable insights into the barriers and opportunities within the region's entrepreneurial landscape, contributing to the broader goal of fostering inclusive economic growth.

Theoretical Framework

Understanding the entrepreneurial journey of Muslim women in Manipur requires a multi-dimensional framework that captures the socio-economic, cultural, and institutional factors shaping their experiences. This study employs three theoretical lenses: Empowerment Theory, Social Capital Theory, and the Sustainable Livelihoods Approach (SLA) to analyze how entrepreneurship empowers individuals, leverages networks, and fosters sustainable economic development.

Empowerment Theory: Entrepreneurship as a Tool for Agency and Transformation

Empowerment Theory, grounded in the work of Kabeer (1999) and Zimmerman (2000), emphasizes empowerment as a process through which individuals gain access to resources, enhance their agency, and exert control over decisions affecting their lives. This theory views empowerment as both a personal and collective phenomenon, where economic independence serves as a catalyst for broader societal change. For Muslim women entrepreneurs in Manipur, empowerment is not merely about economic gains; it is about challenging deeply ingrained cultural norms that restrict their mobility, decision-making power, and public participation. Entrepreneurship provides a platform for these women to assert their agency, improve their socio-economic status, and redefine their roles in family and community settings.

This study applies Empowerment Theory to explore:

- **Economic Empowerment:** How entrepreneurship fosters financial independence, enabling women to support their families and invest in education and healthcare.
- **Social Transformation:** The ways in which empowered women influence societal norms, becoming role models for others in their community.
- **Psychological Empowerment:** The increased confidence and self-efficacy gained through entrepreneurial success.

By emphasizing the transformative potential of entrepreneurship, this study demonstrates how economic empowerment serves as a foundation for broader social and cultural shifts within marginalized communities.

Social Capital Theory: Unlocking the Power of Networks

Social Capital Theory, as articulated by Bourdieu (1986) and Putnam (2000), underscores the importance of social networks, trust, and reciprocity in creating opportunities and facilitating economic activities. In the entrepreneurial context, social capital represents the value derived from relationships, community connections, and shared resources, which are often critical for overcoming barriers. For Muslim women in Manipur, social capital becomes a lifeline in a landscape marked by financial exclusion

and infrastructural deficiencies. Women-led self-help groups (SHGs), informal savings collectives, and cooperative societies provide access to mentorship, financial resources, and emotional support. These networks also enable women to mitigate risks, exchange knowledge, and collectively negotiate for better market conditions.

This study employs Social Capital Theory to examine:

- **Community Networks:** How women leverage local networks to access microfinance, market opportunities, and training programs.
- **Trust and Reciprocity:** The role of mutual trust in fostering collaboration and reducing transaction costs in resource-scarce environments.
- **Collective Empowerment:** The emergence of collective agency within women's groups, allowing them to address shared challenges and advocate for policy changes.

By focusing on the relational dynamics of entrepreneurship, this framework highlights the critical role of social capital in enabling Muslim women to navigate structural constraints and build resilient businesses.

Sustainable Livelihoods Approach: Building Resilience amid Complexity

The Sustainable Livelihoods Approach (SLA), conceptualized by Chambers and Conway (1992), offers a holistic framework for understanding the interplay of assets, vulnerabilities, and institutional dynamics in shaping livelihoods. It identifies five forms of capital—human, social, natural, physical, and financials essential resources that individuals draw upon to achieve sustainable economic stability. For Muslim women entrepreneurs in Manipur, the SLA provides a lens to examine how systemic barriers, such as limited infrastructure, restricted market access, and financial exclusion, affect their ability to sustain and scale their businesses. The entrepreneurial process is framed not only as a means of income generation but also as a pathway to building resilience against socio-economic shocks and uncertainties.

This study applies the SLA framework to:

- **Assess Resource Constraints:** Analyze how the availability (or lack) of financial, human, and physical capital shapes entrepreneurial outcomes.
- **Evaluate Institutional Support:** Examine the role of policies, NGOs, and market linkages in facilitating or hindering sustainable livelihoods.
- **Highlight Adaptation Strategies:** Explore how women entrepreneurs innovate and adapt to local challenges, such as creating home-based businesses or using digital platforms to reach broader markets.

By integrating the SLA, this study underscores the importance of a supportive ecosystem in fostering sustainable entrepreneurship, particularly for marginalized groups in fragile socio-economic contexts.

A Synergistic Framework for Understanding Entrepreneurship in Marginalized Contexts

The integration of Empowerment Theory, Social Capital Theory, and the Sustainable Livelihoods Approach provides a robust and multi-layered framework for analyzing the entrepreneurial experiences of Muslim women in Manipur. Each theory offers a unique perspective:

- Empowerment Theory focuses on individual agency and social transformation through economic independence.
- Social Capital Theory highlights the relational dynamics and network-based resources critical for entrepreneurial success.
- Sustainable Livelihoods Approach addresses the structural and systemic factors that influence the long-term viability of entrepreneurial activities.

Together, these frameworks create a holistic understanding of the factors driving and constraining entrepreneurship among Muslim women in Manipur. They emphasize the interplay between individual agency, community support, and institutional dynamics, providing actionable insights for policymakers, NGOs, and other stakeholders aiming to promote inclusive and sustainable economic development. This synergistic framework not only deepens the theoretical foundation of the study but

also aligns with its practical objectives, offering a comprehensive roadmap for addressing the unique challenges faced by marginalized women entrepreneurs.

Methodology

Research Design

This study employs a quantitative research design to systematically explore the entrepreneurial challenges and opportunities faced by Muslim women in Manipur. The research focuses on evaluating the influence of socio-economic, cultural, and institutional factors on entrepreneurship and its impact on empowering women in this minority community. A cross-sectional survey was utilized as the primary method of data collection, allowing for a snapshot of the current entrepreneurial landscape. The survey included a structured questionnaire designed to capture responses on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). This scale was used to measure variables such as entrepreneurial challenges, access to resources, social capital, and empowerment outcomes. By employing this approach, the study ensures consistency, reliability, and comparability of the data collected from diverse participants.

Sampling

The sampling strategy adopted for this study was stratified random sampling, ensuring equitable representation across different geographic regions and business sectors. The sample included Muslim women entrepreneurs actively engaged in business activities within various sectors such as handloom, handicrafts, agriculture, and retail. Stratification was based on geographic diversity, encompassing urban, semi-urban, and rural areas, as well as the type of enterprise. The study aimed to include a sample size of 150 participants, carefully chosen to achieve statistical precision while capturing the diverse experiences of Muslim women entrepreneurs in the region. This sample size provided adequate representation to identify patterns and relationships across different subgroups.

Data Collection

Data collection involved the distribution of structured questionnaires to participants, either in person or online, depending on accessibility and convenience. The questionnaire comprised multiple sections designed to gather detailed information. The first section focused on socio-demographic details, including age, education, marital status, household income, and business characteristics. The second section explored entrepreneurial challenges such as access to finance, market connectivity, skill development, and cultural constraints. The third section measured empowerment indicators, including economic independence, decision-making authority, and self-confidence, while the fourth section examined social capital dimensions, such as participation in self-help groups, mentorship opportunities, and community networks. Prior to data collection, the questionnaire was pre-tested through a pilot study to ensure its validity, clarity, and relevance. Based on the feedback received during this pre-testing phase, necessary refinements were made to enhance the tool's effectiveness.

Data Analysis

For data analysis, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed as the primary analytical technique. PLS-SEM is particularly effective for examining complex relationships between latent constructs and observed variables, making it ideal for this study's focus on multi-dimensional challenges and outcomes. The analysis followed several stages. The measurement model was assessed to evaluate reliability through Cronbach's alpha and composite reliability (CR), while validity was examined using discriminates validity and convergent validity, with Average Variance Extracted (AVE) as the benchmark. The structural model was then analyzed to evaluate the significance and strength of proposed relationships, using model fit indices such as Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), and Root Mean Square Error of Approximation (RMSEA). Furthermore, mediation and moderation analyses were conducted to explore the mediating role of empowerment in the relationship between entrepreneurial challenges and outcomes and to assess the moderating effects of social capital on entrepreneurial success.

Results

Descriptive Statistics

Descriptive statistics provide a foundational understanding of the central tendencies and variability of the study's core variables. These include entrepreneurial challenges, social capital, and empowerment outcomes, based on responses from 160 Muslim women entrepreneurs in Manipur.

Table 1: Descriptive Statistics

Variable	Mean	Standard Deviation
Entrepreneurial Challenges	4.12	0.84
Social Capital	3.98	0.76
Empowerment Outcomes	4.08	0.81

Source: Results of data analysis (2024)

The findings reveal high levels of entrepreneurial challenges (Mean = 4.12), underscoring significant obstacles faced by respondents, such as limited access to finance, market barriers, and restrictive socio-cultural norms. Empowerment outcomes (Mean = 4.08) indicate that entrepreneurship has had a substantial positive impact on enhancing financial independence, decision-making authority, and social standing among respondents. Meanwhile, social capital (Mean = 3.98) reflects moderately strong community support, highlighting the role of networks, mentorship, and cooperative efforts in entrepreneurial success. The standard deviations indicate moderate variability among responses. Entrepreneurial challenges (SD = 0.84) show the highest variability, suggesting that experiences vary depending on factors such as geographic location, type of business, and individual socio-economic conditions. Similarly, empowerment outcomes (SD = 0.81) and social capital (SD = 0.76) exhibit moderate fluctuations, reflecting diverse access to resources and support networks.

Demographic Sample

The demographic profile of respondents offers critical insights into the characteristics of Muslim women entrepreneurs in Manipur. The mean age of participants was 34.7 years (SD = 7.9), with the majority (70%) being married. Education levels were relatively high, with 52% of respondents holding at least a bachelor's degree. Occupational engagement varied significantly, with 40% involved in traditional industries such as handloom and handicrafts, followed by agriculture (25%), retail (20%), and other entrepreneurial activities (15%). This diversity reflects the multi-faceted nature of entrepreneurship in Manipur, with respondents representing various socio-economic backgrounds and business sectors.

Measurement Model Assessment

To evaluate the reliability and validity of the constructs used in this study; a measurement model assessment was conducted. Factor loadings, Cronbach's alpha, and average variance extracted (AVE) values for entrepreneurial challenges, social capital, and empowerment outcomes are presented below.

Table 2: Measurement Model Assessment

Construct	Factor Loading	Cronbach's Alpha	AVE
Entrepreneurial Challenges	0.814	0.882	0.647
Social Capital	0.798	0.860	0.629
Empowerment Outcomes	0.839	0.893	0.673

Source: Results of data analysis (2024)

The factor loadings exceeded the minimum threshold of 0.70, indicating strong correlations between latent constructs and their observable indicators. Cronbach's alpha values above 0.70 confirm strong internal consistency, while AVE values above 0.50 establish adequate convergent validity. These results confirm the robustness of the measurement model and the reliability of the scales employed in this study.

Structural Model Estimation

The structural model analysis explored the relationships between entrepreneurial challenges, social capital, and empowerment outcomes. Path coefficients, t-values, and p-values are detailed in the table below.

Table 3: Structural Model Estimation

Path	Path Coefficient	t-value	p-value
Entrepreneurial Challenges -> Empowerment Outcomes	0.65	8.43	< 0.001
Social Capital -> Empowerment Outcomes	0.68	7.89	< 0.001

Source: Results of data analysis (2024)

The analysis reveals a strong positive relationship between entrepreneurial challenges and empowerment outcomes (Path Coefficient = 0.65, t-value = 8.43, $p < 0.001$), indicating that overcoming significant challenges enhances women's empowerment by fostering resilience and self-reliance. Similarly, social capital positively influences empowerment outcomes (Path Coefficient = 0.68, t-value =

7.89, $p < 0.001$), underscoring the importance of community networks, trust, and collaboration in facilitating entrepreneurial success.

Mediation and Moderation Analysis

The role of moderators such as business type and community engagement in shaping the relationship between the core variables was examined.

Table 4: Moderation and Mediation Analysis

Moderator	Moderation Effect	t-value	p-value
Business Type	0.48	5.92	< 0.05
Community Engagement	0.55	6.45	< 0.05

Source: Results of data analysis (2024)

The analysis reveals that business type significantly moderates the relationship between entrepreneurial challenges and empowerment outcomes (Moderation Effect = 0.48, t-value = 5.92, $p < 0.05$). Entrepreneurs involved in traditional sectors such as handloom and agriculture experience greater empowerment outcomes compared to those in retail. Community engagement also positively moderates this relationship (Moderation Effect = 0.55, t-value = 6.45, $p < 0.05$), highlighting that greater participation in community initiatives strengthens the empowerment impact of entrepreneurship.

Model Evaluation

Goodness-of-fit indices were used to assess the overall fit of the structural model.

Table 5: Model Fit

Index	Value	Threshold
GFI	0.93	> 0.90
AGFI	0.91	> 0.80
RMSEA	0.06	< 0.08

Source: Results of data analysis (2024) Notes: GFI = Goodness-of-Fit Index, AGFI = Adjusted Goodness-of-Fit Index, accounting for model complexity RMSEA = Root Mean Square Error of Approximation, assessing model approximation to real-world data

The goodness-of-fit indices confirm an excellent model fit. The GFI (0.93) and AGFI (0.91) exceed the recommended thresholds, while the RMSEA (0.06) falls well within the acceptable range. These results validate the structural model, indicating that it accurately represents the relationships between entrepreneurial challenges, social capital, and empowerment outcomes.

Discussion

Positive Impact of Entrepreneurship on Empowerment

The study highlights the transformative role of entrepreneurship in empowering Muslim women in Manipur. The high mean score for empowerment outcomes (4.08) reflects significant improvements in financial independence, decision-making authority, and social recognition among participants. The strong relationship between entrepreneurial challenges and empowerment outcomes (Path Coefficient = 0.65) underscores how overcoming barriers fosters resilience, confidence, and self-reliance. Despite facing structural limitations such as financial exclusion, limited market access, and socio-cultural constraints, these women are redefining traditional roles and contributing meaningfully to their households and communities. These findings align with broader global research that positions entrepreneurship as a catalyst for individual and collective advancement, particularly in marginalized groups.

Role of Social Capital and Community Engagement

The results emphasize the critical role of social capital in facilitating entrepreneurial success. With a path coefficient of 0.68, social capital emerges as a significant driver of empowerment, demonstrating how networks, mentorships, and collaborative groups enable women to access resources, share knowledge, and navigate systemic challenges. The moderating effect of community engagement (0.55, $p < 0.05$) further underscores the importance of participatory approaches, where strong community ties amplify the positive impacts of entrepreneurship. These findings highlight that social networks are not merely support systems but active enablers of growth and sustainability in entrepreneurial ventures. Efforts to enhance community engagement and strengthen social capital could thus multiply the empowerment effects of entrepreneurship in underserved populations.

Implications for Policy and Practice

The insights gained from this study offer valuable implications for policy and practice aimed at fostering inclusive entrepreneurship ecosystems:

- **Promoting Financial Inclusion:** Tailored microfinance initiatives and credit schemes should be prioritized to address the financial challenges faced by women entrepreneurs. Institutions must ensure that these programs are accessible and culturally sensitive.
- **Targeted Skill Development:** Training programs focusing on business management, digital literacy, and sector-specific skills should be implemented to enhance entrepreneurial competencies and competitiveness.
- **Strengthening Community Networks:** Policies that encourage the formation and growth of self-help groups, cooperatives, and mentorship networks can create sustainable support systems.
- **Infrastructure Development:** Investments in transportation, technology, and market linkages are essential to bridging the gap between rural entrepreneurs and broader economic opportunities.
- **Customized Support Mechanisms:** Policymakers should consider the intersectional challenges faced by Muslim women entrepreneurs and design interventions tailored to their specific needs.

Limitations and Future Research Directions

While this study provides significant insights, it has some limitations that should be addressed in future research. First, the focus on Muslim women entrepreneurs in Manipur limits the generalizability of the findings to other regions or demographic groups. Second, the reliance on cross-sectional survey data may not fully capture the dynamic and evolving nature of entrepreneurship and empowerment. Future research could adopt a longitudinal approach to explore the long-term impacts of entrepreneurship on empowerment. Additionally, comparative studies across different cultural, religious, or geographic contexts could provide a deeper understanding of how diverse factors shape entrepreneurial experiences. Investigating the role of digital platforms, technology adoption, and government policy implementation in fostering entrepreneurship among marginalized communities could also offer valuable insights.

Conclusion

This study highlights the pivotal role of entrepreneurship in empowering Muslim women in Manipur, illustrating how entrepreneurial activities provide a pathway for financial independence, enhanced decision-making capabilities, and greater social recognition. By overcoming significant challenges such as financial exclusion, limited market access, and socio-cultural constraints, these women are not only transforming their lives but also contributing to the socio-economic fabric of their communities. The research underscores the importance of social capital and community engagement, revealing that networks and participatory initiatives amplify the positive impacts of entrepreneurship, creating sustainable and inclusive ecosystems. The findings offer actionable insights for policymakers, practitioners, and stakeholders. Targeted interventions, such as financial inclusion programs, skill-building initiatives, and infrastructural improvements, are essential to fostering an environment where entrepreneurship can thrive. The study's emphasis on tailored support mechanisms for marginalized communities, particularly Muslim women, provides a roadmap for addressing systemic barriers and unlocking entrepreneurial potential. While the study is focused on Manipur, its implications extend beyond regional boundaries. The dynamics of overcoming gender, cultural, and socio-economic barriers through entrepreneurship resonate globally, especially in contexts where minority communities face similar challenges.

The integration of Empowerment Theory, Social Capital Theory, and the Sustainable Livelihoods Approach creates a replicable framework that can be applied to other marginalized groups worldwide. Future research could build on these findings by exploring comparative studies across regions or incorporating longitudinal data to capture the evolving nature of entrepreneurship. The inclusion of digital and technological advancements, particularly post-pandemic, could further enhance the understanding of how marginalized communities adapt and innovate in entrepreneurial spaces. This study reaffirms that entrepreneurship is not merely an economic activity but a transformative force that

can redefine social norms, bridge inequalities, and create a more inclusive society. By leveraging the lessons from Manipur, stakeholders globally can work towards empowering marginalized groups, ensuring that the benefits of growth and development reach every segment of society.

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IMPACT OF INFORMATION TECHNOLOGY ON ORGANIZATIONAL PERFORMANCE: AN ANALYTICAL FRAMEWORK

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ABSTRACT

Information technology has become integral to the daily functions of businesses across various sectors. It has facilitated smoother operations by effectively managing costs, overseeing recruitment processes, addressing market volatility, controlling inventory, evaluating employee performance, and resolving employee issues, among other tasks. The advent of technology can also flatten organizational hierarchies by fostering functional relationships that supersede traditional vertical reporting structures. Remote work has enhanced access, engagement, and participation among employees working from various locations. Organizational technology encompasses all human-made tools and processes that modify, enhance, or generate new products and services offered by businesses. This includes electronics, software, documentation, innovative methodologies, or any combination thereof utilized in service delivery. By leveraging technology, organizations can automate processes and enhance communication, leading to faster decision-making and improved productivity. For example, information technology enables businesses to gather, store, and analyze extensive data sets, simplifying the identification of trends and supporting informed decision-making. Technology has also improved communication efficiency, data management, and analysis while fostering collaboration among employees. Furthermore, it has paved the way for new business models and opportunities, enabling organizations to access broader markets and swiftly adapt to evolving customer needs. Information technology has profoundly transformed and continues to influence every facet of our lives, encompassing areas such as commerce and banking, education, employment, energy, healthcare, manufacturing, government, national security, transportation, communications, entertainment, as well as science and engineering. The implementation of information systems can enhance communication within an organization, promote collaboration across various departments and branches, and potentially improve interactions with clients. While technology has significantly contributed to human welfare by boosting prosperity, enhancing comfort and quality of life, and advancing medical progress, it can also disrupt established social structures, lead to environmental pollution, and adversely affect individuals or communities.

KEYWORDS: Organizational, Technology, Communication, Industry, Performance.

Introduction

Investment in Information Technology has been on the rise, yet proving the actual value of these investments remains a significant challenge. Many industrial and service organizations are dedicating substantial resources time, money, and expertise to IT. The gas industry, in particular, has allocated billions to enhance its products and services through technology. Consequently, determining the financial impact of these investments has become a critical concern for executives in the gas sector. They are particularly interested in understanding how IT investments influence their companies' performance

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across various dimensions. Despite the considerable funds directed toward IT recently, evaluating and demonstrating its effects has been quite challenging. Additionally, while some focus on IT investment, others examine IT usage to gauge its impact on different organizational areas. As noted by Crowston and Treacy (1986), a fundamental assumption in Management Information Systems is that IT influences a business's bottom line. Tracing and quantifying the effects of information technology on enterprise-level performance is a complex task due to the numerous intermediate impacts involved. This paper examines existing research focused on the enterprise-level consequences of information systems, particularly studies aimed at measuring these effects. We start with a review of articles published over the past decade.

Organizations' financial outcomes and operational processes are interconnected and can be assessed in various ways (Qin, Atkins & Yu, 2013; Serai, Johl & Marimuthu, 2017). Financial performance typically reflects how effectively an organization operates, illustrating how it converts market products into profitable offerings (Akça, Esen & Özer, 2013). This includes metrics such as return on investment, market share, sales growth, profit margins, and overall sales growth (Jacobs, Droge, Vickery & Calantone, 2011; Qi, Zhao & Sheu, 2011; Wieland & Wallenburg, 2012). Additionally, non-financial indicators, like customer-related metrics, gauge customer satisfaction; market-related measures assess an organization's market success, while operational performance highlights competitive standing in delivering the right quantity and quality of products, service levels, and flexibility (Akça et al., 2013; Blome, Schoenherr & Rexhausen, 2013; Thomas, 2014). The comprehensive Balanced Scorecard (BSC) framework developed by Kaplan and Norton (1992) integrates four perspectives - financial, internal business processes, learning and growth, and customer - to evaluate organizational performance in alignment with its vision and strategy.

Concept of Information Technology

Information technology emerged in the 1990s when computers became vital tools in many areas, meeting the demands of everyday life, business, and education. This change required professionals to create new technologies and build essential infrastructure. Information technology (IT) involves using computers to store, retrieve, send, and process data. It is often seen as part of information and communications technology (ICT). It includes data processing methods, the use of statistical and mathematical techniques for decision-making, and the simulation of complex thinking through software, as mentioned by Chinedu et al. (2018). While it is commonly associated with computers and networks, IT also covers other information technologies like televisions and telephones. Today, many products and services in our society rely on or use information technology, such as computer hardware, software, internet services, telecommunications devices, and e-commerce, as noted by Kashif et al. (2020).

IT and Organizational Performance

The realm of information technology can seem quite daunting. Until the 1980s, the term was mainly associated with computers. In contrast, today, IT includes a wide array of resources, services, career opportunities, and essential technologies. Generally, IT frameworks are divided into three primary categories: computers, multimedia devices, and telecommunications equipment, as observed by Beaumster (1999). Since the 1960s, numerous organizations have embraced Information Technology (IT) mainly for administrative functions like bookkeeping and accounting, as pointed out by Akintunde and Angulu (2015). IT served as a local support system for both internal and external organizational functions, acting as a foundational element within the overall structure. Technological advancements and other developments have significantly enhanced the information technology sector, leading to a substantial increase in its application, as discussed by Peansupap and Walker (2005). In contemporary settings, the importance of information technology cannot be overstated. The evolution of Information Technology has progressed from simple data processing and transaction logging to becoming a crucial competitive advantage that enhances and transforms organizational performance and operations, as noted by Bhattacharjee and Hirschheim (1997). The swift increase in the use of Information Technology has led numerous organizations to re-evaluate their strategies for managing resources and technology to achieve their varied strategic objectives.

Review of Literature

Bazaee (2010) highlights the challenges associated with demonstrating the impact of substantial investments in information technology on organizational performance, despite significant financial commitments in recent years. The literature presents a mixed bag of findings, with some studies indicating positive outcomes while others suggest negative repercussions. This underscores the

necessity of the current research, which investigates the influence of IT investment within the oil and gas sectors of Iran and India. A conceptual framework was developed to clarify the connection between IT investment and organizational performance, particularly within the field of information technology. To evaluate several hypotheses based on this model, data were collected through individual interviews with 200 middle managers from two different companies. These interviews enabled the assessment of various variables within the model. Following this, multiple regression analyses of the gathered data indicated that IT investment positively influenced IT performance in both organizations, with managerial capability acting as a mediating factor in each case.

Jacks et al. (2011) combine their findings into an overarching framework for understanding the influence of IT at the organizational level. The framework categorizes measures of IT's influence on productivity, profitability, and intangible advantages, while the antecedents of IT impact are classified as IT resources, IT capabilities, IT-business alignment, and external factors.

Ramdani (2012) highlights the ongoing challenges firms face in managing Information Technology (IT) investments, primarily due to the difficulties in demonstrating how IT contributes to overall organizational performance. Many of these contributions remain unmeasured because they are hard to quantify. Establishing a connection between IT and organizational success is a multifaceted issue that draws from various theoretical frameworks. This paper aims to give a detailed look at the research done by both academics and industry experts, highlighting the need for new approaches to handle IT investments. First, we will define what IT assets are and why they are valuable for businesses, looking at different ways to measure their business value. Then, we will discuss earlier research on the business value of IT and the emergence of the Productivity Paradox. After that, we will investigate three modern theoretical frameworks: economics, management, and sociology, along with the models and perspectives related to each. Finally, we will suggest some ideas for future research.

Research by Straub in 2015 has looked into various factors that influence how information technology (IT) is governed in organizations. However, it's still not completely clear how IT governance impacts how well an organization performs. We argue that strategic alignment plays a key role in this relationship. Strategic alignment is really important for both business leaders and IT managers, but there hasn't been enough research based on theory to understand what factors are most important for achieving it. This study combines ideas from strategic alignment and IT governance to create a model that shows how IT governance can help create value for organizations. Discovered that strategic alignment completely mediates the effect of IT governance on organizational performance. This study not only helps in developing and measuring concepts in this area but also enriches the theoretical understanding of IT governance and strategic alignment, both of which are essential for reaching organizational objectives.

Ejiaku (2014) emphasizes the significance of Information Technology (IT) in society and investigates the obstacles faced in the transfer and adoption of IT within developing nations. While advanced countries have experienced a transformative impact of IT across various sectors such as technology, business, education, and the global economy, developing nations have not fully engaged in this technological advancement. This paper outlines the challenges that both developing and donor countries face in facilitating IT transfer and adoption, including issues related to government policies, infrastructure, training, and cultural factors in the recipient countries. Additionally, the study proposes potential solutions to these challenges and advocates for the active participation of both the governments and citizens of the recipient nations, as well as the international community.

Sabherwal and Jeyaraj (2015) highlight a paradox in the realm of information technology investment, as research into the business value of information technology (BVIT) yields inconsistent findings, prompting inquiries into the underlying causes of this variability. Kohli and Devaraj (2003) discovered that BVIT tends to rise when studies overlook IT investment, refrain from utilizing profitability metrics, and rely on primary data sources, fewer IT-related precursors, and a more extensive sample size. The dynamics of IT alignment, adoption, and inter-organizational IT collaboration enhance the correlation between IT investment and BVIT, while an emphasis on environmental theories tends to weaken this connection. Notably, factors such as the application of productivity metrics, the variety of dependent variables, the economic context, and the evaluation of IT assets, infrastructure, or sophistication do not significantly influence BVIT. Ultimately, BVIT is observed to grow progressively alongside advancements in IT. The implications for future research and practical applications are thoroughly examined.

Huang et al. (2016) aim to investigate the interconnections between innovation, technology development, quality management, information management capabilities, and organizational performance. Organizations can gain advantages from low levels of diversification, which enhance the efficiency of processing innovative knowledge, or from high levels of diversification, which provide access to extensive information management capabilities that aid in addressing complex challenges and navigating various strategic paths. The findings reveal that a fuzzy set qualitative comparative analysis surpasses multiple regression analysis (MRA) in effectively modeling data characterized by causal complexities. The model encompasses a range of industries and firm types, while also exploring the distinctions among them. The insights derived from this study suggest that members of organizations should strengthen their collaborative behaviors and initiatives to improve their competitive edge.

Arora and Rahman (2017) emphasize that investments in information technology (IT) represent a crucial part of corporate capital spending, as companies consistently look for ways to utilize IT to achieve long-term profitability. However, there is a noticeable lack of empirical studies examining whether IT can provide a sustainable competitive advantage for businesses in major emerging markets like India. Our research indicates that enhanced IT capabilities do not grant a competitive edge to companies operating in India. Additionally, an interesting finding from this study shows that, in recent years, stock markets have valued companies with advanced IT capabilities more highly, even though there is no direct link between these capabilities and increased profitability. This observation has important implications for investors and financial analysts who still hold the belief that IT capabilities can lead to greater profitability for businesses.

Salahshour et al. (2018) focus on thoroughly exploring the advancements in IT adoption research. This paper presents an extensive review of the current landscape of IT adoption research, analyzing 330 articles published in IS-ranked journals from 2006 to 2015. The analysis is concentrated on six key aspects: publication year, underlying theories of technology adoption, research levels, dependent variables, the context of technology adoption, and independent variables. By reviewing related studies, this research offers insights into trends in IT adoption, guiding both practitioners and researchers toward future directions. Additionally, the paper outlines potential research avenues for those interested in delving into technology adoption and summarizes significant findings from prior studies, including statistical insights into factors influencing IT adoption.

Ping et al (2018) in the ever-evolving landscape of business today, organizations encounter a variety of new challenges that heighten the necessity for leveraging their capabilities to achieve sustainable success. This research explores how essential organizational capabilities—specifically information technology (IT) capability, the use of business intelligence (BI), and collaboration capability affect the performance of publicly listed companies (PLCs) on Bursa Malaysia. Additionally, it looks into how environmental volatility moderates these relationships and how strategic agility serves as a mediator. The results reveal that the use of business intelligence and collaboration capability are significant factors influencing organizational performance in Malaysia's emerging market. Conversely, information technology capability does not appear to have a direct effect on performance. Notably, strategic agility plays a mediating role between information technology capability and business intelligence use about organizational performance, while environmental volatility does not seem to influence these relationships.

Tawafak et al. (2018) describe technology-enhanced learning as a process that fosters profound learning experiences and expands knowledge regarding technological tools. Numerous studies have illuminated the advancements in technology and their implications for the educational landscape. The findings of this study highlight the connections between the authors' contributions and the factors they examined. Furthermore, it suggests that future research should focus on the increased integration of technology across various stages of the educational process.

Turulja and Bajgoric (2018) explore the dynamic capability perspective in their study, aiming to establish a conceptual framework that elucidates how a firm's information technology (IT) capability, knowledge management (KM) capability, and human resource management (HRM) capability influence organizational business performance. In the digital age, IT catalyzes transforming all facets of business operations, while knowledge and human resources are increasingly recognized as vital sources of competitive advantage in a global, ever-evolving, and intricate business landscape. The findings underscore the significance of examining the interconnections between various capabilities within firms to support the dynamic capability perspective. This paper highlights the relationships among the key

resources for the digital era: knowledge, HR, and IT, revealing the causes and effects of the relationships between capabilities associated with these resources.

Moradi and Nia (2020) aimed to explore how organizational factors, framed within the technology-organization-environment model, influence the application and characteristics of audit analysis as well as the performance of internal audits. The research focused on identifying the elements that affect the utilization of audit analytics and assessed whether this utilization enhances internal audit performance. Additionally, the size of the organization and auditing standards were found to have a significant positive influence on the performance of audit analysts. Furthermore, functional auditing was shown to positively and significantly affect the level of software auditing analytics, while both functional auditing and audit analysis contributed positively to internal audit performance.

Chege and others (2020) explain that information communication technology (ICT) is a key factor in creating jobs today, as social networking sites allow people to connect and share new ideas. However, the way ICT is used can vary because of different factors, like how innovative entrepreneurs are, which can change how technology affects a company's success. This research looks at how technology innovation relates to business performance in Kenya, focusing on how an entrepreneur's creativity plays a role. The results show that technology innovation has a positive effect on how well a company performs. The study suggests that entrepreneurs should come up with creative strategies to boost their business success. It also recommends that the government work on improving ICT infrastructure, support small and medium-sized enterprises in using technology, and set up ICT resource centers to help these businesses thrive. The findings add to existing knowledge and can help improve business management practices in both rich and developing countries.

VanDerSchaaf et al (2021) study introduces the idea that social influence, along with students' fundamental technology skills, significantly impacts effort expectancy, adding a new dimension to the UTAUT framework. This article contributes uniquely to the existing literature by applying UTAUT within the context of higher education, elucidating the key factors that drive the adoption of software for university services. Furthermore, it offers valuable insights into the application of UTAUT in academic environments and proposes recommendations for its enhancement.

Figueiredo et al. (2021) highlight that data generation is rapidly accelerating, leading to increasingly sophisticated and tailored marketing functions. Businesses are striving to gain insights into both their internal environments and external factors to significantly boost their marketing capabilities. The literature review indicates that in the coming decades, the business landscape, particularly in marketing, will adopt strategies that are more closely aligned with a deeper understanding of consumer behavior. The integration of artificial intelligence, powered by machine learning techniques and Big Data, will play a crucial role in shaping these strategies.

Tajudeen et al. (2022) explore how digitalization vision and important IT strategies like IT flexibility, integration, and agility affect organizations' ability to innovate processes and their overall innovation performance, using the dynamic capability theory. Industry 4.0, digital transformation, and innovation are essential for organizational survival. Previous research has overlooked the influence of digitalization vision and strategic IT elements on process innovation capabilities. This study addresses that gap and investigates these connections. The findings offer valuable insights for managers, highlighting the significance of digitalization and the need to prioritize key IT strategies to enhance process capabilities, which are vital for innovation and performance.

Zhang et al. (2023) emphasize the pivotal role of information technology (IT) by employing the resource-based view (RBV) to explore how IT infrastructure impacts the digital transformation of organizations, particularly through the framework of the digital transformation strategy. Their research indicates that digital transformation strategy acts as a comprehensive mediator in the connection between IT infrastructure and the digital transformation of enterprises. Additionally, the involvement of top management is shown to significantly enhance the relationship between IT infrastructure and digital transformation strategy, as well as the connection between digital transformation strategy and the transformation itself. This study illuminates the vital moderating effect of top management on the relationship between IT and organizational performance, while also underscoring the mediating role of digital transformation strategy in linking IT infrastructure investments to digital transformation results. As a result, this research greatly deepens the understanding of IT's value in business, digital transformation, and strategic management, providing essential insights for managers to re-evaluate the significance of IT and to effectively utilize IT infrastructure investments to boost digital transformation outcomes.

Sutrisno et al (2023) in contemporary times, business organizations extensively utilize information technology to maximize their profits. This research aims to examine and affirm that both information technology and human resources are crucial elements for the success of business organizations in realizing their established vision and mission. These two components are interdependent and cannot be viewed in isolation. When effectively managed by proficient individuals, information technology can significantly influence business growth thereby enriching the discussion and enhancing the overall comprehensiveness of the research.

Rashid et al (2023) discovered a notable impact of information technology (IT) on collaboration within supply chains. Additionally, the involvement of people (PI) was found to have a significant effect on this collaboration as well. Moreover, SCC demonstrated full mediation in these relationships. This research offers a framework that highlights the practices of manufacturing firms, focusing on SCC and OP. The inclusion of "people involvement" emerged as an innovative variable within the tested model, supported by the resource-based view theory. The insights gained from this study can assist professionals engaged in supply chain processes to enhance operational performance.

Sutrisno et al. (2023) study aims to conduct a comprehensive examination of IT's influence on the innovation and expansion of entrepreneurial enterprises. The research will primarily rely on the collection of secondary data from diverse sources, emphasizing a qualitative approach. Data collection methods will include meticulous observation and documentation, followed by the application of analytical techniques such as data reduction, visualization, and inferential analysis to derive conclusions. The findings of this investigation underscore the critical role that IT plays in promoting innovation and growth among entrepreneurial businesses. In the contemporary digital landscape, entrepreneurs need to leverage IT effectively to enhance product development, optimize operational processes, broaden market access, stimulate business innovation, and improve customer experiences.

Gharaibeh et al. (2024) highlight that various significant trends establish a theoretical framework for the use of BA Systems and their impact on organizational performance. By utilizing the Technology-Organization-Environment theory, the researchers crafted a framework aimed at assessing how the enablers of BA Systems usage affect organizational performance, with BA Systems usage acting as a mediator. They also created a survey questionnaire intended for distribution among a selected sample of institutions in Jordan to explore the study's questions and test its proposed hypotheses.

Arshad et al. (2024) study looks into the role of organizational agility as a mediating factor, proposing that agility may serve as a vital link through which IT adoption enhances overall performance. It also considers how the size of the enterprise and the volatility of the market may influence these dynamics. The findings reveal a positive correlation between IT adoption and improved organizational performance, with agility playing a significant mediating role. This research contributes to the existing literature by providing in-depth insights into how SMEs can strategically leverage IT to enhance both performance and agility, particularly in fast-changing market conditions. Additionally, it offers practical guidance for SME managers in crafting IT strategies that align with their goals for agility and improved performance.

Idele & Okoh (2025) in the dawn of the 21st century, a multitude of organizations have embraced information technology as a cornerstone of their operations. This evolution has piqued the interest of researchers, practitioners, scholars, and policymakers alike, all eager to unravel the intricate relationship between organizational dynamic capability and information technology, as well as the influence of digital leadership in bolstering organizational performance and facilitating technological processes. However, there exists a dearth of research concerning the effects of technology on the performance of government agencies. Consequently, this study zeroes in on government agencies within Malaysia. By analyzing data from 131 randomly selected employees, this paper delves into the ramifications of information technology on organizational efficacy. It scrutinizes the contributions of IT Operations, IT Knowledge, and IT Competence to overall performance. Employing SPSS for normality and reliability assessments, alongside descriptive organizational multiple regression analysis, the findings indicate that only IT Competence exerts a favourable influence on organizational performance. Furthermore, the results suggest that the overall impact of information technology on organizational performance is limited, yielding only a modest effect.

Prasetyani et al. (2025) utilize a bibliometric methodology to investigate results of this study are impactful within the academic field. Between 2009 and 2017, there was a notable scarcity of literature addressing technology adoption (digitalization) about SMEs; however, from 2018 to 2023, there has been

a marked increase in relevant publications. Analysis of journals indicates that the journal "Sustainability" has made the most substantial contributions to this body of literature. Furthermore, journals specializing in business, management, and accounting have been the primary sources of research on technology adoption and SMEs. The importance of this research is often assessed based on its potential to alter existing knowledge, facilitate practical applications, or pave the way for future inquiries. Consequently, this study offers fresh insights, highlighting that developed nations, particularly Germany in this context, continue to lead in technology adoption among SMEs and the interplay between business, management, and accounting.

Guo (2025) presents findings that indicate the adoption of Industry 4.0 (I4.0) technologies can lead to a notable enhancement in total factor productivity (TFP) for firms in emerging economies. This improvement is primarily driven by advancements in technological innovation and the reduction of financial constraints. Additionally, the research reveals variability in the impact of I4.0 technology adoption. Specifically, the positive influence on TFP diminishes in scenarios where top management has a long-term focus, firms are state-owned, competition within the industry is minimal, or regional capabilities for manufacturing innovation are robust. This study represents one of the initial efforts to provide empirical insights into the relationship between I4.0 technology adoption and TFP growth in emerging market firms. It broadens the understanding of the organizational performance implications of I4.0 adoption and offers valuable guidance for policymakers in developing nations regarding the implementation of I4.0 technologies.

Emerging Trends in the IT Industry

Globalization and its influence on the global economy significantly shape the IT industry worldwide. There is a persistent and growing demand for technology-driven business transformation, continuous innovation, and technology-centric products and services across various sectors. The trend of off shoring is expected to rise, leading to an increased share of the international technology market for low-cost countries like China, Russia, Vietnam, and Bangladesh. Notably, China has already emerged as the largest exporter of IT goods, outpacing Japan, the European Union, and the United States. The challenges posed by technology are likely to be influenced by the upcoming generation of 'digital natives,' who have been immersed in technology from a young age. This group is fluent in the digital language of computers, video games, and the internet. The emergence of social computing, driven by Web 2.0 technologies, along with the development of new technologies to create and expand networks, will shape future IT products, services, and skill sets.

As 'digital natives' enter the workforce, their impact will transform business operations within the UK IT industry. Additionally, growing environmental concerns will fuel the demand for green IT and sustainable computing solutions. These advancements will also be supported by the convergence and integration of communication technologies, including the use of consumer-oriented products like mobile phones and wireless internet to facilitate remote work in virtual office settings. The urge for 'green IT' and environmental computing is expanding, and it is inextricably related to the 21st-century energy struggle. Other significant social variables impacting the trajectory of the IT sector include the rise of social computing, growing consumer power in determining content and services, and the impact of the new generation of digital natives and the expectations they bring to the workplace and the global market. There will be a greater emphasis on client data and asset protection, risk, compliance, and information security challenges, therefore risk management will likely receive more attention.

Objectives of the Study

- To regulate the Concept of Information Technology and Organizational Performance.
- To determine the emerging trends in the IT industry.
- To find out the influence of organizational performance in the IT sector.

