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Part-B

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Editor's Column

The blast of knowledge at the universal hut due to scientific dynamics has without doubt redefined the very concept of new Era. The main set-up of education especially higher education-has become a subject of study and scrutiny for the scholars and practitioners who have a hunger desire to face change and challenges. It is because we, the creature beings, are brilliant with the faculty of option and a liberated will.

Unlike other type, we are not planned. We can make choices and use our free will to act and get our objectives. Inequities in learning opportunities, quality of educational military and level of learning success persist by gender, rural/town locality, ethnic backdrop, and socioeconomic status.

The quality of education and the aptitude to define and monitor this quality is absent in most upward countries. The means and span of education continue to be fine and curbed to past models of delivery, and the use of other channels continues to be informal and subsidiary. The increase in quantitative and qualitative demand for education is not in step by an raise in funds.

At this point in time, it is safe to situation that the split of views on the risk of change is marvelous. We, the publishers of Research Genius E Journal, are very much eager to view some aspect of these changes through academic article contributed by impressive scholar and social group. The nearby issue contains papers with decisive coming and scrutiny as well as orderly argument and reflection on various theme of language, prose, information technology, commerce and so on. We trust this will positively be helpful for the community who desire transform.

Chief-Editor

Dr. Dinesh R. Chavda

**Special Issue-Seminar Proceedings
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A Comparative Study of Financial Literacy among Salaried Women in the Public and Private Sectors

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ABSTRACT

The study's main objective is to compare the financial literacy of salaried women working in the public and private sectors in Junagadh, Gujarat. The capacity to comprehend and use financial management techniques like debt management, investing, saving, and budgeting is known as financial literacy. Although women in salaried jobs are increasingly making long-term financial decisions and contributing to household income, research indicates that their degree of financial literacy varies greatly depending on the type of work they do. This study compares the level of financial literacy among salaried women working in the public and private sectors. The study assesses financial knowledge, financial attitude, and financial behaviour using a standardised questionnaire given to 200 respondents (100 from each sector) and looks at how these factors relate to investment preference and financial decision-making. The results show that salaried women in the public sector had a slightly better degree of financial awareness and a stronger preference for conventional and long-term investment vehicles. On the other hand, salaried women in the private sector exhibit less financial planning behaviour despite having comparatively greater income levels. The article ends with recommendations for improving working women's financial literacy through government efforts and employer-led financial education programs.

Keywords: *Financial Literacy, Salaried Women, Public Sector, Private Sector, Financial Behaviour, Investment Awareness*

1. INTRODUCTION

The term "financial literacy" describes the information and abilities needed to make wise choices about how to utilise and manage money. It includes preparing for long-term financial objectives like retirement as well as budgeting, saving, investing, and borrowing. Financial literacy among paid women has attracted significant scholarly and policy attention in recent years due to the increasing number of women entering the organised workforce (Lusardi & Mitchell, 2014).

Whether they work in the public or private sector, salaried women are expected to make independent financial decisions about their income, taxes, savings, and investments. However, there are significant differences between the public and private sectors in terms of job security, compensation, retirement benefits, and organisational culture. These differences may have different effects on women employees' financial knowledge, attitudes, and behaviours (Bhushan & Medury, 2013; Sarigül, 2014). Employees in the public sector typically have better job stability and defined pension benefits, which may lessen the need to actively manage personal finances. Employees in the private sector, on the other hand, frequently deal with unpredictable income structures and the lack of a guaranteed pension, which may either promote proactive financial planning or result in financial neglect owing to work pressure and restricted exposure (Rai et al., 2019).

In light of this, the current study aims to compare the degree of financial literacy among salaried women employed in the public and private sectors in terms of knowledge, attitude, and behaviour, and to investigate how this is represented in their financial decision-making and investment preferences.

2. REVIEW OF LITERATURE

Numerous studies have looked at the factors that influence working women's financial literacy. Previous studies largely concur that, despite improvements, women's financial literacy levels are still lower than men's and vary greatly depending on factors including income, education, and type of employment. Table 1 summarises the main studies that were reviewed for this research, including their emphasis, methodology, sample, objective, and key findings.

Table 1: Summary of Reviewed Literature

Author(s) & Year	Focus	Methodology	Sampling Method / Sample Size	Objective	Findings
Lusardi & Mitchell (2011)	Cross-country financial literacy levels	Review and synthesis of national financial literacy surveys	Secondary data synthesis across multiple national surveys (no single primary sample)	To review financial literacy levels across countries and identify vulnerable groups.	Financial literacy is uniformly low across nations and consistently lower among women, older adults, and those with limited formal education.