Research Methodology

The methodology employed in the study describes the methods utilized to achieve the study's objectives, which include research design, sample design, data sources, data collecting, data processing, coverage period, and analysis framework. The enormous data has been compiled from primary sources. To present, describe, and interpret such large amounts of data in the current study report, an appropriate research design must be used. The research design chosen for the study is descriptive. The study focuses on primary data obtained through well-designed questionnaires tailored to the research questions. The primary data has been augmented using secondary sources. The relevant secondary

data for the study was acquired from books, journals, websites, reports and journals, magazines, and newspapers. The sample respondents were selected using stratified random sampling. Statistical tools for analysis include percentage analysis, univariate analysis of variance, and factor analysis.

Analysis and Interpretation of Data

Table 1: Percentage Analysis

Category	Classification	Frequency	Percentage
Gender	Male	189	63.6
	Female	108	36.4
	Total	297	100.0
Age	19-29 Years	91	30.6
	30-39 Years	83	27.9
	40-49 Years	64	21.5
	50-60 Years	19	6.4
	Above 60 Years	40	13.5
	Total	297	100.0
Education Qualification	Diploma	108	36.4
	Under Graduate	48	16.2
	Post Graduate	81	27.3
	Others	60	20.2
	Total	297	100.0
Area of residency	Rural	191	64.3
	Urban	106	35.7
	Total	297	100.0
Marital Status	Single	169	56.9
	Married	128	43.1
	Total	297	100.0
How long have you been working for this organization?	0-2 Years	60	20.2
	3-4 Years	95	32.0
	5-6 Years	37	12.5
	7-8 Years	26	8.8
	9-10 Years	46	15.5
	Above 10 Years	33	11.1
	Total	297	100.0
What is your job role/position?	Software Developers	42	14.1
	Network Engineers	83	27.9
	Data Scientists	34	11.4
	CyberSecurity Analysts	20	6.7
	Managers	64	21.5
	Systems Administrators	54	18.2
	Total	297	100.0

Gender of the Respondents

From Table - 1, is evident that among the gender of the respondents, 63.6 percent have male respondents, followed by female respondents with 36.4 percent.

Age of the Suspects

From Table - 1, it is obvious that among the age of the respondents, 30.6 percent of the respondents are 19-29 Years old, followed by 40-49 Years 21.5 percent, trailed by 50-60 Years of respondents have 6.4%, and the remaining age group people have Above 60 Years age people have only 13.5%.

Education Qualification of the Defendants

It can be seen from Table - 1, Education Qualification of the respondents the number of respondents who have a Diploma with 36.4 percent, trailed by Bachelor Degree respondents with 16.2 percent. Master Degree respondents with 27.3 percent and finally 20.2%.

Age of Establishment

Table - 1, highlights the Age of Establishment, the number of respondents with Less than 5 years of experience is 17.8 percent, followed by those 5–9 years of experience with 33.3 percent. The number of respondents who are in the stage 10–15 years of experience with 13.2 percent, followed by 11.2 percent of the respondents belonging to 16 to 20 years, Above 20 years of experience is 24.4%.

Area of Residency

Table - 1, highlights the Area of residency, rural people at 64.3% and the urban people is 35.7%.

Job Role of Employees

Table - 1, highlights the Software Developers is 14.1%, Network Engineers is 27.9%, Data Scientists is 11.4%, Cybersecurity Analysts is 6.7%, Managers is 21.5%, and Systems Administrators is 18.2%.

Univariate Analysis of Variance

- Mid - Mid-p Adjusted Binomial
- OP1-Do you believe that IT has improved communication within the organization?
- OP2-Has IT facilitated better collaboration among employees?
- OP3-Has IT improved the efficiency of your work processes?
- OP4-Has IT helped the organization make better decisions?
- OP5-Has IT enabled the organization to better serve its customers? ,
- OP6-Has IT helped the organization to adapt to changes in the market or industry?
- OP7-Has IT improved the quality of the products or services the organization provides?
- OP8-Has IT helped the organization to reduce costs?
- OP9-Has IT helped the organization gain a competitive advantage?

Table - 2: One-Sample Proportions Tests Organizational Performance

One-Sample Proportions Tests									
	Test Type	Observed			Observed - Test Value ^a	Asymptotic Standard Error	Z	Significance	
		Successes	Trials	Proportion				One-Sided p	Two-Sided p
OP1	Mid	190	297	.640	.140	.028		.000	.000
	Score	190	297	.640	.140	.028	4.816	.000	.000
OP2	Mid	110	297	.370	-.130	.028		.000	.000
	Score	110	297	.370	-.130	.028	-4.468	.000	.000
OP3	Mid	131	297	.441	-.059	.029		.021	.042
	Score	131	297	.441	-.059	.029	-2.031	.021	.042
OP4	Mid	138	297	.465	-.035	.029		.112	.224
	Score	138	297	.465	-.035	.029	-1.219	.112	.223
OP5	Mid	101	297	.340	-.160	.027		.000	.000
	Score	101	297	.340	-.160	.027	-5.512	.000	.000
OP6	Mid	68	297	.229	-.271	.024		.000	.000
	Score	68	297	.229	-.271	.024	-9.342	.000	.000
OP7	Mid	133	297	.448	-.052	.029		.036	.072
	Score	133	297	.448	-.052	.029	-1.799	.036	.072
OP8	Mid	96	297	.323	-.177	.027		.000	.000
	Score	96	297	.323	-.177	.027	-6.093	.000	.000
OP9	Mid	96	297	.323	-.177	.027		.000	.000
	Score	96	297	.323	-.177	.027	-6.093	.000	.000

a. Test Value = .5

Given that the p-value (0.004) is below the significance threshold (0.05), we reject the null hypothesis. This indicates that there is sufficient evidence to conclude that the population proportion differs from the hypothesized value.

Table 3: KMO and Bartlett's Test- Impact of IT on organizational Performance

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.681
Bartlett's Test of Sphericity	Approx. Chi-Square	958.745
	Degrees of Freedom	66
	Sig.	.000

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy scales from 0 to 1, with higher values indicating greater sampling adequacy. A KMO value of .681 is regarded as an ideal threshold. The null hypothesis that the correlation matrix is an identity matrix, with all diagonal members equal to 1 and all off-diagonal elements equal to 0, is tested with Bartlett's Test of Sphericity. To proceed with factor analysis, we must first reject this null hypothesis. These judgments, taken together, constitute a fundamental criterion that must be reached prior to doing factor analysis or principal component analysis.

Communalities		
	Initial	Extraction
Streamlined Processes	1.000	.779
Improved Communication and Collaboration	1.000	.694
Better Data Management and Analysis	1.000	.590
Access to New Markets	1.000	.502
Faster Response to Change	1.000	.523
Enhanced Customer Service	1.000	.633
New Business Models	1.000	.792
Data-Driven Decision Making	1.000	.645
Improved Resource Management	1.000	.383
Investment Costs	1.000	.523
Security Risks	1.000	.776
Employee Training	1.000	.786

- **Commonalities:** The percentage of each variable's variance that may be explained by the components (such as the underlying latent continuum) is referred to as the communalities. It can be defined as the total of the squared factor loadings for the variables and is also known as h^2 .
- **Initial:** When using primary factor axis factoring, the initial values on the diagonal of the correlation matrix are determined by the variable's squared multiple correlation with the other variables.
- **Extraction:** The values in this column indicate how much of each variable's variance can be explained by the components that were kept. Low-valued variables are underrepresented in the common factor space, whereas high-valued variables are.

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.022	25.182	25.182	3.022	25.182	25.182	2.529	21.073	21.073
2	2.048	17.063	42.245	2.048	17.063	42.245	2.159	17.992	39.065
3	1.406	11.716	53.961	1.406	11.716	53.961	1.688	14.065	53.129
4	1.152	9.598	63.559	1.152	9.598	63.559	1.252	10.429	63.559

Extraction Method: Principal Component Analysis.

- **Factor:** The analysis identifies a number of factors that directly correlates with the number of variables considered. However, only the top three factors will be retained, despite an initial identification of twelve.
- **Initial Eigenvalues:** The Initial Eigenvalues indicate the variances linked to each factor. Given that the factor analysis was conducted on a correlation matrix, all variables are standardized, resulting in each variable having a variance of 1. Therefore, the total variance corresponds to the number of variables analyzed, which in this case is 10.

- **Total:** This column presents the eigenvalues, with the first factor consistently accounting for the most variance, thus having the highest eigenvalue. Each subsequent factor captures the remaining variance as effectively as possible, leading to a gradual decline in the variance explained by each additional factor.
- **% of Variance:** This metric shows the fraction of total variance that each factor elucidates.
- **Cumulative %:** The Cumulative % column illustrates the total percentage of variance accounted for by the current factor in conjunction with all preceding factors. For example, the third row shows a cumulative value of 68.313, indicating that the first three factors together explain 66.724% of the overall variance.
- **Extraction Sums of Squared Loadings:** The number of factors retained is represented by the number of rows in this table panel. There are three rows, corresponding to each of the three criteria that were specified for retention. Although these values are based on common variance, they are calculated similarly to those in the left panel. Since the values in this table are derived from common variance, which is always less than total variance, they will invariably be lower than those in the left panel.
- **Rotation Sums of Squared Loadings:** The variance distribution following the Varimax rotation is depicted in this table panel. Varimax rotation redistributes the overall variance.

Rotated Component Matrix ^a				
	Component			
	1	2	3	4
New Business Models	.861			
Data-Driven Decision Making	.786			
Enhanced Customer Service	.724			
Access to New Markets	.565			
Improved Resource Management	.416			
Streamlined Processes		.870		
Improved Communication and Collaboration		.755		
Better Data Management and Analysis		.752		
Employee Training			.885	
Security Risks			.843	
Faster Response to Change				.675
Investment Costs				.667
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				

- **Rotation converged in 6 iterations.**
- **Rotated Factor Matrix:** This table contains the rotational factor loadings, which show the weighting of variables for each factor as well as the relationship between the variables and the factor. Given that they are correlations, the possible values range from -1 to +1. For orthogonal rotations, such as Varimax, the factor pattern and factor structure matrices are identical.
- **Factor:** Columns in this category show the extracted rotated factors. SPSS (a.) gave a footnote indicating that three of the four desired factors were extracted. These are the elements that analysts are most interested in and strive to identify.

The first factor contains New Business Models, Data-Driven Decision Making, Enhanced Customer Service, Access to New Markets, and Improved Resource Management the first factor may be referred to as the "Driving Innovation and Growth". The Second factor contains Streamlined Processes, Improved Communication and Collaboration, Better Data Management, and Analysis Management the Second factor may be mentioned as the "Increased Competitiveness". The third factor contains Employee Training, and Security Risks the third factor may be denoted as the "Challenges and risk". The fourth factor contains a Faster Response to Change, Investment Costs the third factor may be denoted as the "Cost-benefit".

Recommendations and Conclusion

IT organizations should take proactive steps to enhance the emotional intelligence of their employees. This emphasis on emotional intelligence is crucial for cultivating self-awareness, a key element of this skill set. Individuals who possess high self-awareness can effectively assess their behaviours and make necessary adjustments. This awareness not only improves job performance but also encourages better social interactions and networking opportunities. Such understanding can significantly contribute to a healthier work-life balance across different management tiers. Furthermore, implementing job-sharing arrangements can enhance employee satisfaction and productivity.

The strategic use of emotions to elevate performance is an essential aspect of emotional intelligence, involving the ability to direct emotions towards constructive actions and personal success. Organizations that embrace and optimize technological advancements can achieve a competitive edge in today's fast-paced and interconnected environment. The challenge is to strike the right balance between technology and human talent, ensuring that technology serves as a facilitator rather than a replacement for human creativity and skills. By effectively leveraging technology, organizations can drive innovation, improve operational efficiency, and secure long-term success in a competitive marketplace. Individuals who excel in this domain are likely to inspire themselves to pursue continuous improvement. Employees will find new roles both engaging and stimulating, ultimately boosting their performance. Additionally, they will gain insights into various job functions, fostering a deeper appreciation for their work and promoting a healthier work-life balance. It is critical that IT firms focus the development of their employees' emotional intelligence from the start. Furthermore, substantial government financing is required to assure the availability of appropriate IT infrastructure and enhanced power supply. Organizations should also invest in additional backup storage options to protect sensitive data.

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ROLE OF NEP-2020 FOR EARLY CHILDHOOD CARE AND EDUCATION (ECCE)

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ABSTRACT

After the education policy of 1986, it took 34 years to come up with the new education policy 2020. This education policy is very important in making India a world leader in the 21st century. This education policy has made drastic changes compared to the previous education policy. The entire curriculum outline for Early Child Care and Education proposed in the new National Education Policy 2020 is discussed in this research paper. It examines the key provisions, objectives, and challenges related to ECCE in NEP-2020 and discusses its significance in shaping the future of education in the country. From early care and education to all-round development of the child, goals have been suggested. The imperative of education in the mother tongue will prove very useful in achieving the goals of education. Which will do the building work in the development of India. Early Child Care and Education states that a child will start education from the age of three and ensures quality education till the age of eight.

KEYWORDS: National Education Policy -2020, Early Childhood Care, Child Education, Foundational Years.

Introduction

The NEP 2020, Endorsed by the Union Cabinet on July 29, 2020 and its aims to revamp India's education system for the 21st century. (Nadine, 2020). It focuses on several critical areas, including early childhood education, school curriculum, higher education, and vocational training. Education is essential for the economic development of any country. Quality education will greatly help India to emerge as a representative of the world. For India to become a world leader, the need for early childcare and education for a child has been included with special emphasis in the new education policy-2020. The world's largest youth population will be found in India. Therefore, it is important to offer top-notch educational opportunities for a better future. But childhood development and care will determine the direction and future of youth. The new education policy has set a target till 2040 that India should have an education system that provides equal and high-quality education to students of all social and economic status and does not lag behind others. In this new National Education Policy, it is stated that the teachers have to educate the students in such a way that they become good and responsible citizens. The new National Education Policy 2020 covers all aspects of education from the early childhood development of the child to adulthood with quality education. Regardless of the place of residence of students, the new education policy should ensure a quality education system. Particular focus needs to be given to marginalized socially and economically disadvantaged and underrepresented groups. It should ensure that a range of targeted opportunities are available for everyone in the education system.

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Objectives

- To know the strategy formulation for Early Child Care and Education included in the new National Education Policy 2020.
- To Know the significance of early childhood care and education for holistic Development.

Previous policies and committee on ECCE

Our previous education policies, 1968, 1988, and 1992, have largely focused on issues of access and equity. The Committee for Early Childhood Education emphasized the necessity of establishing pre-schools in primary schools after independence in 1953. The Kothari Commission (1964) recommended the establishment of pre-school cantering. The Education Policy of the year 1986 itself weighted for the importance of early child development and education in view of human development. There is a need to focus on integrated and sports-based education for children to accelerate development in the early education sector. The ICDS Integrated Child Development Scheme, the world's largest comprehensive program of ECCE, was established in 1995. (Mithu & Michael, 2010)

National Education Policy 2020

How should a child think in NEP-2020? It is considered important. NEP-2020 emphasizes on physical and mental development of the child along with learning the behaviour of the society. Making the child think logically. According to Naresh, (2021). The 2020 National Education Policy places a high priority on early childhood education and care in order to support students' overall development. Basic literacy, numeracy, higher order thinking skills, critical thinking, problem solving, social and moral development, and emotional intelligence are the main focuses of this new education policy. Early childhood education has been included as a target in the context of the Sustainable Development Goals (SDG). (Boyd et al., 2021). Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030 (National Education Policy, 2020)".

ECCE in its full form includes early childhood care and education. It involves the care and education of young children aged 0-8 years. ECCE is the term for giving all young children health, nutrition and early learning opportunities. Children's physical-motor, cognitive, socio-emotional, and language development all depend on a safe, stimulating environment filled with play-based, developmentally appropriate activities. "The term ECCE is used by UNESCO to denote a holistic vision of early childhood care, development and learning" (UNESCO, 2024). The early years of childhood are crucial for learning because the rate of development is faster than at any other stage of development. During these early years, a child's brain is the most flexible and adaptive for learning. According to Bundy et al., (2017) By the time a child reaches 6 years of age, a child's brain is 85% developed. To ensure healthy brain development and growth, it is crucial to take proper care of your brain during the early years. A child's development during the early years of birth also depends on psychological experiences and environment.

In this new educational framework of the new National Education Policy, the child's development and well-being are given utmost importance in the early years of the child's life. Early education and childcare programs are crucial during the foundational years of a child's growth and development. The early developmental period in a child's development entering adolescence is the basis for motor development, sensory development, cognitive development, language development, emotional development, and social and personal development.

NEP-2020 proposes that the age group from 3 to 06 years before Class-I should attend three years of Anganwadi/Preschool/Balvatika.

In India, preschool education is provided by government, private and NGOs. Early child care education in India and Anganwadi/Balvatika is provided by Integrated Child Development Services (ICDS). ICDS provides a large number of early education and early childcare education.

ECCE Early Childhood Education in our country is provided by the following institutions.

- Kindergarten schools
- Anganwadi
- Anganwadi at primary schools (at age 5 to 6 years)

Revised School Structure**Figure 1: New school Education Structure**

Previous Academic Structure	Nep-2020 Structure	Level
2 (Ages 16-18)	Total 4 years (Class 9 to 12) (Ages 14-18)	Secondary
10 (Ages 6-16)	Total 3 years (Class 6 to 8) (Ages 11-14)	Middle
	Total 3 years (Class 3 to 5) (Ages 8-11)	Preparatory
	Total -5 years 2year (Class 1to 2) (Ages 6-8) 3year (Anganwadi/ Preschool/Balvatika) (Ages 14-18)	Foundational

Note. New Pedagogical structure and curricular structure From New education policy -2020. (p.6), by Government of India, 2020.

As shown figure 1, The educational framework of the new National Education Policy 2020 emphasizes the importance of quality education and holistic development of a child from the age of three.

Figure 2: Early Childhood Care and Education

New education policy -2020 Early Childhood Care and Education		
Nature of Education	Proposed Activity for	Outcomes for
<ul style="list-style-type: none"> flexible multifaceted multilevel game-based activity-based inquiry-based 	<ul style="list-style-type: none"> Comprising Alphabets languages Numbers Counting Colors Shapes Indoor & Outer door Activity logical Thinking Problem Solving Painting Art Craft Drama Puppetry Music 	<ul style="list-style-type: none"> Physical and motor development Cognitive development socio-emotional-moral development communication and early language Literacy and numeracy cultural/artistic development

Note. ECCE in the new Education Policy-2020 From New education policy -2020. by Government of India, 2020.

Objective of ECCE in the new Education Policy-2020

- The main objective of ECCE in the new Education Policy-2020 is to provide education to all.
- quality education for socially and economically disadvantaged.
- All Children should be an equal part of the education system.
- The core of ECCE in education will play a key role in building equity.
- Every child in India will receive quality education by 2030.
- As per NEP-2020, all institutions providing early childcare and education will reach out to children.
- Special focus on areas and districts which are socially and economically backward.

- It is necessary for a child admitted to Class-I to be equipped under ECCE.
- The focus of ECCE is on teaching children how to behave correctly in society.
- Teamwork (cooperation) and mutuality etc. are covered.
- Learning through play means learning in school/Anganwadi through sports.

Educational Goals

- Try the holistic development of children.
- Self-experience will be provided for children to learn skills.
- The child learns by himself.
- To Enhance social participation
- To give encouragement when find creative solutions of problems.
- To provide the necessary environment for social, mental and physical development.
- To develop reading, writing, numeracy skills.
- ECCE is taught through early childhood care and education to strengthen the foundations needed to learn reading, writing and mathematics by age eight.
- Curriculum for Early Childhood Care and Education prepared by NCERT
- The course will consist of ancient local popular art, stories, poetry, games, and songs. The purpose of this course is to serve as a guide for Anganwadi workers, teachers, and parents.
- The successful planning of the ECCE proposed in NEP-2020 requires the training and qualification of teachers. The teacher plays a crucial role in the implementation of ECCE and achieving the goals for future success.

In NEP-2020 the following training as proposed will be provided to train existing Anganwadi workers and teachers in the successful implementation of the curriculum prepared by the NCERT.

- A 6-month certificate course will be conducted for Anganwadi workers / teachers with class 10 +2 or above qualification.
- Those whose educational qualification is less than 10+2 will be given one year diploma course training.
- For Anganwadi Workers/Teachers in this training to avoid disruption in their work they use Smart phones and DTH channels.
- Cluster resource centre of the education department Arranged Guidance program on ECCE.
- After organizing one month training, Continuous evaluation will be conducted.
- The state government will provide training for Anganwadi workers and ECCE teachers through mentoring system and career mapping.

NEP-2020 has proposed facilities to achieve the target of ECCE

- High-quality physical resources will be provided by the government in Anganwadi Centre's, kindergartens, and schools.
- Advanced sports equipment will be provided for physical and mental development.
- The teaching process will be carried out by highly trained staff and teachers.
- Nearby schools will be visited to enhance the admission process and increase the number.
- Guardians, parents will be invited in the program of admission process.
- ECCE will be included in the mid-day meal plan to make the growth and development of the child healthier and more nutritious.
- Health check-up program will be organized to focus on health.

Challenges for ECCE

- Ensuring the quality and standardization of ECCE across diverse regions is a significant challenge. Proper monitoring mechanisms and guidelines are required to maintain quality.

- Many parents and communities may not fully understand the importance of ECCE. A comprehensive awareness campaign is essential to garner support.
- Difficulties in language uniformity as there are students with different mother tongues in the classroom.
- As education in ecce is in mother tongue and regional language there is lack of uniformity in the language of further studies like secondary and higher education standards.
- Continuous monitoring and evaluation are necessary to ensure that ECCE programs maintain their quality and effectiveness.
- As education in ecce is in mother tongue and regional language there is lack of uniformity in the language of further studies like secondary and higher education standards.
- Anganwadi workers/teachers must maintain their service commitment even after training.
- Facilitation of smooth coordination between central and state governments is essential.
- Government scheme of ECCE and need for timely availability of adequate facilities.

Conclusion

The new National Education Policy-2020 will build up platform for India to become a guru to the world. In upcoming time India has the highest youth wealth in the world. The new National Education Policy-2020 is to make an important contribution in shaping the future of India. For that the foundational start i.e., early child care and education will determine the direction of development. For that ECCE includes Indian ancient education system, learning through action, education in mother tongue. The New Education Policy 2020 envisions Early Childhood Care and Education as road map for foundation of child's lifelong learning journey. It seeks to create a nurturing and healthy environment where every child can thrive, learn, and develop to their full potential, thus contributing to the overall progress of the nation. Thus, ECCE will prove to be the cornerstone of India's new National Education Policy-2020.

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EMPLOYEES' WELL-BEING AT THE WORKPLACE

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ABSTRACT

Employee well-being at the workplace has become a key factor in organizational success and sustainability. This paper explores various aspects of employee well-being, including its definition, dimensions, influencing factors, and its impact on organizational performance. We examine psychological, physical, and social well-being, and discuss strategies that employers can adopt to foster a healthier and more engaged workforce. The findings emphasize the role of well-being initiatives in boosting productivity, retention, and job satisfaction.

KEYWORDS: Workplace, Organizational Performance, Social Well-Being, Job Satisfaction, Sustainability.

Introduction

Employee well-being has emerged as a critical factor in fostering a positive and productive work environment. It encompasses various dimensions, including physical health, mental resilience, emotional stability, and overall job satisfaction. In today's fast-paced and highly competitive business landscape, organizations are increasingly recognizing the need to prioritize employee well-being as a strategic imperative rather than just a corporate responsibility. A workplace that actively promotes well-being not only enhances individual employee performance but also contributes to overall organizational effectiveness and long-term sustainability.

As work environments continue to evolve, employees face mounting pressures from increased workloads, tight deadlines, and the demands of maintaining work-life balance. The rise of remote and hybrid work models, coupled with the integration of advanced technologies, has further reshaped the way employees interact with their workspaces. While these changes bring flexibility and new opportunities, they also introduce challenges such as social isolation, digital fatigue, and blurred boundaries between professional and personal lives. Consequently, organizations that implement structured well-being programs and supportive workplace policies tend to experience reduced absenteeism, lower turnover rates, and higher levels of employee engagement and job satisfaction.

Employee well-being is influenced by a multitude of factors, including workplace culture, leadership styles, job design, compensation and benefits, career development opportunities, and the availability of health and wellness programs. Psychological safety, organizational support, and a sense of belonging play equally crucial roles in determining how employees perceive their well-being within the workplace. Research suggests that when employees feel valued, supported, and empowered, they are more likely to contribute positively to organizational goals and demonstrate higher levels of commitment and loyalty.

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This study aims to explore the multifaceted nature of employee well-being by examining its core dimensions, identifying key determinants, and analyzing its impact on both individual employees and organizations as a whole. By reviewing existing literature and empirical evidence, this research seeks to highlight best practices in promoting employee well-being and provide insights into how organizations can cultivate healthier, more resilient, and more engaged workforces. Furthermore, it will evaluate the relationship between well-being and employee satisfaction, demonstrating how investments in well-being initiatives translate into tangible benefits such as improved performance, innovation, and overall business success.

By delving deeper into these aspects, this research contributes to the growing body of knowledge on workplace well-being, offering valuable recommendations for organizations aiming to foster a culture of holistic employee wellness. The findings of this study will provide actionable insights for business leaders, HR professionals, and policymakers to design and implement effective well-being strategies that align with organizational objectives and employee needs.

Understanding Employee Well-Being

Employee well-being is a comprehensive concept reflecting the physical, mental, and social health of employees within the workplace.

- **Physical Well-Being**

Physical well-being emphasizes employees' health and safety, with factors like ergonomics, workplace safety, and healthy lifestyle promotion playing critical roles. Physically healthy employees generally exhibit higher energy levels and reduced absenteeism, benefiting the organization as a whole.

- **Psychological Well-Being**

Psychological well-being involves an employee's mental health, resilience, and job satisfaction. High stress, burnout, and anxiety are threats to psychological health, while supportive work environments and mental health resources can significantly enhance it.

- **Social Well-Being**

Social well-being focuses on the quality of employees' relationships and interactions within the workplace. Positive workplace relationships, a sense of community, and strong interpersonal connections contribute to an individual's social well-being, often resulting in higher job satisfaction.

Factors Influencing Employee Well-Being

Numerous factors can affect employee well-being, either positively or negatively.

- **Workplace Culture**

A positive workplace culture rooted in respect and inclusivity fosters employee well-being. Conversely, toxic work environments, marked by conflict or discrimination, harm employees' mental health and reduce morale.

- **Work-Life Balance**

A balance between work and personal life is critical for reducing employee stress. Organizations promoting flexible hours and remote work help employees manage their responsibilities, enhancing overall well-being.

- **Leadership and Management**

Empathetic and supportive leadership contributes significantly to employee well-being. Effective leaders create a positive environment, while poor leadership often leads to stress, disengagement, and dissatisfaction.

- **Job Design and Workload**

Clear job roles and manageable workloads can enhance employee satisfaction. Overly demanding or ambiguous job responsibilities may lead to burnout, while roles that allow for autonomy and purpose contribute positively to well-being.

Impact of Well-Being on Organizational Performance

Employee well-being is closely related to critical organizational outcomes, including:

- **Productivity**

Healthy employees tend to be more productive, with well-being correlating positively with focus, task completion, and engagement.

- **Retention and Turnover Rates**

Organizations that prioritize well-being experience lower turnover, as employees are more likely to stay with employers who value their health, thus reducing recruitment and training costs.

- **Job Satisfaction**

Workplaces focused on well-being report higher job satisfaction, with employees feeling more valued and loyal to their employers.

- **Reduced Absenteeism**

Investing in well-being reduces absenteeism as healthier employees are less likely to miss work due to physical or mental health issues.

Strategies to Promote Employee Well-Being

Organizations can adopt various strategies to enhance employee well-being:

- **Employee Assistance Programs (EAPs)**

EAPs offer resources like counseling and financial advice, helping employees manage stress and personal challenges that might impact work performance.

- **Wellness Initiatives**

Programs promoting physical health, such as fitness centers and health screenings, contribute significantly to well-being. Incentives for healthy behaviors are also effective.

- **Flexible Work Arrangements**

Options like remote work, compressed schedules, and part-time roles help employees maintain a better work-life balance without compromising job performance.

- **Leadership Development and Training**

Training leaders to be more empathetic and communicative helps create a healthier work environment. Effective leadership is key to fostering positive relationships that impact well-being.

- **Promoting a Positive Work Culture**

Organizations can foster social well-being by encouraging team-building, recognizing achievements, and promoting diversity and inclusion.

Challenges in Implementing Well-Being Programs

Despite their benefits, well-being programs can be challenging to implement.

- **Cost Constraints**

Well-being programs require financial resources, which can be challenging for some organizations. However, the long-term benefits of reduced absenteeism and turnover can justify the investment.

- **Employee Engagement**

Encouraging participation in well-being programs can be difficult. Tailoring programs to employee needs and providing incentives can help improve engagement.

- **Sustainability of Programs**

Maintaining the relevance and impact of well-being initiatives requires continuous assessment and adjustment.

Research Methodology

This study employs a mixed-methods research approach to comprehensively analyze employee well-being and its impact on organizational success. The research provide a well-rounded understanding of the factors influencing employee well-being and the strategies organizations use to enhance it.

Research Design

A descriptive research design is adopted to explore the dimensions of employee well-being, assess influencing factors, and analyze its effects on employee satisfaction, retention, and productivity. The study relies on both primary and secondary data sources to achieve a comprehensive understanding of the topic.

Data Collection Methods

• Secondary Data Collection

A thorough literature review of scholarly articles, industry reports, HR policies, and existing studies on employee well-being will be conducted.

Statistical reports from government agencies, international organizations (such as the WHO and ILO), and workplace well-being research centers will be examined to understand global trends and best practices.

• Ethical Considerations

- The research will adhere to **ethical guidelines** to ensure data integrity and participant privacy.
- *Limitations of the Study*
- **Time constraints** may limit the depth of qualitative interviews.
- The findings may not be **generalizable** to all industries due to variations in workplace culture and policies.

This research methodology ensures a structured and rigorous approach to studying employee well-being, providing valuable insights for organizations seeking to enhance workplace health and productivity.

Data Analysis

Employee well-being is a fundamental pillar of organizational success, encompassing physical, psychological, and social dimensions that collectively influence an employee's overall experience at work. A workplace that actively fosters well-being not only enhances individual performance but also strengthens the overall organizational culture, driving sustainable growth and long-term success. In an era where employees are expected to navigate dynamic work environments, rising job demands, and evolving technological landscapes, organizations that prioritize well-being are better positioned to attract, engage, and retain top talent.

Investing in employee well-being yields significant benefits, including higher job satisfaction, reduced absenteeism, lower turnover rates, and increased productivity. A workforce that feels physically energized, mentally resilient, and emotionally supported is more likely to be engaged, motivated, and committed to organizational goals. Furthermore, companies that foster a well-being-focused culture experience enhanced teamwork, stronger interpersonal relationships, and higher levels of innovation, as employees feel valued and empowered to contribute meaningfully.

Conclusion

Ultimately, the commitment to employee well-being should not be viewed as an isolated corporate initiative but rather as an integral part of an organization's long-term strategic vision. Businesses that embed well-being into their core values and operational frameworks will not only thrive in competitive markets but also create workplaces that inspire loyalty, purpose, and fulfillment among employees.

Through this research, it is evident that prioritizing employee well-being is not just a moral or ethical responsibility but a key driver of business excellence. As organizations continue to embrace a well-being-centric approach, they will unlock new opportunities for growth, resilience, and long-term sustainability, ensuring that both employees and the organization flourish together.

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बिहार के ऐतिहासिक पर्यटन केन्द्र वैशाली: एक भौगोलिक अध्ययन

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प्रस्तावना

मुख्यतः 'पर्यटन' अर्थशास्त्र से संबन्धित शब्द है जोकि एक उद्योग का द्योतक है। यह एक आर्थिक एवं सामाजिक क्रिया है (It is a social phenomenon with economic consequences)। अन्य आर्थिक क्रियाओं की तरह इससे मांग की उत्पत्ति होती है तथा अन्य उद्योगों के लिए बाजार (Market) प्रदान करती है। पर्यटन (Tourism) शब्द के अन्तर्गत वे समस्त व्यापारिक क्रियाएँ सम्मिलित हैं जो कि यात्रियों की आवश्यकताओं की पूर्ति करती है।

पर्यटन आज विश्व का सबसे बड़ा एवं सबसे तीव्र गति से विस्तार करने वाला उद्योग है। इसके विस्तृत बाजार का सीमांकन नहीं किया जा सकता। यूनाइटेड चैम्बर्स ऑफ कामर्स के अनुसार, किसी भी क्षेत्रीय प्रान्तीय या सामुदायिक विकास कार्यक्रम के लिए पर्यटन की उन्नति एक मुख्य संचालन है।

पर्यटन एक श्रमिक कृत उद्योग है और साधारण उत्पादक उद्योग की तुलना में कई गुना अधिक रोजगार प्रदान करता है। कितनी ही प्रकार की व्यापारिक कम्पनियाँ जैसे होटल, रेस्तरा, ट्रेवेल एजेंट्स, टूर ऑपरेटर्स, उपहार विक्रय केन्द्र, परिवहन आदि पर्यटन डॉलर का एक बहुत बड़ा अंश अर्जित करता है। पर्यटन विस्तार के समर्थन पर्यटन द्वारा अर्जित विदेशी मुद्रा की तरफ इशारा करते हैं। पर्यटन ही एक ऐसा निर्यात व्यापार है जो बिना राष्ट्रीय संसाधन का ह्रास किए हुए और वास्तविक तौर पर माल का निर्यात किए बिना एक बहुत बड़ी विदेशी मुद्रा अर्जित करता है। एक महत्वपूर्ण तथ्य यह है कि "पर्यटन एक बिना धुएँ वाला उद्योग (Smokeless Industry) है जो पर्यावरण को सुरक्षित करने का एक पर्यायवाची है।"

पर्यटक

यात्रियों के दो प्रकार होते हैं— अन्तर्राष्ट्रीय यात्री एवं आन्तरिक (देशी) यात्री। विदेशी यात्री जोकि अपने देश के बाहर की यात्रा करते हैं। वे अपना समय पर्यटक स्थलों के दूढ़ने में व्यतीत करते हैं। सुन्दर दृश्य एवं आकर्षण उनके लिए नवीनतम चीजें हैं।

आन्तरिक या स्वदेशी पर्यटक वे हैं जो कि अपने ही देश में भ्रमण करते हैं। ये अपने सम्पूर्ण ठहरने की अवधि के लिए प्रायः पूर्व निर्धारित स्थान पर जाते हैं। सामान्यतया ये यात्री रेल या हवाई परिवहन प्रयोग करते हैं। आमतौर पर जो जगह-जगह भ्रमण करते हैं। वे मोटरिस्ट होते हैं।

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अध्ययन का महत्व

बिहार के बँटवारे के बाद बिहार में विद्यमान अनेक पर्यटन संभावनाओं को विकसीत कर पर्यटन का काफी विकास किया जा सकता है। इससे इस राज्य का पर्याप्त आर्थिक विकास संभव है। विदेशी मुद्रा प्राप्त होगा। रोजगार में वृद्धि होगी। सांस्कृतिक एवं सामाजिक आदान-प्रदान से विश्व बन्धुत्व की सद्भावना बढ़ेगी।

- **वैशाली :-** का जिक्र किए बिना बिहार व भारत के इतिहास की कल्पना नहीं की जा सकती। वैशाली की भूमि ने भारत ही नहीं वरन विश्व को प्रजातंत्र की सौगात सौपी है। इस भूमि ने ही गणतंत्र को दुनिया के सामने उद्घाटित किया। बिहार के धार्मिक व ऐतिहासिक महत्व की बात करते ही वैशाली का नाम सबसे पहले जुबान पर आता है। यहां कायम तीर्थ स्थल हिन्दू, बौद्ध व जैन धर्मावलंबियों के लिए बेहद महत्वपूर्ण है।

यहां का कण-कण दर्शनीय व वंदनीय है कहा जाता है कि ऋग्वेद की रचना इसी भूमि पर की गयी थी, और तो और यह भी मान्यता है कि देवताओं व दानवों ने समुद्र मंथन का यहीं निर्णय लिया था। वैशाली में ही विश्व के सर्वप्रथम गणतंत्र की स्थापना हुई थी। यहां की लिच्छवी गणराज्य संसार का पहले प्रजातंत्र के रूप में प्रसिद्ध था। शांति, एवं अहिंसा के दो अवतार भगवान बुद्ध व महावीर को वैशाली बहुत प्रिय था। महावीर ने तो यहां जन्म ही धारण किया वहीं बुद्ध अपने जीवनकाल में यहां कई बार आये। भगवान राम भी इसी भूमि पर पधारे थे व यहां की भव्यता देख उन्होंने इस नगरी की तुलना स्वर्ग लोक से की थी।

पटना से उत्तर दिशा की ओर गंगा नदी के पार लगभग 55 किमी पर वैशाली अवस्थित है। मौजूदा समय में यह जिला, लोकसभा व विधान सभा क्षेत्र भी है। भारत ही नहीं वरन विश्व के पैमाने पर वैशाली के इतिहास को बहुत ही महत्वपूर्ण स्थान प्राप्त है। यहां का समृद्ध व गौरवशाली इतिहास लोगों को हमेशा से आकर्षित कर प्रेरणा देता रहा है। प्राचीन काल में यहाँ की शासन व्यवस्था तथा अध्यात्म बेहद समृद्ध था। यहाँ के लिच्छवियों ने गणतांत्रिक शासन प्रणाली का सूत्रपात कर अनोखा प्रयोग कर डाला। इसी व्यवस्था का कालांतर में डंका बजा व आज भारत समेत विश्व के अधिकांश देश इस व्यवस्था के तहत शासित हो रहे हैं। वैशाली में जैन धर्म के चौबीसवें एवं अंतिम तीर्थंकर भगवान महावीर ने जन्म लिया तो वहीं भगवान बुद्ध के यहाँ बारंबार आगमन और संबोधन ने संसार को शांति से जीने के लिए प्रेरित किया। प्राचीन काल में वैशाली नगर के लिए विशाल और वैशाली दो नाम प्रयुक्त किये गये हैं। कई पौराणिक ग्रंथों में इसके नामकरण में राजा विशाल का जिक्र आता है। इस नगर को बसाने का गौरव उन्हें ही प्राप्त है। हालांकि बौद्ध साहित्य में आये जिक्र के अनुसार वैशाली के नामकरण का कारण इस नगर का कई बार विस्तार है। नगर को बड़ा अथवा विशाल करने के कारण भी इसे विशाल कहा जाने लगा।

भगवान बुद्ध के समय यह नगरी बहुत समृद्ध एवं वैशाली शक्तिशाली मानी जाती थी। यह वज्जिग राज्य की राजधानी थी। यहाँ कई भव्य सोने, चांदी व तांबे के बने गुंबदों वाले भवन हुआ करते थे। जिनमें इसकी हैसियत के हिसाब से लोग निवास करते थे। बताया जाता है कि वैशाली के प्रथम भाग में सोने जड़े गुंबद वाले 9000 भवन, द्वितीय भाग में चांदी से जड़े गुंबदों वाले 14000 भवन एवं तृतीय भाग में तांबे से जड़े गुंबदों वाले 21000 भवन कायम थे। इनमें क्रम उच्च, मध्य एवं साधारण कुल के परिवार निवास करते थे। तब के वज्जियों राज्य की शक्ति अन्य गणराज्यों से बेहद अधिक थी। इसका कारण इनके बुद्ध के समीप होना बताया जाता है। लोग भगवान बुद्ध के उपदेश से बेहद प्रभावित थे एवं बुद्ध भी यहाँ के लोगों की परंपराओं, व्यवहारकुशलता, सुशासन व्यवस्था आदि के प्रशंसक थे तथा इन्हें अपना आशीर्वाद दिया करते थे। वे कहते थे कि यहाँ की न्याय प्रणाली वज्जिसंध के आधार पर ही अपना भिक्षु संध व शिमुंगों संध की स्थापना कर डाली। भगवान बुद्ध ने संभवतः यहाँ दो वर्ष वास भी किया तथा संध के कई नियमों का ही प्रतिपादन किया। बुद्ध के विचारों से प्रभावित होकर यहाँ के काफी लोगों ने बौद्ध धर्म अंगीकार किया। इनमें यहाँ की नगरवधु आम्रपाली भी शामिल थीं। इन लोगों को बुद्ध ने दुख से छुटकारा दिलाने के सम्वक वाणी, दृढ़ संकल्प, कर्म की प्रधानता

आदि के उपाय बतायें। बुद्ध ने उपदेश दिया कि क्रोध को प्रेम से पाप को सदाचार से, लोभ को दान से जीता जा सकता है।

जैन धर्म के चौबीसवें तीर्थंकर भगवान महावीर का जन्म भी वैशाली के कुण्डग्राम में ही हुआ था! मान्यता है कि जन्म के तीस वर्ष बिताने के बाद इन्होंने गृह त्याग कर दिया व फिर बारह वर्षों की कठिन तपस्या के बाद ज्ञान प्राप्त कर वे महावीर बन गये।

चैत्र शुक्ल त्रयोदशी को उनकी जयंती पर अब यहाँ सरकारी स्तर पर वैशाली महोत्सव का आयोजन किया जाता है। इसमें प्रसिद्ध कलाकारों की भागीदारी होती है।

वैशाली के प्रसिद्ध दर्शनीय स्थल

वैशाली के प्रसिद्ध दर्शनीय स्थलों तो कई हैं, लेकिन इनमें कोल्हुआ गांव में भीमसेन की लाठी अर्थात् अशोक स्तंभ, बावन पोखर मंदिर, चौमुखी महादेव मंदिर, मोरन की दरगाह, शांति स्तूप और वैशाली संग्रहालय आदि की बात ही निराली है। इनके आकर्षण के वंशीभूत सालों भर पर्यटकों का यहाँ ताँताँ लगा रहता है।

- **राजा विशाल का गढ़:** सामान्य सतह से लगभग 10 फीट की ऊँचाई पर स्थित इस गढ़ की कई बार खुदाई की गयी व इस दौरान यहाँ से कई प्राचीन अवशेष की प्राप्ति हुई। यहाँ से वैशाली के तीन युगों की जानकारी मिलती है।
- **अशोक स्तंभ:** यह सम्राट अशोक द्वारा बनवाया गया प्रसिद्ध सिंह स्तम्भ है। लाल पत्थरों में 18.3 मीटर ऊँचे इस स्तंभ को अशोक स्तंभ कहते हैं, तथा इसके चोटी पर सिंह की प्रतिमा स्थापित है।
- **कम्पन छपरा का चौमुखी महादेव:** यहाँ शिवलिंग की चौमुखी प्रतिमा स्थापित है, जो संभवतः यह गुप्तकालीन है। **अभिषेक पुष्पकरण:** इस तालाब के बारे में मान्यता है कि इसके जल से ही यहाँ के शासकों का राज्याभिषेक किया जाता था। बौद्ध साहित्य में इस पोखर के बारे में विस्तार से वर्णन मिलता है।
- **रैलिक स्तूप:** भगवान बुद्ध के निवारण व लिच्छवियों के हिस्से आई उनके शरीरावशेष का प्राप्ति यहाँ से हुई थी। पत्थर की मंजूषा में वे भस्म व मनके आदि मिले जिन्हें फिलहाल पटना संग्रहालय में सुरक्षित रखा गया है।
- **संग्रहालय:** वैशाली के इतिहास से जुड़ी प्राचीन अवशेष व कलाकृतियाँ यहाँ संग्रहित की गयी हैं। यहाँ आने वाले पर्यटक इसके दर्शन से क्षेत्र की जानकारी प्राप्त करते हैं।
- **बौना पोखर:** यहाँ स्थित मंदिर में गुप्त व पालकालीन काली मूर्तियाँ देखने योग्य हैं।
- **मोरन जी की दरगाह:** हिन्दुओं व मुसलमानों के लिए यह अत्यंत ही पवित्र स्थान है। यहाँ दूर-दूर से श्रद्धालु आते हैं एवं मन्नते मांगते हैं।

तालिका 1: वैशाली में पर्यटकों का आगमन 2010-2023 तक

क्र.सं.	वर्ष	देशी पर्यटक	वृद्धि (+) ह्रास (-)	आगमन विदेशी पर्यटक	वृद्धि (+) ह्रास (-)
1.	2010	967	5,357
2.	2011	2,062	+ 1,105 (+115.45 प्र0)	4,544	-813 (-15.18)
3.	2012	10,991	+ 8,929	5,131	+587 (+435.03)
4.	2013	11,081	+ 90 (+0.82)	4,599	-532 (-10.37)
5.	2014	9,361	- 1,720 (- 15.52)	7,594	+2,995 (+65.12)

6.	2015	10,983	+ 1,622 (+17.33)	7,710	+136 (+1.53)
7.	2016	12,031	+ 1,048 (9.54)	7,980	+270 (+3.50)
8.	2017	13,115	+ 1,084 (+0.90)	7,827	-163 (-2.04)
9.	2018	16,921	+ 3,806 (+29.02)	8,377	+560 (+7.16)
10.	2019	18,911	+ 1,990 (+1.18)	7,631	-756 (-8.90)
11.	2020	21,873	+ 2,962 (+15.66)		+1,279 (+16.76)
12.	2021	25,109	+ 3,216 (+14.79)	9,709	+799 (+8.77)
13.	2022	29,403	+4,294 (+17.10)	9,971	+262 (+2.70)
14.	2023	38,907	+ 9,504 (+32.32)	10,701	+730 (+7.32)
15.	2010-2023		+ 37,940 (+3,923.17)		+5,344 (+99.76)

स्रोत:- 1 टुरिस्ट, इनफोरमेशन आफिस,
2 होटल, धर्मशाला तथा लॉजेज एवं
3 स्वयं का आकलन।

निष्कर्ष

बिहार राज्य के बँटवारे के बाद अधिकतर खनिज- संपदा एवं उद्योग-धंधे झारखण्ड राज्य में चले गये, पर हमारा शेष बिहार सांस्कृतिक धरोहर से परिपूर्ण है। उन्हें और विकसित कर तथा आकर्षणयुक्त बना कर अधिक से अधिक देशी व विदेशी पर्यटकों को आमंत्रित किया जा सकता है। वास्तव में बिहार राज्य का विकास पर्यटन के विस्तार में निहित है।

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ASSESSING THE ROLE OF ENTREPRENEURSHIP IN WOMEN'S ECONOMIC EMPOWERMENT IN KAMRUP, ASSAM

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ABSTRACT

Women's economic empowerment largely depends on entrepreneurship as a primary agent in developing regions worldwide. This research investigates the differences between women's economic empowerment through entrepreneurship between Kamrup's rural and urban spaces in Assam. A quantitative research design enabled the collection of data through structured questionnaire surveys among women entrepreneurs within each setting. The research reveals that women entrepreneurs experience varying levels of financial opportunity together with business possibilities as well as socio-cultural obstacles based on their rural or urban locations. The research shows that women entrepreneurs based in urban areas obtain greater financial institution access as well as public schemes and digital commercial marketplaces than women in rural areas who depend mainly on Self-Help Groups (SHGs) and microfinance institutions. The combination of social challenges and inadequate infrastructure indicates that enterprise development faces more obstacles in rural parts compared to urban centers. The growth of entrepreneurship has produced better financial outcomes while giving women enhanced power in making decisions and better social positioning in both regions despite existing difficulties. This research emphasizes the requirement of financial inclusion policies coupled with skill development programs as well as market accessibility initiatives to close the urban-rural difference in women entrepreneurship. Enhanced cooperation between public authorities and private businesses will improve women's entrepreneurial engagement which produces long-term economic growth for Assam.

KEYWORDS: Women Empowerment, Economic Growth, Rural-Urban Comparison, Financial Inclusion.

Introduction

Women's economic and social development depends fundamentally on entrepreneurship because it powers regional economic development alongside societal evolution particularly in nations which experience substantial gender differences in business leadership and economic freedom (Swargiary & Roy, 2023). Women encounter varied entrepreneurial possibilities according to the specific ecosystem conditions which control their access to funding as well as market networks and digital infrastructure (Dutta & Radha, 2022). Indian government programs Startup India together with MUDRA scheme and women-targeted microfinance initiatives help promote women entrepreneurship across the country but face substantial barriers in rural areas according to Kar & Roy (2022). The northeastern Indian state of Assam demonstrates a distinct scenario for evaluating how entrepreneurship assists female empowerment specifically through Kamrup district analysis between its urban and rural areas.

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The greater accessibility that city-based women entrepreneurs enjoy through formal banks and digital marketplaces and support programs also exists for rural female business owners through community networks and self-help groups and informal banking (Sharma, 2021). Women entrepreneurs from urban areas benefit from better economic opportunities compared to their rural counterparts due to barriers that hinder complete empowerment of women through financial inclusion and infrastructure development and skill-building programs (Sarma & Devi, 2020). Data shows that both restricted access to banking and ignorance of government programs impede women entrepreneurs from expanding their businesses especially in rural zones where banking services are not easily available (Hazarika, 2020). Urban women face greater advantages than rural women due to the digital divide because they own more smartphones and access the internet more often as well as participate in online business activities in higher frequencies (Sharma & Das, 2021). Urban women business owners leverage digital tools for online business growth beyond local markets but rural women face difficulties due to insufficient internet access and shortage of digital proficiency training (Dutta, 2016). The ongoing influence of social and cultural factors blocks rural women from starting businesses because they meet resistance from their families and face social stigma as well as safety risks (Deogharia, 2020). The combination of traditional gender norms and community customs in rural areas creates barriers for women to move freely or exercise independent decision-making which reduces their opportunities to start business ventures at urban levels (Mahanta, 2016). Research confirms that insufficient transportation facilities together with a lack of business development centers have a direct negative impact on rural women entrepreneurs by restricting their market presence and their ability to make business connections (Saikia & Baruah, 2017). The favorable public policies and economic integration benefits urban business owners in expanding operations but rural women entrepreneurs must maintain their market focus on local areas following community-based business approaches because it restricts their business expansion (Saikia, 2017). Through entrepreneurial activities women develop better economic empowerment that boosts financial independence and expands their decision-making power while increasing their social position (Devi & Goswami, 2014). Studies in Assam demonstrate women entrepreneurs achieve enhanced self-confidence plus better authority over family money and community projects (Borah, 2014). The full potential of women-led businesses to empower women needs systemic changes between rural and urban areas and business-friendly settings (Ganapathy and Mayilsamy, 2013). Supporting women's financial education programs alongside digital expansion and specific policies will boost their entrepreneurship drive and promote equal economic development in Kamrup (Janaki, Haree, & Veerasamy, 2013). Studies show that female business owners grow stronger and run longer when they join mentorship programs learn business practices and win official funding (Iuliana, Carmen, & Alexandrina, 2016). Creating partnerships between public and private organizations plus opening incubators led by women combined with fair gender policy updates will boost female entrepreneurial energy in Assam according to Kanchana, Divya and Beegom (2013), studies. Through entrepreneurship women in Assam have chances to boost their strength but this path needs targeted actions to help women deal with present economic and social barriers. (Taskov, Dzaleva, & Metodijeski, 2011).

Literature Review

A strong entrepreneurial ecosystem supports women's empowerment by giving them resources to grow their business ideas both online and offline plus funding assistance. Swargiary and Roy (2023) note that women business owners in Assam struggle to grow their operations because they cannot access proper business training and funding. Dutta and Radha (2022) note that work-life equilibrium directly affects women business owners because their family obligations limit business development chances. analyze self-reliance microfinance practices in Barak Valley showing how rural women business owners depend on informal financial services since traditional banks are not accessible.

Sharma (2021) reveals that urban women developers in Guwahati have better access to businesses through financial institutions, government platforms, and e-commerce compared to rural women who depend on self-help groups and local lenders. The research of Sarma and Devi (2020) study showed how digital disputes and poor infrastructure block rural Assam female enterprises from growing. According to Hazarika (2020) rural women struggle to expand their businesses due to insufficient government business support.

On the other hand, Sharma and Das (2021) focus on the digital divide, showing how urban women entrepreneurs leverage digital marketing, e-commerce, and fintech solutions, while rural women struggle due to internet inaccessibility and inadequate digital training. Dutta (2016) supports this

perspective by revealing that women with access to digital tools are more likely to grow their businesses beyond local markets, Deogharia (2020) examines social barriers and finds that traditional gender roles, family restrictions, and community opposition limit women's business expansion, especially in rural areas.

Mahanta (2016) and Saikia and Baruah (2017) emphasize infrastructural deficiencies such as transportation, workspace availability, and business centers, which disproportionately affect rural women entrepreneurs. Saikia (2017) identifies that urban women enjoy greater policy advantages and business incentives, while rural women remain confined to localized markets. Despite these challenges, Devi and Goswami (2014) and Borah (2014) highlight the positive impact of entrepreneurship on women's financial independence, decision-making authority, and community leadership.

Ganapathy and Mayilsamy (2013) and Janaki, Haree, and Veerasamy (2013) suggest that targeted financial literacy programs and entrepreneurial training can significantly enhance business sustainability for women entrepreneurs. Iuliana, Carmen, and Alexandrina (2016) emphasize the importance of mentorship and business development training in improving women's business survival rates. Kanchana, Divya, and Beegom (2013) argue that gender-sensitive policy interventions are crucial for addressing financial and societal barriers in women's entrepreneurship.

Taskov, Dzaleva, and Metodijeski (2011) highlight the role of government and private partnerships in fostering women-led enterprises, while Sharma et al. (2022) stress the need for inclusive policies to bridge the rural-urban divide and create equitable business opportunities for women in Assam.

Methodology

This study employs a quantitative research approach to examine the impact of the entrepreneurial ecosystem on women's empowerment in Kamrup, Assam. A structured questionnaire survey was conducted among 200 women entrepreneurs (100 from rural areas and 100 from urban areas) to gather data on their financial access, digital participation, business expansion, and socio-cultural challenges. The sampling technique used was stratified random sampling, ensuring equal representation of rural and urban women entrepreneurs.

The questionnaire included both closed-ended and Likert scale-based questions, covering aspects such as income levels, financial resources, digital tools adoption, market access, and perceived social barriers. Data was collected through face-to-face and online surveys to ensure maximum participation.

For data analysis, descriptive statistics (mean, percentage, and standard deviation) were used to summarize key trends, while inferential statistics (T-test and Chi-square test) were applied to assess significant differences between rural and urban entrepreneurs. The T-test was used to compare income disparities, and the Chi-square test was applied to measure differences in financial access, digital participation, and social challenges.

Results

Women's entrepreneurship has been widely recognized as a significant driver of economic empowerment, financial independence, and social upliftment. However, the entrepreneurial ecosystem in which women operate varies considerably between rural and urban regions, affecting their opportunities, challenges, and business success. This chapter presents an in-depth analysis of the study findings based on quantitative data collected from 200 women entrepreneurs (100 from rural and 100 from urban areas) in Kamrup, Assam.

Economic Impact of Entrepreneurship on Women

• Income Growth and Financial Stability

One of the most critical aspects of women's entrepreneurship is its impact on their financial stability and income growth. The study analyzed monthly income levels and income growth trends among rural and urban women entrepreneurs.

Table 1: Income Analysis of Women Entrepreneurs

Entrepreneurs	Average Monthly Income (INR)	Median Monthly Income (INR)	Income Growth in 3 Years (%)
Rural (N=100)	12,000	11,000	18
Urban (N=100)	25,000	24,000	35

- **Income Disparities Between Rural and Urban Women Entrepreneurs**

The research shows clients earn twice as much income as businesswomen in rural areas of Kamrup region Assam. Rural based women entrepreneurs earn INR 12,000 per month while their counterparts in urban areas make two times more at INR 25,000 per month. For rural and urban women the middle income level shows up as INR 11,000 and INR 24,000 respectively which demonstrates a clear divide between both groups. The substantial income gap between urban and rural women entrepreneurs results from various reasons primarily linked to their access to banking solutions and financial markets.

Access to Financial Resources and Institutional Support

- **Financial Support and Credit Accessibility**

Access to financial institutions plays a vital role in women's entrepreneurial success. Financial support allows businesses to scale operations, invest in equipment, and expand into new markets.

Table 2: Financial Access Comparison

Financial Sources	Rural Entrepreneurs (N=100)	Urban Entrepreneurs (N=100)
Banks	45%	85%
Microfinance	60%	40%
Self-Help Groups (SHGs)	78%	30%
Government Schemes	35%	65%

- **Financial Access Disparities Between Rural and Urban Women Entrepreneurs**

In Kamrup Assam District 85% of urban women entrepreneurs enjoy formal banking services while only 45% of rural women have access which severely restricts their business development because of credit issues. Rural women depend mainly on microfinance programs through SHGs for funding while urban women get less from these sources because they have access to structured banking services. A lack of knowledge about available government financial programs and administrative difficulties make it harder for rural women to take part in these systems. Their rural counterpart faces these problems as they make up just 35% of participants.

Digital Literacy and Technology Participation

Using technology tools helps today's business owners succeed better than ever before. The research examined how women business owners from urban and rural areas use their phones to access the internet and participate in digital marketing strategies.

Table 3: Digital Access Comparison

Digital Access Factors	Rural Entrepreneurs (N=100)	Urban Entrepreneurs (N=100)
Smartphone Ownership	55%	90%
Internet Access	40%	85%
Online Payment Usage	35%	80%
Digital Marketing Usage	20%	70%

- **Digital Access Disparities Between Rural and Urban Women Entrepreneurs**

Research shows female business owners in urban regions of Kamrup, Assam have more digital tools than rural owners which limits their business potential and market opportunities. Businesswomen in urban areas own 90% of smartphones compared to 55% in rural areas because many rural women cannot access digital tools needed to run and grow their businesses. The internet reaches 85 percent of urban woman users versus 40 percent of rural women users preventing them from utilizing online tools for digital commerce. Most rural women avoid digital payment methods as only 35% choose UPI and mobile banking but 80% of urban women select these methods. Poor digital skills combined with weak internet networks plus security fears keep rural women from using internet payments. The use of digital marketing in city locations is 70% yet rural women engage with internet marketing tools at only 20% rate.

Social and Infrastructural Barriers

Women entrepreneurs, particularly in rural areas, face social and cultural barriers that hinder their business success.

Table 4: Social Barriers Faced by Women Entrepreneurs

Challenges Faced	Rural Entrepreneurs (N=100)	Urban Entrepreneurs (N=100)
Family Resistance	50%	20%
Community Opposition	45%	15%
Lack of Infrastructure	60%	30%
Safety Concerns	40%	25%

- Challenges Faced by Rural and Urban Women Entrepreneurs**

Our research shows that women entrepreneurs struggle more with social norms and physical infrastructure challenges than their peers anywhere in Kamrup district of Assam. Rural women experience much greater difficulties than urban women. Rural areas have more families who stop their women members from starting businesses compared to only one-fifth of urban areas because traditional household views limit rural women's entrepreneurial freedom. Societal resistance against female business ownership stands twice as strong in rural areas since 45% of rural women face it compared to 15% of urban women. The absence of proper infrastructure affects double the number of rural entrepreneurs compared to urban entrepreneurs at 60%. The weak transportation systems plus small business properties along with unstable power and internet connections create obstacles for rural female business owners to increase their operations. The social barriers and safety problems prevent 40% of rural women business owners from working freely because they face tougher mobility issues and social standards than the 25% of urban women who report these barriers.

Comparative Summary of Rural and Urban Women Entrepreneurs
Table 5: Summary of Key Differences

Factors	Rural Entrepreneurs (N=100)	Urban Entrepreneurs (N=100)
Average Monthly Income (INR)	12,000	25,000
Access to Financial Institutions (%)	45%	85%
Utilization of Government Schemes (%)	35%	65%
Participation in Self-Help Groups (SHGs) (%)	78%	30%
Digital Marketplace Usage (%)	20%	70%
Business Expansion Rate (%)	15%	50%
Infrastructure Support Satisfaction (%)	40%	75%
Social Barriers Impact Score (1-10)	7.5	4.0

- Comparison of Rural and Urban Women Entrepreneurs**

The research shows how life as an entrepreneur differs between rural and urban women in Kamrup district of Assam. The incomes of urban entrepreneurs outperform rural entrepreneurs by a stable margin because these women find financial support from institutions more easily and take advantage of public programs more often compared to their rural counterparts. Most (78%) rural women depend on Self-Help Groups for help because the 30% of urban women who use them choose professional financial sources instead.

Urban female business owners have more easily taken to digital marketplace platforms because their lower percentage of 20% mirrors rural women's lack of digital readiness and poor internet access. More urban female entrepreneurs expand their businesses at 50% compared to 15% for rural ones because they also rate infrastructure satisfaction at 75% and 40% respectively. Women entrepreneurs in rural areas continue to experience strong social hurdles to their professional advancement (7.5/10) compared to only 4.0/10 barriers that face urban female entrepreneurs through cultural barriers and limited market entry.

Statistical Outcomes
Table 6: Comparison of Factors Outcomes

Factors Analyzed	Test Used	Test Statistic	P-Value	Significance
Income Comparison	T-test	-41.73	1.76e-81	Significant
Financial Access	Chi-Square	110.59	8.17e-24	Significant
Digital Access	Chi-Square	12.22	6.66e-03	Significant
Social Barriers	Chi-Square	10.18	1.71e-02	Significant

- **Interpretation of Statistical Analysis**

The research data demonstrates strong differences between rural and urban female entrepreneurs in Kamrup, Assam when examining their economic and social characteristics. The T-test reveals that urban women earn much more (-41.73 with a p value lower than 0.001) because they benefit from better market opportunities and financial resources. Formal financial institutions serve fewer rural women than urban women because the financial access test shows strong disparities ($\chi^2 = 110.59$; $p < 0.001$).

The Chi-Square test about digital access shows distinct usage patterns between urban and rural entrepreneurs who differ in their smartphone usage and online payments which support strong business expansion. The Chi-Square test proves rural women face substantial social barriers to entrepreneurship since they encounter more societal obstacles and transport hurdles that limit their business growth ($\chi^2 = 10.18$, $p = 0.017$).

Hypothesis Testing

- **Hypothesis 1: Income Levels Between Rural and Urban Women Entrepreneurs**
- **Null Hypothesis (H_0):** There is no significant difference in income levels between rural and urban women entrepreneurs.
- **Alternative Hypothesis (H_1):** There is a significant difference in income levels between rural and urban women entrepreneurs.
- **Test Used:** T-test
- **Test Statistic:** -41.73
- **P-Value:** 0.00000

The test statistics prove that rural and urban women entrepreneurs in Kamrup, Assam earn substantially different amounts. Data analysis through the T-test shows that urban women entrepreneurs earn significant more income than rural women entrepreneurs at the 99% confidence level. Urban women earn more from their businesses thanks to their better access to money institutions, government support programs, online platforms, and expansions chances. Urban women entrepreneurs gain better results through funding from banks and venture capitalists plus online marketing platforms they could not access in rural areas. Urban women entrepreneurs can reach more customers through their online platform because they live in areas with better digital literacy and internet access.

- **Hypothesis 2: Digital Access Differences Between Rural and Urban Entrepreneurs**
- **Null Hypothesis (H_0):** There is no significant difference in digital access between rural and urban women entrepreneurs.
- **Alternative Hypothesis (H_1):** There is a significant difference in digital access between rural and urban women entrepreneurs.
- **Test Used:** Chi-Square
- **Test Statistic:** 12.22
- **P-Value:** 0.00666

Data from the Chi-Square test shows that rural and urban women entrepreneurs in Kamrup, Assam have different levels of digital access which are statistically significant ($\chi^2 = 12.22$, $p = 0.00666$). Our results show that the findings are accurate because urban women entrepreneurs generate larger digital access percentages compared to rural women entrepreneurs. Urban businesswomen achieve more success through their smartphones and digital tools to sell online which gives them better connections to customers and suppliers. Section 3 demonstrates that rural lady business owners confront internet infrastructure problems and smartphone underrepresentation along with low digital skills that hampers their use of online platforms.

Conclusion

The study comprehensively analyzed the impact of the entrepreneurial ecosystem on women's empowerment in Kamrup, Assam, highlighting significant disparities between rural and urban women entrepreneurs. Statistical analysis confirmed that urban women benefit from higher income levels, better financial access, and greater digital participation, whereas rural women rely more on self-help groups

(SHGs) and microfinance but face infrastructure and social barriers. The t-test on income levels ($p < 0.001$) and chi-square tests on financial access, digital access, and social barriers ($p < 0.05$) validated these differences, proving that entrepreneurship fosters economic growth and decision-making power for women, but systemic inequalities hinder rural women's progress. The findings emphasize the need for targeted policy interventions, financial inclusion programs, digital literacy initiatives, and infrastructure improvements to bridge the rural-urban divide and create an enabling environment for women entrepreneurs, ultimately fostering sustainable economic development and gender equity in Assam.

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FAMILY BUSINESS: A CLASSIC ENTREPRENEURIAL MODEL

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Dr. Reema Dehal**

ABSTRACT

Family and business are quite distinct institutions; while family is purely an emotional, relational facet of human life, business is exclusively an income-generating economic activity. Family business beautifully juxtaposes these twin uniquely-divergent constructs. A family business is unlike any other regular business that solely intends to maximize financial returns. Interestingly, a family business seeks to conduct the business whilst keeping the family together and family values intact. Over the years, it has been seen in the business world that the founder member(s) of family start a business that is passed on to the younger generations in due course of time. The present paper dwells upon the various aspects of family business particularly focussing on the ways and means to improve the performance of family business firms.

KEYWORDS: Family, Family Business Firms, Economic Activity, Family Values, Financial Returns.

Introduction

Family is the primary unit of society. Though it is the smallest social institution yet it lays down the very foundation of society. Apropos, business is an economic activity that comprises manufacturing and/or trading of goods/services with the objective of generating financial gain by fulfilling the unserved needs of the consumers. Family business is defined as a business whose ownership and management is primarily held by a single family or a close network of relatives and friends. It is the very basic form of entrepreneurship. In India, it has been seen that a prosperous family business generally sprawls into becoming a business group implying an association of companies which are owned and managed by a sole family. Tatas, Birlas, Godrej, Ambanis, Thapars, Jindals, Adanis, Mahindras, Modis, Bangurs, Burmans, Dalmias, Goenkas, Singhania are leading exemplars of Indian (family) business groups.

Regarding family business, it has come to be known that entrepreneurs and their families are inextricably intertwined. But the goals of a business system are quite distinct from that of a family. There are many areas wherein friction may arise between the two (See Figure 1). An entrepreneur who engages members of the family in the business often encounters the challenge of integrating these divergent systems to the benefit of all stakeholders.

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Figure 1: A Comparison of Family and Business Systems

Areas Of Conflict	Family Systems	Business Systems
<i>Goals</i>	Development and support of family members	Profits, revenues, efficiency, growth
<i>Relationships</i>	Deeply personal, of primary importance	Semi-personal or impersonal, of secondary importance
<i>Rules</i>	Informal expectations ("That's how we've always done it")	Written and formal rules, often with rewards and punishment spelled out
<i>Evaluation</i>	Members rewarded for who they are; effort counts; unconditional love and support	Support conditional on performance and results; employees can be promoted or fired
<i>Succession</i>	Caused by death or divorce	Caused by retirement, promotion, or leaving

Source: Dyer (1992) cited in Dyer and Handler (1994)

Conducting a family business is typical affair. It calls for carefully designing a plan that delegates duties in a manner so as to avoid conflicts amongst family members. Some important aspects that should be considered in order to run the family business smoothly and effectively are:

- Open, clear, undelayed, two-way communication among the family members results in lesser misunderstandings and improved productivity besides strengthening relational bonds.
- Establishing clear-cut boundaries between professional and personal spheres is imperative to avoid worsening of productivity and cooperation.
- Instilling moral values in the family members from childhood so that they prioritize commitment to family over lust for power or personal ego.
- Succession planning implying a process of identifying and grooming family members with potential to become heirs of the family business, demands curating a plan clearly detailing transfer of power and responsibilities from one generation to another.
- Employing professionals to manage the affairs of the business so that members of the family may concentrate on envisioning business growth and strategic planning.
- Family constitution must be laid down to guide on investments, transfer of ownership, governance practices and other key matters of the family business.
- Engage women, if they are interested, in the family business so that they may not wage proxy wars via their spouse or son(s).
- Family retreat implying informal family gathering generally at a remote, serene place to strengthen family bonds as well as to provide a platform for self-introspection, problem-solving and policy decision making, should be organized.
- Family councils implying the formal strategic planning and organizational wing of the family wherein family members meet to ponder over values, discuss policies and direction for the future; it is a forum for future planning of individual members, family and business as well as how each relates to the other.

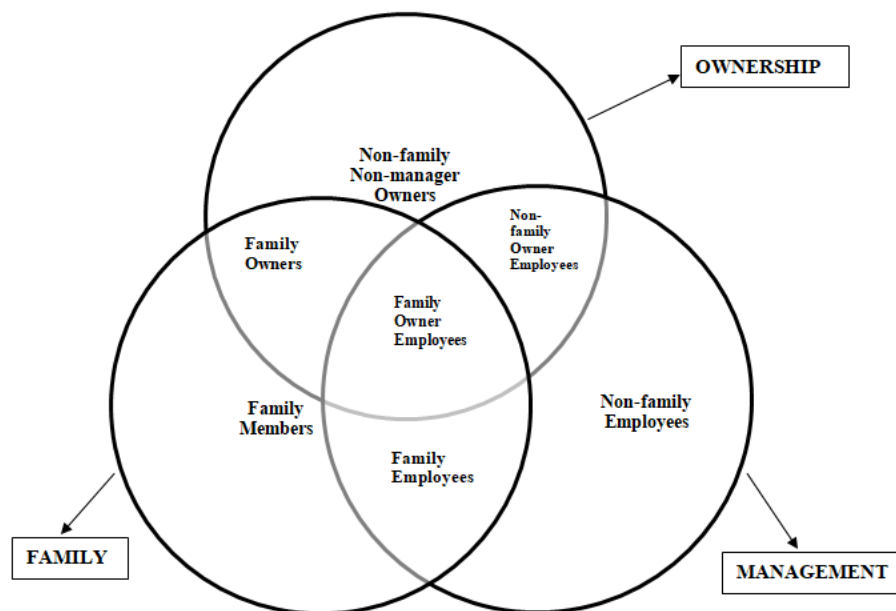
Three-Circle Framework of Family Business

Tagiuri and Davis (1996) have elucidated: "A family company is one whose ownership is controlled by a single family and where two or more family members significantly influence the direction and policies of the business, through their management positions, ownership rights, or family roles." A family business can be explained with the help of "the three-circle model" given by them. It depicts three mutually-dependent and overlapping constructs viz. family, ownership and management (See Figure 2). In a family business, depending on his/her role (family member/owner/employee) an individual may be placed in any one of the seven sectors formed by the interaction of these three constructs. In the Venn diagram shown in Figure 2, owners will be positioned in the topmost circle; members of the family shall be placed in the left-side circle while employees shall be placed in the right-side circle. If an individual takes on two roles, he/she will occupy the position in the overlapping sector. However, family member(s) who has an ownership stake and also works for the business will occupy the centre-most sector created by the intersection of three overlapping circles.

Three-circle framework locates the position where important personnel are placed in the overall system. According to this model, there are seven stakeholders in family business namely,

- “Family members not involved in the business, but who are descendants or spouses/partners of owners”
- “Family owners not employed in the business”
- “Non-family owners who do not work in the business”
- “Non-family owners who work in the business”
- “Non-family employees”
- “Family members who work in the business but are not owners”
- “Family owners who work in the business”.

Figure 2: Three-Circle Model Of The Family Business System



[Source: Tagiuri, R., & Davis, J. (1996). Bivalent Attributes of the Family Firm. *Family Business Review*, 9(2), 199-208.]

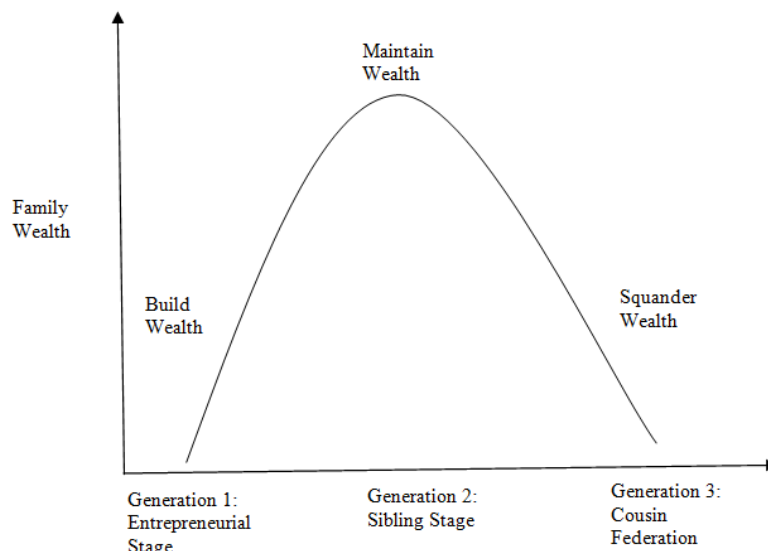
All these seven stakeholders have their own perspectives, aims, interests, anxieties and dynamics. Different members of the family involved in the family business will have their own understanding and definition of problems, priorities and concerns. The individual viewpoints of various family members will understandably differ from one another based on their respective position in the three-circle framework. For instance, a ‘family-owner-employee’ such as founder-CEO will have a very different perspective from that of ‘family members’ who neither have ownership in business nor are actively engaged in managing business. Likewise, ‘non-family employees’ may possess a differing opinion because of their unique position in the family business model. Interestingly, the viewpoints of participants placed in each sector are equally legitimate and merit respect. The different opinions of these stakeholders require integration for charting the future course of action for family business. The prosperity of family business in long-run is primarily dependent on the functioning of and mutual support extended by each of these stakeholders (Tagiuri and Davis, 1996; Poza and Daugherty, 2010).

Evaluation of Family Firms

Family firms bring 60% to 70% of GDP of most nations, with India being no exception. Majority of the family firms confront unique management challenges due to variations in the aspirations and attitude of members of the family. When younger generations join family business, it is a tremendous challenge to hold family as well as business together. Some forgo business to keep the families united, whereas others sacrifice the family to preserve the business. It has been seen that only 13% of the family

businesses continue to exist till the third generation while just 4% go past the third generation, seemingly endorsing the adage “from shirtsleeves to shirtsleeves in three generations” implying wealth created by the first generation is generally lost by the third generation because of reasons such as poor management of finances, absence of work ethics, division of family assets and so on (See Figure 3). Unfortunately, one-third of business families split because of generational dispute (www.cii.in).

Figure 3: The Three Generations Cycle



[Source: <https://www.linkedin.com/pulse/shirtsleeves-three-generations-tom-garrity>]

• The Three Generations Cycle

“Hard times create strong men. Strong men create good times. Good times create weak men. And, weak men create hard times.”

~ G. Michael Hopf

The adage “shirtsleeves to shirtsleeves in three generations” aptly explains the three generations cycle. Herein, the *first generation* individuals begin with little means; they toil hard and make sacrifices to create wealth; they aim for a prosperous future for their family. Their children form the *second generation*; they have grown up seeing their parents labour tirelessly, hence they realize the significance of perseverance and hard work. They have a better standard of living, yet they reminisce their frugal childhood days. The siblings inherit wealth but sometimes they may not be equally passionate about running the business as their parents were. The *third generation* has only seen prosperity. Oftentimes, they neither have the comprehension nor the acknowledgement of the persistent efforts of their forefathers that have gone into providing a comfortable lifestyle that they are presently enjoying. They are infamous for frittering away the wealth accumulated by their predecessors. Involvement of many cousins in the family business implies greater difference of opinion with regard to family values, cultural orientations, political ideologies and so on, giving intense challenge to the very survival of the family business.

However, there are some strategies that may avert the three generation cycle. The senior family members must *communicate with their legal heirs* viz. children and even grand-children and share their financial information with them. The younger generation must be oriented towards financial literacy so that they may be able to learn to make sound financial decisions. They must be sensitized to comprehend the opportunity and grave responsibility of inheritance. The senior generation must also *discuss their estate plan / will* with the younger family members in a group setting that facilitates an open dialogue amongst family members to happen before the silence of death leaves no scope for clarifications or adjustments. It is far better to get over the initial reluctance to deliberate over these vital matters rather than draining the assets as well as ruining the family relationships after the demise of the patriarch. It is imperative for the

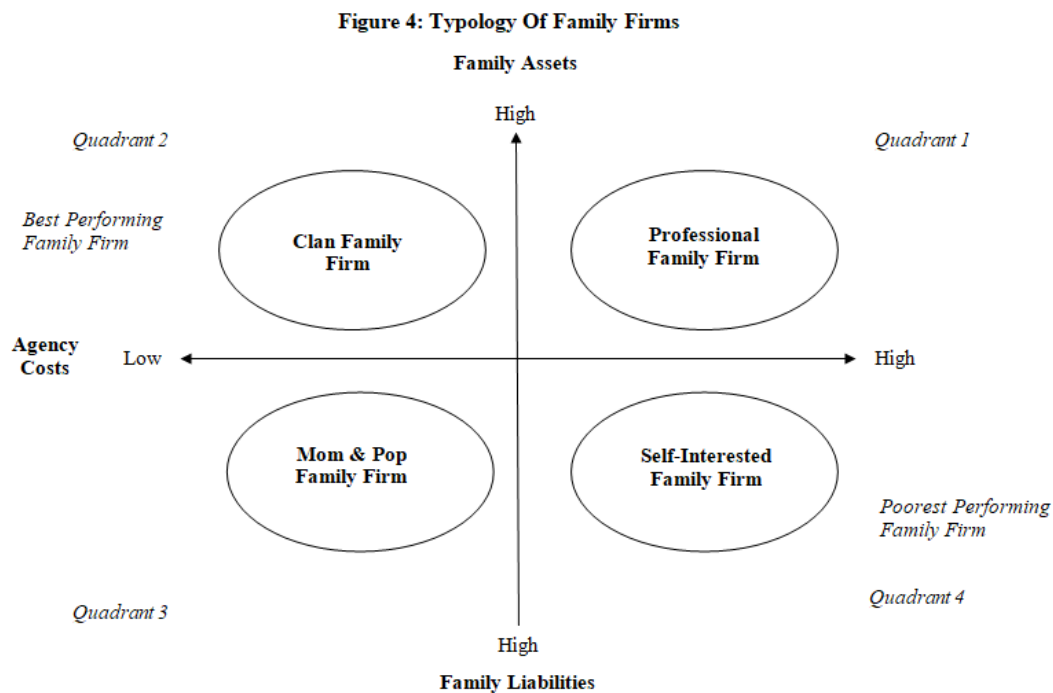
senior generation to groom the younger generation by *sharing their vision* with them. This shared vision among generations will help facilitate smooth transfer of wealth to the heirs who must get to know how the wealth was created, the values and principles the seniors stood by and their expectations from the younger generation. The narratives that recount events or experiences associated with family lineage or heritage, growth avenues and embracing of responsibilities that accompanies the inheritance shall place the family on the pathway to success and prosperity beyond the “three-generation curse” (familytreevideo.com).

• Typology of Family Firms

The family firm's performance can be assessed with the help of two insightful theories viz. *agency theory* and *resource-based theory*. These theories postulate that some favourable family factors help accrue agency benefits and assets for the firm whereas some unfavourable family factors impact the firm's performance by aggravating agency costs and liabilities. According to the *agency theory*, certain gains or losses accrue to a family business firm contingent upon the relation between firm's “principals” (owners) and their “agents” (managers). There are two types of agency costs: (i) Owners should ensure that a monitoring system is in place to ascertain that managers put in sincere efforts to maximize shareholders' wealth. (ii) If such monitoring system is missing, owners' return may be diminished. As per the *resource theory*, family firms having invaluable, inimitable and irreplaceable assets in the form of *human capital* (committed, loyal, motivated hardworking family members), *social capital* (goodwill and family branding created over generations through lasting social relationships and strong networking) and *financial capital* (financial assets to provide cushion in the wake of economic downturns as well as facilitate launching of new ventures) can develop a lasting competitive advantage. Based on the agency theory and resource-based theory, family business firms may be classified as:

- “Clan Family Firm” characterized by “Low Agency Costs; High Family Assets”
- “Professional Family Firm” characterized by “High Agency Costs; High Family Assets”
- “Mom & Pop Family Firm” characterized by “Low Agency Costs; High Family Liabilities”
- “Self-interested Family Firm” characterized by “High Agency Costs; High Family Liabilities”

Typology of family business firms is shown in Figure 4.



[Source: Adapted from Gupta, C. B. (2022). *Entrepreneurship Text and Cases*. Sultan Chand & Sons.]

Preserving the Family Business

The close-knit fabric of families that encourages collaboration, along with regard to family values and elderly family members, has been instrumental in the success of numerous family firms. Family business firms in India represent the “backbone” of Indian economy; therefore, there is an urgent requirement to prolong the lifespan of the family firms, for the nation may continue to gain from their valuable contribution. Interestingly, the Confederation of Indian Industries in association with the Family Business Network International has formulated the “CII-FBN (India) chapter” with the objective of developing a national-level representative body of members of families who own and manage family businesses in India (www.cii.in). In order to ensure that family business firm survives in long-run, it is necessary to undertake twin actions: (i) Owners must ascertain the type of family firm they are a part of? (ii) Family firm must determine the evolutionary pathway it has to traverse (Gupta, 2022).

‘Key to success’ options for clan family firms:

Majority of the clan firms wish to evolve as professionally managed firms. However, small family business firms may carry on as clan firms.

- Carry on developing a shared vision and values not only for family but also for firm over a period of time as well as across generations.
- Build processes that effectively address differences and ensure trust among family members.
- Ascertain competency of family employees via transparent and efficient selection, training and development of the family members.
- Consistently track the human, social and financial capital of the family and strategize to fortify the same.

‘Key to success’ options for professional family firms:

- Develop management systems for recruitment, selection, training and monitoring the performance of family and non-family (managerial) employees.
- Build the board of directors, generally including non-family participants, to give professional inputs and suggestions regarding the firm. This is especially crucial for effectively tracking functioning of family CEO and other family members in key managerial positions.
- Establish Management Information System as well as accounting systems to consistently monitor performance which may be shared with board of directors and non-family staff.
- Formalize organization charts and job descriptions in order that all (family and non-family) employees may not only comprehend their respective role but also the way they relate to each other.
- Steer clear of bureaucratic red tape whilst establishing stability, for management systems as well as processes may ameliorate performance but may cause unwarranted bureaucracy.

‘Key to success’ options for mom & pop family firms:

- Establish norms for selection as well as development of the members of family in order that the jobs assigned to them may be carried out competently.
- Capitalize on family’s social capital implying goodwill, by developing high quality relationships with suppliers, employees, customers as well as other strategic stakeholders.
- Wherever possible, utilize family “brand” to reinforce relational bonds with various stakeholders.
- Utilize monetary or other assets earnestly to the benefit of the family business; avoid diverting resources for personal use.