Lusardi & Mitchell (2014)	Economic importance of financial literacy	Theoretical review and synthesis of empirical studies	Conceptual review of empirical literature (no primary sample)	To examine the theoretical and empirical importance of financial literacy in economic decision-making.	Higher financial literacy is associated with a greater likelihood of retirement planning, investment diversification, and avoidance of high-cost debt.
Chen & Volpe (1998)	Gender differences in financial literacy among students	Survey-based financial literacy quiz among college students	924 college students from 14 universities across 6 US states; convenience sampling	To compare financial literacy levels between male and female college students.	Women students scored significantly lower on financial literacy tests than men and were less confident in their financial knowledge.
Hilgert et al. (2003)	Household financial management behaviour	Survey of Consumers data combined with a financial practices index	1,508 respondents; US national Survey of Consumers (random telephone survey)	To examine the relationship between financial knowledge and day-to-day financial management behaviour.	Positive but moderate relationship between financial knowledge and everyday financial behaviour such as cash-flow management and saving.
Atkinson & Messy (2012)	Measurement framework for financial literacy	OECD/INFE pilot survey across multiple countries using a structured questionnaire	14 countries; at least 1,000 respondents per country (14,000+ total); random national sampling	To develop and pilot an internationally comparable measure of financial literacy.	Developed the widely used knowledge–attitude–behaviour framework adapted by numerous sector-specific studies, including the present one.
Agarwalla et al. (2015)	Financial literacy among urban working youth in India	Structured questionnaire survey; descriptive and regression analysis	Over 3,000 young working respondents across major urban Indian cities; structured survey sampling	To assess the level and determinants of financial literacy among urban working youth in India.	Financial behaviour was comparatively weaker than knowledge and attitude; income and employment type were significant determinants.
Bhushan & Medury (2013)	Determinants of financial literacy among salaried individuals	Survey questionnaire; descriptive statistics and ANOVA	516 salaried individuals in Himachal Pradesh (Shimla, Solan, Kangra);	To study the level of financial literacy among salaried individuals and its determinants.	Financial literacy is significantly influenced by gender, education, income, and nature of employment, with sector-wise variation.

			multistage sampling		
Bhushan & Medury (2014)	Inter-linkages among knowledge, attitude and behaviour	Structured survey; correlation and regression analysis	516 salaried employees in Himachal Pradesh; multistage sampling	To examine inter-linkages between financial knowledge, attitude, and behaviour among salaried employees.	Strong inter-linkages among knowledge, attitude, and behaviour; a positive attitude does not automatically translate into prudent behaviour.
Jariwala (2013)	Financial literacy and investment decisions in Gujarat	Survey of investors; percentage analysis and chi-square test	285 individual investors in Ahmedabad and Vadodara, Gujarat; convenience sampling	To study the level of financial literacy and its impact on investment decisions of investors in Gujarat.	Financial literacy significantly affects investment decision-making; many investors, despite basic awareness, prefer traditional low-risk instruments.
Sabri & MacDonald (2010)	Savings behaviour and financial problems among students	Cross-sectional survey of college students; regression analysis	605 students from 4 institutions in Klang Valley, Malaysia; convenience sampling	To examine the role of financial literacy in savings behaviour and financial problems among college students.	Higher financial literacy is associated with better savings behaviour and fewer financial problems.
Mahdzan & Tabiani (2013)	Individual saving behaviour in Malaysia	Survey-based study; logistic regression analysis	Primary survey of urban Malaysian individuals; convenience sampling	To explore the impact of financial literacy on individual saving behaviour.	Financially literate individuals are significantly more likely to save regularly.
Sarigül (2014)	Financial literacy of adults across occupations in Turkey	Structured questionnaire survey; descriptive and comparative analysis	Primary survey of adults across various occupations in Turkey; stratified sampling	To measure financial literacy among adults and examine variation by occupation and employment sector.	Financial literacy varies significantly by occupation and employment sector; government-linked jobs show different risk attitudes than variable-income private employment.

Kadoya & Khan (2020)	Knowledge, attitude and behaviour as distinct constructs	Secondary data analysis; factor analysis and regression	Japan's nationwide 2016 Financial Literacy Survey; large-scale probability sample	To examine financial knowledge, attitude, and behaviour as distinct constructs and identify their demographic determinants.	Knowledge, attitude, and behaviour are distinct but related; age, income, and employment type independently predict literacy scores.
Kumari (2020)	Financial literacy and investment decision quality	Survey of undergraduates; correlation and regression analysis	Undergraduates in Colombo District, Sri Lanka; convenience sampling	To study the impact of financial literacy on the quality of investment decisions.	Financial literacy positively influences investment decisions; literate respondents favour diversified, growth-oriented avenues over traditional savings alone.
Rai et al. (2019)	Financial literacy and behaviour among working women	Structured questionnaire survey; correlation analysis	Primary survey of working women in India; convenience sampling	To examine the association between financial literacy and financial behaviour among working women.	Significant positive association between financial literacy and financial behaviour; income stability and job security shape saving/investment patterns across sectors.