‘Key to success’ options for self-interested family firms:

- Sell off the family business.
- Buy out the share of business of those family members who do not endorse family vision of continuing family business.
- Substitute incompetent members of the family with those possessing necessary skills and abilities to perform the business tasks.
- Advance towards evolving into “professional family firm”.

Rendering a Family Business Successful

Entrepreneurial ventures oftentimes turn into family businesses. The actual transformation typically takes place when the progeny of the founder join the family business in the capacity of employees and/or shareholders. It is when successive generation family members join the business that nature of the firm, its challenges and competitive profile undergo a significant change (Poza and Daugherty, 2010). Family enterprises have a lot of distinctive *merits* to their credit. More often than not, there is longevity in leadership ensuring overall *stability* in the family business. The business head retains the leadership position for years together with events like retirement, disease or demise being reasons for shift in top leadership position. Family business enterprises are inclined to be inherently more *committed* and accountable than their non-family counterparts, for not only the requirements of the business but that of the family are at stake. This urge for both the business and family to remain strong lends additional gains such as better comprehension of the industry, firm and job; high quality customer relationships, improved sales and effective marketing. Much *flexibility* is needed while working in a family firm. At times, family members may be necessitated to take on several roles, assuming tasks beyond their formal scope of duties. In contrast, non-family enterprises have clearly defined roles and corresponding set of responsibilities. Family enterprises possess a *long-run perspective* regarding business; oftentimes, family CEO and top executives would make strategic choices of investing in projects with a 10- or 20-years perspective, focussing on what they may do now that may benefit the next generation. Research shows that during boom conditions, family firms do not earn as much returns as organizations with a more dispersed ownership format. But during economic downturn, family firms far outperform the non-family businesses (blog.vistage.co.uk; hbr.org).

Family business firms are smitten by some unique *challenges* too. In a family firm, future generations may be pressurized to continue with family business despite their *lack of interest* and intention in doing so. This may lead to an executive team comprising of indifferent, passive and disinterested family members. The interaction among various members of family; history of family and that of family business along with a blurred demarcation between family-life and work-life can collectively lead to *conflict* within family business that may become difficult to resolve because of delicate family relationships at stake. Family firms easily give in to *nepotism* by knowingly promoting less qualified family members to take up senior executive positions who may not be able to discharge their responsibilities effectively for want of relevant education, expertise and experience. This may cost heavily to the firm in terms of business success and retention of genuine talent. Family firms are generally seen to be failing in doing timely succession planning probably because the founders refuse to accept that someday someone else may take on the reins of the business. In the event of disease, death or even some scandal related to the top leadership, the appointment of a successor at a very short notice may be necessitated. Sans a succession plan in place, it becomes very difficult to maneuver the business out of such crisis (blog.vistage.co.uk).

Family businesses form the backbone of the Indian economy and it is imperative to see them growing and prospering in whatever domain or industry they are performing. Some broad *guidelines* for making family businesses successful are given as follows: (i) *Identify potential* of various eligible family members in terms of their aptitude and expertise and accordingly place them on right job positions. (ii) The members of family should qualify on *competency criteria* before being assigned important responsibility. (iii) Non-family participants must be inducted in *board of directors* for unbiased, rational assessment and approval of key decisions made by top family leadership. (iv) Legal agreement in the shape of *family constitution* may be developed addressing succession issues; terms of selling off or re-allocating equity; policies regarding salaries, bonus payments, dividends; modus operandi for decisions such as whether or when to sell the family business and so on. (v) *Succession planning* must be embraced as a process rather than as an event so that successors may be groomed well in advance to take on responsible roles in the family business. (vi) *Resolve conflicts* at the earliest as the saying goes: "nip the evil in the bud". For this, communication among family members must be open, honest and frequent; women of the family, if interested, must be given a fair chance to participate in the family business; merit should be prioritized and family members must be prepared for taking up leadership positions in the business; spend quality time with family members by planning a family retreat for example; identify differences and resolve them proactively; ensure that business decisions are not influenced by family factors (Gupta, 2022).

Conclusion

Family business firms are simply ubiquitous. To a majority of people, the expression “family business” may imply some small/medium enterprise with a local orientation as well as a known bundle of issues like succession-related disputes. Although a large number of “mom-and-pop family firms” may surely conform to that description, yet it does not truly represent the potent function that family enterprises perform at global stage. The scope of family businesses encompasses sprawling corporations like Tata Group, Levi Strauss, LG Electronics, Ikea, Ford Motor, Casio, Walmart, Samsung, Porsche and many more suchlike global giants on one extreme; and innumerable smaller, lesser-known yet as much accomplished family firms – that construct houses and offices, produce distinct goods and render customized services, that work as logistics partners in majority of supply chains, that serve as retail outlets for most of the household purchases – on the other end of the continuum. Although family businesses have numerous merits, yet their inherent nature at times makes their very survival in the long-run a big challenge. As the business grows and expands, it becomes typically challenging for the founder members to strike a fine balance between family interests and business goals. Resolving family conflicts as and when they arise, open communication among family members, timely succession planning by the top leadership, creation of family charter are some of the ways in which family and business can go hand in hand smoothly, across generations. In the ultimate analysis, it may be acknowledged that family business is an age-old, classical model of entrepreneurship and truly represents the backbone of a nation’s economy.

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THRIVING AMIDST UNCERTAIN TIMES - ORGANIZATIONAL RESILIENCE PAVES A WAY FOR HOLISTIC WELLBEING OF EMPLOYEES: A PERSPECTIVE

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ABSTRACT

Purpose: Cynical downturns, uncertain times, staggering business phases often leave employees frustrated, disheartened and disengaged. Hence, employees need to be strong enough to put themselves on a high potential track. The study tries to find out how organizational resilience acts as a spur to determine their best course of action and shifts them into an active thinking pattern to find out the best way to respond without feeling paralyzed by crisis; instilling holistic wellbeing.

Design/ Methodology/Approach: The present study highlights the essence of organizational resilience in leading the workforce at times of crisis and beyond with staunchness, relentless exploration and perpetual revitalization. Relevant scholarly articles and cases have been reviewed and interpreted in this aspect to derive pronounced upshots.

Findings: The study revealed that firms that practiced resiliency at work made their workforce thrive amidst adversities. Eventually employees have embraced healthy thoughts and have led towards a path of self-optimizing and self-organizing.

Practical Implications: Resiliency at work helps people to stretch themselves and work out all the dormant ties with sustained commitment that eventually lead them towards a holistic well-being. It makes employees feel positively cognitive, behaviorally and emotionally sound even when one is grappled with unexpected shocks.

Originality / Value: The research revealed how the three pivotal aspects (organizational mindfulness, adaptive response, psychological empowerment) of organizational resilience help employees surmount even the toughest challenges by allowing them to preserve their greatness and letting them try new responses. It magnifies their signature strengths and thrusts a momentum to their selves and their wellbeing.

KEYWORDS: Organizational Resilience, Employees, Holistic Well-being, Behavior, Crisis.

Introduction

The classical organization structures today have witnessed major changes in size, principles as well as in its scope of business (Wagner III & Hollenbeck, 2020). As businesses are becoming increasingly complex and diverse, organizations are experiencing massive shifts in its culture and behavior (Rožman & Štrukelj, 2020). Amidst rapid expansion as well as substantial failures, organizations

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are trying to operate as empowered networks (Drake & Chen, 2023) that would help unlock its value agenda. Along with it, the employees are expecting trust, cohesion, opportunities, liberation to do their best for the firm (Schilke, Powell & Schweitzer, 2023); so that they can say '*they are living their purpose*'. The traditional question among employees - '*For whom do you work?*' has been replaced by '*With whom do you work?*'. As organizations today are operating at a competitive edge and is prevailing in a harrowing time, it must consider its care-giving obligations (Newman et al., 2023) and not drive the workforce with the 'old deal'. A comprehensive wellbeing of its people must be the highest priority. Crisis may precipitate through a number of sources. Regardless of its intensity, an organization must think resilience and continue to grow (Pradana & Ekowati, 2024). Such a positive organizational behavior would foster robustness, resourcefulness and preparedness among its people. Here, organizational resilience plays a crucial role that triggers the self-efficacy sense among employees, minimizes silo mentality and help in identifying operational improvements across its services (Hartmann et al., 2020). Resilience ensures an adaptive change to move beyond to mobilize discovery, shed certain entrenched patterns, tolerate certain losses and spawn a brand-new capacity to thrive afresh (Zabłocka-Kluczka & Salamacha, 2023). It helps employees to sustain potential threats and respond effectively.

Theoretical Underpinnings

Through the systematic search method from various review articles, we have identified certain essential factors determining organizational resilience that have resulted a notable impact on employee wellbeing amidst unpredictable circumstances. This search strategy of delving deep into varied significant studies and sources has helped us to include all pronounced studies in our review. The related constructs of organizational resilience have been reviewed to reach a balanced understanding of its footprint. Review of selected articles gave a deep insight of the concept over the time.

Organizational Mindfulness and Holistic Wellbeing of Employee

Organizational resilience involves mindfulness behavior in potentially dealing with new and unprecedented situations (Weick & Sutcliffe KM., 2007) thereby making the present moment awareness more focal. Organizational mindfulness helps to manage the workplace instabilities by gaining an understanding of the situation and bringing out the best possible outcomes (Nguyen, 2020). It enhances an employee's richness of observations that help them see through subtle details and inconsistencies; augmenting their decision-making power (Kelemen, Born & Ondráček, 2020). It allows a collective mindful response from the workforce thus preventing unnecessary escalation. By developing skills around awareness and attention an organization equips its people to investigate, learn and make decisions without unnecessary control. Such an approach shall help employees to decrease cognitive failures at work (Elliot, 2011). Organizational mindfulness ensures to uplift the workforce as an asset and equally encourages them to interact socially to resolve problems (Sutcliffe, Vogus & Dane, 2016). Thus, the process of mindful organizing enables reliability, awareness and wisdom (Brown, Creswell & Ryan, 2017) in employees. Moreover, organizational mindfulness helps shrink negative functioning among people at work thereby reinforcing behavioral regulations and interpersonal relationships (Ledford, et. al, 2022). Eventually the employees remain more committed to resilience. Mindful actions at organizations help the workforce to embrace self-compassion without self-criticizing even while facing complexities at work (Walsh & Arnold, 2017). Organizational resilience that brings forth mindfulness also has the potential to trigger the ability in employees to respond constructively in relationships (Le, N.-H., Mai, M.-Q.T. & Le, K.-G., 2024).

Adaptive Response and Holistic Wellbeing of Employees

Amidst complexities, variations and disruptions at workplaces, organizational resilience help restore robustness by encouraging adaptive response of employees (Sahebjamnia, Torabi & Mansouri, 2018). Organizational resilience brings out adaptive capacities of people at work to a positive functioning in the midst of crisis or a turbulent circumstance (Hillmann & Guenther, 2021). Such an adaptive approach through resilience helps employees to move forward thereby creating an adjustable integration (Lengnick-Hall et al. 2011). This leads to operational flexibility as a response to the changing external environment which amplifies an employee's problem-solving competence. This adaptive response from the workforce in trying times provides them a sense of identity and a purpose as they dig opportunities of out deep despair (Ishak & Williams, 2018). Employees accordingly engage in transformative activities as they effectively develop the ability to absorb and capitalize on turbulent surprises (Duchek, 2020). In highly volatile and uncertain times the organizational resilience helps employees identify the promising approach of adaptation (Nkomo & Kalisz, 2023) that directs them towards learning orientation, positive

outlook and network utilization. Bouncing back from the face of adversity requires accepting the problem and the reality and move towards adaptive innovation to overcome the crisis (Shani, 2020). This adaptive resilience among employees would then enable the collective sense making process – bricolage; a capability to improvise and creatively solves the issues (Cedergren, A.&Hassel, H. (2024). The positive adaptive behavior triggers in the workforce a tolerance for uncertainty. This adaptive response fostered by the organization does not refer to mere adjustments by the employees. Rather they enter into an ongoing process of reflection and learning from the experience; seeking feedbacks, experimenting and discussing errors (Sehgal, Saxena & Pradhan, 2022). This adaptive capability that is built in times of unfavorable situations facilitates team empowerment, goal interdependence and a robustness to survive and thrive (Limon, Dilekçi & Demirer, 2021).

Psychological Empowerment and Holistic Wellbeing of Employees

High resilience in organization enhances job autonomy and employees experience an organization based self esteem (Gardner, 2019). They become psychologically empowered to endure a given situation as they believe they have the capability to change the organizational statusquo (Tandon, Mishra & Khan, 2021). When a firm takes a step to recover from the destructive forces it puts trust in the instincts of its employees (Harms et. al., 2018). This makes them psychologically fit that triggers self-efficacy and adds meaning to their efforts. Their passion for individual roles and responsibilities soars as they march forward in the pursuit of long-term goals (Zhai, Zhu & Zhang, 2023). While coping up with the hard situations a firm promotes flexible thinking that helps employees experience hopefulness in thinking. Resilient approach in organization ingrains in its people tenacity, strength and optimism (Blaique, Ismail & Aldabbas, 2023) that help them to take up the best strategy and persist in pursuing it. As organizations face trauma inducing events, it delves deep to find the specific strength among employees and build leadership abilities in them (Kumar & Valarmathi, 2022) that leads to a sustained participation. Organizational resilience instills a sense of progression among employees that their actions are sure to make a difference (Almohtaseb et al., 2023) which they perceive as a chance for self-development.

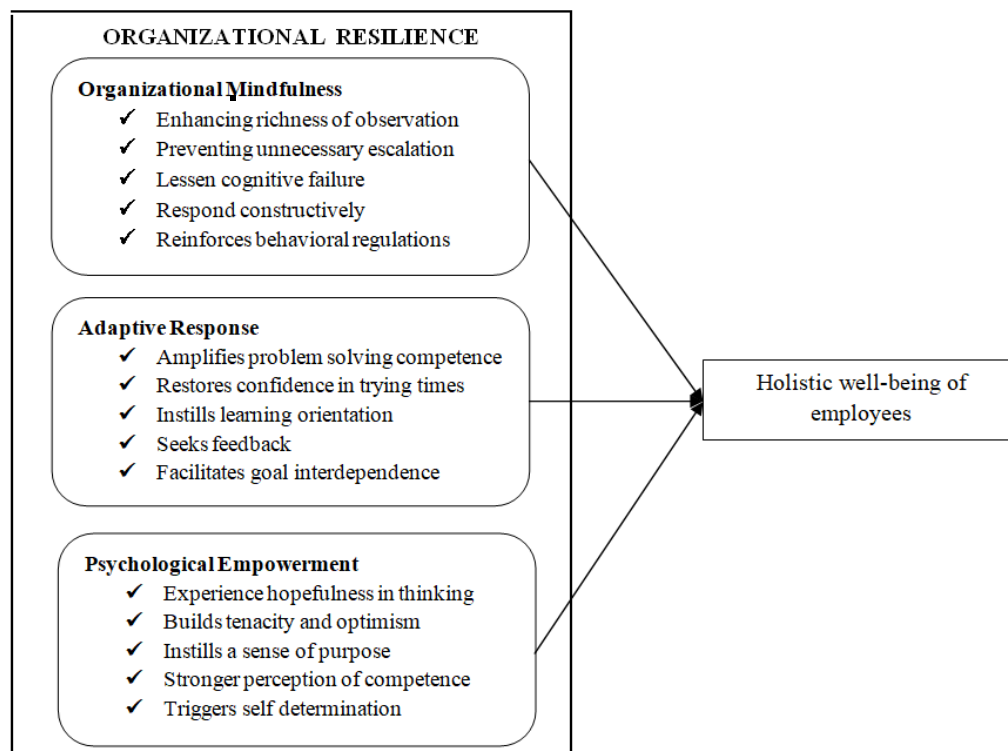


Figure 1: Conceptual Integrative Model

Managerial Implications

As organizations dedicate their energy towards embracing systematic exploration of new strategies and focus on relentless pursuit of efficacy even amidst crisis, it turns down the turmoil and helps its people to bring in revolutionary change. Employees in such firms respond with positive spirals of compassion and handle the topsy-turvy circumstance with grace. Finding meaning amidst chaos has helped companies and its people to unleash their heroic efforts in order to revive. An organization's capacity to delve deep into opportunities amidst uncertainty and include a code of principle 'we all are in this together' restores and builds confidence. Thus, resilience is not only about bouncing back; it is equally about approaching forward. A resilient firm provides a powerful moment of healing for its employees. In times of uncertainty, a firm must allow its people to recognize their patterns of thoughts and feelings and get unhooked to initiate change. In order to sustain amongst crisis, actions are needed in the thick of agony. By creating a context for action, a firm can unleash the efficiency of its employees; putting the resources to varied uses and imagining possibilities which others cannot see through. This would not only create a concrete goal for them, but also prepare them to endure. Organizational resilience removes the fear of finding the present as overwhelming. Carving strategies out of constraints would lead to intriguing possibilities and spur a unique ability to improvise. As businesses are becoming incredibly complex, unpredictable crisis often emerges as shocks where the organization fails to act decisively. Momentum falls sharply, performance slumps, leaders face unresponsive controls and employees are unable to resolve the paradox. In such cases resilience plays a significant part which infuses among employees a quest to reinvent models, adjust to changes, value variety, pour their energy and wisdom in reviving the declining yield and equally have a bold aspiration. A paradigm busting turbulence can also give way to hordes of competitors, hopeless situations, real hardships, deep pains and even some brutal experiences. Organizational resilience in such cases can revitalize a moribund situation by setting a strong sense of priorities and gradually developing its employees with grit. The employees eventually would realize that they need to keep learning and keep getting better.

Limitations and Agenda for Future Research

The research precisely highlights three significant aspects of organizational resilience that helps the workforce to cultivate positive experiences in trying times; instilling a holistic well-being of employees. A broader perspective of the organizational resilience may fetch several other facets of resilience that may help retain the workforce momentum and deepen their sense of purpose. An empirical study on the proposed factors can further provide valuable results.

Conclusion

A resilient firm helps its people to remain perceptive, adaptable as well as innovative even amidst collapsing margins and shrinking revenue. In a business world where there is a pressure now and then to operate efficiently, it is important to respond by re-examining every facet of business strategy, operations and resources. But above all, it is crucial for its leaders to make people resilient and not only drive them to become performance boosters. In spite of turning down a frightened and demoralized workforce, it is vital to help them conquer denials. Building up system's resilience reignites the enthusiasm to live and breathe and instill an owner's mindset. This would unhook themselves from discouraging feelings, fear, procrastination, brooding and push them to fix things with unflagging energy where they can say: '*I've learned so much from it*'.

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AN IMPACT STUDY OF SELF-HELP GROUPS IN SUSTAINABLE WOMEN EMPOWERMENT IN INDIA

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ABSTRACT

This research paper investigates the pivotal role of Self-Help Groups (SHGs) in enhancing the socio-economic status of women across rural and urban India. SHGs have emerged as powerful community-based institutions that promote financial inclusion, gender equality, and women's empowerment by providing a platform for collective savings, internal lending, skill development, and social mobilization. The study examines the genesis, structure, and evolution of SHGs in India, particularly emphasizing their transformation from microfinance collectives into engines of social and economic change. Government initiatives such as the SHG-Bank Linkage Program and Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) have institutionalized SHGs and expanded their outreach. SHGs facilitate financial independence by giving women access to credit and promoting income-generating activities, while also fostering leadership, decision-making, and participation in local governance. Two case studies are analyzed to illustrate real-world impact: the Self-Employed Women's Association (SEWA) and the Rajiv Gandhi Mahila Vikas Pariyojana (RGMVP). SEWA has empowered over 3.2 million informal sector women through cooperatives, microfinance, vocational training, and policy advocacy. RGMVP, working across 39 districts of Uttar Pradesh, employs a three-tiered federated model to ensure sustainable development through SHGs, Village Organizations, and Block Organizations. Its initiatives in financial literacy, sustainable agriculture, health, sanitation, and livelihood diversification have positively impacted over 500,000 households. Both organizations demonstrate how SHGs not only uplift individual members but also contribute to broader community development, making them indispensable to India's inclusive growth agenda.

KEYWORDS: Self-Help Groups (SHGs), Women Empowerment, Financial Inclusion, Socio-Economic Development, SEWA, RGMVP.

Introduction

Women's empowerment is a critical component of socio-economic development, particularly in a diverse and populous country like India. Empowering women not only promotes gender equality but also contributes to the overall growth and stability of communities and nations. In India, where gender disparities have historically marginalized women in various spheres—such as education, employment, property rights, and political participation—there has been a growing recognition of the need to create inclusive structures that support women's advancement.

One of the most effective grassroots strategies for empowering women in India has been the formation and promotion of Self-Help Groups (SHGs). These community-based voluntary associations of women have emerged as powerful tools for social and economic transformation. SHGs provide a structured platform for collective action, where women come together to pool their savings, access credit, and engage in income-generating activities. More importantly, these groups foster a sense of solidarity, confidence, and shared responsibility among members.

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Through SHGs, women gain greater control over financial resources, which enhances their ability to contribute to household income and make independent decisions. Participation in SHGs also facilitates access to skill development, literacy programs, health awareness campaigns, and various government schemes, thereby improving their overall quality of life. In many cases, involvement in SHGs has led to increased participation of women in local governance and community decision-making processes.

By addressing both economic and social dimensions of empowerment, SHGs have significantly improved the socio-economic status of countless women, particularly in rural and semi-urban areas. Their success underscores the importance of community-driven development and highlights the potential of women as agents of change when given the right opportunities and support

Genesis and Evolution of Self-Help Groups in India

The concept of Self-Help Groups (SHGs) in India took root during the 1980s and 1990s as a grassroots approach to tackle deep-seated poverty and socio-economic exclusion, particularly among women in rural areas. Initially, these informal groups were formed as a means to pool savings and provide small loans to members in times of need. This model of microfinance was simple yet powerful, based on mutual trust, collective responsibility, and financial discipline. It empowered women who were traditionally excluded from the formal banking sector, giving them access to credit without collateral and encouraging a culture of savings.

The early success of SHGs in improving household incomes and women's financial independence caught the attention of non-governmental organizations (NGOs), financial institutions, and policymakers. Organizations like the National Bank for Agriculture and Rural Development (NABARD) played a key role in promoting the SHG-Bank Linkage Program (SHG-BLP), launched in 1992. This initiative connected SHGs with formal banking institutions, enabling them to access credit more easily and securely. The program significantly enhanced the outreach of formal financial services to the underserved rural population and established SHGs as credible financial intermediaries.

Over time, SHGs began to evolve beyond their original microfinance function. As the groups matured and gained confidence, they started engaging in broader developmental activities. Many SHGs began addressing issues such as women's health, literacy, child nutrition, domestic violence, sanitation, and community mobilization. These groups became platforms for dialogue, awareness, and collective problem-solving, thereby contributing to the holistic development of women and their communities.

The turning point in the institutionalization of SHGs came with the launch of the **National Rural Livelihoods Mission (NRLM)** in 2011, later rebranded as **Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM)**. This flagship initiative of the Government of India aimed to promote sustainable livelihoods for the rural poor by mobilizing them into SHGs and federating them into larger community-based organizations. The NRLM provided financial support, capacity-building programs, market linkages, and access to various government schemes, thereby strengthening the SHG ecosystem.

Through convergence with other development programs and continuous support from both the government and civil society, SHGs have now become an integral part of the rural development landscape in India. Their evolution from small savings groups to dynamic agents of social and economic change reflects the transformative potential of community-driven initiatives. Today, SHGs not only promote financial inclusion but also serve as catalysts for women's empowerment, local governance, and sustainable rural development.

Structure and functioning of SHGs

The Self-Help Group (SHG) model in India is a unique and powerful approach to community development and women's empowerment. It is based on the principles of self-reliance, collective action, and mutual support. Typically, an SHG is composed of 10 to 20 women who belong to similar socio-economic backgrounds and reside in the same locality or village. These women voluntarily come together with the shared objective of improving their financial condition and social standing through joint savings and internal lending.

The structure of an SHG is simple yet highly effective. Each group selects its own members based on mutual trust and social proximity. This helps ensure group cohesion and reduces the risk of default in internal lending. The members regularly contribute a fixed amount of money—weekly or monthly—into a common pool or group fund. These savings form the financial foundation of the group

and are deposited in a bank account opened in the name of the SHG. Over time, the group's savings accumulate, enabling them to lend money to individual members for various needs.

The internal lending process is one of the core functions of SHGs. Members can apply for loans from the group fund for a variety of purposes, such as starting a small business, purchasing livestock, paying school fees, covering medical expenses, or meeting other emergency requirements. Loan decisions are made collectively during group meetings, ensuring transparency and accountability. Interest is usually charged on these internal loans at a mutually agreed-upon rate, and repayments are closely monitored by the group.

To ensure smooth functioning, SHGs often elect key office bearers such as a president, secretary, and treasurer. These roles are usually rotated periodically to give all members an opportunity to lead and develop leadership skills. The president oversees meetings and group activities, the secretary maintains records and documentation, and the treasurer handles financial transactions. Record-keeping is an important aspect of SHG functioning, with registers maintained for savings, loans, attendance, and meeting proceedings.

Regular meetings—often held weekly or bi-weekly—are central to the SHG model. These gatherings are used not only to manage savings and loans but also to discuss community issues, share knowledge, and build solidarity. Decision-making is democratic, with every member having an equal say. This participatory approach strengthens the collective spirit and encourages women to voice their opinions and take leadership roles—often for the first time in their lives.

Training and capacity-building are also vital components of SHG operations. Members are often provided with training on financial literacy, bookkeeping, entrepreneurship, and legal rights through government programs or NGOs. These efforts enhance the confidence and capability of women to manage their group and engage in productive activities.

In essence, the structure and functioning of SHGs are designed to foster self-reliance, financial discipline, and collective responsibility. Beyond their economic benefits, SHGs cultivate a sense of unity, mutual trust, and empowerment among women, enabling them to address not only their personal challenges but also broader community issues.

Objectives of the Study

- To analyze the role of Self-Help Groups (SHGs) in enhancing the socio-economic status of women in rural and urban India.
- To evaluate the contribution of SHGs in promoting financial independence, decision-making power, and leadership among women members.
- To assess the long-term sustainability and impact of SHGs in driving gender equality and inclusive development within communities.

Self-Employed Women's Association (SEWA): A Comprehensive Case Study

The Self-Employed Women's Association (SEWA) is a pioneering organization in India that has been instrumental in organizing women workers to achieve full employment and self-reliance. Established in 1972 by Ela Bhatt in Ahmedabad, Gujarat, SEWA has grown into a massive movement, empowering millions of women in the informal sector by providing access to financial services, promoting collective bargaining, and enhancing their socio-economic status. This case study delves into SEWA's origins, organizational structure, key initiatives, impact, challenges, and prospects.

Origins and Evolution

SEWA was founded to address the needs of women engaged in the informal economy—those without fixed employer-employee relationships, including vendors, home-based workers, and manual laborers. These women faced significant challenges such as low income, job insecurity, and lack of access to social welfare. Ela Bhatt, then head of the women's wing of the Textile Labour Association (TLA), recognized the necessity of organizing these workers to improve their working conditions and livelihoods. Thus, SEWA was born as a trade union for self-employed women, combining the principles of unionization with cooperative efforts to address both labor rights and economic empowerment.

Organizational Structure

SEWA operates as both a union and a cooperative federation, embodying a unique dual approach to empowerment. Its structure includes:

- **Membership Base:** As of 2025, SEWA boasts a membership of approximately 3.2 million women across India, working in various trades and speaking diverse languages.
- **Trade Committees:** Members are organized into trade groups based on their occupations, facilitating targeted interventions and collective bargaining.
- **Cooperatives and Federations:** SEWA has established numerous cooperatives to provide members with access to markets, financial services, and training. These cooperatives are federated at district and state levels to ensure broader representation and support.
- **Leadership:** The organization emphasizes democratic participation, with leaders elected from among the members. This approach ensures that the leadership remains grounded in the realities of the members' lives.

Key Initiatives and Services

SEWA's multifaceted approach to empowerment encompasses several key initiatives:

- **Financial Services**
 - **SEWA Bank:** Established in 1974, the Shri Mahila SEWA Sahakari Bank provides microfinance services tailored to the needs of self-employed women. Starting with 4,000 women each contributing ₹10, the bank has grown significantly, offering savings accounts, loans, and insurance products.
 - **Microinsurance:** Since 1992, SEWA has offered life and hospitalization insurance to its members and their families for as little as ₹100 per person, with enrollment surpassing 130,000 people by 2005.
- **Capacity Building**
 - **Training Programs:** SEWA provides training in various skills, including financial literacy, leadership, and specific vocational skills. For instance, the Karmika School for Construction Workers, established in 2003, has trained women in construction trades, leading to increased employment opportunities.
- **Market Access**
 - **Cooperatives:** SEWA has facilitated the formation of over 50 cooperatives that help members access larger markets, obtain fair prices, and improve product quality. These cooperatives span various sectors, including agriculture, handicrafts, and services.
- **Social Security**
 - **Childcare Services:** Recognizing the importance of childcare for working mothers, SEWA has established childcare cooperatives like Sangini and Shaishav, which have helped more than 400 women secure regular work as childcare providers.
 - **Healthcare:** SEWA's health initiatives include training members as community health workers, providing health education, and facilitating access to healthcare services. These efforts have led to improved health outcomes among members and their families.
- **Advocacy and Legal Support**
 - **Policy Advocacy:** SEWA actively engages in policy advocacy to secure the rights of informal workers. It played a crucial role in the passage of India's Act on the Unorganized Sector, which establishes welfare and social security measures for non-traditional employees.
 - **Legal Aid:** The organization provides legal assistance to members facing issues such as eviction, harassment, and wage disputes, empowering them to assert their rights.

Impact and Achievements

SEWA's comprehensive approach has yielded significant positive outcomes:

- **Economic Empowerment:** Members have experienced increased incomes and financial stability. For example, a study found that SEWA members using the microloan program saw an increase in income and could more easily find gainful employment.

- **Enhanced Social Status:** Participation in SEWA has led to greater self-esteem and recognition within families and communities. Women have taken on leadership roles and become active participants in community decision-making.
- **Improved Health and Education:** Access to healthcare services and childcare has resulted in better health outcomes and increased school attendance among members' children. Studies in the Kheda and Surendranagar districts showed that poor women with access to childcare earned 50% more, and childcare services encouraged school attendance for the entire community.
- **Policy Influence:** SEWA's advocacy efforts have brought informal workers' issues to the forefront, influencing policy changes and leading to greater recognition and support for this segment of the workforce.

Case Study: Rajiv Gandhi Mahila Vikas Pariyojana (RGMVP)

The Rajiv Gandhi Mahila Vikas Pariyojana (RGMVP) is a flagship initiative of the Rajiv Gandhi Charitable Trust, established in 2002. Operating in Uttar Pradesh, India, RGMVP is dedicated to poverty alleviation and women's empowerment through the formation and nurturing of Self-Help Groups (SHGs). By fostering community institutions, RGMVP enables women to access information, services, and entitlements, thereby enhancing their socio-economic status.

Model and Strategies

RGMVP employs a three-tiered community institution model:

- **Self-Help Groups (SHGs):** Each SHG comprises 10–20 women from similar socio-economic backgrounds who engage in regular savings and credit activities.
- **Village Organizations (VOs):** Multiple SHGs within a village federate into VOs, representing 150 to 250 families.
- **Block Organizations (BOs):** VOs are further federated at the block level, encompassing 5,000 to 7,000 women.

This structure facilitates collective action, resource pooling, and effective dissemination of information and services. Key strategies include social mobilization, capacity building, and convergence with government programs to ensure scalability and sustainability.

Programs and Initiatives

- **Financial Inclusion:** RGMVP promotes financial literacy and inclusion by encouraging SHGs to build capital through savings and access credit via bank linkages. Collaborations with 17 rural and central banks have been established to support these efforts.
- **Livelihood Enhancement:** The organization focuses on diversifying income sources through:
 - **Agriculture and Dairy:** Training women in organic composting, sustainable agricultural practices like the System of Rice Intensification (SRI), and effective dairy management.
 - **Livestock Management:** Facilitating activities such as goat-rearing, bee-keeping, and poultry farming.
 - **Non-Farm Enterprises:** Providing training in skills like stitching, embroidery, food preservation, and handicrafts to encourage entrepreneurship.
- **Health and Sanitation:** RGMVP integrates health interventions within SHGs, focusing on maternal and child health, sanitation, and hygiene practices. During the COVID-19 pandemic, SHGs played a pivotal role in disseminating health information, producing masks, and supporting community health initiatives.
- **Education and Awareness:** The program emphasizes educating women about their rights, government entitlements, and social issues, fostering informed decision-making and active community participation.

Outreach and Impact

As of September 2012, RGMVP had reached approximately 500,000 households across 191 blocks in 39 districts of Uttar Pradesh. The initiative has empowered women by enhancing their financial independence, improving health outcomes, and promoting sustainable livelihoods. Notably, SHGs under RGMVP have demonstrated resilience during crises, adapting to challenges and supporting their communities effectively.

Partnerships

RGMVP collaborates with various organizations to amplify its impact:

- **National Bank for Agriculture and Rural Development (NABARD):** For promoting credit linkage and federation of SHGs.
- **Society for Elimination of Rural Poverty (SERP):** Providing technical assistance for SHG promotion.
- **Bill and Melinda Gates Foundation:** Partnering on community mobilization projects focusing on maternal and neonatal health.

Conclusion

The evolution and functioning of Self-Help Groups (SHGs) in India represent a transformative journey in the empowerment of women, particularly from marginalized and economically weaker sections of society. As detailed through the structure, objectives, and real-life case studies of SEWA and RGMVP, SHGs have successfully emerged as grassroots institutions that foster socio-economic advancement, collective action, and community-driven development. SHGs have proven to be effective platforms for promoting financial inclusion, enabling women to access credit, build savings, and invest in income-generating activities. This financial independence, in turn, has empowered women to actively participate in household and community decision-making, assert leadership roles, and challenge traditional gender norms. The participatory nature of SHGs, which emphasizes democratic governance, accountability, and mutual support, nurtures leadership qualities among women and boosts their confidence and self-worth. The case studies of SEWA and RGMVP clearly illustrate the diverse ways in which SHGs go beyond microfinance to address broader issues like health, education, nutrition, sanitation, and legal rights. SEWA's dual approach as both a union and a cooperative has helped millions of self-employed women gain access to essential services, enhance their livelihoods, and influence policy. RGMVP's structured model of federating SHGs into larger community institutions has ensured scalability, sustainability, and greater outreach, especially in rural Uttar Pradesh. Moreover, the role of SHGs during times of crisis, such as the COVID-19 pandemic, highlights their resilience and adaptability. These groups have not only supported members financially but also played a critical role in spreading health awareness and sustaining essential community functions. In conclusion, SHGs are more than just savings and credit groups—they are engines of social transformation. By empowering women economically, socially, and politically, SHGs contribute meaningfully to gender equality, inclusive development, and the overall well-being of communities across India.

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A COMPARATIVE STUDY ON GROWTH PROSPECTS OF URBAN AND RURAL MARKETS IN FMCG SECTOR IN INDIA

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ABSTRACT

FMCG sector is one of the largest sectors in India contributing significantly to the Indian economy. It is the fastest growing sector meeting pace with the rising population. The present paper aims to examine the potentialities of growth by comparing between urban and rural market on various parameters. The secondary data was used to find the main purpose of the study. The study indicates that rural sector is now no more far behind the urban counterpart. While brand awareness and loyalty bring in healthy competitive demand in rural household, the rising disposable income pushes ahead rural economy. This paper presents various economic and non-economic factors which serve the main purpose to understand the growth patterns of FMCG products. The economic factors typically explain the future of FMCG sector and non-economic factors provide knowledge of various attributes in understanding the consumer behavior. The paper not only provides the comparative study between the two markets but will also provides a broad view perspectives in understanding the market for approaching both segments and creating knowledge to study for marketers.

KEYWORDS: *Potentialities, Disposable Income, Brand Awareness, Attributes Segments.*

Introduction

The FMCG sector is one of the fastest growing sectors in India. It is rising at a high pace after pandemic. It is one of the highest contributing factors to India GDP. It has started to began its journey since the last three decades. The FMCG sector is the backbone of the Indian economy as it touches every aspects of human life. It has been seen since the last many years that disposable income of rural households is rising. There are as much as middle-income groups in rural households as those are in urban households. The rural market has been growing steadily with much as fast as urban market. The size of rural market is now bigger than urban market. Due to Government initiatives, policies and rising rural disposable income even marketers started thinking to leverage rural market. Rural India comprises nearly 67% of the total population and with this big market size there is a significant rise in exposure level and brand awareness which facilitates the need to start focusing on new emerging untapped rural market. The FMCG sector in India expanded due to consumer-driven growth and higher product prices, especially for essential goods. The rural households spend 50% of its income on FMCG goods. Nearly, one-third of the income derived from two-third of the rural population. The majority of Indian population though resides in rural parts of the country (Renugadevi 2015).

Urban markets are crowded with many different consumer products, in this way marketers now find it difficult to generate revenue and income flows from these markets. On the other hand rural income size is momentum high on an average, which has provided huge opportunity to the marketers to tap this market where 67 per cent of India dwells (Kaushal 2016).

India is a country that no FMCG player can afford to ignore due to its middle-class population which is larger than the total population of USA. In India, more than 68 per cent population lives in villages and FMCG companies are well aware of the fact to sell their products to the middleclass

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households; Sulekha, et.al (2013). A rural market is facing entirely with different set of problems in comparing to urban market. While marketing in urban areas is quite easy but for most marketers entering into rural market is challenging as distribution poses the serious threat; lack of infrastructure challenges the distribution network. There are many such challenges which are discussed below in this paper. But due to large customer base in FMCG segment and continuing overall growth in rural and urban segments; India has been emerging as the fastest economy surpassing many emerging and developing Asian countries.

Objectives of the Study

- To study and examine about growth potential of fast moving consumer goods in India.
- Significance of FMCG sector as a main contributor to GDP.
- To make comparison between urban and rural market on the basis of various factors.

Review of Literature

Kaushal (2016) stated that rural India is becoming one of the attractive markets for the corporates in the recent times. Urban markets are crowded with many different consumer products, in this way marketers now find it difficult to generate revenue and income flows from these markets. On the other hand rural income size is momentum high on an average, which has provided huge opportunity to the marketers to tap this market where 67 per cent of India dwells. The study purports to provide information on how the Companies carry out the marketing process and the causes for the paradigm shift from Urban to Rural markets. The investigation somehow unveils the curtain to discover the challenges faced by the marketers while marketing their items in rural areas.

Renugadevi (2015) stated that the majority of Indian population though resides in rural parts of the country, but this huge size with high potential is often being ignored and neglected and remains untapped comparing with its counter urban population. The present rural population draws attention of many multinational companies to market their products that accords complete change of structure of demand related numerous issues to be handled in rural marketing. The concept of rural market in India is still handled carelessly and being informal presents lot of challenges.

Jayanthi (2017) stated that fast-moving consumer goods (FMCG) are goods that are sold rapidly with relatively low cost. Examples include consumer durables and soft drinks, other beverages, toiletries, processed foods and other consumable items. FMCG is the fourth largest sector in the Indian economy and is esteemed at about USD 307.2billion as of 2022 (as per IBEF). Household and Personal Care is the leading segment accounting for 50 per cent of the overall market. This is followed by Healthcare at 31 per cent and Food & Beverages comes next in terms of market share at 19 per cent. Under Household & Personal Care, Hair care accounts for about 23 per cent followed by Oral care at 15 per cent, Home care at 6 per cent and Skin care at 5 per cent.

Sulekha, et.al (2013) concluded that in India more than 72 per cent population lives in villages and FMCG companies are well aware of the fact to sell their products to the middleclass households; it is well aware fact that rural India is a profitable segment and has great potential for marketing of FMCG products. Incomes of rural households are increasing at a steady rate and they are now more willing to purchase those products which suits to their lifestyle. Manufacturers of FMCG now need to build unique marketing strategies entirely for rural consumers. In this procedure they need to understand completely the rural consumer buying behavior which may vary geographically.

Research Methodology

The study is descriptive in nature. Secondary data have been used for meeting the above objective. Secondary data have been collected from various journals/magazines and reports of certain Government agencies like NSS, CRISIL, NielsenIQ's report, various FMCG Associations for proper analysis and interpretation. Tables, charts, graphs have been used to bring out the main characteristics of the data.

Factors Considered in Deciding the Growth Prospects of both Urban and Rural Market

There are two factors which effects the growth of urban and rural market.

- Economic Factors
- Non-Economic Factors

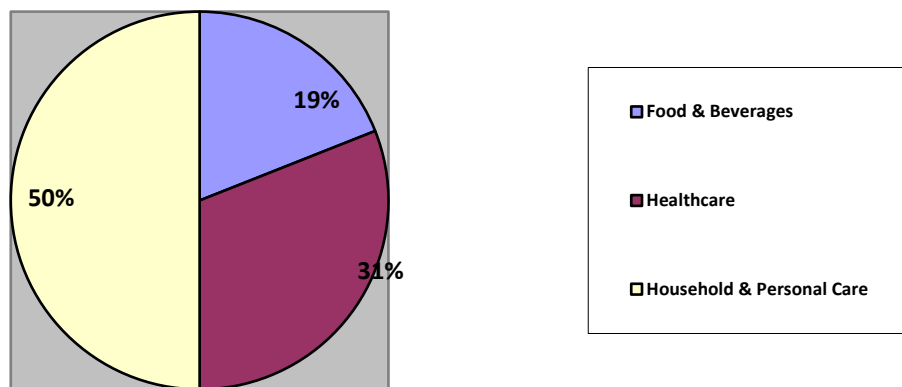
Economic Factors

• Fourth Largest Sector

There are many reasons which look attractive to corporate to enter into rural segments. First of all the FMCG as an emerging sector and penetrates deep into the rural and urban base.

Table 1

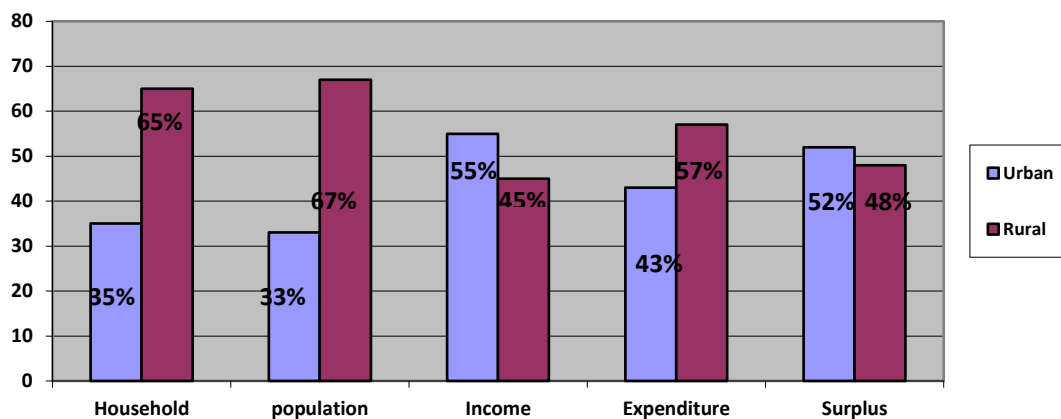
FMCG Components	Contribution (in Percentage)
Food & Beverages	19
Healthcare	31
Household & Personal Care	50



Interpretation

It can be seen from the above table and pie-chart the percentage segregation of FMCG sector. It is divided into three segments - food and beverages, which accounts for 19% of the segment; healthcare, which accounts for 31% of the share; and household and personal care, which accounts for the remaining 50% share.

• Distribution of Income, Expenditure and Surplus Income



Interpretation

Urban residents are the most educated and conscious they generate the highest incomes, and consequently, account for the highest share of savings in the country. It is obvious that India's savings can grow only as the country's urban sector progresses. From the above diagram, it clearly shows that rural households accounts for 65% of total households of India sharing 67% of the total population. But in terms of income urban sector contributes more at around 55%. But due to low income in rural areas they spend 57% of their total income on FMCG and necessities. In terms of surplus creation urban sector surpasses rural sector.

- **Composition of Workforce in sharing average monthly income**

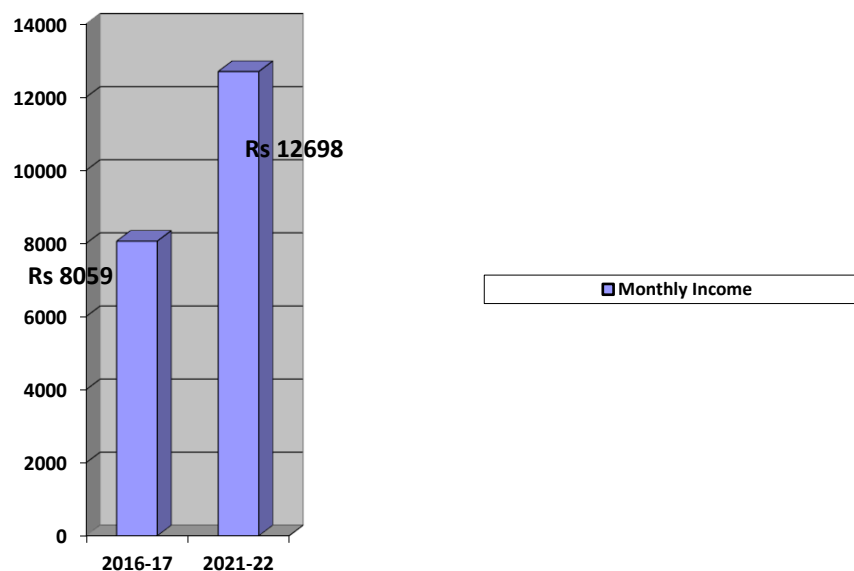
Table 2

Segment	Monthly earnings (in %)
Rural Households	44
Govt. or Private Services	25
Wage Labourer	16
Other Enterprises	15

Interpretation

On the basis of the nature of workforce rural households share 44% of its monthly earnings among all other segments of workforce. Government or Private Service class shares only 25% of its average monthly earnings. On the other hand wage labourer and other enterprises contribute only 16% & 15% to average monthly earnings.

Further at looking below in the following graph

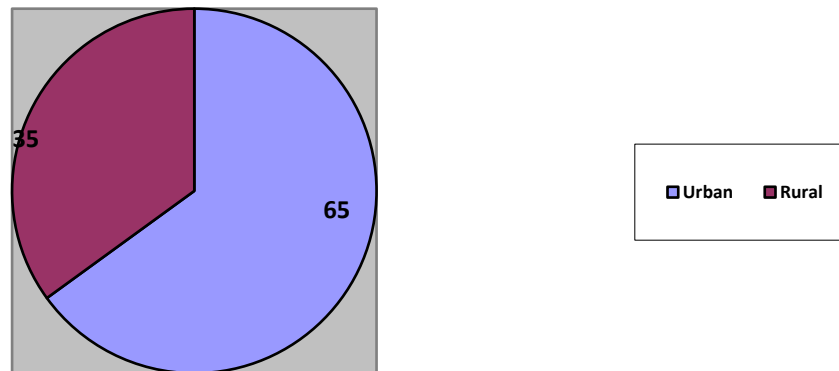


The average monthly income of rural households shows an rise of nearly 58% over a five-year period mounting to Rs 12698 in 2021-22 from Rs 8059 in 2016-17.

- **Revenue Contribution**

Table 3

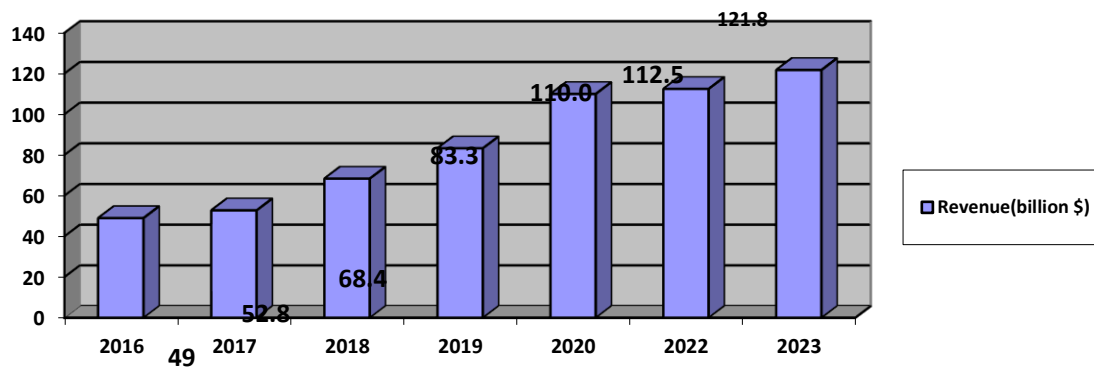
Segments	Revenue Contribution (in Percentage)
Urban	65
Rural	35



Interpretation

From the above table as shown in pie-chart the urban segment (accounts for a revenue share of around 65%) is the largest contributor to the overall revenue generated by the FMCG sector in India compared to just 35% revenue contribution in rural segment. It could be say that largest volume of sales comes from urban segment only which shows largest market share.

- **Trends in FMCG Revenue Over the Years**

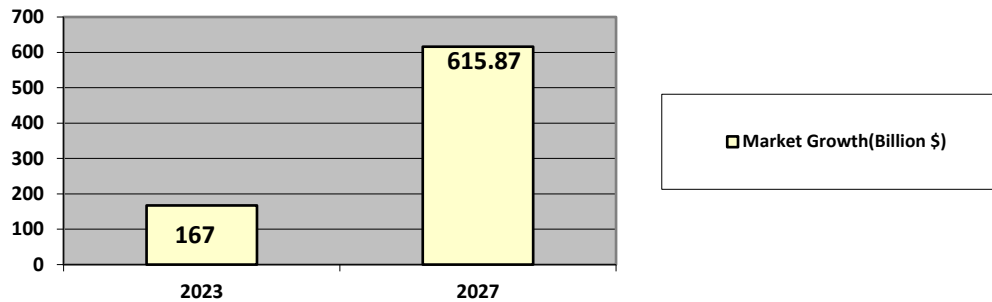


Source: Market Research Future

Interpretation

It has been clear from the graph that revenue in FMCG sector showing rising trend. In 2016, total revenue accounts for 49 billion dollars which has increased to 52.8 billion dollars in 2017 and then shows sudden increase to 68.4 billion dollars in 2018. It keeps increasing since thereafter till reaching at 121.8 billion dollars in 2023.

- Market Growth**



Note: F- Forecast

Interpretation

Market growth rate in FMCG sector is projected to reach at 615.87 billion dollars in 2027 from 167 billion dollars in 2023 which itself indicates that upcoming years will witness more growth in FMCG sector.

Findings

- As one of the fourth-largest sector, household & personal care contributes 50% of the total FMCG sales due to rising brand awareness and loyalty among products.
- 67% total population lives in rural areas and contributes 45% of the total income.
- Due to rising disposable income of rural households they spend more on FMCG at 57%.
- Urban saves more than rural households due to high per-capita income than rural household.
- Urban spends less on FMCG goods with just only 43% in comparison to rural households of around 57%
- Rural households share 44% of the average monthly income among rest of the workforce due to good harvest season, Government spending e.t.c.
- The average monthly income of rural households shows an increase of nearly 58% over a five-year period rising from Rs 8059 in 2016-17 to Rs 12698 in 2021-22.
- Due to growing awareness, easier access and changing lifestyle Urban sector contributes 65% of total revenue generation in terms of sales
- The market growth which stood at 167 billion dollars in 2023 is projected to reach at 615.87 billion dollars by 2027.

Non-Economic Factors

- Comparison between Urban and Rural Market**

Variables	Urban	Rural
Consumer Attitude	Innovative	Conservative
Brand Awareness	High	Low
Market Knowledge	Perfect	Imperfect
Literacy Rate	High	Low
Price Sensitivity	More	Less
Buying Pattern	Regular	Irregular
Demand	High	Low
Market Location	Concentrated	Scattered
Adaptation	Faster	Slow
Internet Usage	High	Low
Occupation	Non-Agricultural activities	Agricultural & related activities
Supply	Regular	Irregular
Lifestyle	Trendy outlook	Follow cultural norms

Findings

Going through the descriptions of all variables mentioned above, it is clear to say that rural and urban market of FMCG Goods is not just affected by economic factors but non-economic factors are also the main contributors to the overall sales. These factors formulate the base for research for marketers in formulating various types of strategies. Though, none above the segments can be ignored as various non-economic variables in either of the segments are the topics of research and discussions but also satisfying the needs are also considered. It can be clear from the above table that comparability of variables between urban and rural market are the deciding factors in collaborating the needs of the consumers. The rural segment looks quite a tough market in reaching and targeting as market is scattered and demand is undecided. The rural households depend mostly on agricultural produce so income is uncertain as weather is unpredictable. Moreover they also resist changing with the market patterns. With many such other variables many FMCG firms are looking simultaneously with urban counterpart to reach the rural households.

Conclusion

From the above findings it may be concluded that FMCG is an emerging sector. It can no longer be a new segment for marketers and researchers who are willing to penetrate it. As the fourth biggest sector it is one of the largest contributors to the Indian GDP. The future sale is expected to rise as shown above with personal care and households would be having the highest sharing. India's two-third population resides in rural India with over 50% sales come from this segment thereby contributing 35% of the total revenue. Rural households hold 65% of the total households which itself is a bigger market comparing to any other nation's total population. The disposable income of rural households has arisen due to good harvest season, rising income and Government spending. Besides these, brand awareness, product-switching, high mobile using rate and easy accessibility, changing lifestyle are growth driven factors. The future of the FMCG sector returning back on track with the pandemic easing out and more growth is expected to be seen in coming years. As the Rural consumption has increased accumulated with increasing income and higher aspiration level with an increased demand for branded products, the urban sector still surpasses the rural sector due to high growth of urbanization and organized and concentrated market. While, the share of the unorganized market in the FMCG sector lags behind to the organized sector in many terms yet more attention is required to penetrate untapped market. And this is the opportunity for marketers to reach out to the rural market as Governments' spending and infrastructure development turning this segment into the organized market.

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ELECTRIC VEHICLE ADOPTION ACROSS REGIONS: A CROSS-COUNTRY LITERATURE REVIEW OF CONSUMER PERCEPTIONS AND INFLUENCING FACTORS

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ABSTRACT

This study examines the critical factors influencing the adoption of electric vehicles (EVs) across different regions, emphasizing economic, technological, environmental, policy, and social dimensions. Using a systematic literature review methodology, this paper synthesizes findings from peer-reviewed articles and case studies spanning Asia, Europe, North America, and Australia. The objective is to identify common themes, regional variations, and the effectiveness of interventions, such as subsidies, charging infrastructure, and public awareness campaigns. The findings reveal that government incentives, technological advancements in battery efficiency, and increasing environmental awareness are significant drivers of EV adoption. However, persistent challenges, including high upfront costs, range anxiety, and insufficient infrastructure, particularly in developing regions, hinder widespread adoption. The study also highlights differences in consumer behavior and policy impacts across high-income and middle-income countries. Limitations include reliance on secondary data and the lack of region-specific behavioral analysis. Future research should address these gaps, focusing on integrating EVs with renewable energy sources and scaling global policy frameworks to support sustainable mobility.

KEYWORDS: *Electric Vehicles, Adoption Factors, Sustainability, Renewable Energy, Government Incentives, Charging Infrastructure, Environmental Awareness.*

Introduction

The global shift towards sustainability is crucial in addressing environmental challenges such as climate change and over-reliance on fossil fuels. Among the strategies employed, the adoption of electric vehicles (EVs) stands out as a vital measure to reduce transportation sector emissions. This paper examines the role of EVs in mitigating environmental impacts, their adoption, and associated challenges.

EVs are praised for their potential to lower carbon emissions and improve air quality through zero tailpipe emissions. Unlike internal combustion engine vehicles, which emit significant CO₂ and pollutants, EVs directly combat climate change and enhance public health by reducing respiratory and cardiovascular disease risks (Jansen & Petrova, 2023). Recognizing these benefits, governments worldwide are promoting EV adoption through environmental technology initiatives (Agarwal et al., 2022).

However, challenges remain, particularly regarding the electricity sources powering EVs. In many regions, electricity grids heavily rely on fossil fuels, which limits the overall emissions reduction despite zero tailpipe emissions (Sharma et al., 2024). This highlights the need to integrate renewable energy sources into the grid to fully realize EVs' environmental benefits (Patil, 2020).

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The production of EV batteries raises notable environmental concerns. The extraction and processing of raw materials such as lithium, cobalt, and nickel can cause habitat destruction, water pollution, and environmental degradation (Sharma et al., 2024). Additionally, the energy-intensive manufacturing of EVs, particularly batteries, contributes to carbon emissions, challenging their image as entirely green alternatives (Sharma et al., 2024). Advancements in sustainable mining practices and battery technology are critical to addressing these issues.

Managing EV components at the end of their lifecycle presents another environmental challenge. Inefficient recycling processes and hazardous waste from used batteries threaten sustainability (Sharma et al., 2024). Effective recycling methods and policies are essential to prevent environmental harm and ensure the long-term viability of EV technology (Roy et al., 2022).

Despite these challenges, EV adoption remains a crucial step in reducing emissions and promoting sustainability. Studies emphasize EVs' strategic importance in achieving the EU's emissions reduction goals and advancing sustainable development (Borén & Ny, 2016). Globally, countries like Norway are experiencing increased EV sales, demonstrating a shift away from internal combustion engine vehicles and toward cleaner transportation options (Ioannides & Wall-Reinius, 2015; Kumar & Alok, 2020). This trend signifies a global transition towards a reduced carbon footprint (Kene et al., 2021).

In developing countries like Pakistan, adoption barriers such as electricity shortages and inadequate infrastructure persist. However, initiatives like the China-Pakistan Economic Corridor (CPEC) create opportunities to promote EV adoption and reduce emissions (Babar et al., 2020). Research and feasibility studies are necessary to identify the most suitable EV types for such regions.

Integrating EVs with renewable energy sources amplifies their sustainability potential by reducing reliance on fossil fuels and fostering cleaner energy ecosystems (Jansen & Petrova, 2023). This aligns with the United Nations 2030 Agenda for Sustainable Development, emphasizing sustainable mobility and clean energy (Pautasso et al., 2019). EV adoption also offers socio-economic benefits, such as improved public health due to reduced air pollution and economic growth through job creation in the renewable energy and technology sectors (Pautasso et al., 2019). However, challenges like range anxiety and the need for extensive charging infrastructure must be addressed to facilitate this transition (Kene et al., 2021; Patel et al., 2022).

In New Zealand, for instance where renewable energy is predominant, EVs are key to sustainable mobility goals (Stephenson et al., 2014). Their effectiveness depends on electricity sources and travel behavior changes (Stephenson et al., 2014). Globally, EVs reduce emissions in transportation, supporting the EU's sustainability objectives (Borén & Ny, 2016). With climate change and fossil fuel reliance, EVs emerge as a cleaner alternative (Kumar & Alok, 2020). Addressing challenges, such as infrastructure and disposal issues, is vital (Singla & Bansal, 2022). Investments in EVs, renewable energy, and policies are crucial for a sustainable future (Ioannides & Wall-Reinius, 2015; Kumar & Alok, 2020).

Objectives of the Study

This study identifies key factors influencing global EV adoption rates, including consumer perceptions, government policies, and infrastructure. It examines global trends and regional case studies to evaluate incentives, regulations, and infrastructure impacts on behavior. The aim is to provide actionable insights for policymakers and stakeholders to promote EV adoption.

Significance of the Study

Understanding regional differences in electric vehicle (EV) adoption is crucial for policymakers, manufacturers, and stakeholders to tailor effective strategies that promote sustainability and reduce emissions globally. By identifying the key factors influencing EV uptake across various regions, this study provides insights that can enhance the effectiveness of government policies, improve infrastructure development, and refine market strategies. This knowledge is essential for accelerating the transition to a low-carbon future and achieving global climate goals.

Search Strategy

To review the factors influencing electric vehicle (EV) adoption rates and consumer perceptions globally, a comprehensive literature search was conducted using databases like Web of Science and Scopus. Peer-reviewed articles, reports, and studies published from 2012 onwards were included,

focusing on reliable and relevant sources. Non-English publications, opinion pieces, and non-academic works were excluded to ensure quality.

Analysis

The literature was categorized using a thematic coding approach, focusing on consumer perceptions, economic factors, technological concerns, government policies, and infrastructure development. Data extraction emphasized methodologies, findings, and regional contexts, revealing patterns and variations in EV adoption globally.

Visual tools, such as line and bar charts, were employed to depict global EV adoption trends and compare regional adoption rates. This approach highlighted disparities in adoption between high- and middle-income countries, identifying key drivers and barriers.

Overview of EV Adoption Rates - Global Trends

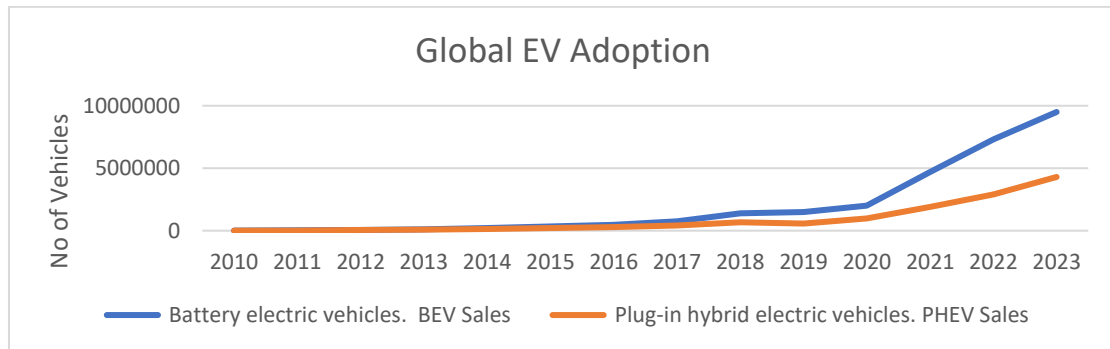
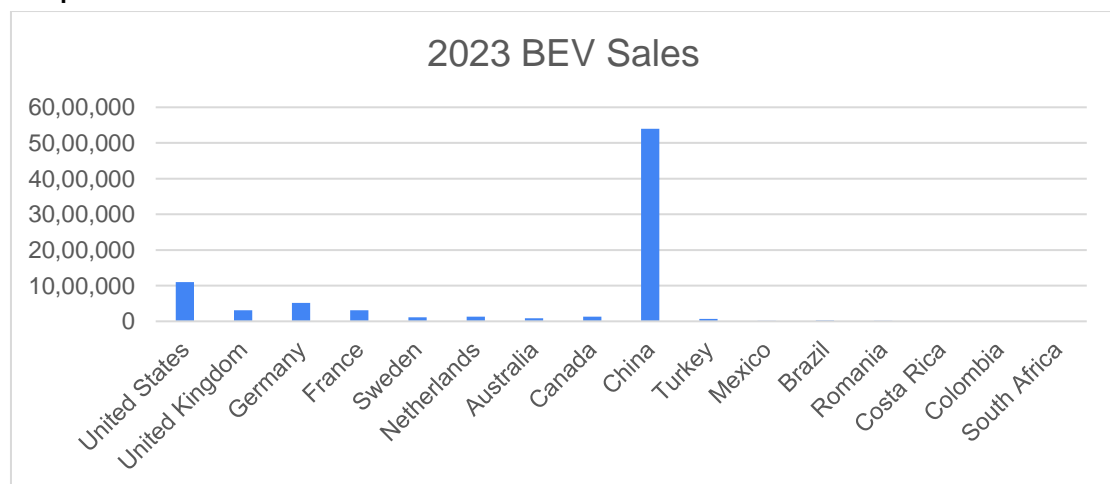


Chart 1: Line Graphs Showing Overall Global Trend

Source: <https://www.iea.org>

This chart shows the global growth in electric vehicle (EV) sales from 2010 to 2023, categorized into plug-in hybrid electric vehicles (PHEVs) and battery electric vehicles (BEVs). BEV sales have increased sharply, from 7,000 units in 2010 to 9.5 million units in 2023, indicating a strong preference for fully electric vehicles. PHEV sales also grew significantly, but at a slower rate, rising from 450 units in 2010 to 4.3 million units in 2023. The data highlights a consistent upward trend in EV adoption, with particularly rapid growth from 2020 onwards, reflecting increased consumer demand and possibly stronger government incentives and advancements in EV technology. By 2023, BEV sales had outpaced PHEV sales more than twofold, underscoring a global shift towards fully electric vehicles.

Bar Chart Showing - Comparison of High Income Group and Middle (Upper and Lower) Income Group Countries



Source: <https://www.iea.org/data-and-statistics/data-tools/global-ev-data-explorer>

The 2023 BEV sales data reveals a significant disparity in electric vehicle adoption between high-income and middle-income countries. China, classified as middle-income, is a striking outlier with the highest sales, dwarfing all other nations, likely due to strong government support and a massive domestic market. Among high-income countries, the United States leads in sales volume, followed by Germany and the United Kingdom, demonstrating substantial progress in their EV transitions. European nations like France, Sweden, and the Netherlands also show considerable BEV adoption within the high-income group, reflecting the impact of supportive policies and environmental awareness. In contrast, middle-income countries like Mexico, Brazil, and Romania exhibit much lower sales figures, suggesting that affordability and infrastructure limitations remain significant barriers. South Africa, at the lower end of the middle-income group, has particularly low sales, highlighting the challenges faced in developing economies. Costa Rica and Colombia, despite their middle-income status, have relatively higher sales compared to South Africa, but are still far behind most high-income nations. The data underscores that while EV adoption is accelerating globally, the pace of transition is heavily influenced by a nation's economic status and supportive policy environment. Overall, the data suggests that widespread EV adoption in middle-income countries, excluding China, will likely require targeted strategies to address economic and infrastructural challenges. The significant difference between the two income groups emphasizes the need for global cooperation to ensure an equitable and inclusive transition to electric mobility.

Factors Influencing EV Adoption Across Regions

Factor	Country/Region	Key Findings	Sources
Air Pollution (PM2.5)	China	Higher PM2.5 levels positively correlate with EV adoption, as consumers respond to environmental concerns.	Guo et al., 2019, pp. 11-13
Availability of EV Models	Germany, USA	A broader selection of EV models increases consumer options, leading to higher adoption rates.	Kim et al., 2017, p. 11
Battery Costs	Global	Declining battery costs significantly influence EV adoption; however, costs still represent a major barrier.	Islamovic & Lind, 2021, pp. 7-8
Battery Range and Charging	United Kingdom; USA, Norway, China, Korea	Limited range (60 miles for BEVs) is a significant barrier for consumers. Extended driving range of EVs positively influences market share, reducing range anxiety among consumers.	Shepherd et al., 2012, p. 64; Kim et al., 2017, pp. 10-11; Chu et al., 2019, p. 11
Battery Technology	USA, China	Improvements in battery technology, including range and cost reduction, drive adoption.	Zhang et al., 2018, p. 506
Charging Infrastructure	Estonia, Israel, Netherlands, Japan, Belgium, UK, Norway, Germany, China, France, Sweden, Ireland, USA, New Zealand, Portugal, Australia.	High charger density and the availability of public and private charging stations significantly boost EV adoption by reducing range anxiety and increasing convenience. Countries with tax exemptions, purchase subsidies, and well-developed charging infrastructure are more likely to achieve higher adoption rates. However, inadequate access to charging infrastructure remains a critical barrier, particularly in regions with limited public and home charging options.	; Yamaner, 2024, pp. 15-16; Shepherd et al., 2012, p. 64; Islamovic & Lind, 2021, pp. 6-7; Ni, 2020, pp. 7-8; Münzel et al., 2019, pp. 17-18; Li et al., 2017, pp. 474-475; Zhang et al., 2018, pp. 505-506; Kottasz et al., 2015, p. 6; Kim et al., 2017, p. 10; Xue et al., 2021, pp. 5-7; Foley et al., 2020, p. 8
Charging Networks	Norway	Adequate charging infrastructure is the strongest predictor of EV uptake.	Coffman et al., 2016, pp. 7-8
Consumer Behavior	Ireland, USA	EV adoption is impacted by consumer behavior, including range anxiety and resistance to behavioral change.	Islamovic & Lind, 2021, pp. 6-7

Consumer Characteristics	Germany	Social norms and collective efficacy are significant predictors of EV acceptance.	Coffman et al., 2016, p. 6
Consumer Range Anxiety	USA, Germany	Range anxiety remains a psychological barrier that influences consumer decisions.	Zhang et al., 2018, p. 506
Crude Oil Prices	USA, Norway, Canada	Higher oil prices influence EV adoption positively in countries where alternative energy policies are robust.	Yamaner, 2024, p. 27
Disposable Income	China	Higher disposable income levels significantly boost EV sales, especially in high-income cities.	Guo et al., 2019, p. 14
Driving Range and Charging Time	Germany, Denmark, USA	Limited driving range and long charging times are barriers. Consumers in Germany value added range (€33 per km).	Coffman et al., 2016, pp. 3-4
Economic Determinants	Brazil, India, Ireland, Korea, China	High upfront costs and maintenance expenses are primary barriers; operational savings help mitigate.	Anastasiadou & Gavanas, 2022, pp. 14-15
Economic Growth and Vehicle Affordability	India, China, USA	Economic development and consumer purchasing power affect adoption rates significantly.	Islamovic & Lind, 2021, p. 4
Economic Level of a Country	Poland, Czech Republic, Germany, UK, Norway	GDP per capita and average annual income significantly influence EV adoption rates in these countries.	(Kovář & Štávková, 2021)
Education Level (Years of Schooling)	Norway, Germany, Sweden	Higher levels of education are the most significant factor, encouraging awareness and adoption.	Yamaner, 2024, pp. 18-19
Effort Expectancy	India, Spain	Perceived ease of use significantly impacts EV adoption intentions.	Higueras-Castillo et al., 2024, p. 29303
Electricity Prices	USA; Sweden, Norway	Lower electricity prices encourage EV adoption, though not a significant factor in the short term. Lower electricity prices are correlated with higher EV adoption.	Ni, 2020, pp. 7-8; Mänzel et al., 2019, p. 20
Emissions Reduction	United Kingdom	Transitioning to EVs reduces CO2 emissions significantly when compared to conventional vehicles.	Shepherd et al., 2012, pp. 66-67
Environmental Awareness	China	Environmental awareness significantly influences consumer behavior toward purchasing EVs.	Guo et al., 2019, pp. 10-11
Environmental Concerns	India, Spain, China, Korea, UK, Germany, Belgium	Awareness of environmental benefits significantly drives EV adoption intentions.	Higueras-Castillo et al., 2024, p. 29304; Chu et al., 2019, pp. 9-10; Kottasz et al., 2015, p. 8
Environmental Determinants	Korea, Nordic Region, Spain, UK, China	Environmental concerns and benefits are motivators but are often secondary to cost and technology concerns.	Anastasiadou & Gavanas, 2022, pp. 17-18
Environmental Performance Index (EPI)	Sweden, Germany, France	Strong environmental policies and awareness correlate with higher EV sales.	Yamaner, 2024, pp. 14-15
Financial Incentives	Estonia, Norway, Belgium; Norway, USA, Iceland, Sweden, Netherlands, UK, Germany, Belgium; Norway, Netherlands, Denmark	High financial incentives don't guarantee high EV adoption. Countries with high economic status, tax exemption, and purchase subsidies are more likely to adopt EVs. Monetary subsidies (e.g., tax reductions, rebates) significantly influence EV adoption, with recurring incentives being more effective.	(Sierczula et al., 2014); (Yong & Park, 2017); Mänzel et al., 2019, pp. 14-15
Non-financial Incentives	Norway	Non-financial incentives like toll waivers have limited impact compared to infrastructure support.	Coffman et al., 2016, pp. 9-10
Fuel Availability	United Kingdom	Limited fuel availability (e.g., 40% for BEVs) impacts consumer willingness to adopt EVs.	Shepherd et al., 2012, p. 64

Gasoline Prices and Fuel Costs	USA, Norway, Japan, Canada	Increase in gasoline prices has a negative impact on EV sales due to cost concerns.	Ahmadi et al., 2015, pp. 93-94; Ni, 2020, pp. 7-8; Li et al., 2017, p. 476
GDP Per Capita	Norway, USA, France, China, Norway	Higher GDP per capita correlates with increased EV adoption due to better affordability.	Yamaner, 2024, p. 15; Li et al., 2017, p. 475
Geographical Layout	Australia	Larger states with scattered populations face challenges in EV infrastructure development.	Foley et al., 2020, p. 13
Government Incentives	Canada; UK, Belgium, Netherlands, Norway; Norway, Netherlands, China	Financial incentives (e.g., subsidies of up to \$8500) significantly boost EV and PHEV adoption. Financial incentives like subsidies and tax relief significantly boost EV adoption. Purchase subsidies and ownership tax benefits are significant factors driving EV adoption.	Ahmadi et al., 2015, p. 94; Kottasz et al., 2015, pp. 3-4; Xue et al., 2021, pp. 4-6
Government Policies	Norway, China, USA; China, Korea	Subsidies and tax exemptions in Norway and China have significantly boosted EV market penetration. Financial incentives, including subsidies, have a significant impact in both countries, though policies differ.	Ni, 2020, pp. 2-3; Chu et al., 2019, pp. 15-16
Government Policies and Incentives	China, Europe, USA	Regulatory support and subsidies drive adoption, particularly in regions with stringent emission targets.	Islamovic & Lind, 2021, pp. 9â€“10
Government Subsidies	Norway, Netherlands, USA; Australia	Financial incentives like subsidies and tax credits significantly impact EV adoption rates. Subsidies and incentives, including tax exemptions, boost adoption rates in states offering them.	Zhang et al., 2018, p. 503; Foley et al., 2020, pp. 10-11
Hedonic Motivations	India, Spain	Joy and pleasure from using EVs encourage adoption, particularly among younger consumers.	Higueras-Castillo et al., 2024, p. 29304
Household Disposable Income	USA, Norway, Sweden	Higher disposable income is strongly linked to EV adoption, highlighting affordability challenges.	Xue et al., 2021, p. 7
Income Levels	USA; Norway, Germany; Canada; Australia	Higher average income positively correlates with EV adoption; lower-income groups prefer HEVs. Higher income levels allow consumers to afford the higher upfront costs of EVs. Higher income levels positively correlate with EV adoption, particularly in urban areas. Higher average income levels correlate with higher EV adoption, particularly in urban areas.	Ni, 2020, pp. 7-8; MÃ¼nzler et al., 2019, p. 21; Ahmadi et al., 2015, p. 97; Foley et al., 2020, p. 15
Industrial Output	China	Cities with higher industrial output levels show greater EV adoption rates.	Guo et al., 2019, p. 13
Innovativeness	Korea	Korean users value the innovative technology of EVs more than environmental benefits.	Chu et al., 2019, p. 14
Legal Determinants	USA, Switzerland, China	Laws mandating charging infrastructure in new developments and targeted subsidies are impactful.	Anastasiadou & Gavanias, 2022, p. 17
Market Diffusion Models	USA, UK	Diffusion follows an S-curve, with early adopters driving initial market penetration.	Islamovic & Lind, 2021, pp. 12â€“13
Non-Financial Incentives	Norway, Sweden, USA	Road priority and toll waivers enhance EV visibility and adoption by lowering operational costs.	Xue et al., 2021, pp. 5-6
Performance Expectancy	India, Spain	The belief in improved efficiency and performance positively influences EV adoption.	Higueras-Castillo et al., 2024, p. 29302

Personal Norms	India, Spain	Internal beliefs about moral responsibility positively impact EV adoption intentions.	Higueras-Castillo et al., 2024, p. 29305
Policy Support	Norway, USA, Iceland, Sweden, Netherlands, UK, Germany, Belgium; Norway, Netherlands, Germany	Policy support, such as tax exemption and purchase subsidies, influences the spread of EVs. Supportive government policies, such as exemptions from tolls and access to restricted zones, promote adoption.	; MÄ¼nz el al., 2019, pp. 23-24
Political Determinants	China, India, USA, France, Germany, Norway	Subsidies, tax reductions, and clear policy frameworks significantly boost EV adoption.	Anastasiadou & Gavanas, 2022, pp. 12-13
Population Density	Japan, USA	High population density positively impacts EV adoption rates.	Li et al., 2017, p. 475
Public Visibility and Social Norms	UK	Peer influence and shifting stereotypes (from negative to positive) improve adoption.	Coffman et al., 2016, p. 8
Purchase Price	United Kingdom	High initial purchase prices for EVs (e.g., Å£20,000 for BEVs) deter adoption.	Shepherd et al., 2012, p. 64
Raising Awareness	UK	Misinformation about EV costs and benefits hampers adoption.	Coffman et al., 2016, p. 10
Relative Price of EVs	China, Denmark, Norway	Lower relative prices of EVs compared to ICEVs significantly boost adoption, supported by financial incentives and tax reductions.	Kim et al., 2017, p. 8
Renewable Energy Integration	Canada, USA, Germany	Integration of EVs with renewable energy sources increases adoption potential.	Zhang et al., 2018, p. 507
Renewable Energy Share	Australia	States with a higher share of renewable energy see increased EV adoption due to environmental benefits.	Foley et al., 2020, p. 14
Renewable Energy Use	Norway, Germany, USA, China	A 1% increase in renewables in electricity production leads to a 2-6% increase in EV demand.	Li et al., 2017, pp. 473-475
Share of Renewables in Electricity	Norway, Sweden, Denmark	Countries with a higher share of renewable energy see a significant boost in EV adoption.	Yamaner, 2024, p. 15
Social Image and Prestige	China	EV ownership is associated with social status and environmental responsibility.	Chu et al., 2019, pp. 12-13
Social Influence	China; India, Spain	Social norms and societal recognition increase the willingness to adopt EVs. Peer and societal opinions significantly affect EV purchase decisions.	Ni, 2020, p. 4; Higueras-Castillo et al., 2024, p. 29303
Social Status and Image	UK	EVs are perceived as a way to demonstrate environmental responsibility and social status.	Kottasz et al., 2015, p. 9
Social and Sociodemographic Determinants	Denmark, Sweden, Spain, China, India	Social norms, peer influence, and personal attitudes strongly affect adoption; younger, educated consumers are more likely to adopt.	Anastasiadou & Gavanas, 2022, pp. 15-16
Subsidies	United Kingdom	Subsidies have a limited impact on EV adoption unless combined with marketing efforts.	Shepherd et al., 2012, pp. 66â€67
Supporting Charging Infrastructure	Norway	Charging infrastructure has a greater impact on EV adoption than financial incentives.	Coffman et al., 2016, pp. 9-10
Technological Determinants	Germany, Norway, USA, China, Korea	Availability and density of charging infrastructure, battery range, and charging speed are critical factors.	Anastasiadou & Gavanas, 2022, pp. 16-17
Urban Population	China	Larger urban populations are positively associated with increased EV sales volumes.	Guo et al., 2019, pp. 12-14
Urban Population Density	Norway, USA	Higher population density in urban areas supports better infrastructure and boosts adoption.	Zhang et al., 2018, p. 505

Urbanization	Italy, China	Urbanization has a weaker, non-significant impact on EV adoption.	Li et al., 2017, p. 475
Urbanization Rate	Japan, UK, Canada	Urbanization increases EV adoption by providing proximity to infrastructure and lower range anxiety.	Yamaner, 2024, p. 16
Urbanization and Population Density	Canada	Urban areas with higher population density show greater EV adoption rates due to infrastructure availability.	Ahmadi et al., 2015, p. 97
Vehicle Ownership Costs	France, Germany, USA	High upfront costs deter adoption. TCO is higher for BEVs compared to ICEVs; tax credits partially mitigate costs.	Coffman et al., 2016, pp. 2-3
Word of Mouth and Marketing	Canada, New Zealand	Lack of sustained marketing efforts leads to market collapse, as seen in other regions.	Shepherd et al., 2012, p. 68

Discussion

Synthesis of Findings

The literature highlights that electric vehicle (EV) adoption is influenced by a mix of economic, technological, environmental, policy, and social factors. Economic factors such as government subsidies, financial incentives, and household disposable income play a crucial role in lowering the entry barriers for consumers. Technological advancements, including improvements in battery technology and the availability of charging infrastructure, address range anxiety and usability concerns. Environmental awareness, driven by air pollution and climate change, motivates individuals and governments to transition to cleaner energy. Policies and regulations, such as subsidies and emission reduction mandates, significantly boost EV adoption rates, particularly in regions like Europe and Asia. Social influences, including societal norms and personal values, also play a key role in encouraging adoption.

Key themes influencing EV adoption include economic factors, where high-income regions like Norway and the USA benefit from subsidies, while middle-income countries like China excel due to domestic production and government support. Technological advancements in batteries and charging infrastructure address range anxiety, with Europe and North America leading in dense networks, while developing nations lag. Environmental concerns, such as air pollution and renewable energy integration, drive adoption in regions like China and the Nordic countries, though often secondary to economic and technological factors. Policy support is crucial in regions with stringent emission standards, such as Europe, whereas limited incentives slow adoption in parts of Africa and South Asia. Social and cultural influences, including norms and prestige, promote adoption in urban areas of China and Europe, especially among younger populations.

Research Gaps

Research on EV adoption highlights key gaps, particularly in developing nations. Comprehensive studies on consumer behaviour and cultural influences remain limited, hindering a deeper understanding of adoption dynamics across regions. Additionally, the environmental impact of EV production and battery disposal, especially in emerging markets, is underexplored. Comparative analyses of global policy frameworks and their scalability are needed, as are detailed evaluations of integrating EVs with renewable energy sources to maximize sustainability benefits. There is a lack of longitudinal studies that track how consumer perceptions evolve over time and with increased exposure to EVs, which is crucial for predicting long-term adoption trends.

Conclusion

The findings emphasize the importance of targeted subsidies, tax incentives, and investments in charging infrastructure for policymakers, while manufacturers should prioritize battery advancements and model diversification to address consumer needs. Governments should adopt dynamic policies, develop robust charging networks through public-private partnerships, and promote awareness of EV benefits. Technological innovation in batteries and renewable energy integration is crucial to maximizing EV sustainability. By 2030, EVs are expected to dominate global vehicle sales in developed markets, with localized strategies and collaborations enabling growth in emerging economies. The future of EV adoption promises cleaner, more sustainable transportation worldwide.