Beyond these specific studies, research on employees in the public sector has generally found that job security and guaranteed retirement benefits lessen the perceived need for independent financial planning, whereas research on employees in the private sector has found a greater awareness of market-linked instruments like stocks and mutual funds due to higher income variability and relatively younger workforce demographics (Sarigül, 2014; Rai et al., 2019). The degree of financial literacy among salaried women across sectors is also strongly influenced by demographic parameters, including age, income, education, and marital status, according to a number of studies (Kadoya & Khan, 2020). According to other studies (Agarwalla et al., 2015; Jariwala, 2013), respondents exhibit reasonable theoretical knowledge but continue to favour traditional, low-risk instruments because of risk aversion and low investment confidence, indicating a persistent gap between financial knowledge and actual financial behaviour.

Although there is a large body of research on women's financial literacy generally, relatively few studies have explicitly compared salaried women in the public and private sectors using the same study design. This gap serves as the foundation and rationale for the current study.

3. RESEARCH GAP

According to Bhushan and Medury (2013), the majority of current research on women's financial literacy either focuses on "working women" in general without making any sector-specific distinctions or examines a single sector separately. Particularly with regard to how sectoral job characteristics (security, income structure, retirement benefits) influence financial decision-making, there is little empirical comparison of financial knowledge, attitude, and behaviour between salaried women in the public and private sectors (Rai et al., 2019). This research aims to close that gap.

4. OBJECTIVES OF THE STUDY

- To investigate the demographics of women who work for pay in both the public and private sectors.
- To assess and contrast the financial literacy (knowledge, attitude, and behaviour) of salaried women in the public and private sectors.
- To compare salaried women's investment choices in the two sectors.
- To provide recommendations for improving salaried women's financial literacy.

5. HYPOTHESES OF THE STUDY

H₀₁: There is no significant difference in the mean financial literacy score between public sector and private sector salaried women.

H₀₂: There is no significant association between sector of employment and the level of financial literacy (Low/Medium/High).

H₀₃: There is no significant difference in investment preference between public sector and private sector salaried women.

6. RESEARCH METHODOLOGY

Table 2: Overview of the Research Methodology

Parameter	Description
Research Design	Descriptive and comparative research design
Population	Salaried women employed in public and private sector organisations
Sample Size	200 respondents (100 Public Sector + 100 Private Sector)
Sampling Method	Stratified random sampling (equal allocation by sector)
Data Source	Primary data: structured questionnaire; Secondary data: journals, reports, websites
Study Area	Junagadh City, Gujarat
Tools of Analysis	Percentage analysis, Mean, Standard Deviation, Independent samples t-test, Chi-square test
Statistical Software	SPSS / MS Excel

A structured questionnaire covering three dimensions financial knowledge (knowledge of interest, inflation, risk-return, and investment products), financial attitude (perception of saving and planning), and financial behaviour (actual saving, budgeting, and investment practices) was used to measure financial literacy. The questionnaire was adapted from the OECD/INFE financial literacy measurement framework (Atkinson & Messy, 2012; OECD/INFE, 2011). Every responder received an overall composite financial literacy score based on the percentage scores assigned to each dimension.

7. DATA ANALYSIS AND INTERPRETATION

7.1 Demographic Profile of Respondents

Table 3: Demographic Profile of Public and Private Sector Salaried Women

Demographic Variable	Public Sector (n=100)	Private Sector (n=100)	Total (N=200)
Age: 25–35 yrs	38%	46%	84
Age: 36–45 yrs	31%	33%	64
Age: 46–55 yrs	21%	15%	36
Age: Above 55 yrs	10%	6%	16
Education: Graduate	42%	39%	81
Education: Post-Graduate	48%	51%	99
Education: Professional (CA/CS/MBA etc.)	10%	10%	20
Marital Status: Married	71%	64%	135
Marital Status: Unmarried	29%	36%	65
Monthly Income: ₹25,000–₹50,000	34%	41%	75
Monthly Income: ₹50,001–₹75,000	40%	35%	75
Monthly Income: Above ₹75,000	26%	24%	50

Table 3 shows that a majority of respondents in both sectors fall in the 25–45 years age group, with private sector respondents skewing marginally younger. Education levels are broadly comparable across both groups, and a majority of respondents in both sectors are post-graduates, indicating a

reasonably well-educated sample consistent with the observation that demographic factors such as age and education independently shape financial literacy outcomes (Kadoya & Khan, 2020).