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EMPOWERMENT OF WOMEN ENTREPRENEURSHIP AND ITS IMPACT ON RURAL ECONOMIC DEVELOPMENT

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ABSTRACT

Women entrepreneurship has emerged as a crucial driver of rural economic development, contributing significantly to job creation, poverty alleviation, and community empowerment. This study explores the intricate relationship between empowering women entrepreneurs and the socio-economic upliftment of rural areas. It examines how rural women, despite facing various socio-cultural and financial barriers, have harnessed entrepreneurial opportunities to transform not only their lives but also their communities. The research relies on secondary data, including government reports, case studies, and academic literature, to highlight the key challenges, policy interventions, and success stories. The study also aims to evaluate the effectiveness of government initiatives such as MUDRA loans, Stand-Up India, and SHG programs in fostering women-led enterprises. Ultimately, this research provides practical recommendations for strengthening women entrepreneurship through financial inclusion, skill development, and improved market access, contributing to sustainable rural economic development.

KEYWORDS: *Women Entrepreneurship, Rural Economic Development, Empowerment, Financial Inclusion, Government Initiatives, Small and Medium Enterprises (SMEs), Poverty Alleviation, Employment Generation, Household Income, Financial Support, Social Constraints, Market Access, Skill Development.*

Introduction

Entrepreneurship is widely recognized as a powerful tool for economic growth and social progress. In rural areas, women entrepreneurs play a pivotal role in driving economic development by creating employment opportunities, boosting household incomes, and promoting local industries. Women entrepreneurship refers to the process in which women organize and manage a business enterprise, taking risks and innovating in various sectors, ranging from agriculture and handicrafts to food processing and retail.

Rural women, despite their immense potential, face numerous challenges that hinder their entrepreneurial journey. Limited access to credit, lack of education and training, societal restrictions, and inadequate market linkages are some of the major obstacles they encounter. However, with the advent of supportive government policies and the rise of digital platforms, many women have successfully established small and medium enterprises (SMEs) that contribute to both family income and the broader rural economy.

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The empowerment of women entrepreneurs is not merely about economic independence; it is closely linked to social transformation. When women gain financial autonomy, they invest in their families' education, health, and overall well-being, creating a ripple effect of development within their communities. This highlights the critical intersection between women entrepreneurship and rural economic empowerment.

This study aims to delve into the multi-faceted impact of women-led enterprises on rural economies. It seeks to uncover how empowering women through entrepreneurship leads to inclusive growth, reduces poverty, and strengthens local economies. The research also evaluates the effectiveness of government schemes and identifies areas where additional support is required to overcome existing challenges.

Statement of the Problem

Despite the increasing recognition of women entrepreneurs as key agents of rural economic development, their full potential remains untapped due to a range of structural and systemic barriers. Rural women often grapple with limited access to financial resources, inadequate training facilities, gender biases, and restricted market opportunities. The lack of robust support systems and infrastructure further exacerbates their struggles, hindering their ability to scale their businesses. This study seeks to address the following key issues:

- What role do women entrepreneurs play in promoting rural economic development?
- What are the primary challenges faced by rural women entrepreneurs in terms of financial support, social constraints, market access, and skill development?
- How effective are the existing government initiatives in supporting rural women entrepreneurship?
- What strategies can be implemented to foster a more supportive ecosystem for women-led enterprises in rural areas?

Objectives of the Study

The main objectives of this study are:

- To examine the role of women entrepreneurs in promoting rural economic development by generating employment opportunities and enhancing household income.
- To identify the key challenges faced by rural women entrepreneurs in terms of financial support, social constraints, market access, and skill development.
- To evaluate the effectiveness of government programs and initiatives aimed at empowering rural women entrepreneurs.
- To provide practical recommendations for strengthening women entrepreneurship and ensuring sustainable rural economic growth.

Review of Literature

Sharma & Varma (2020): Their study highlights that women entrepreneurs in rural areas play a pivotal role in creating self-employment opportunities. However, lack of access to financial resources and societal norms restricts their growth.

Kumar (2019): Explores how government initiatives like MUDRA loans have positively influenced rural women entrepreneurs by providing much-needed financial assistance and business training.

Patel & Mehta (2018): Focuses on the social constraints' women face, including family opposition and gender biases, which often limit their entrepreneurial ventures.

Reddy et al. (2021): Discuss how digital platforms have enabled rural women to expand their market reach, though digital illiteracy remains a challenge.

Singh (2022): Emphasizes the importance of skill development programs and vocational training in empowering rural women to run sustainable enterprises.

The literature reveals a consistent pattern of financial, social, and educational barriers that hinder rural women's entrepreneurial growth. It also highlights the need for more comprehensive support systems combining financial aid, training, and market access.

Research Methodology

This study adopts a descriptive research design, relying entirely on secondary data collected from various credible sources such as:

- Government reports and official statistics
- Research papers and academic journals
- Case studies of successful rural women entrepreneurs
- Reports published by non-governmental organizations (NGOs) and financial institutions

The collected data will be analysed to identify common themes, challenges, and policy gaps. Statistical data on women entrepreneurship, employment generation, and rural economic indicators will be examined to understand the broader impact of women-led enterprises.

Role of Women Entrepreneurship in Rural Economic Empowerment

Women entrepreneurship plays a transformative role in rural economic empowerment by:

- **Employment Generation:** Women entrepreneurs create job opportunities not only for themselves but also for other members of their communities, thereby reducing rural unemployment.
- **Income Enhancement:** By running small and medium enterprises, women boost household incomes, contributing to better living standards.
- **Skill Development:** Entrepreneurial activities often require women to acquire new skills, promoting personal and professional growth.
- **Community Development:** Financially independent women reinvest their earnings into their families' health and education, leading to holistic community development.

Challenges Faced by Women Entrepreneurs in Rural Areas

Despite their contributions, rural women entrepreneurs encounter several obstacles, including:

- **Financial Barriers:** Limited access to credit and high-interest rates prevent women from expanding their businesses.
- **Social Constraints:** Gender biases, societal norms, and family responsibilities restrict women's entrepreneurial pursuits.
- **Market Access:** Inadequate market linkages and lack of awareness about modern marketing strategies limit business growth.
- **Skill Gaps:** Insufficient training programs hinder the development of essential business skills.

Effectiveness of Government Programs and Initiatives

Several government programs and initiatives have been introduced to empower rural women entrepreneurs. Their effectiveness can be analysed through the following aspects:

- **Financial Support:** Programs like the MUDRA scheme and Stand-Up India provide collateral-free loans, helping women overcome financial barriers and start their ventures.
- **Skill Development:** Initiatives like the National Rural Livelihood Mission (NRLM) offer entrepreneurship training, improving women's business acumen and leadership skills.
- **Market Linkages:** Schemes such as Mahila E-Haat create digital platforms for rural women to market and sell their products, expanding their customer base.
- **Awareness and Networking:** Women Entrepreneurship Platforms (WEP) foster networking, mentorship, and knowledge sharing, boosting confidence and innovative ideas.

While these programs have shown positive outcomes in increasing women's participation in entrepreneurship, challenges remain in terms of program reach, awareness, and effective implementation at the grassroots level.

Suggestions and Conclusion

To foster rural women entrepreneurship, the following strategies are recommended:

- Enhancing access to affordable credit through microfinance and cooperative banks.
- Implementing targeted skill development programs focusing on digital literacy and business management.
- Creating rural business hubs to facilitate market access and networking.

- Strengthening government initiatives by ensuring effective implementation and monitoring.
- Promoting mentorship programs to connect experienced women entrepreneurs with aspiring rural business women.
- Establishing community-based cooperatives to encourage collective entrepreneurship and resource sharing.
- Increasing digital inclusion by providing rural women with tools and training to leverage e-commerce and online marketing platforms.
- Encouraging public-private partnerships to bring additional resources and expertise into rural entrepreneurial ecosystems.

In conclusion, empowering women entrepreneurs is vital for rural economic development. By addressing existing challenges and providing robust support systems, we can unlock the immense potential of rural women, driving inclusive and sustainable growth.

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WOMEN ENTREPRENEURSHIP IN INDIA: CHALLENGES, OPPORTUNITIES, AND GROWTH TRENDS

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ABSTRACT

Women entrepreneurs are indispensable to India as an economy. The purpose of this paper is to discuss about the types of women entrepreneurship & their importance in India. It also explores the problems women entrepreneurs encounter and the opportunities that exist for them. This includes a comparative study of women-owned businesses, a SWOT analysis, and government programs that are assisting women entrepreneurs. The research shows that women are increasingly involved in business, and there are still a lot of work to be done to even the playing field through policy and change in society.

KEYWORDS: *Women Entrepreneurs, Challenges, Opportunities, MSMEs, Government Initiatives, Economic Empowerment.*

Introduction

The word entrepreneur derived from the French word "Entreprendre" (to undertake). Entrepreneurship is more than simply "starting a business," but it is a process of converting an innovative and creative idea or thought into reality, with the help of material, labour and capital. It is a composite skill, which includes imagination, readiness to take risk, ability to bring together all factors of production.

India stands at the threshold of becoming a global economic powerhouse, with experts emphasizing the need to generate 100 million new jobs to attain developed nation status. Achieving this goal, however, is not possible without the meaningful involvement of women, who make up nearly half of the population. In recent years, women entrepreneurs have emerged as key drivers of economic development and innovation. This study delves into the various challenges they face, the barriers they overcome, and the opportunities available to them in the Indian entrepreneurial landscape.

Concept of Women Entrepreneurship

The emergence of entrepreneurs within any society is deeply influenced by a combination of economic, social, cultural, religious, and psychological factors. In many developed nations, the participation of women in entrepreneurial activities has seen a remarkable surge, particularly after the Second World War. For instance, in the United States, women account for roughly 25% of all occupations. In Canada, one out of every three small businesses is owned by a woman, while in France, women entrepreneurs comprise about 20% of the sector. The United Kingdom has also witnessed a significant rise, where the number of self-employed women has tripled since 1980, outpacing the growth rate among men.

Women are increasingly stepping beyond traditional domestic roles and establishing their presence in various fields, including industry and commerce. Their entrepreneurial capabilities are gaining recognition, and it is now more important than ever to encourage and support women's participation in enterprise on a larger scale. Female entrepreneurs are exploring new economic opportunities, bringing fresh ideas, and making meaningful contributions across sectors. In countries like

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Canada, the UK, Germany, Australia, and the US, women-owned businesses are becoming increasingly prominent in areas such as retail, hospitality, education, cultural services, cleaning, insurance, and even manufacturing.

Drawing from the general understanding of entrepreneurship, a woman entrepreneur can be described as an individual or a group of women who initiate, manage, and grow a business venture. According to economist Joseph Schumpeter, women who innovate or adopt new business models fall under this category. Simply put, women entrepreneurs are those who conceive a business idea, organize resources, take calculated risks, and navigate the uncertainties of the market to sustain and grow their enterprise.

- **United States:** 25% of all businesses are owned by women.
- **Canada:** One-third of small businesses are women-led.
- **France:** Women manage one-fifth of enterprises.
- **United Kingdom:** Since 1980, self-employed women have tripled compared to men.

Women Entrepreneurship in India

Women represent nearly half of the global population, and India is no exception. This demographic presence rightly positions them as the "better half" of society. Traditionally, Indian society drew a clear line between roles designated for men and women—especially for women burdened with family responsibilities. These norms significantly limited women's participation in both conventional and unconventional economic activities. However, as societal values and ideologies have evolved, the role and status of women have undergone a remarkable transformation. Today, women are breaking barriers, standing shoulder to shoulder with men, and making vital contributions to the country's economic development.

Categories of Women Entrepreneurs in India

Women entrepreneurs in India can be broadly classified into several categories, based on their social background, motivations, and economic conditions:

- **Affluent Entrepreneurs**

These women come from financially well-established families, often with a legacy of business. They include daughters, daughters-in-law, sisters, and wives of influential business personalities. With strong family backing, they typically venture into creative and service-based industries like beauty salons, interior design, book publishing, and film distribution. Their privileged background provides them with the resources and support necessary to pursue entrepreneurship with ease.

- **Pull Factor Entrepreneurs**

Driven by ambition and the desire for financial independence, educated women in urban areas often take up entrepreneurship as a self-chosen challenge. These women are influenced by "pull factors"—opportunities that attract them toward business. They usually opt for low-risk ventures such as running service centers, educational institutions, catering units, small restaurants, or grocery outlets.

- **Push Factor Entrepreneurs**

Some women are compelled to enter business out of necessity rather than choice. Financial hardships or familial obligations often push them to either continue an existing family business or establish a new one to support household income. These women are categorized under "push factor" entrepreneurs, as their motivation stems from external pressures rather than personal ambition.

- **Self-Employed Entrepreneurs**

Women from economically disadvantaged backgrounds—especially in semi-urban and rural areas—rely on their own skills and efforts to earn a livelihood. These women set up small-scale ventures such as broom-making, candle-making, garment repairs, knitting, ironing services, and roadside tea stalls. With limited resources, they often operate informally and are driven by the need for survival.

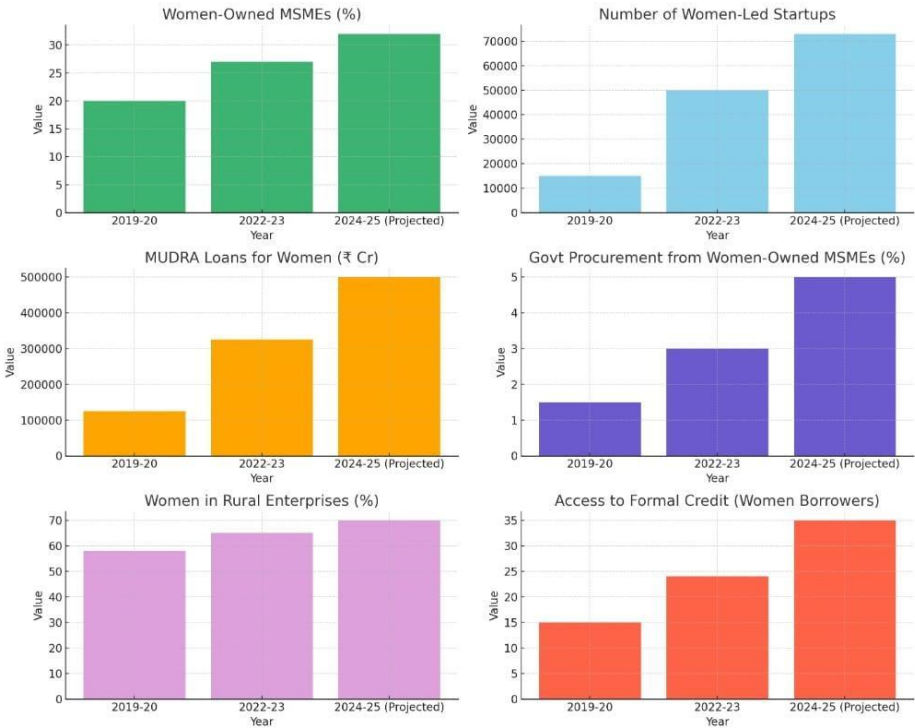
- **Rural Entrepreneurs**

Women in rural communities often engage in small-scale enterprises that require minimal formal training or investment. These ventures usually involve producing local goods such as dairy products, pickles, fruit juices, papads, and jaggery. These businesses not only provide them with a source of income but also promote rural economic development.

Comparative Analysis of Growth Trends of Women Entrepreneurship in India

Category	2019-20	2022-23	2024-25 (Projected)	Analysis & Trends
Women-Owned MSMEs (%)	20%	27%	32%	Increasing participation due to government schemes and digital platforms.
Number of Women-Led Startups	15,000	50,000	73,000	Growth due to Startup India and WEP initiatives.
Financial Support (MUDRA Loans for Women, ₹Cr)	1,25,000	3,25,000	5,00,000	Increased credit access via government schemes.
Sectors with Highest Women Participation	Handicrafts, Retail	E-commerce, EdTech, Retail	AI-driven startups, Sustainable Businesses	Shift towards tech-driven sectors.
Government Procurement from Women-Owned MSMEs (%)	1.5%	3%	5%	Gradual improvement but further strengthening needed.
Women in Rural Enterprises (%)	58%	65%	70%	Growth due to SHGs, NABARD, and skill programs.
Access to Formal Credit (Women Borrowers)	15%	24%	35%	Financial inclusion improving, but disparities remain.

Trends in Women's Entrepreneurship in India



The above data indicates several key points:

- **Steady Increase in Women-Owned MSMEs:** Growing from 20% in 2019-20 to a projected 32% in 2024-25, driven by financial inclusion and policy support.
- **Rise in Women-Led Startups:** A fivefold increase in women-led startups between 2019-20 and 2022-23 shows an expanding entrepreneurial ecosystem.
- **Enhanced Financial Support:** MUDRA loans disbursed to women have increased significantly, improving access to capital.
- **Sectoral Shift:** Traditional fields like handicrafts and retail are giving way to tech-driven enterprises such as AI startups and sustainable businesses.
- **Rural Women Entrepreneurship Growth:** Increased participation in rural enterprises, supported by SHGs and cooperative ventures.
- **Slow Growth in Government Procurement:** The procurement percentage remains low, indicating the need for improved policies.
- **Financial Inclusion Still a Challenge:** Only 35% of women entrepreneurs are expected to access formal credit by 2024-25, necessitating further interventions.

Challenges of Women Entrepreneurs in India

Women entrepreneurs face several barriers, including:

- Career uncertainty
- Economic instability
- Low risk-taking ability
- Difficulty in obtaining finance & raw materials
- Intense competition
- Low literacy rates
- Limited access to financial assistance
- Marketing difficulties
- Family responsibilities
- High production costs
- Lack of self-confidence

SWOT Analysis

Strength	Weakness
<ul style="list-style-type: none"> • Good at management • Confident • creative • innovative • Have strength to work hard with willingness. • Women prioritise to work from their residence, which makes difficult to get suitable jobs and desire for social recognition motivates them self employment 	<ul style="list-style-type: none"> • Absence of proper support • Absence of proper corporation, backup by the family and outside world • Perspective of people around makes their moral down, • responsibilities towards her family are also making a boundaries
Opportunities	Threats
<ul style="list-style-type: none"> • Emerging opportunities in sectors like event management, sustainable (eco-friendly) technologies, and IT-enabled services offer vast potential for women to establish and grow innovative businesses. • Art- workers also has great success • Indian embroidery business has also larger chances to grow. 	<ul style="list-style-type: none"> • Women are underrepresented in maximum industries in India • Give emphasis to family and relationship • Limited access to modern technology and digital tools hampers the growth potential of women-led enterprises. • Low self-confidence and the absence of a resilient mindset can restrict women from fully exploring entrepreneurial opportunities.

Government Initiatives Supporting Women Entrepreneurship

Scheme	Benefit
Bharatiya Mahila Bank	this bank is authorized to provide collateral-free loans of up to ₹1 crore. Besides supporting manufacturing units, it extends financial assistance to women engaged in small-scale businesses and the retail sector, promoting inclusive growth.
Dena Shakti Scheme	This scheme offers financial support of up to ₹20 lakhs to women entrepreneurs operating in sectors such as housing, education, and retail. An additional benefit includes a 0.25% reduction in the applicable interest rate, making it more accessible.
Mudra Yojana Scheme	Designed to cater to businesses at different stages, Mudra Yojana provides loans ranging from ₹50,000 to ₹10 lakhs. It supports startups, small enterprises, and growing businesses seeking to expand their reach and operations.
Annapurna Scheme	Aimed at women involved in food services—such as catering, snacks, and beverage businesses—this scheme offers loans of up to ₹50,000. The interest rate is flexible and determined based on current market conditions.
Shree Shakti loan for women entrepreneurs	This program focuses on skill development, helping women acquire the entrepreneurial capabilities required to manage and grow a business. It also offers a concessional interest rate of 0.005% on loans exceeding ₹2 lakhs.
The Women Entrepreneurship Platform (WEP)	WEP acts as a one-stop support system for women entrepreneurs by providing mentorship, credit facilities, funding opportunities, and corporate partnerships. It also encourages women to share their entrepreneurial stories and experiences. The platform is especially useful for women in the ideation or early stages of their ventures.

Conclusion

In today's era of globalization and liberalization, India has witnessed a significant shift in recognizing the role of women in driving economic progress. As the cost of living continues to rise, it has become increasingly important for women to participate in income-generating activities and contribute to their family's financial stability. However, despite these evolving dynamics, women still encounter numerous obstacles on their path to success—ranging from limited educational opportunities and family responsibilities to social pressures, legal complexities, high production costs, male-dominated work environments, low confidence levels, and a lack of awareness regarding laws and regulations. Yet, in the face of these challenges, many women have not only made their mark in the professional world but have also courageously ventured into entrepreneurship—an area once considered off-limits. As bold and capable entrepreneurs, they are embracing risks, managing resources, and navigating difficulties to attain financial independence and carve out a respected identity in society. As Dr. A.P.J. Abdul Kalam rightly said, "Empowering women is a prerequisite for building a good nation."

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स्त्री विमर्श का सुरक्षा संदर्भ में एक समीक्षा

डॉ. सुशील कुमार यादव*

सार

भारतीय समाज में स्त्री विमर्श की शुरुआत 20वीं शताब्दी के उत्तरार्ध में हुए नारीवादी महत्वपूर्ण आंदोलनों से हुई थी। नारीवादी इस आंदोलन से भारतीय साहित्य पर बहुत गहरा प्रभाव पड़ा था। भारतीय समाज में स्त्री की स्थिति विवादों से भरी हुई है। प्राचीन परम्परा से ही स्त्री को शक्ति के रूप में स्थापित किया गया है, लेकिन व्यवहारिक जीवन में उसे अबला के रूप में स्थापित किया गया है। मध्य-काल के साहित्य में कवियों ने स्त्री को अनेक संघर्ष के रूप में प्रदर्शित किया है, और आज भी हमारे समाज और साहित्य में स्त्री के प्रति कमोवेश यही अंतर्विरोधी रवैया मौजूद है। जब से मानव ने इस पृथ्वी पर जन्म लिया है स्त्रियों की सुरक्षा संबंधी अनेकों खतरे उत्पन्न होते रहे हैं। जब हम आधी आबादी की स्थिति पर सुरक्षा संबंधी दृष्टि डालते हैं तो स्त्री विमर्श के समस्त अवयव एवं मानक ध्वस्त होते दिखते हैं घर, परिवार एवं समाज की बनावट में नारी सदैव से असुरक्षित ही रही है जब कि नारी को पूजनीय माना गया है। भारतीय समाज में ऐसा कहा गया है कि जहाँ नारी की पूजा होती है वहाँ देवता निवास करते हैं। स्त्रियाँ अपने अभावों और संघर्षों को अकेली झेलती हुई समाज की अभिशप्त हो जाती हैं।

शब्दकोश: प्रदर्शित, स्त्री, पुरुष, स्त्रीवादी चिंतन, नर-नारी।

प्रस्तावना

स्त्री विमर्श का सुरक्षा संदर्भ में समीक्षा महिलाओं के अधिकारों, उनकी सम्पूर्ण सुरक्षा और न्याय के उचित एवं आवश्यक मुद्दों पर आधारित है। ऐसा इसलिए क्यों कि ये सभी तत्व महिलाओं के सामाजिक, आर्थिक और राजनीतिक जीवन में बहुत महत्वपूर्ण भूमिका का निर्वाह करते हैं। इस तरह का स्त्री विमर्श महिलाओं को पूरी तरह सुरक्षित और सशक्त बनाने के लिए निरन्तर संघर्ष करता है। इतना ही नहीं अपितु महिलाओं के साथ होने वाले अन्याय और विभिन्न तरह के भेदभाव के विरुद्ध महत्वपूर्ण तरीके से आवाज भी उठाता है। स्त्री विमर्श महिलाओं के विरुद्ध होने वाले विभिन्न प्रकार की हिंसा, अनेकों तरह के शोषण, तमाम प्रकार के भेदभाव, आदि के विरुद्ध आवाज उठाता है। महिलाओं के विरुद्ध घरेलू हिंसा, छेड़छाड़ और यौन उत्पीड़न, बलात्कार एवं मानव तस्करी आदि व्यापक पैमाने पर शामिल है।

स्त्री सुरक्षा सन्दर्भ में 'स्त्री विमर्श' सम्पूर्ण महिलाओं की सुरक्षा के लिए नितान्त आवश्यक और महत्वपूर्ण दृष्टिकोण है। स्त्री विमर्श सभी महिलाओं के लिए समानता एवं न्याय की जोरदार माँग करता है। ऐसा इसलिए

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भी जिससे कि वे समाज में समान रूप से अपनी महत्वपूर्ण भूमिका का निर्वाह कर सकें। स्त्री सुरक्षा के सन्दर्भ में स्त्री विमर्श महिलाओं को सुदृढ़ सशक्त बनाने और उन्हें अपने अधिकारों आदि के प्रति सतर्क रहने और जागरूक करने में मदद करता है। इस प्रकार स्त्री विमर्श से महिला सशक्तिकरण को व्यास मिलता है।

भारतीय सामाजिक परिदृश्य में स्त्री विमर्श सम्पूर्ण महिलाओं की सुरक्षा को सुरक्षित और बेहतर बनाने के लिए सामूहिक स्तर पर भी काम करता है। इस तरह के स्त्री विमर्श से महिलाओं के लिए सुरक्षित एवं न्यायपूर्ण ढंग का समाज बनाने में सहयोग प्रदान करता है। स्त्री सुरक्षा सन्दर्भ में स्त्री विमर्श सभी महिलाओं के विरुद्ध होने वाले तमाम प्रकार के अपराधों के लिए कठोर कानून बनाने की और उन्हें हुबहू लागू करने की जोरदार माँग करता है। स्त्री विमर्श द्वारा महिलाओं के अधिकारों और सुरक्षा के बारे में उनमें जागरूकता उत्पन्न किया जा सकता है। डॉ० संदीप रणभिरकर के शब्दों में “स्त्री विमर्श” स्त्री के स्वयं की स्थिति के बारे में सॉचने और निर्णय करने का विमर्श है। सदियों से होते आये शोषण और दमन के प्रति स्त्री चेतन ने ही ‘स्त्री विमर्श’ को जन्म दिया है।¹

स्त्री विमर्श भारतीय समाज की वैज्ञानिक संरचना को भी प्रभावित करती है। भारतीय साहित्य में आधुनिक नारीवादी आन्दोलन के बावजूद वर्तमान भारतीय समाज में स्त्री विमर्श के तहत स्त्री की भारतीय साहित्य विशेष रूप से हिन्दी साहित्य में स्पष्ट रूप से दृष्टिगोचर होता है। भारतीय समाज में स्त्री विमर्श की बात पर बीसवीं शताब्दी के उत्तरार्ध से जितने भी नारीवादी आन्दोलन हुए हैं उन सभी आन्दोलनों से भारतीय साहित्य बहुत हद तक प्रभावित हुआ है। इस सन्दर्भ में डॉ० नीलिमा सिंह अपने शब्दों में लिखती हैं कि – “स्त्री विमर्श में स्त्री शिक्षा की अपरिहार्यता पर जोर दिया गया साथ ही साथ यह माना गया कि स्त्रियों की दशा सुधारने में स्त्री शिक्षा का बहुत महत्व है। परन्तु इस दिशा में यथार्थवादी दृष्टिकोण से विचार नहीं किया गया।”²

यद्यपि कि आधुनिक हिन्दी साहित्य में नारी, चेतना और सर्जना के बीचों-बीच खड़ी दिखाई देती है। हिन्दी साहित्यकारों ने स्त्री पात्रों के प्रति पूरी संवेदना के साथ उनकी महानता का चित्रण किया है। सामाजिक दृष्टिकोण से स्त्री विमर्श हिन्दी साहित्य में बहस का मुद्दा बहुत बाद में बना। इस ‘स्त्री विमर्श’ सन्दर्भ में सन् 1974 ईसवी में ‘प्रगतिशील महिला संगठन’ का गठन किया गया तब महिलाओं के महत्वपूर्ण मुद्दों को अखबारों और पत्र-पत्रिकाओं में स्थान मिलने लगा।

स्त्री विमर्श के सुरक्षात्मक सन्दर्भ में यह उल्लेख मिलता है कि स्त्रियों ने अपनी सुरक्षा हेतु स्वयं संघर्ष किया और स्त्री अधिकारों की सभी लड़ाईयां स्त्रियों ने खुद लड़ी। आधुनिक युग में स्त्री अधिकारों की लड़ाईयां महिलाओं द्वारा ही लड़ी गई। पुरुष पक्ष जो स्त्री-सरोकारों की लड़ाई में बहुत बड़ा बाधक था, महिलाओं ने प्रभावकारी मुहिम चलाई और स्त्रियों की लड़ाई खुद लड़ी। इस तरह स्त्री समाज को सुरक्षा प्रदान करने का कार्य स्त्रियों ने खुद ही किया। पश्चिमी सन्दर्भ में वहाँ का पुरुष वर्ग कटघरे में है, परन्तु भारतीय सन्दर्भ में पुरुषों को उस पंक्ति में नहीं देखा जा सकता।

भारतीय स्त्री विमर्श में पुरुषों की भूमिका बहुत जटिल व उलझी हुई सी है, जिसे इन पंक्तियों से समझा जा सकता है। सदियों से तुम मुझे पहेली मानते रहे, पर असली पहेली तो तुम हो, कभी खतरनाक दुश्मन, जो मेरे अस्तित्व को ही खत्म कर देना चाहता है, कभी सहृदय मित्र, जो मेरा हित मुझसे भी ज्यादा समझता है, अबूझ से तुम अब भी।”

आधुनिक काल में स्त्रियों को सम्मानजनक दृष्टि से देखा जाने लगा। स्त्री विमर्श के तहत नारी के सम्मान का ध्यान रखा जाने लगा, और नर-नारी समानता एवं नारी मुक्ति का नारा दिया गया। स्त्री विमर्श में अब यह स्वीकार कर लिया गया कि – नारी ही मानव एवं समाज का सुधार कर सकती है। महिलाओं की सुरक्षा सुनिश्चित करने के लिए कई स्तरों पर काम करने की अति आवश्यकता है।

भारतीय समाज में स्त्री की स्थिति कई तरह के अंतर्विरोधों से भरी हुई है, परम्परा से ही नारी को शक्ति का रूप माना गया है, लेकिन आम तौर पर बोल-चाल की भाषा में इसे अबला ही कहा जाता है।

मध्यकालीन भक्तिकाव्य के कवियों के यहाँ भी स्त्री को लेकर कई तरह की उक्तियाँ विद्यमान हैं। आज भी हमारे भारतीय समाज और साहित्य में स्त्री के प्रति कमोवेश यही नारी अंतर्विरोधी रवैया मौजूद है। इस सम्बन्ध में “सीमोन द बोउवार” ने कहा है कि साहित्य, संस्कृति, इतिहास व परम्परायें पुरुषों ने बनाये हैं, इस विधान में स्त्रियों को दोयम दर्जा दिया है। स्त्री विमर्श समकालीन साहित्य में विमर्श की धार को बहुत पैनी किया है। आधी आबादी की वर्तमान स्थिति पर विहंगम दृष्टि डालते हैं तो स्त्री विमर्श के सभी मानक स्वतः ध्वस्त होते दृष्टिगोचर होते हैं। कहा तो गया कि नारी की पूजा जहाँ होती है वहाँ देवी-देवता का निवास होता है। स्त्री विमर्श में इन्हें कभी यशोधरा तो कभी सती, सावित्री, सीता, कैकेयी और द्रोपदी के रूप में परम्परागत बेड़ियों को तोड़ने तथा समाज के नये मानदण्ड निश्चित करने की भी सलाह दी जाती रही है। स्त्रियों के संघर्ष प्राचीन काल से ही सामाजिक संरचना में विद्यमान रहे हैं। स्त्री विमर्श में स्त्री सुरक्षा को अग्रलिखित मनुस्मृति के श्लोक से भी स्पष्ट रूप से समझा जा सकता है।

“पिता रक्षित कौमारे, भर्ता रक्षित यौवने, रक्षन्ति स्थविरे पुत्रा, न स्त्री स्वातन्त्र्यमर्हति।”³

मनु स्मृति में उल्लिखित इस श्लोक में भारतीय स्त्री के जीवन की तीन अवस्थाओं के सुरक्षा और संरक्षण की नियति दर्ज है। स्त्री विमर्श के तहत पौराणिक युग से लागू होता हुआ यह श्लोक आज तक चला आ रहा है। मनु स्मृति के इस श्लोक की व्याख्या से यह स्पष्ट होता है कि कुँवारेपन में पिता स्त्री की रक्षा करता है, युवा अवस्था में स्त्री की रक्षा उसका पति करता है, वृद्धा अवस्था में सुरक्षा तथा संरक्षण की जिम्मेदारी उसके पुत्र के द्वारा की जाती है। इस प्रकार भारतीय समाज में स्त्री के प्रारम्भ से लेकर स्त्री के अन्तिम समय तक सुरक्षा पर जोर दिया जाता है, फिर भी स्त्री विमर्श के पश्चात् यह भी दृष्टिगोचर होता है कि स्त्रियाँ अनेकों अभावों को अनगिनत संघर्षों को अकेली झेलती हुई अन्ततः न चाहते हुई भी समाज की शिकार होती रही हैं।

स्त्री विमर्श को अनेक भारतीय पैरोकार भारत में स्त्रियों की स्थिति और पुरुषों के साथ उनके घात-प्रतिघात को पश्चिमी स्त्री विमर्श की सैद्धान्तिकी के नजरिये से देखते हैं जिससे स्त्री-पुरुष की मुकम्मल तस्वीर सामने नहीं आ पाती है। अतीत में नहीं आधुनिक युग में भी पश्चिम में स्त्री अधिकारों की सम्पूर्ण लड़ाईयाँ स्त्रियों द्वारा स्वयं लड़ी गई हैं उनका प्रतिपक्ष स्पष्ट था।

भारतीय समाज में नव जागरण कालीन ऐसे स्त्री नामों की लम्बी सूची है जो उस समय के तमाम सीमाओं के बावजूद पुरुष वर्चस्ववादी व्यवस्था के व्यूह को तोड़कर न केवल अपनी लड़ाई लड़ती है बल्कि पूरी स्त्री जाति के लिए संघर्ष करती है। इन नामों में रमाबाई रानाडे, पण्डित रमाबाई सरस्वती, सावित्री फूले, सरोजनी नायडू, अबला घोष आदि का नाम प्रमुख है। उपरोक्त विश्लेषण से कुल मिलाकर यह स्पष्ट होता है कि किसी भी नस्ल, जाति, संस्कृति, और स्त्री संघर्ष में वहाँ के पुरुषों की भूमिका के आधार पर ही देश विशेष की स्त्री विमर्श की सैद्धान्तिकी बनती है जो जाहिर तौर पर कुछ मामलों में अलग होती है और इसके झरोखे से वहाँ की स्त्री विमर्श की सूक्ष्मताओं को समझा जा सकता है। मसलन पश्चिमी स्त्री विमर्श में वहाँ का पुरुष कटघरे में खड़ा है। लेकिन भारतीय सन्दर्भ में हम पुरुष को वैसे कटघरे में नहीं रख सकते। इसे निम्नलिखित पंक्तियों में देखा जा सकता है जो स्वतः स्पष्ट है।

“सदियों से तुम मुझे पहेली मानते रहे। पर असली पहेली तो तुम हो। कभी खतरनाक दुश्मन, जो मेरे अस्तित्व को ही खतम कर देना चाहता है। कभी सहृदय मित्र, जो मेरा हित मुझसे भी ज्यादा समझता है।”⁴

भारतीय समाज में स्त्री-पुरुष को सामाजिक संरचना की दो महत्वपूर्ण इकाईयाँ माना गया है। जो एक-दूसरे के पूरक भी है। दैनिक बोलचाल की भाषा में एक सिक्के के दो पहलू हैं एक दूसरे के पृथक और स्वायत्त की सदियों से अपनी पहचान, उसकी स्वतंत्र सत्ता पूरी तरह से लुप्त हो गई है। सदियों से जड़े-जमाये बैठे पितृ सत्तात्मक समाज एवं पूँजीवादी राज व्यवस्था के कारण महिलायें लैंगिंग, शैक्षिक, आर्थिक एवं राजनैतिक भेदभाव तथा पारिवारिक सामाजिक हिंसा के बीच जीने को मजबूर हैं।

आधुनिक हिन्दी साहित्य में स्त्री विमर्श अथवा स्त्री चेतना से जुड़े प्रश्नों पर गम्भीरता से विचार करने वाली प्रथम भारतीय लेखिका है महादेवी वर्मा। महादेवी वर्मा ने भारतीय स्त्री विमर्श पर गहन अध्ययन किया है और नारी के संघर्षों को निम्नलिखित पंक्तियों से स्पष्ट करने का सफल प्रयास किया है।

“मैं नीर भरी दुःख की बदली
विस्तृत नभ का कोई कोना
मेरा न कभी अपना होना
परिचय इतना इतिहास यहीं
उमड़ी थी कल, मिट आज चली”⁵

इस प्रकार भारतीय समाज में स्त्री की स्थिति को स्पष्ट करती महादेवी जी की उक्त पंक्तियाँ बहुत कुछ स्वतः स्पष्ट करती हैं। इस तरह से महादेवी वर्मा जी ने अपनी कविता संस्मरण और रेखाचित्र के माध्यम से भारतीय नारी की अन्तर्वेदना को अंकित किया है। कुल मिलाकर यह कहा जा सकता है कि महादेवी जी ने अपनी रचनाओं के माध्यम से स्त्री विमर्श को एक नई ऊँचाई प्रदान की है।

निष्कर्ष

उपर्युक्त विवरणों के अध्ययन के आधार पर निष्कर्षतः यह कहा जा सकता है कि विश्व की बदलती हुई परिस्थितियों में स्त्री विमर्श अब कोई नया नहीं रह गया है क्योंकि किसी भी देश, राष्ट्र की स्थितियों को जानना हो तो वहाँ के साहित्य से उसकी सामाजिकता का स्त्रियों की स्थिति की वास्तविक जानकारी हो सकती है। आधुनिक विश्व के स्त्री विमर्श के सम्बन्ध में यह कहा जा सकता है कि— “स्त्री का अपने अधिकारों के लिए संघर्ष, आधुनिक राष्ट्र राज्य की उपज है।”

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राजभाषा हिंदी

डॉ. दुर्गेश कुमार राय*

सार

हिंदी को भारत की राजभाषा के रूप में 14 सितंबर सन 1949 को स्वीकार किया गया। इसके बाद संविधान में अनुच्छेद 343 से 351 तक राजभाषा के संबंध में व्यवस्था की गई। इसकी स्मृति को याद रखने के लिए 14 सितंबर को हिंदी दिवस के रूप में मनाया जाता है। केंद्रीय स्तर पर भारत में दूसरी सह राजभाषा अंग्रेजी है। धारा 343(1) के अनुसार भारतीय संघ की राजभाषा हिंदी एवं लिपि देवनागरी है। संघ के राजकीय परियोजनाओं के लिए प्रयुक्त अंकों का रूप भारतीय अंकों का अंतरराष्ट्रीय स्वरूप (अर्थात् 1,2,3) है। हिंदी भारत की राष्ट्र भाषा नहीं है क्योंकि भारत के संविधान में कोई भी भाषा को ऐसा दर्ज नहीं दिया गया था। संसद का कार्य हिंदी या अंग्रेजी में किया जा सकता है। राजभाषा अधिनियम 1963, राजभाषा नियम 1976 और उनके अंतर्गत समय-समय पर राजभाषा विभाग, गृह मंत्रालय की ओर से जारी किए गए निर्देशों द्वारा निर्धारित किया गया है।

शब्दकोश: राजभाषा, हिंदी, लिपि, केंद्रीय स्तर, राजकीय परियोजना।

प्रस्तावना

भाषा वह साधन है जिसके माध्यम से प्राणी अपने भावों को दूसरों पर अभिव्यक्त करता है। भाषा ऐसी दैवीय शक्ति है, जो मानव को मानवता प्रदान करती है। जिसे वाणी का वरदान प्राप्त है, वह ऊंचे से ऊंचे पद पर विराजमान हो सकता है और दूसरी तरफ अवांक्षणीय वाणी मनुष्य के उत्थान के स्थान पर पतन की ओर अग्रसर करती है। जिस भाषा में शासन का कार्य किया जाता है उसे राजभाषा का दर्जा प्राप्त होता है। जब भारतीय संविधान सभा में संघ सरकार की राजभाषा निश्चित करने का सवाल खड़ा हुआ तो विशद विचार मंथन के बाद 14 सितंबर 1949 को हिंदी को भारत संघ की राजभाषा अंगीकृत किया गया। संविधान के अनुच्छेद 343 के तहत संघ की राजभाषा हिंदी और लिपि देवनागरी है। केंद्रीय स्तर पर भारत में अंग्रेजी को दूसरी सह राज भाषा के रूप में स्वीकार किया गया है। हिंदी को भारत की राजभाषा के रूप में अंगीकृत कृपापूर्वक नहीं किया गया, अपितु यह उसका अधिकार था। पंडित जवाहरलाल नेहरू के शब्दों में— “अंग्रेजी निश्चय ही थोपी गई भाषा है, इसने हमारे लिए ज्ञान—विज्ञान की खिड़कियां जरूर खोली और हमें बहुत कुछ ज्ञान दिया भी पर इस पर एक ऐसी भाषा होने का लांछन भी है जो हमारी भाषाओं और हमारी सांस्कृतिक परंपराओं के ऊपर जाकर बैठ गई है।”¹ महात्मा गांधी ने लिखा है कि— “मेरा यह मत है कि हिंदुस्तान की राष्ट्रभाषा हिंदी ही हो सकती है और होना चाहिए।”²

* सहायक आचार्य, हिन्दी, के.जी.के.पी.जी. कॉलेज, मुरादाबाद, उत्तर प्रदेश।

भारत की राजभाषा हिंदी है और यह देवनागरी लिपि में लिखी जाती है, संविधान के अनुच्छेद 343 (1) में इसे भारत की राजभाषा घोषित किया गया है, हिंदी को राजभाषा का दर्जा देने के पीछे कहानी है। संविधान सभा ने लंबी चर्चा के बाद 14 सितंबर सन 1949 को हिंदी को भारत की राजभाषा स्वीकार किया। इसके बाद संविधान में अनुच्छेद 343-351 तक राजभाषा के संबंध में व्यवस्था की गई। इसकी स्मृति को ताजा रखने के लिए 14 सितंबर का दिन प्रतिवर्ष हिंदी दिवस के रूप में मनाया जाता है।

राजभाषा का शाब्दिक अर्थ राज-काज की भाषा है, संविधान में 'राजभाषा' और 'राजभाषाओं' शब्द का उल्लेख हुआ है। राजभाषा का उल्लेख संविधान में नहीं है आठवे अनुसूची में भाषाओं को राज्य की राजभाषा कहा गया है। राजभाषा शब्द का हर कोई अपना मतलब निकालता है। कहीं भी इसकी आधिकारिक परिभाषा नहीं है।

हिंदी भाषा के अनेक रूप हैं— संपर्क भाषा, राष्ट्रभाषा और राजभाषा। हिंदी प्रदेशों में हिंदी भाषा आम बोलचाल, बाजार, व्यापार, राजनीति, पत्रकारिता, सामाजिक, सांस्कृतिक संदर्भों में आपसी वैचारिक आदान-प्रदान के रूप में काम आ रही है। बल्कि अब इलेक्ट्रॉनिक मीडिया के द्वारा देश की सीमाओं से परे विदेशों में भी फैलती जा रही है। यह हिंदी का एक संपर्क भाषा का रूप है। देवनागरी लिपि लिखी जाने वाली हिंदी को संघ का राजभाषा कहा गया है। राजकीय प्रयोजनों में हिंदी के विकास के लिए अनुच्छेद 351 का विशेष महत्व है। राजभाषा के रूप में अंग्रेजी का वर्चस्व भी कायम है

हिंदी को राज्य भाषा बनाने के क्रम में जो लाचारी आई उसके पीछे भाषा की कमजोरी थी। हिंदी भाषा में तद्भव, तत्सम, संस्कृत, विदेशी भाषा के शब्द मिलते हैं। संविधान में हिंदी भाषा को राजभाषा बनाने का प्रस्ताव आया था, जो यह बहुत रोचक है संविधान में हिंदी भाषा को लेकर विवाद नहीं था, विवाद हिंदी व हिंदुस्तानी भाषा को लेकर था। हिंदी भाषा और राजभाषा का मात्र अंतर बोलचाल एवं व्यावहारिक कारणों से था। घरों, सड़क पर, बोलचाल, व्यापार की भाषा हिंदुस्तानी है। लेकिन संविधान में हिंदुस्तानी नहीं हिंदी भाषा राजभाषा बना। अशोक वाजपेयी ने लिखा कि राजभाषा एक तरह की खग भाषा है जो लिखने वाले व्यक्ति से समझने वाले अलग होते हैं। गाँधी जी हिंदुस्तानी के पक्ष में थे। राष्ट्रभाषा प्रचार समिति ने 1953 में माँग किया था कि 14 सितम्बर को हिंदी दिवस के रूप में मनाया जाए, तब से यह 14 सितंबर को हिंदी दिवस के रूप में मनाया जाता है।

कुछ हिंदी भाषा को हिंदी साहित्य से जोड़ते हैं। बोलचाल की भाषा, सरकारी कार्य की भाषा, रचना की भाषा। तीनों को मिलाकर राजभाषा बनता है। कोई भाषा राजभाषा के रूप में स्वीकार न हो तो वह केवल संवैधानिक भाषा के रूप में रह जाता है।

राज विलास शर्मा ने भाषा की नवीनता पर व्याख्या करते हुए लिखा है। कि भाषा के बारे में किसी भी बात को नया कहने के पहले ऋषि के भाषा को देख लेना चाहिए क्योंकि देश में भाषा के बारे में ऋषियों के द्वारा गंभीर चिंतन हुआ है। देश की भाषा कमजोर पड़ती है, तो देश की सत्ता, प्रेम, व्यवहार, व्यवसाय सब कुछ कमजोर पड़ जाता है। भाषा का इतना गहरी पैठ है कि उसको किसी भी दृष्टि से नकार नहीं सकते हैं।

संसद का कोई हिंदी या अंग्रेजी में किया जा सकता है परंतु राज्यसभा के सभापति या लोकसभा के अध्यक्ष रिशेप परिस्थिति में सदन के किसी सदस्य को अपनी मातृभाषा में सदन को संबोधित करने की अनुमति दे सकते हैं डॉक्टर राजेंद्र प्रसाद ने कहा है कि "आज पहली ही बार ऐसा संविधान बना है जबकि हमने अपने संविधान में एक भाषा रखी है। इस अपूर्व अध्याय का देश के निर्माण पर बहुत प्रभाव पड़ेगा" उन्होंने इस बात पर अपनी प्रसन्नता व्यक्त की कि संविधान सभा ने अत्यधिक बहुमत से भाषा विषयक प्रावधानों को स्वीकार किया। अपने वक्तव्य के उपसंहार में उन्होंने जो कहा वह अविस्मरणीय है। उन्होंने कहा—

"यह मानसिक दशा का भी प्रश्न है। जिसका हमारे समस्त जीवन पर प्रभाव पड़ेगा। हमारी परंपराएं एक ही हैं, और हमारी सभ्यता में सब बातें एक ही हैं। हमने यथा संभव बुद्धिमानी का कार्य किया है और मुझे हर्ष है, मुझे प्रसन्नता है, और मुझे आशा है कि भावी संतति इसके लिए हमारी सराहना करेगी"।

राज्यभाषा, किसी राज्य या देश की घोषित भाषा होती है जो सभी राजकीय प्रयोजन अर्थात् सरकारी कामकाज में प्रयोग होती है। भारतीय संविधान के अनुच्छेद 343 (1) के अंतर्गत देवनागरी लिपि की मान्यता दी गई है। हिन्दी को राजभाषा के रूप में अपनाने में राष्ट्रीय प्रतिवद्धता की कमी तथा क्षेत्रियवाद एवं चंद शासक वर्ग द्वारा आम जनता को पिछड़ा रखने की साजिश तो है ही साथ ही राजभाषा के रूप में कभी हम अंग्रेजी के अनुवाद बहुत जटिल कर बैठते हैं।

संघ की राजभाषा के रूप में हिन्दी को अपनाना और अंग्रेजी भाषा से मुक्ति चाहना न केवल प्रवल राजनीतिक इच्छा की अपेक्षा करता है बल्कि राष्ट्रीय अस्मिता और भारतीय जनता की अपनी भाषा को गौरवान्वित करने की समझ से भी जुड़ा हुआ है। जनता के भावनात्मक एवं बौद्धिक विकास की दृष्टि से हिन्दी को संघ की राजभाषा के रूप में पूरे देश में, सभी प्रादेशिक सरकारों द्वारा अंगीकार करना चाहिए तथा अपनी सामाजिक-सांस्कृतिक गरिमा एवं राष्ट्रीयता को सम्मान देने का परिचय देना चाहिए।

राजभाषा नीति के प्रभावी कार्यान्वयन की निगरानी करने एवं अनुपालन के उपाय सुजाने हेतु नवोदय विद्यालय समिति मुख्यालय और सभी क्षेत्रीय कार्यालयों एवं विद्यालयों में एक विभागीय राजभाषा कार्यान्वयन समिति की बैठक प्रत्येक तिमाही में आयोजित की जाती है।

संसदीय राजभाषा समिति, राजभाषा विभाग और मानव संसाधन विकास मंत्रालय द्वारा समय-समय पर नवोदय विद्यालय समिति मुख्यालय, क्षेत्रीय कार्यालयों एवं विद्यालयों का राजभाषा निरीक्षण किया जाता है। इसके अतिरिक्त क्षेत्रीय कार्यालयों एवं जवाहर नवोदय विद्यालयों का राजभाषा निरीक्षण क्रमशः मुख्यालय एवं संभागीय कार्यालयों द्वारा जारी वार्षिक कार्यक्रम में निर्धारित लक्ष्यों के अनुसार किया जाता है। सभी राजकीय प्रयोजन अर्थात् सरकारी कामकाज में प्रयोग होने वाली किसी राज्य या देश की घोषित भाषा होती है। हिन्दी को संघ की राजभाषा घोषित किया गया है।

एक भाषा के रूप में हिन्दी न सिर्फ भारत की पहचान है बल्कि यह हमारे जीवन मूल्यों, संस्कृति एवं संस्कारों की सच्ची संवाहक संप्रेषक और परिचायक भी है। बहुत सरल, सहज और सुगम भाषा होने के साथ हिन्दी विश्व की सम्भवतः सबसे वैज्ञानिक भाषा है। जिसे दुनिया भर में समझने बोलने और चाहने वाले लोग बहुत बड़ी संख्या में मौजूद है। यह विश्व में तीसरी सबसे ज्यादा बोली जाने वाली भाषा है, जो हमारे पारस्परिक ज्ञान, प्राचीन सभ्यता और आधुनिक प्रगति के बीच एक सेतु भी है। हिन्दी भारत संघ की राज भाषा होने के साथ-साथ ही ग्यारह राज्यों और तीन संघ शासित क्षेत्रों की भी प्रमुख राज भाषा है। संविधान की आठवीं अनुसूची में शामिल अन्य इक्कीस भाषाओं के साथ हिन्दी का एक विशेष स्थान है।

देश की तकनीकी और आर्थिक समृद्धि के साथ-साथ अंग्रेजी पूरे देश पर हावी होती जा रही है। हिन्दी देश को राजभाषा होने के बावजूद आज हर जगह अंग्रेजी का वर्चस्व कायम है। हिंदी जानते हुए भी लोग हिन्दी में बोलने पढ़ने या काम करने में हिचकने लगे हैं। इसलिए सरकार का प्रयास है कि हिन्दी के प्रचलन के लिए उचित माहोल तैयार की जा सकें। हिन्दी अनुवाद की नहीं बल्कि संवाद की भाषा है। किसी भी भाषा की तरह हिंदी भी मौलिक सोच की भाषा है। आज सरकार के कर्मचारियों तथा नागरिकों को मौलिक पुस्तक लेखन के लिए पुरस्कार दिये गये हैं।

प्रधानमंत्री नरेंद्र मोदी ने भी सभी देशवासियों को हिन्दी दिवस के अवसर पर बधाई दिया है। हिन्दी दिवस के मौके पर राजभाषा विभाग द्वारा एक ऐप का लोकार्पण भी किया गया। इस ऐप से देश भर में विभिन्न भाषाओं के माध्यम में जन सामान्य को हिंदी लिखने में सुविधा और सरलता होगी, हिन्दी भाषा को समझना, सीखना तथा कार्य करना सम्भव हो सकेगा। लोग मोबाइल ऐप के जरिये हिन्दी सिखने की आनलाइन सुविधा लोगों तक पहुंचाने के लिए राजभाषा विभाग की प्रशंसा की जाती है।

देश की स्वतंत्रता से लेकर हिन्दी में कई महत्वपूर्ण उपलब्धियाँ प्राप्त की है, भारत सरकार द्वारा विकास योजनाओं तथा नागरिक सेवाएँ प्रदान करने में हिन्दी के प्रयोग को बढ़ावा दिया जा रहा है। हिन्दी तथा प्रान्तीय

भाषाओं के माध्यम से हम बेहतर जनसुविधाएँ लोगों तक पहुँचा सकते हैं। भारतीय विचार और संस्कृति का वाहक होने का श्रेय हिंदी को ही जाता है। आज संयुक्त राष्ट्र जैसी संस्थाओं में भी हिंदी की गूंज सुनाई देने लगी है।

हिन्दी आम आदमी की भाषा के रूप में देश की एकता का सूत्र हैं। सभी भारतीय भाषाओं की बड़ी बहन होने के नाते हिन्दी विभिन्न भाषाओं के उपयोगी और प्रचलित शब्दों को अपने में समाहित करके सही मायनों में भारत की सम्पर्क भाषा और राजभाषा होने की भूमिका निभा रही है। हिन्दी के महत्व को गुरुदेव रविन्द्रनाथ टैगोर ने बड़े सुन्दर रूप में प्रस्तुत किया था। उन्होंने कहा था— “भारतीय भाषाएँ नदिया हैं और हिन्दी महानदी” हिन्दी विश्वस्तर पर एक प्रभावशाली भाषा बनकर उभरी है। आज पूरी दुनिया में 175 से अधिक विश्व विद्यालयों में हिन्दी भाषा पढ़ाई जा रही है। ज्ञान विज्ञान की पुस्तकें बड़े पैमाने पर हिन्दी में लिखी जा रही हैं। सोशल मीडिया और संचार माध्यमों में हिन्दी का प्रयोग निरंतर बढ़ रहा है।

भाषा का विकास उसके साहित्य पर निर्भर करता है। हिन्दी भाषा के माध्यम से शिक्षित युवाओं को रोजगार के अधिक अवसर उपलब्ध हो सके, इस दिशा में निरन्तर में निरन्तर प्रयास जरूरी है। भाषा वही जीवित रहती है। जिसका प्रयोग जनता करती है। भारत के लोगों के बीच संवाद का सबसे बेहतर माध्यम हिन्दी है। बोलचाल की भाषा में भी हिन्दी का उपयोग हो रहा है। हिन्दी भाषा के प्रसार में पूरे देश में एकता की भावना और मजबूत होगी।

निष्कर्ष

हिंदी भाषा विश्व की समृद्ध भाषाओं में गिनी जाने वाली भाषाओं में अपना स्थान रखती है। हिंदी भाषा का शब्दकोश भी काफी विस्तृत है। विश्व स्तर पर हिंदी भाषा की गरिमा में वृद्धि करने हेतु हिंदी सम्मेलन आयोजित किए जाते हैं। हिंदी भाषा को वैज्ञानिक भाषा का दर्जा प्राप्त है क्योंकि हिंदी ने एक ध्वनि के लिए एक ही लिपि चिन्ह का प्रयोग किया जाता है। इस शोध प्रबंध के माध्यम से हिंदी का विकास व हिंदी की संवैधानिक स्थिति को समझाया गया है। हिंदी भाषा प्रत्येक भारतवासी का गौरव है।

सन्दर्भ ग्रन्थ सूची

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महात्मा गांधी एवं ट्रस्टीशिप सिद्धांत: एक प्रासंगिक अध्ययन

डॉ. मंजू शर्मा*

प्रस्तावना

अपने जीवन काल में गांधी जी ने जितना यश कमाया, जितनी ख्याति प्राप्त की और जितने लोकवर्लभ हुए, उतना शायद ही कोई ऐतिहासिक पुरुष हुआ हो। ऐसे पुरुष के विषय में कोई कहाँ तक लिखे? और फिर गांधी जी को पूरा जानता भी कौन है?

“सम्यक् जानाति वै कृष्णः किञ्चित् पार्थो धनुर्धरः”

जैसे गीता के बारे में यह कहा गया है, वैसे गांधी जी के बारे में यह का जा सकता है कि उन्हें भली प्रकार तो खुद वही जानते हैं। गांधी जी का जीवन एक खुली पुस्तक कहा जा सकता है गांधी जी के योगदान का मूल्यांकन करे तो देखते हैं कि गांधी जी विचार और सिद्धांत नैतिकता के क्षेत्र में मानव-जीवन के सभी क्षेत्रों एक उद्भव है। अगर हम अर्थशास्त्र के क्षेत्र में गांधी जी के योगदान का मूल्यांकन करे तो देखते हैं कि गांधी जी का आर्थिक चिंतन एक विकासवादी चिंतन था। गांधी जी ने अपने आर्थिक विचारों व सिद्धांतों को एक आदर्श, अहिंसक, शोषणमुक्त, मानववादी तथा समतावादी समाज के सांचे में ढाला। समाज की यह आदर्श व्यवस्था उनके जीवन के मौलिक दर्शन को परिभाषित करती थी, गांधी जी अर्थव्यवस्था व नैतिकता के बीच किसी तरह की दीवार के खिलाफ थे।¹

“मुझे यह स्वीकार करने में कोई संकोच नहीं है कि अर्थव्यवस्था व नैतिकता के बीच किसी भी तरह की दीवार खड़ी नहीं की जा सकती है। नैतिक मूल्यों को अस्वीकार करने वाले अर्थतंत्र का कोई मूल्य नहीं है। अर्थव्यवस्था के अन्दर अहिंसक नियमों को समाहित करने का स्पष्ट अर्थ है कि अंतर्राष्ट्रीय व्यापार व वाणिज्य को नियमित व नियंत्रित करने वाले तत्वों में नैतिक मूल्यों की भूमिका सर्वोपरि होनी चाहिए।²”

आर्थिक दर्शन

गांधी जी ने आर्थिक दर्शन के सबसे महत्वपूर्ण एवं विवादित प्रश्न, यानि निजी संपत्ति का अधिकार के मार्क्सवादी हल को यह कहते हुए अस्वीकार कर दिया कि यह हिंसा एवं अराजकता को बढ़ावा देगी। इसी उद्देश्य की पूर्ति हेतु उन्होंने ट्रस्टीशिप यानि न्यासिता का सिद्धांत समाज के सामने रखा ट्रस्टीशिप गांधी जी द्वारा स्वनिर्मित अवधारणा नहीं थी। इसकी उत्पत्ति ईशोपनिषद से हुई है। भारतीय संदर्भ में “ट्रस्टी” (न्यासी) का उपयोग मंदिरों व मठों के लिये होता है। दामोदर के अनुसार “बिना किसी प्रतिपादन की उपेक्षा के

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विशेषाधिकार शक्ति पद व प्रतिष्ठा का स्वैच्छिक परित्याग ही ट्रस्टीशिप है।¹³ ट्रस्टीशिप के सिद्धांत की रूपरेखा किशोरीलाल मश्रूरुवाला, नरहरि पारिख तथा अन्य लोगों की सहायता से तय की गई। प्रो. दांतवाला ने अपने द्वारा तैयार किए गए ट्रस्टीशिप के एक सरल व व्यवहारिक सूत्र की रूपरेखा तैयार करके भेजी इसे गांधी जी ने कुछ फेरबदल किया।¹⁴

गांधी जी एवं ट्रस्टीशिप सिद्धांत—परिभाषा व अर्थ

वर्ण-व्यवस्था की भाँति ही गांधी जी ने ट्रस्टीशिप के सिद्धांत की बात की है। यह शब्द भी बहुतेरों का अच्छा नहीं लगता। 'वर्ण-धर्म' शब्द मूल में निःसन्देह एक सद्विचार और सुयोजन का द्योतक है। ट्रस्टीशिप के सिद्धांत के बारे में कदाचित् निश्चयपूर्वक वैसा नहीं कहा जा सकता। अर्थात् यह शब्द जबसे पैदा हुआ तभी से इसका दुरुपयोग भी शुरू हुआ है। परन्तु कानून की भाषा में उनका अच्छे अर्थ में प्रयोग हुआ है। गांधी जी कानून के अच्छे अभ्यासी थे इसलिए उसका मूल शुद्ध अर्थ अपने हृदय में रख लिया।

गांधी जी ने जिस अर्थ में इस शब्द का प्रयोग किया है उस अर्थ के विषय में गलतफ़मी नहीं हुई। गीता के अपरिग्रह, समभाव इत्यादि शब्दों ने गांधी जी के मन को मजबूती से पकड़ लिया। और इसी वृत्ति का व्यवहार में आचरण किस तरह किया जाए। इसका चिंतन जब वे करने लगे, तो उन्हें कानून के ट्रस्टी शब्द की मदद मिली। गांधी जी ने आत्मकथा में कहा है कि गीता के अध्ययन से 'ट्रस्टी' शब्द के अर्थ पर विशेष प्रकाश पड़ा और उसे शब्द से अपरिग्रह की समस्या हल हुई।

सारांश यह है कि गांधी जी की दृष्टि से समाज की अब की परिस्थिति में ही नहीं, बल्कि किसी भी परिस्थिति में देहधारी मनुष्य के लिए अपनी शक्तियों का ट्रस्टी के नाते उपयोग करना ही अपरिग्रह सिद्ध करने का व्यवहारिक उपाय है।¹⁵

संपत्ति की विषमता कृत्रिम व्यवस्था के कारण पैदा हुई, ऐसा मानकर उसे छोड़ दे तो भी मनुष्यों की बौद्धिक तथा शारीरिक शक्तियों की विषमता पूरी तरह दूर नहीं हो सकती। शिक्षण और नियमन से यह विषमता भी कुछ अंश तक कम की जा सकती है, ऐसा हम मान ले, किंतु आदर्श स्थिति में भी इस इस विषमता के सर्वथा अभाव की कल्पना नहीं की जा सकती। इसलिए बुद्धि, शरीर और संपत्ति इन तीनों में से जिसे जो प्राप्त है, उसे यह समझना चाहिए कि वह सबके हित के लिए ही उसे मिली है। इसी को अच्छे अर्थ में ट्रस्टीशिप कहेंगे। लेकिन यह शब्द दुर्जनों के हाथ में पड़कर इतना पतित हो गया है कि उसका उद्धार अब असंभव सा है। इसलिए उसकी जगह मैंने 'विश्वस्त-वृत्ति' जैसे भाववाचक संज्ञापद की योजना की है। कोई किसी के भरोसे न जिये, इस तत्व को हम सामान्यतः स्वावलम्बन के तत्व के नाते मान्य करेंगे। किंतु कोई किसी का भरोसा न करे, ऐसी स्थिति पैदा हो जाये तो वह एक नरक की योजना होगी। माँ-बाप को संतान पर, पड़ोसियों को पड़ोसियों पर, इतना ही नहीं भिन्न-भिन्न शब्दों को भी एक-दूसरे पर विश्वास करना चाहिए ऐसा विश्वास करने में हमें यदि भय की आशंका रहती हो तो उसका अर्थ यह होगा कि हम मानवता से नीचे की सतह पर विचार करते हैं। ऐसी विश्वस्त वृत्ति शिक्षण से परिपुष्ट की जा सकती है।

परस्पर विश्वास पर आधारित समाज-रचना का अर्थ है, सबकी विविध शक्तियों का सुसंवादी संयोजन। लोकसंग्रह शब्द से हम यही अर्थ दर्शाते हैं। व्यक्तिगत अपरिग्रह का अर्थ है, विश्वस्त-वृत्ति से अपनी शक्ति का सबके भले के लिए उपयोग करना।

ट्रस्टीशिप:— समान वितरण का अहिंसक रास्ता

आर्थिक असमानता को समाप्त करने की राह ट्रस्टीशिप सिद्धांत की और जाकर समाप्त होती है। गांधी जी के अनुसार आर्थिक समानता की जड़ में धनिक का ट्रस्टीपन निहित है। इस आदर्श के अनुसार धनिक को अपने पड़ोसी से एक कौड़ी भी ज्यादा रखने का अधिकार नहीं है। तब उसके पास जो ज्यादा है क्या वह इससे छीन लिया जाये? ऐसा करने के लिए हिंसा का आश्रय लेना पड़ेगा। और हिंसा के द्वारा ऐसा करना संभव हो, तो भी समाज को उससे कुछ फायदा होने वाला नहीं है। क्योंकि द्रव्य इकट्ठा करने की शक्ति रखने वाले एक

वाले एक आदमी की शक्ति को समाज खो बैठेगा। इसलिए अहिंसक मार्ग यह हुआ कि जितनी मान्य हो सके उतनी अपनी आवश्यकताएँ पूरी करने के बाद जो पैसा बाकी बचे उसका वह प्रजा की ओर से ट्रस्टी बन जाए। अगर वह प्रमाणिकता से संरक्षक बनेगा तो जो पैसा पैदा करेगा उसका सद्व्यय भी करेगा। जब मनुष्य अपने-आप को समाज का सेवक मानेगा, समाज के खातिर धन कमायेगा, समाज के कल्याण के लिए उसे खर्च करेगा तब उसकी कमाई में शुद्धता आयेगी। उसके साहस में भी अहिंसा होगी। इस प्रकार की कार्यप्रणाली का आयोजन किया जाए तो समाज में बिना संघर्ष के मूक क्रांति पैदा हो सकती है।⁶

ट्रस्टीशिप एवं मानव धर्म: ऐतिहासिक परिपेक्ष्य

गांधी जी के अनुसार स्वाभाव में परिवर्तन होने का उल्लेख इतिहास में अनेक बार देखा भी गया है। मनुष्यों में तो ऐसा हुआ ही है। बड़े पैमाने पर समाज में परिवर्तन हुआ है। यह शायद सिद्ध न किया जा सके। इसलिए इसे झूठ समझकर फेक देने की बात इस युग में तो कोई नहीं कहेगा धर्म जहाँ तक जगत है वहाँ तक चलता ही रहेगा। धर्म के रूपान्तरण हो सकते हैं उसमें निहित प्रत्यक्ष वहम, सड़न और अपूर्णताएँ दूर हो सकती हैं। किंतु महा-प्रयत्न करने पर भी धनिक संरक्षक न बने, और भूखे मरते हुए करोड़ों को अहिंसा के नाम से अधिक कुचलते जाएँ तब क्या करें? कोई धनवान गरीबों के सहयोग के बिना धन नहीं कमा सकता। धनवान अपनी संपत्ति को समाज की धरोहर समझे यही धर्म है।⁷ भारत की जरूरत यह नहीं कि चंद लोगों के हाथ में बहुत सारी पूंजी इकट्ठी हो जाए। पूंजी का ऐसा वितरण होना चाहिए कि वह इस 1000 मील लम्बे ओर 1800 मील चौड़े विशाल देश को बनाने वाले साढ़े सात लाख गाँवों को आसानी से उपलब्ध हो सके।⁸

ट्रस्टीशिप/प्रन्यास की प्रासंगिकता

गांधी जी ने प्रन्यासिता के विचार की व्यवहारिकता के प्रति किये गये संदेहों का निराकरण किया। उन्होंने स्पष्ट किया कि प्रन्यासिता का विचार उनकी समग्र आर्थिक योजना का ही एक हिस्सा है, अतः उसका मूल्यांकन, उनकी आदर्श आर्थी प्रणाली के अन्य तत्वों के साथ मिलाकर ही किया जाना चाहिए। अर्थव्यवस्था के विकेन्द्रीकृत स्वरूप को अपना लेने के पश्चात् तो किसी व्यक्ति को विपुल मात्रा में संपत्ति के उपार्जन का अवसर ही प्राप्त नहीं होगा तथा जो सीमित सम्पदा वह अर्जित करेगा।

उसमें से अपनी आवश्यकता भर रखने के पश्चात् शेष को समुदाय के हित में समर्पित करने में उसे संकोच या कष्ट नहीं होगा। गांधी जी ने ध्यान दिलाया कि अपनी संपदा में से कुछ दान करने की प्रवृत्ति मानव स्वभाव का एक सहज तत्व है। भारतीय संस्कृति में तो दान को व्यक्ति के नैतिक उत्थान के लिए अनिवार्य माना गया है। न्यासिता का विचार तो इस सहज दान-वृत्ति को आर्थिक गतिविधियों को प्रेरक नियम बनकर सहज माननीय भावना को ही व्यवस्थित रूप प्रदान करता है।

गांधी जी ने स्वीकार किया कि उत्पादन की केन्द्रीकृत व्यवस्था में जहाँ की कुछ लोगों के पास विपुल सम्पत्ति होगी, यह समस्या उत्पन्न हो सकती है कि लोग स्वेच्छा से अपनी सम्पत्ति का परित्याग करने को तैयार न हो। उन्होंने सुझाव दिया कि हृदय-परिवर्तन के माध्यम से लोगों को इस त्याग के लिए तत्पर किया जा सकता है। किंतु यदि ऐसा नहीं हो तो समाज में कटु संघर्ष को और ऐसी स्थिति को उन्होंने कहा “सम्पत्ति के वर्तमान स्वामियों को यह अवसर होगा कि वे दो विकल्पों में से एक का चयन कर लें या तो स्वेच्छा से स्वयं को सम्पत्ति का प्रन्यासी बना ले या फिर वर्ग संघर्ष का सामना करें।⁹”

निष्कर्ष

इस प्रकार वर्गहीन समाज की स्थापना का गांधी जी का विचार साम्यवादियों से गुणात्मक रूप से भिन्न है। उन्होंने स्पष्ट किया कि आर्थिक परिवर्तन के लिए हिंसक साधनों या राज्य की दमनकारी शक्ति का प्रयोग एक निर्दोष विकल्प नहीं है, क्योंकि हिंसा और दमन पर आधारित व्यवस्था स्थायी नहीं है।¹⁰ इसलिए वे राज्य द्वारा पूंजीपति वर्ग की सम्पत्ति के हरण को अंतिम विकल्प मानते हैं, क्योंकि उनके मत में राज्य द्वारा थोपी गई समानता न तो स्थायी होगी, न नैतिक और विश्वसनीय उन्होंने कहा “सम्पत्ति का राज्य के हाथों में स्वामित्व

अनियंत्रित, निजी स्वामित्व से बेहतर हो सकता है, किंतु वह हिंसा पर आधारित है अतः वह भी अपमानजनक है। यदि राज्य हिंसा के माध्यम से पूंजीवाद का दमन करेगा तो वह भी हिंसा के जाल में फँस जायेगा इसलिए मैं प्रत्यासिता के सिद्धांत पर भरोसा करता हूँ।¹¹ इस प्रकार ट्रस्टीशिप के माध्यम से गांधी जी ने मार्क्स एवं पूंजीवाद दोनों पर प्रहार कर नई अवधारणा को हमारे समक्ष रखा।

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बीना सिंह*
डॉ. हरीश कंसल**

सार

शिक्षक किसी भी विद्यार्थी के लिए शिक्षा रूपी नदी को पार करने में एक नांव का कार्य करता है। समाज में विद्यार्थी द्वारा किये जाने वाले व्यवहार की आधारशिला रखने का कार्य करता है। वर्तमान समय में शिक्षा का स्तर काफी परिवर्तित रहा है। जहां पूर्व में शिक्षक वेदों, उपनिषदों का ज्ञान देकर सांस्कृतिक विचारधारा का विकास किया करते थे। वहीं आज शिक्षक निर्धारित पाठ्यक्रमों की शिक्षा प्रदान करते हैं। शिक्षक द्वारा पाठ्यक्रमों के अध्यापन में प्रयोग की जाने वाली शैली द्वारा समायोजन स्थापित करने में मदद मिलती है।

शब्दकोश: सांस्कृतिक विचारधारा, शिक्षा का स्तर, सामाजिक व शैक्षिक स्थिति, अभिप्रेरण क्षमता।

प्रस्तावना

प्रायः विद्यार्थियों में समायोजन व अभिप्रेरण का गुण विद्यमान होना चाहिए। विद्यार्थियों को विभिन्न स्तरों पर समायोजन स्थापित करना आवश्यक होता है। महाविद्यालयों में, घर-परिवार में, दोस्तों में, समाज के विभिन्न स्तरों पर समायोजन स्थापित करना होता है। विद्यार्थियों में इस समायोजन क्षमता का विकास शिक्षकों द्वारा किया जाता है। किसी भी क्षेत्र में आगे बढ़ने के लिए समायोजन स्थापित करना तथा उसका निर्धारण करने की कला विद्यार्थियों में शिक्षकों द्वारा दिये गये सुझावों के आधार पर ही संभव हो पाती है।

समायोजन के साथ अभिप्रेरण क्षमता का अपना महत्व होता है। जीवन के विभिन्न स्तरों पर अभिप्रेरण की आवश्यकता होती है। विद्यार्थियों द्वारा कुछ भी नया करने या अध्ययन में बदलाव लाने उसकी रूपरेखा निर्धारण करने में शिक्षकों द्वारा मिलने वाली अभिप्रेरण की महती आवश्यकता पड़ती है।

विद्यार्थियों के विषय के चयन से लेकर प्रश्नों को हल करने की विधि का निर्धारण करने, साथी सहपाठियों के मध्य मधुर संबंध स्थापित करने तथा समाज में अपनी बात रखने व उचित व्यवहार का चयन करने में समायोजन व अभिप्रेरण का महत्वपूर्ण योगदान रहता है।

किसी भी कार्य को करने के लिए अभिप्रेरण एक प्रमुख कारक है, शिक्षा का क्षेत्र हो या निजी जीवन से जुड़ा कार्य विद्यार्थी बिना किसी से अभिप्रेरित हुए कोई भी कार्य शुरू नहीं करता है। चूंकि शिक्षक विद्यार्थी के साथ उस अवस्था से रहता है जब से उसे ज्ञान की प्राप्ति होती है। इसी कारण से विद्यार्थी को सर्वाधिक

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अभिप्रेरणा शिक्षक से प्राप्त होती है। सभी विद्यार्थियों को एक ही स्थान पर एकत्रित करके साथ अध्ययन करने हेतु सुविधाएँ प्रदान की जाती हैं। कौन कितना बेहतर करेगा या कौन कितनी प्रगति करेगा यह उसके अभिप्रेरण की क्षमता पर निर्भर करता है। उपलब्ध सामग्रियों का उचित उपयोग करना तथा उनका समायोजित प्रयोग करने का गुण प्रदान करने में महत्वपूर्ण भूमिका शिक्षक की रहती है।

प्रत्येक विद्यार्थी को अध्ययन हेतु समान पाठ्यम व समान सामग्रियों प्रदान की जाती है, परन्तु सभी की परिस्थितियाँ एकक समान नहीं होती हैं। अपनी परिस्थितियों के अनुकूल सामंजस्य स्थापित करना ही समायोजन कहलाता है। विद्यार्थियों को अपने विचारों पर नियंत्रण स्थापित करने की आवश्यकता होती है, यदि वह ऐसा करने में असमर्थ रहता है तो वह समायोजन स्थापित नहीं कर सकता है। विपरीत परिस्थितियों में समायोजन स्थापित करने के लिए विद्यार्थियों को अपने मस्तिष्क को संतुलित बनाये रखना अति आवश्यक हो है। उक्त संतुलन स्थापित करने में महत्वपूर्ण भूमिका शिक्षक द्वारा निभाई जाती है। शिक्षक अपने ज्ञान, अपनी शिक्षण शैली, अपने तजूरबे से विद्यार्थियों को दिशा प्रदान करता है तथा समायोजन स्थापित करने में महत्वपूर्ण भूमिका निभाता है।

समायोजन व अभिप्रेरण क्षमता पर प्रभाव

शिक्षण-प्रशिक्षण महाविद्यालयों में विद्यार्थियों की समायोजन व अभिप्रेरण क्षमता पर काफी प्रभाव डालते हैं। जिसका प्रभाव विद्यार्थियों के सामाजिक जीवन व सांस्कृतिक विचारधारा पर आये बदलावों की सहायता से समझा जा सकता है। उन पर पड़ने वाले प्रभावों का आंकलन करने हेतु भरतपुर जिले के चयनित शिक्षण-प्रशिक्षण महाविद्यालयों के 50 चयनित विद्यार्थियों से उनकी समायोजन व अभिप्रेरण क्षमता पर साक्षात्कार कर वर्तमान स्थिति ज्ञात करने का प्रयास किया गया है।

तालिका 1: क्या शिक्षण-प्रशिक्षण महाविद्यालय के शिक्षकों द्वारा आपकी समायोजन व अभिप्रेरण क्षमता का विकास हुआ है

क्र.सं.	मत	उत्तरदाताओं की संख्या	उत्तरदाताओं का प्रतिशत
1.	हाँ	30	60.00
2.	नहीं	14	28.00
3.	पता नहीं	06	12.00
	योग	50	100.00

तालिका के अनुसार शिक्षण-प्रशिक्षण महाविद्यालय के शिक्षकों द्वारा विद्यार्थियों की समायोजन व अभिप्रेरण क्षमता पर सकारात्मक परिवर्तन देखा गया है। उक्त परिवर्तन का प्रमुख कारण जिले में विद्यार्थियों की शिक्षा को लेकर सकारात्मक विचारधार व शिक्षकों का विद्यार्थियों के साथ अच्छा सम्बन्ध होना दर्शाता है।

तालिका 2: क्या समायोजन व अभिप्रेरण क्षमता के विकास से आपकी शिक्षा प्रभावित हुई है

क्र.सं.	मत	उत्तरदाताओं की संख्या	उत्तरदाताओं का प्रतिशत
1.	हाँ	28	56.00
2.	नहीं	16	32.00
3.	पता नहीं	06	12.00
	योग	50	100.00

तालिका के अनुसार समायोजन व अभिप्रेरण क्षमता के विकास से शिक्षा के प्रभावित होने का अध्ययन किया गया है, जिसमें सर्वाधिक का मत था कि उनकी शिक्षा पर इसका सकारात्मक प्रभाव पड़ा है, जिसका प्रभाव विद्यार्थियों के परीक्षा परिणामों व अध्ययन शैली में आये परिवर्तनों को परिलक्षित करता है।

तालिका 3: क्या समायोजन व अभिप्रेरण क्षमता का आपके जीवन पर सकारात्मक प्रभाव पड़ा है

क्र.सं.	मत	उत्तरदाताओं की संख्या	उत्तरदाताओं का प्रतिशत
1.	हाँ	34	68.00
2.	नहीं	12	24.00
3.	पता नहीं	04	08.00
	योग	50	100.00

तालिका के अनुसार समायोजन व अभिप्रेरण क्षमता का जीवन पर सकारात्मक प्रभाव पड़ने के आधार पर अध्ययन किया गया है, जिसमें सर्वाधिक का मत है कि उनके जीवन पर इसका सकारात्मक प्रभाव पड़ा है। इन प्रभावों के कारण विद्यार्थियों की जीवन शैली व समाज में उनकी छवि पर सकारात्मक परिवर्तन देखा गया है।

निष्कर्ष

हम कह सकते हैं कि समायोजन व अभिप्रेरण की विद्यार्थियों के जीवन में महती आवश्यकता है। अपने जीवन स्तर व शैक्षिक क्षमता में इनकी सहायता से परिवर्तन लाया जा सकता है। शिक्षकों द्वारा दी जाने वाली शिक्षा व नैतिकता के गुणों को सकारात्मक तौर पर अपने जीवन में ढालने की आवश्यकता है जिससे की विद्यार्थी अपने जीवन में सुधार ला सके।

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GENDER DISPARITIES IN WAGES AND EMPLOYMENT CONDITIONS IN THE INFORMAL SECTOR: AN ANALYSIS OF WOMEN'S EXPERIENCES

Kumari Pallavi*

ABSTRACT

This study uses secondary time series data on average wages, the working ratio of the unemployed to the total population, divided by the number of those actively seeking employment (UR) and gender-panel data to evaluate gender inequalities in informal sector income and employment, focused on women. Correlations were analyzed using panel data regression analysis using FEM and REM. When informal sector income and participation are strongly correlated, higher average earnings boost WPR and LFPR. According to the study, unemployment did not affect average income. Since men and women earn different wages in the informal industry, gender inequality continues. Gender parity is still needed for equality, even if higher pay may boost informal sector participation.

KEYWORDS: Gender Disparities, Wages, Employment Conditions, Informal Sector, Women's Experiences.

Introduction

Differences in employment market results are partially to blame for these discrepancies between urban and rural areas. More precisely, the relative disadvantage experienced by those who live outside of cities may be partially explained by combinations of different outcomes in terms of employment and labour wages (Paper, 2024). For instance, the evidence now available shows that. In contrast, In high-income and rural areas, employment rates are typically quite comparable; rural residents of poorer nations are more likely to work because they lack financial support and social protection; it could persuade them to take any job that comes along, no matter how good. Notably, 10% of agricultural workers worked in informal employment in 2016. This percentage might indicate poor job quality in the rural labour market. Concerns have been raised about women's employment prospects in underdeveloped nations, where they often labour in informal jobs that lack social protections like minimum Wage and maternity leave. Sub-Saharan Africa: 63% of the unorganized unorganized sector employs most women in waged jobs. In Tanzania, women primarily work in the informal sector, characterized by low-quality jobs with low employment terms, remuneration, and limited access to social security (Francisco & Adu, 2021). In the formal sector, 71% of occupations are held by males. At the same time, women are disproportionately found in low-wage jobs, such as unpaid family caretakers in the agricultural and non-agricultural sectors.

Despite this, gender disparities in labour market participation still exist. Tanzania's government's efforts. Despite advancements in the frameworks governing labour and employment relations, gender disparities in the workplace still exist. The COVID-19 pandemic led to a notable rise in disparities, particularly gender-related ones (Rönnmar & Hayter, 2024). This book looks at enduring obstacles to gender equality, how the COVID-19 pandemic has worsened, and how more inclusive workplace governance might promote gender equality. Women throughout the globe continue to experience prejudice in almost every socioeconomic and political sphere throughout their lives (Rahayuwati et al., 2024). Given the extent of gender inequality and the ensuing effects it has on people on a personal and a national level, women have taken up a large portion of the UN 2030 Agenda for Sustainable

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Development. Similar to other facets of inequality, there is still a larger gender gap in global labour markets regarding earnings, occupational segregation, and participation. The previous several decades have seen notable advancements in women's educational attainment worldwide, but these advancements have not had the anticipated impact on women's rights in the workplace. As a result, women continue to face barriers to employment. They are more likely to choose positions with lower occupational rank and worse quality when they get the opportunity. Greater casualization of the labour force, feminization of lower-level occupations, and increased worker exploitation—particularly of women workers—are all consequences of liberalization, allowing India to expand faster (Lama & Majumder, 2018). Furthermore, India's remarkable recent development rate has not improved the country's labour market conditions. Due to glaring disparities in income and working circumstances, there are still a lot of people living in poverty. A substantial degree of gender disparity still exists in important domains, including labour market activity, education, health, entrepreneurship, etc., notwithstanding notable declines in gender inequalities along several variables during the last two decades (Islam & Amin, 2023). Women's efficiency and empowerment depend on understanding the presence, causes, and consequences of gender disparities. For example, fewer gender disparities in labour force participation and health and perhaps intra-household bargaining power led to greater overall development and growth, according to several research studies. By concentrating specifically on gender differences in outcomes like earnings, employment, profitability, and productivity of women-owned and operated businesses, some studies have attempted to draw attention to women's unrealized potential. Economic growth and gender inequality are strongly correlated. The research currently in publication reveals a nonlinear correlation between the labour force participation gap and development. Early stages of development are linked to significant gains in women's labour force involvement relative to males, indicating a slowing in the convergence of gender participation (Mukhopadhyay, 2023). However, research has shown that gender disparity in the workforce hurts economic expansion. Following the COVID-19 epidemic, people's livelihoods were cut off, their economic activities were restricted, and their profits were decreased. According to estimates from the International Labour Organisation (ILO), the pandemic affected over 25 million employees worldwide (Shruti Nagar et al., 2023). Workers in the unorganized organized sector, who account for "61 per cent of all employment worldwide," are the most severely affected. The informal economy in India is huge, with about 90% of workers reportedly working in the unorganized, organized sector and making contributions. Employees may be ready to forgo more pay in exchange for better job features when choosing a job. It has long been acknowledged that salaries do not accurately represent the complete reward people obtain from working. These pay trade-offs may help explain wage disparity more broadly and ongoing salary disparities among workers who are seen to be comparable, such as by gender or race. The most current data indicates that work features vary significantly across demographic groups and income distribution, and two recent experimental investigations support a significant and diverse willingness to pay for employment amenities connected to scheduling. In recent years, sexual harassment of female African journalists has occurred both online and offline. This often reflects the difficulties faced by other female journalists in other areas. Body shaming, overt and covert sexual connotations from supervisors and other journalists, sexual assault, and sexist remarks are just a few examples of sexual harassment that female journalists experience (Maestas et al., 2018). However, given that female journalists are becoming more conspicuous, it is confirmed that assaults against them have been steadily growing. Sexual harassment still affects a lot of different professions in society, and it makes it harder for female journalists to do their jobs as well as their male colleagues.

The Ground of the Study

The Equal Pay Act mandates that employers compensate men and women equally. 1963. However, there is still a need for further research since gender-based wage discrepancies are still common around the globe and have many contributing variables. The gender pay gap has been discussed for decades, yet the problem has not been resolved. The gender wage gap results from perceptions that women are less valuable at work, less successful, less adaptable, more likely to accept low-paying positions, and more focused on their families (Samarasinghage, 2024). Scholars and decision-makers from all across the globe have taken notice of the disparity in wages between genders in the workforce. Analyzing the gender pay disparity causes, several empirical studies have used The Blinder-Oaxaca technique, which eliminates the gap in pay down into two parts: the explained part, which represents variations in endowment (such as human capital), and the portion that cannot be explained, which means variations in return on factors. More excellent, larger, unexplained component indicates

more significant employment discrimination against women (Ma, 2024). Global attention is being paid to the gender pay disparity in developed and developing nations' labour markets. Gender pay discrepancies exist worldwide despite many nations implementing family and employment equality laws to lessen workplace discrimination against women (Ma & Zhan, 2024). The effect of immigration on domestic jobs and earnings remains one of the most important, although contentious, topics in empirical labour economics despite a significant amount of research conducted over the last three decades.

Given that over 4.6 million individuals fled Venezuela between 2016 and 2019, the number of migrants in Latin America has expanded significantly in recent years as a result of the country's turmoil. These large and abrupt influxes can potentially have both immediate and long-term effects on various socioeconomic outcomes in the host nations (Delgado-Prieto, 2024). According to more recent research, there are advantages and disadvantages to sizeable informal labour markets. The authors contend that although a sizable informal sector lessens the effect of productivity shocks on employment, it increases their influence on production (Cano-Urbina et al., 2023). Lastly, other studies examine the potential advantages the informal sector might offer to particular labour market subgroups, contending that employment in the informal sector provides options for worker training and employment for young, unskilled workers. That is not available in the formal sector.

However, the most prevalent employment arrangement worldwide is informal employment, defined as labour without social security, a contract, or legal protection. The ILO estimates that by 2016, it accounted for 61% of all employment (2 billion workers) (SDG indicator 8.3.1). Although the percentage of unorganized organized workers is higher worldwide, more countries (55%) have more women employed in informal jobs. It is higher than that of males (63% vs 58% for women) (3). In actuality, particularly in low- and middle-income nations, informal work is a structurally significant and enduring foundation of labour markets (Benavides et al., 2022). Additionally, informal work makes for at least 18% and up to 15% of the employed workforce in the USA and the EU, 53% in Asia and Africa, and 88% and 77%, respectively, in Latin America. Emerging unemployment is a significant problem in many countries. A combination of factors, including a growing population and a lack of official job opportunities, raises the unemployment rate. Participating in the informal economy is the only way for the unemployed to pay for necessities like food, clothing, shelter, and utilities. Over 60% of all workers worldwide live in the unorganized, organized sector (Misra et al., 2024). Small firms with less than ten workers, unregistered self-regulated businesses, and a varied range of labourers are all included in this category. Regardless of their socioeconomic background, this kind of work is common around the globe, according to the ILO's statistics data. In India, a sizable section of The unorganized urban sector employs a large portion of the urban population, which is vital to the economy. A significant portion of this industry comprises female domestic workers, especially in large cities like Delhi. The majority of Delhi's female domestic workers come from low-income families. Many move from smaller towns or rural regions for better job prospects (Misra et al., 2024). These labourers often come from under-represented groups, such as The OBC, SC, and ST groups, which are all known as Scheduled Tribes. The Group's educational level could be better; many need to be literate or have completed basic school. Delhi's female domestic servants have a variety of job types. (Adair et al., 2024) examined the impact of formalization formalization policies in these countries, focusing on workers' occupational mobility and demographics. Results showed that demand-side structural restrictions drove informal employment rather than a choice on the labour supply side. Existing formalization formalization policies targeting businesses versus workers have modest impacts. Promoting social and solidarity enterprises and extending microfinance to informal enterprises could be promising policies for creating decent jobs. (Rahayuwati et al., 2024) aim to investigate the relationship between the demographics, social variables, health issues, and impairments of older people working in formal and informal sectors. This research employs a cross-sectional, observational analytical approach. The research participants included all respondents aged sixty-five and above who satisfied the specified requirements for 15,034,946. Multiple variables were utilized in Model II, and For the data, a logistic regression model was used. Analysis. The number of older people employed in the unorganized economy is attributed to various factors, such as gender, degree of education, ownership of funds, residences, function as the family's leader, health, and handicap. (Perugini & Pompei, 2024) examined the function of intangible capital intensity at the industry level and how incentive pay schemes (IPSS) affect the gender wage gap inside businesses. It uses Information from the EU-KLEMS database and the SES Surveys of five European economies.

According to the findings, IPSs can only reduce the adjusted gender pay gap in low-intensity situations. One prominent exception was training. The analysis validates this conclusion in subsamples of

sectors with varying levels of intangible capital intensity. (Schollmeier & Scott 2024) Provided light on how labour outcomes in the logistics sector vary by gender. According to research, women comprise 21% of warehouse workers and 4% of truck drivers. Although the gender pay difference was 11% for warehouse workers and 17% for truck drivers, it was less pronounced for warehouse workers. Although the gender pay gap remains substantial, further research showed that it has closed in the truck transport and warehousing sectors.

Research Gap

The study exposes knowledge gaps about the complex factors contributing to gender inequality and the employment dynamics of the unorganized sector. More attention must be paid to combining the research results that examine the effects of occupational mobility, formalization initiatives, and demographic factors to address structural demand-side restrictions, particularly in informal economies, fully. Furthermore, little research has been done in non-European settings on the significance of intangible capital intensity, incentive pay plans, and gender discrepancies by sector, especially in low-intensity and logistics industries. Additionally, there needs to be more of a comparative analysis across age groups and geographical areas regarding the intersection of demographics, health concerns, and social factors influencing older workers in informal employment. This emphasizes the need for a thorough strategy to direct policy initiatives. that support inclusive and equitable labour markets.

Methodology

Utilizing secondary time series data on average Wage, the working ratio of the unemployed to the total population, divided by the number of those actively seeking employment (U R), and gender panel (ID), This research examined the subject using panel data regression analysis. "Gender Disparities in Wages and Employment Conditions in the Informal Sector: An Analysis of Women's Experiences." In this study, the data tool was used to examine various patterns. Some of the specific steps in the method include:

Data Collection

Average Wage provided secondary time series data that were utilized in this investigation. This research aims to Gain a more thorough comprehension of the components that impact women's job experiences. These factors include wage disparities, the percentage of people actively seeking jobs, the rate of unemployment, and gender panel (ID) data.

- **Model Specification:** The average Wage is the regression model's independent variable, whereas the dependent variables are the working population ratio (WPR), unemployment ratio (UR), labour force participation rate (LFPR), and gender panel (ID).
- **Model Estimation:** Regression model estimation employs several methods; several models fall under this category; two examples are the FEM and the REM.
- **Model Selection:** To ascertain whether the Information in the Model is evaluated using an examination. The Fixed Effects Model and the Random Effects Model are contrasted using the Hausman test.
- **Hypothesis Testing:** The p-values and confidence ranges of the regression coefficients are used to test the hypothesis that average salary and gender disparities significantly affect women's experiences.

Tools and Techniques for Data Analysis

- **Tools**
In this study, the data tool is utilized.
- **Techniques**

Regression Analysis

In statistics, the regression analysis method is used to examine how independent variables relate to their dependent counterparts. Finding regression analysis is a technique used to determine the main objective. The core idea is to use a mathematical model to analyze the Information and determine the relationship in a straightforward way. The most popular kind is linear regression, where a line that approximately represents the relationship. Because of its versatility, regression analysis is often utilized in many fields, including the social sciences, biology, and economics. It assists academics in identifying trends, formulating forecasts, and figuring out the kind and extent of correlations in a dataset. Based on the A formula for regression that may be used to ascertain the dependent variable's value, which is produced by using the independent variables' values.

Considering the Information in the independent component, the evaluation produces a regression, which is an expression that roughly symbolizes the dependent variable's value. The regression equation coefficients show the direction and intensity among the associations. A negative connection shows a negative coefficient, whereas a positive correlation indicates a negative association. To ascertain whether the patterns they see are dependable or the product of chance, researchers use regression techniques to evaluate the importance of associations statistically. Regression analysis within data is an effective technique for modelling and understanding complex relationships.

Model Specification

- **Identify the Variables:** The expected or explained result is Y, the dependent variable. These are independent variables: X1, X2,..., Xn. The explanatory variables are another name for the predictors. Methods for analyzing regression. Location and assessment procedures.

Panel Data Analysis

One kind of data is panel data. Statistical Information is derived from observations made on several entities (such as people, businesses, or nations) over an extended period. This kind of data allows researchers to examine constant variables that vary between entities and variables that remain constant across entities but vary over time. Make use of both random and fixed effect models.

Fixed Effects Model (FEM)

To take into consideration any enduring variations across entities (such as cultural characteristics, geography, etc.), The Fixed Effect Model considers one that temporal uniformity features in terms of the entities. This is achieved by adding entity-specific intercepts to the regression mode.

Random Effects Model (REM)

According to the Effects of Randomness Design, the entity has a particular impact on random and is unaffected by independent factors. Because fewer parameters are used in this Model, it surpasses the Fixed Effects Framework in efficiency., if all assumptions are satisfied.

Hausman Test

It selects a model using the Hausman test. Both the Hausman test was used to compare models with fixed effects to models with random effects. to see which was better for strategy. The test's primary goal is to find out how well the majority of the random effects are explained by the null hypothesis.

Result

Introduction

The study examined gender discrepancies in informal sector salaries and employment circumstances by comparing working unemployment, worker-to-population ratio (WPR), and the ratio of the labour force to the total population (LFPR) (U R) to the primary average Wage: Women's experiences analyzed. It also shows LFPR, WPR, and UR, which yield comparable findings. The data also indicates that Average Wage changes significantly between gender panels (ID), LFPR, U R, and WPR. We stress gender in these data to assist operational and legal frameworks for women's experiences.

Table 1: Descriptive

Variable	Mean	Std. Dev.	Min	Max
Average Wage	8250	1373.45	6000	10500
WPR	51	23.47533	22	76
LFPR	53.56667	24.71287	23	79
U R	4.491667	1.094165	2.9	6.1

The Mean Value of Average Wage in the sample range was from 6,000 to 10,500. There is an average of 8,250 and 1,373.45, the standard deviation. This result indicates that although the average Wage is relatively consistent, moderate variation among individuals exists, indicating income levels within the Group's range. WPR with a standard deviation of 51 and an average of 23.47533, and an assortment of 22 to 76. This large spread indicates high variability in the level of participation in the workforce, with some individuals participating at a much lower rate than others.

LFPR averages 53.57, ranges from 23 to 79 and has a standard deviation of 24.71287. This suggests considerable disparities in the number of persons in the workforce, with some having a more significant concentration. The UR ranges from 2.9 to 6.1, with an average of 1.094165 and a standard deviation of 4.49. This demonstrates that the unemployment rate is consistent across the sample, with only modest variations from the average due to the low standard deviation and limited range.

WPR

H₀: There is no significant impact between Average Wage and WPR.

H₁: Average Wage and WPR have a significant impact.

Table 2: Regression

Source	SS	df	MS	Number of obs=12		
Model	4322.904	1	4322.9	F(1,10)=24.86		
Residual	1739.096	10	173.91	Prob > F=0.0005		
Total	6062	11	551.091	R-squared=0.7131		
				Adj R-squared=0.6844		
				Root MSE=13.187		
WPR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Average Wage	0.014434	0.002895	4.99	0.001	0.00798	0.02088
_cons	-68.0783	24.18547	-2.81	0.018	-121.97	-14.19

This research investigates WPR and average pay. According to the null hypothesis, the Average Wage does not affect WPR. However, the alternative hypothesis does. Average Wage R-squared explains 71.31% of WPR variation in The regression model's R-squared value is 0.7131. After adjustment, R-squared is 0.6844, suggesting a robust model. F-statistic 24.86 and p-value 0.0005 support the Model and dismiss the null hypothesis.

The coefficient on Average Wage = 0.0144 t-statistic = 4.99 p-value = 0.001. The average Wage and WPR seem favourably connected. WPR increases by 0.0144 units for every Average Wage unit. If other factors remain constant, this coefficient ranges from 0.00798 to 0.02088, demonstrating its correctness. With a p-value of only 0.018 and a t-value of -2.81, the (_cons) coefficient is -68.0783. WPR should be -68.0783 at zero average pay. Higher average pay boosts WPR, indicating that higher earnings increase labour participation. Good model explanations support the idea that wage changes affect Informal Sector involvement.

Table 3: Fixed Effect Model

Fixed-effects (within) regression	Number of obs=12					
Group variable: id	Number of groups=2					
R-sq:	Obs per Group:					
within = 0.7742	min=6					
between = 1.0000	avg=6					
overall = 0.7131	max=6					
corr(u_i, Xb) = 0.7605	F(1,9)=30.86					
	Prob > F=0.004					
WPR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Average Wage	3.83E-03	6.89E-04	5.55	0	2.27E-03	5.39E-03
_cons	19.41429	5.716546	3.4	0.008	6.48256	32.34601

The fixed-effects regression model analyses how Average Wage impacts the working population ratio (WPR) using 12 observations from 2 groups. With a within The Model's R-squared value was 0.7742. describes 77.42% of the WPR variation within groups over time. The R-squared value of 0.7131 for the model indicates that it considers around 71.31% of the whole WPR variance. The difference in R-squared is 1.0000, meaning the prototype completely describes the variation between groups. The F-statistic for 30.86 (p = 0.004) confirms that the statistical significance of the Model indicates it reliably explains changes in WPR based on the predictors.

The coefficient for Average Wage is at 0.00383 (p < 0.001), which positively correlates with WPR and has statistical significance. This result indicates that the WPR changes by 0.00383 units for one unit change in Average Wage while controlling other variables. The corresponding interval of this coefficient ranges between 0.00227 and 0.00539, further strengthening the precision and validity of this correlation.

The constant term (_cons) is 19.41429 (p = 0.008), which means that if the Average Wage were equal to zero, the base WPR would be approximately 19.41. The significant constant also implies that several other unobserved factors beyond those included in this Model contribute meaningfully to WPR. The results show that wage levels significantly determine the working population ratio. At the same time, the considerable correlation between group-specific effects and predictors makes the within-group dynamics relevant.

Table 4: Random Effect Model

Random-effects GLS regression	Number of obs=12					
Group variable: id	Number of groups=2					
R-sq:	Obs per Group:					
within =0.7742	min=6					
between = 1.0000	avg=6					
overall = 0.7131	max=6					
corr(u_i, X) = 0 (assumed)	Wald chi2(4)=24.86					
	Prob > chi2=0					
WPR	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Average Wage	0.0144337	0.002895	4.99	0	0.00876	0.020108
_cons	-68.07831	24.18547	-2.81	0.005	-115.481	-20.6757

Average Wage significantly affects the dependent variable in 12 observations from 2 groups using Disruptions caused by chance. We used Generalised Least Squares (GLS) Regression. The match is satisfactory, with 77.42% of group variability. The Model's explanation (within-group R-squared = 0.7742). The minimal number of groups may explain why the R-squared value across groups of 1.0000 properly explains variance between groups. The overall R-squared = 0.7131 matches the data variance well.

The average wage coefficient is 0.0144. Using the crucial 0.000 p-values implies a positive connection among the mean wage and the dependent variable. The Average Salary causes a 0.0144 rise in the dependent variable. This coefficient's 95% confidence interval is 0.00876 to 0.0201, showing its importance.

Constant Term(_cons) -68.0783, p=0.005. This implies that the dependent variable should be -68.0783 when the Average Wage is zero, which is statistically significant. P=0.000, Wald chi-square=24.86. Average Wage causes the dependent variable's variance, making the Model statistically significant.

Table 5: Hausman Test

	(b)	(B)	(b-B)	sqrt(diag(V_bV_B))	Chi-square
	fixed	random	Difference	S.E.	0
Average Wage	1.44E-02	1.44E-02	0	0	

Hausman test determines which Model—fixed or random—applies to the study. If the fixed effects model is selected, the Chi-square value is zero, which is less than 0.05. Fixed and random impact models have the same Average Wage coefficients; hence, they are not comparable. Because of the low Chi-square score, the null hypothesis cannot be disproved. One Model does not differ significantly from another. The fixed effects model looks better for this investigation since the end outcome is consistent without considerable variance owing to individual observations.

LFPR

H₀: There is no significant impact between Average Wage and LFPR.

H₂: Average Wage and LFPR have a significant impact.

Table 6: Regression

Source	SS	df	MS	Number of obs=12		
Model	4625.35	1	4625.35	F(1,10)= 22.10		
Residual	2092.64	10	209.264	Prob > F= 0.0008		
Total	6717.99	11	610.726	R-squared= 0.6885		
				Adj R-squared= 0.6574		
				Root MSE= 14.466		
LFPR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Average Wage	0.01493	0.00318	4.7	0.001	0.00785	0.02201
_cons	-69.607	26.5301	-2.62	0.025	-128.72	-10.494

The link between average salary and LFP will be examined. A null hypothesis (H₀) that average pay has no meaningful effect on LFPR is tested against an alternative hypothesis (H₂) that it does. The

average regression model's R-squared value is 0.6885, meaning Wage explains 68.85% of LFPR variance. After model complexity adjustment, 0.6574 is the R-squared value. Since With a p-value of 22.10 and an F-statistic of 0.0008, the model is noteworthy overall and disproves the lack of evidence at 1% significance.

Analysis of various components shows that the Average Wage has a coefficient of 0.01493 the t0.001 and 4.7 were the p-values. Evidence of statistical relevance between Average Wage and LFPR. And good. LFPR increases by 0.01493 units if the Average Wage increases by one unit, containing everything else. The estimate's confidence interval is 0.00785–0.02041, proving its robustness. When the average Wage is zero, the (_cons) coefficient is -69.607, 0.025 is the p-value, and the t-value is -2.62 in this investigation. These results imply that LFPR's starting point is statistically significant. The large R-squared and statistically considerable coefficients suggest that Average Wage positively affects LFPR, supporting the alternative hypothesis.

Table 7: Fixed Effect Model

Fixed-effects (within) regression	Number of obs=12					
Group variable: id	Number of groups=2					
R-sq:	Obs per Group:					
within = 0.6527	min=6					
between = 1.0000	avg=6					
overall = 0.6885	max=6					
corr(u_i, Xb) = 0.7605	F(1,9)=16.91					
	Prob > F= 0.0026					
LFPR	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Average Wage	0.00331	0.00081	4.11	0.003	0.00149	0.00514
_cons	26.2238	6.6846	3.92	0.003	11.1022	41.3454

The average wage-LFPR link is examined using two sets of 12 data. With a 0.6527 R-squared, the Model explains over 65% of LFPR variance for all groups, netted off by their features. The Model explains 69% of LFPR variance with R-squared = 0.6885. The data's 16.91 F-test in this conceptual framework proves statistical significance. The Model's 0.0026 p-value is 1% significance.

LFPR correlates with an average wage of 0.00331 (p = 0.003). A higher average income raises LFPR. The positive coefficient 95% CI is 0.00149-0.00514. With a p-value of 0.003, _cons is significantly different from zero. At zero average pay, LFPR is 26.22. LFPR affects more than the average salary. Wage levels affect labour force participation across categories since the coefficient positively correlates with average income.

Table 8: Random Effect Model

Random-effects GLS regression	Number of obs=12					
Group variable: id	Number of groups=2					
R-sq:	Obs per Group:					
within =0.6527	min=6					
between = 1.0000	avg=6					
overall = 0.6885	max=6					
corr(u_i, X) = 0 (assumed)	Wald chi2(4)= 22.10					
	Prob > chi2=0					
LFPR	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Average Wage	0.01493	0.003176	4.7	0	0.008706	0.021154
_cons	-69.6068	26.53014	-2.62	0.009	-121.605	-17.6087

The GLS regression model links Average Wage and Labour Force Participation (LFPR) utilizing 12 data from 2 groups of 6. At 0.6527 R-squared, the Model explains 65.3% of LFPR variance within each Group. With a space-between-group R-squared of 1.0000, the Model explains well. The R-squared value of 68.9% of LFPR is 0.6885. This paradigm explains group differences.

P-value 0.000, Average Wage coefficient 0.01493. Average Wage and LFPR are positively correlated. Higher average wages improve LFPR by 0.01493 units, boosting labour force participation. At a p-value of 0.009, the constant component (_cons) has a scale factor of -69.6068, suggesting that the baseline LFPR when the Average Wage is zero is negative, which may be feasible or a starting point. Chi-squared = 22.10 Wald. With significant p, the Model is 0.000. Rule changes that improve average pay may increase labour force participation.

Table 9: Hausman Test

	(b)	(B)	(b-B)	sqrt(diag(V_bV_B))	Chi-square
	fixed	random	Difference	S.E.	
Average Wage	1.49E-02	1.49E-02	0	0	0

One way to tell whether an impact Use the Hausman test to determine if the model is fixed or random. This test has a Chi-square of 0, which is considerably below 0.05, showing that the fixed effects model is adequate. Models using random and fixed factors had the same Average Wage coefficient of 1.49E-02. Instead, we conclude that the two models are comparable, and due to the poor Chi-square score, we deny the null hypothesis. Consequently, we use the fixed effects model. Choose. For this research, since it is consistent, observations vary little.

UR

H₀: There is no significant impact between Average Wage and UR.

H₃: There is a significant impact between Average Wage and UR.

Table 10: Regression

Source	SS	df	MS	Number of obs=12		
Model	1.2169	1	1.2169	F(1,10)= 1.02		
Residual	11.9523	10	1.19523	Prob > F= 0.3368		
Total	13.1692	11	1.1972	R-squared= 0.0924		
				Adj R-squared= 0.0016		
				Root MSE= 1.0933		
U R	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Average Wage	-0.00024	0.00024	-1.01	0.337	-0.0008	0.00029
cons	6.48956	2.00502	3.24	0.009	2.0221	10.957

This study looks at how the average Wage is related to a variable that isn't named as a dependent variable. It also tests the idea and shows the average salary has no discernible effect on the dependent variable. In the alternative theory, it is thought that there is a significant impact. The Model has an R-squared score of only 0.0924, and the average Wage can only explain 9.24% of the dependent variable's fluctuation. At 0.0016, the adjusted Model's low R-squared suggests it cannot explain the phenomena. The p-value and the 1.02 F-statistic of.3368 shows that the prototype as a whole is not noteworthy in terms of statistics.

There is a -0.00024 coefficient for Average Wage, a -1.001 t-value, and a 0.337 number for the p-value. In this case, the Average Wage has no bearing on the dependent variable from a statistical perspective. There is a 95% chance that the above finding is factual because the confidence interval goes from -0.0008 to 0.00029, which includes zero. We know the constant is 6.48956, With 3.24 as the t-value and a p-value regarding 0.009. Consequently, the dependent variable is anticipated to have a value of 6.49 when the Average Wage is zero. This intercept is statistically significant. A residual RMSE of 1.0933 means that the residuals are not very stable. The results were not strong enough to deny the null hypothesis. The dependent variable did not correlate statistically with the average Wage.

Table 11: Fixed Effect Model

Fixed-effects (within) regression	Number of obs=12					
Group variable: id	Number of groups=2					
R-sq:	Obs per Group:					
within = 0.9541	min=6					
between = 1.0000	avg=6					
overall = 0.0924	max=6					
corr(u_i, Xb) = 0.7605	F(1,9)= 187.18					
	Prob > F= 0.0000					
U R	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Average Wage	-0.0011	8.1E-05	-13.68	0	-0.0013	-0.0009
_cons	13.661	0.67378	20.28	0	-0.0013	15.1851

The fixed-effects regression model examines the average salary and a set of factors specific to each Group. The sample consists of 12 observations from 2 groups, each with six observations. The internal R-squared value of 0.9541 suggests that those are described by the Model 95% in terms of the variation in the one that depends upon it within groups, which is a perfect fit for group-specific factors. The relationship between values is 1.0000, suggesting that the Model perfectly accounts for the variance between groups, although it may be due to the small number of groups involved. An overall Value of R squared for 0.0924 asserts that the simulation performs poorly in accounting for the whole range of values for the dependent variable across all the groups.

The Model's statistical significance, shown by the probability of 187.18 ($p < 0.0001$), indicates that the dependent variable's collection of predictors included in the Model can appropriately explain the variance. A coefficient representing average Wage is -0.0011, showing a statistically significant result (p -value = 0). It has an adverse influence on the one being measured. Therefore, higher incomes have. The dependent variable has a negative connection, and this estimate is valid for all groups. The constant term ($_cons$) is 13.661 ($p = 0$). When both variables are set to zero, the output is expected to be 13.661. Tight confidence intervals further confirm that these estimates are precise.

Table 12: Random Effect Model

Random-effects GLS regression	Number of obs=12					
Group variable: id	Number of groups=2					
R-sq:	Obs per Group:					
within =0.9541	min=6					
between = 1.0000	avg=6					
overall = 0.0924	max=6					
corr(u_i, X) = 0 (assumed)	Wald chi2(4)= 1.02					
	Prob > chi2= 0.3130					
UR	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Average Wage	-0.00024	0.00024	-1.01	0.313	0.001	0.000228
$_cons$	6.489558	2.005016	3.24	0.001	2.559798	10.41932

The table following shows a GLS-based Random Effects Regression study of Average Wage vs. a dependent variable, using 12 observations and two groups. R-squared within-group = 0.9541 suggests that the Model explains 95.41 per cent of group variation. Due to constrained dataset groupings, between-groups R-squared = 1.0000 thoroughly explains group changes. A score of 0.0924 for R-squared suggests that the Model explains minimal dataset variation.

The average pay coefficient has a p-value of 0.313, a z-value of 0.00024, and a standard error of -1.01. Because the Average Wage does not significantly impact as opposed to the p-value, the dependent variable, the traditional significance criterion, is 0.05. The constant term ($_cons$) coefficient is 6.489558. It strongly suggests that the Average Wage is zero because its p-value is 0.001. The Model does not attain statistical significance (Wald chi-square = 1.02, $p = 0.313$), supporting the fact that the independent factors do not explain much of the dependent variable's variation.

Table 13: Hausman Test

	(b)	(B)	(b-B)	sqrt(diag(V_bV_B))	Chi-square
	fixed	random	Difference	S.E.	
Average Wage	-2.42E-04	-2.42E-04	0	0	0

The Hausman test is most important, as it determines the optimal Model—random or fixed. The chi-square is 0, well below 0.05. The Best Model is fixed effects. Both fixed and random effects models have zero coefficients and similar outcomes. The Average Wage fixed and random effects coefficients are -2.42E-04. A low Chi-square value prohibits null hypothesis rejection, indicating no model difference. A fixed effects model is used for its consistency and minimal observation variation.

H₀: There is no significant difference between Gender among Average Wage, WPR, LFPR, and UR.

H₄: There is a significant difference between Gender among Average Wage, WPR, LFPR, and UR.

Average Wage**Table 14: Independent Sample Test**

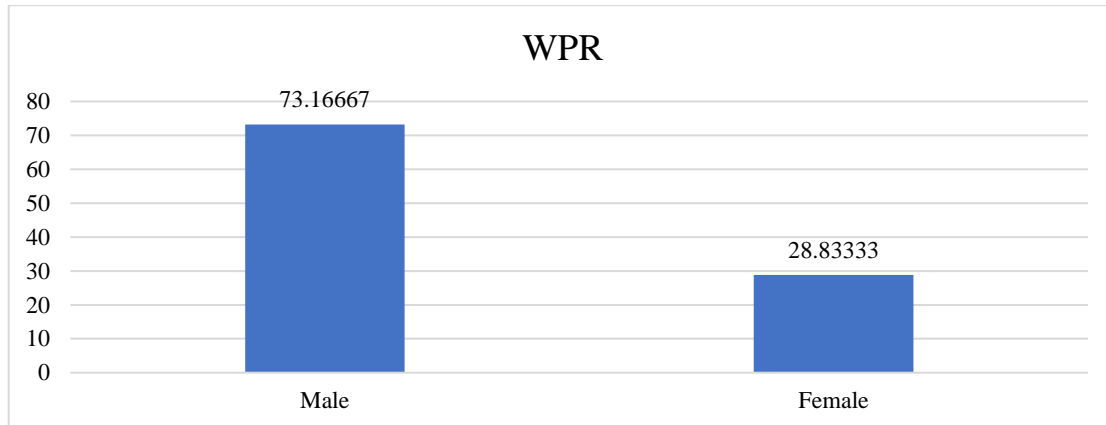
Group	Obs	Mean	Std. Err.	Std.Dev.	[95%Conf.	Interval]
Male	6	9250	381.8813	935.4143	8268.343	10231.66
Female	6	7250	381.8813	935.4143	6268.343	8231.657
combined	12	8250	396.4807	1373.45	7377.352	9122.648
degrees of freedom = 10						
Satterthwaite's degrees of freedom = 10						
Welch's degrees of freedom = 12						
t = 3.7033			p=0.01			



The mean salary for male and female employees is significantly different, as found in a critical, independent sample test. It has been shown that males have an average wage of 9,250, while females have 7,250, with substantial standard deviations: 935.41 for males and 935.41 for females. The combined group average wage is 8,250, but there is a higher standard deviation of 1,373.45 compared to the individual gender groups. This, therefore, shows that wage differences between males and females are statistically significant. The test resulted in 3.7033 for p-value, t-value, and was 0.01. So, gender explains most of the wage disparity. Even though it is statistically significant, the extensive wage range, particularly between males, indicates substantial differences in individual earnings for each Group.

WPR**Table 15: Independent Sample Test**

Group	Obs	Mean	Std. Err.	Std.Dev.	[95%Conf.	Interval]
Male	6	73.16667	0.792324	1.94079	71.12993	75.2034
Female	6	28.83333	2.212339	5.419102	23.14633	34.52033
combined	12	51	6.776743	23.47533	36.08449	65.91551
degrees of freedom = 10						
Satterthwaite's degrees of freedom = 6.26187						
Welch's degrees of freedom = 6.76662						
t = 18.8657			p=0.000			

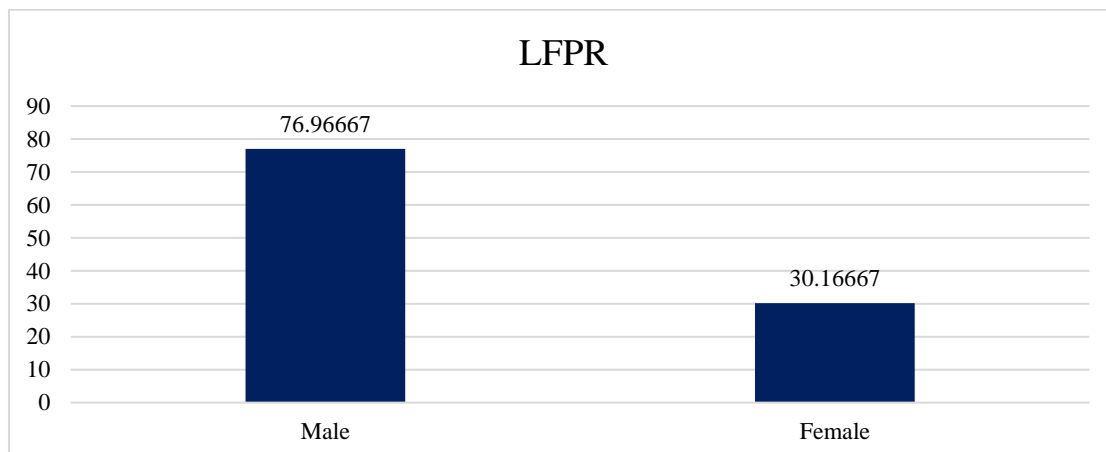


Notably, the Hausman test finds the best Model, whether random or fixed. The chi-square is below 0.05. The best fixed-effects model. Fixed and random effects models have zero coefficients and similar results. The average Wage fixed and random effects coefficients are $-2.42E-04$. A low Chi-square value does not show a model difference, preventing null hypothesis rejection. Fixed effects models are utilized for consistency and low observation variation.

LFPR

Table 16: Independent Sample Test

Group	Obs	Mean	Std. Err.	Std.Dev.	[95%Conf.	Interval]
Male	6	76.96667	0.463081	1.134313	75.77628	78.15706
Female	6	30.16667	2.166667	5.307228	24.59707	35.73626
combined	12	53.56667	7.133992	24.71287	37.86486	69.26848
degrees of freedom = 10						
Satterthwaite's degrees of freedom = 5.45585						
Welch's degrees of freedom = 5.63819						
t = 21.1229			p=0.000			



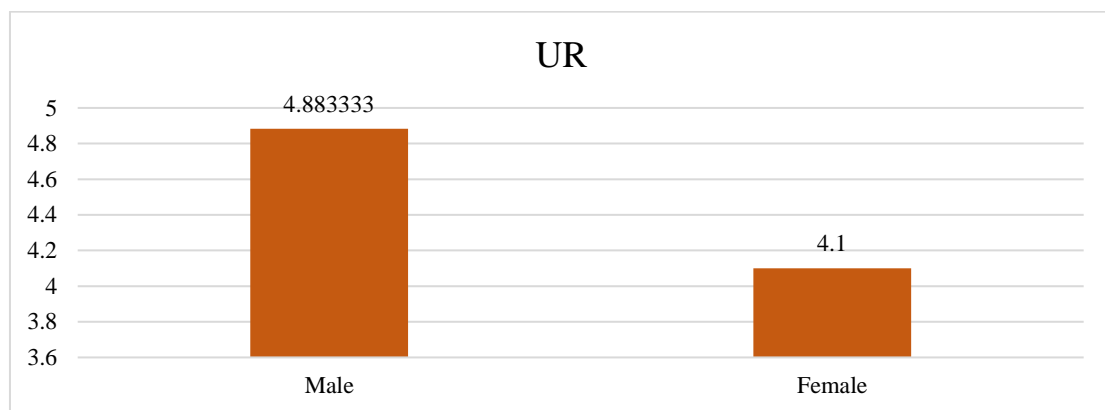
A critical utilization of The variance in the gender gap in the independent sample test is the labour force participation rate. The result indicates a significant disparity, with men having a far larger LFPR at 76.97 than females, which stands at 30.17, indicating a substantial gap in labour force participation by gender. The standard deviation is much less for men than for women., at 1.13 compared to 5.31, which suggests less variation in LFPR among males than females. The combined average LFPR for both genders is 53.57, with a much higher standard deviation of 24.71, indicating that the overall

population shows significant variation in LFPR. With a 21.12 t-value and a 0.000 p-value, the overall significance of the differences in LFPR shows that gender plays a crucial role in influencing LFPR, as The employment rate for men is significantly higher than that of women.

UR

Table 17: Independent Sample Test

Group	Obs	Mean	Std. Err.	Std.Dev.	[95%Conf.	Interval]
Male	6	4.883333	0.433141	1.060974	3.769909	5.996758
Female	6	4.1	0.43589	1.067708	2.979509	5.220491
combined	12	4.491667	0.315858	1.094165	3.796467	5.186866
degrees of freedom = 10						
Satterthwaite's degrees of freedom = 9.9996						
Welch's degrees of freedom = 11.9994						
t = 1.2747			p= 0.1156			



The Group means were compared using the t-test for independent samples of the men-women unemployment ratio. The average standard deviation is 1.06. The unemployment rate for males was 4.88, and for women, 4.10, with a standard deviation of 1.07. The combined Group had a 4.49 unemployment rate and a 0.32 standard error, lower than the individual groupings. A t-test result of 1.27 and a p-value of 0.1156 were acquired. This will indicate that men and women have similar unemployment rates at 0.05. If so, gender will affect unemployment rates little. However, standard deviation differences suggest that men and women have different joblessness rates. There may be additional factors impacting individual unemployment.

Discussion

The gender pay gap analyses several aspects of the gender wage difference: UnorganizedUnorganized sector work evidence. It shows that higher education, especially postsecondary education, helps women reduce the income gap, supporting earlier research that indicates education benefits women more than males. Women can reduce the salary gap best with education. The study also shows a significant positive marriage premium for males, where married men earn more at a lower rate(Akbar, 2022). Again, wage dispersion and unequal family duties among married working women grow for women. Occupational segregation, since males dominate most industries, discrimination and unobserved variables, including social norms, also contribute to salary discrepancy. These findings emphasize the complexity of gender wage discrepancy.

The Gender Pay Gap and Informal Employment in Turkey's Manufacturing Sector examines why female informally employed workers in Turkey continue to face compensation discrepancies between 2004 and 2016 despite the increased female proportion in labour-intensive subsectors. An informal gender pay discrepancy of around 28% exists in textiles and clothes. Unlike in formal employment, work-related issues, including poor working conditions, contribute to this income difference, according to a study(MEMİŞ&TOKSÖZ, 2020). Macroeconomic variables like import competitiveness and export shares promote gender inequality. The findings imply that regulation revisions should promote

female employment while protecting all workers' rights, remuneration, and social security. We must address these challenges holistically to promote gender equality in Turkey's employment market. The study examines gender inequalities in the informal labour market, average salaries, and essential work metrics as the Working population ratio (WPR) and unemployment rate ratio (UFRR) are the same. The study hypothesis is that salary discrepancies significantly affect workplace gender disparities, labour force participation, and unemployment. The study focuses on how wage gaps influence the labour market and how women struggle to find jobs. Gendered reactions to private-sector salary adjustments are examined in this study. This shows how difficult it is for women to secure fair pay and equal job opportunities.

This study will reveal how salary gaps affect employment and unemployment. This knowledge may be used to design policies that eliminate gender inequalities and increase work performance. It examines how salary discrepancies and gender unemployment rates affect women's and men's informal sector job conditions. The study hypothesizes that while salaries may affect these variables differently across genders, male and female reactions to wage shocks in the informal sector differ dramatically. These characteristics can influence workplace gender gap policy.

Conclusion

The average salaries, WPR, UR, and LFPR analysis provide key Information. Average earnings increased WPR and LFPR by 0.0144. This correlation is reliable due to its R-squared of 0.7131. Higher average earnings attract more informal workers, indicating wealth improves working conditions. The regression study found a positive association between average pay and LFPR (R-squared = 0.6885). Average salary coefficient 0.01493; p-value 0.001, indicating a strong link.

No link was discovered between unemployment and average salary. Average income and unemployment do not correlate. The p-R-squared is 0.0924 and the value is 0.3378. The F-statistic of 1.02 and average Wage of -0.00024 indicate that the Model doesn't exhibit pay or unemployment. Informal Sector average wage and employment show gender disparities. Research shows these differences matter; therefore, men and women are different. By gender, average incomes and unofficial economic activities vary. This reveals ongoing gender prejudice.

WPR and LFPR rise with average salaries. Pay attracts Informal Sector workers, but the average Wage seems unaffected by unemployment. Gender gaps suggest that inequalities in the unorganized sector must be addressed. Raising pay may boost employment, but gender equality is essential to making the Informal Sector fairer.

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