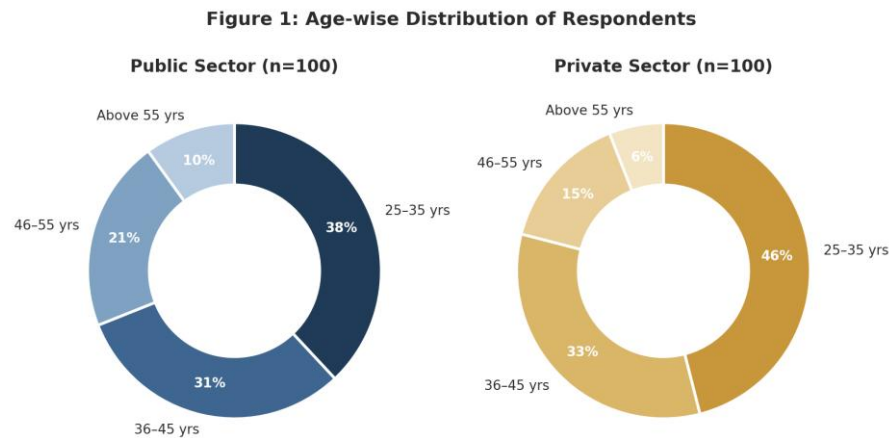


Figure 1: Age-wise Distribution of Respondents

7.2 Comparison of Financial Literacy Scores

Table 4: Mean Financial Literacy Scores, Public vs Private Sector (Significant at 5% level)

Dimension	Public Sector Mean (SD)	Private Sector Mean (SD)	t-value	p-value
Financial Knowledge	64.8 (11.2)	58.3 (12.6)	3.84	0.000
Financial Attitude	71.2 (9.8)	66.7 (10.4)	3.15	0.002
Financial Behaviour	62.5 (12.4)	55.9 (13.1)	3.66	0.000
Overall Financial Literacy	66.2 (9.1)	60.3 (9.7)	4.42	0.000

Table 4 shows that public sector salaried women recorded a higher mean score across all three dimensions of financial literacy knowledge, attitude, and behaviour as well as in the overall composite score, a pattern consistent with earlier evidence that assured job security and defined retirement benefits are linked to more structured financial planning (Sarigül, 2014). The independent samples t-test indicates that the difference in overall financial literacy score between the two groups ($t = 4.42$, $p < 0.05$) is statistically significant. Hence, the null hypothesis H_01 is rejected, confirming that sector of employment significantly influences the level of financial literacy among salaried

women, in line with the broader literature linking employment type to literacy outcomes (Bhushan & Medury, 2013).

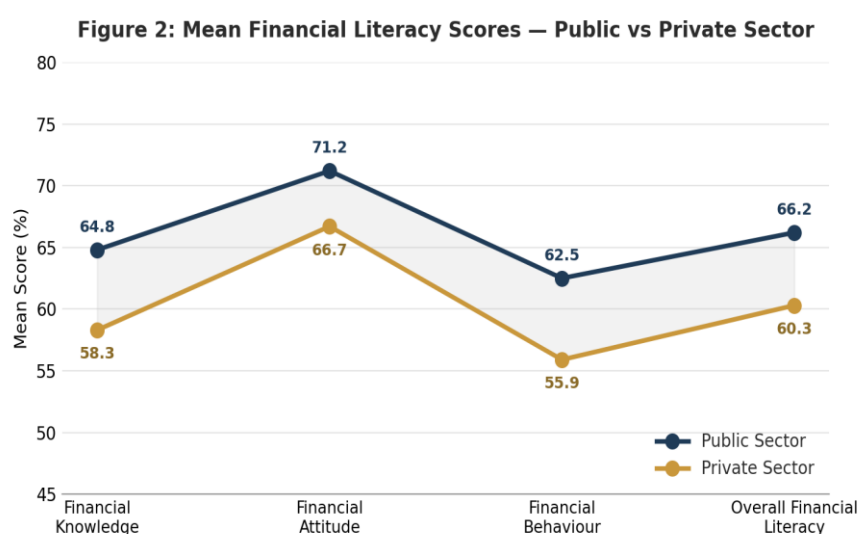


Figure 2: Mean Financial Literacy Scores, Public vs Private Sector

7.3 Level of Financial Literacy

Table 5: Distribution of Respondents by Level of Financial Literacy

Level of Financial Literacy	Public Sector (%)	Private Sector (%)
Low	18%	29%
Medium	47%	49%
High	35%	22%

Table 6: Chi-square Test - Sector of Employment and Level of Financial Literacy

Statistic	Value
Chi-square (χ^2) value	9.842
Degrees of Freedom (df)	2
p-value	0.007
Result	Significant at 5% level

A higher proportion of public sector women (35%) fall in the ‘High’ financial literacy category compared to private sector women (22%), while a higher proportion of private sector women (29%) fall in the ‘Low’ category. The chi-square test result ($\chi^2 = 9.842$, $p = 0.007$) is significant at the 5% level, leading to rejection of the null hypothesis H_0 . This confirms a significant association between sector of employment and level of financial literacy, reinforcing findings that employment type is an independent predictor of literacy category (Kadoya & Khan, 2020).

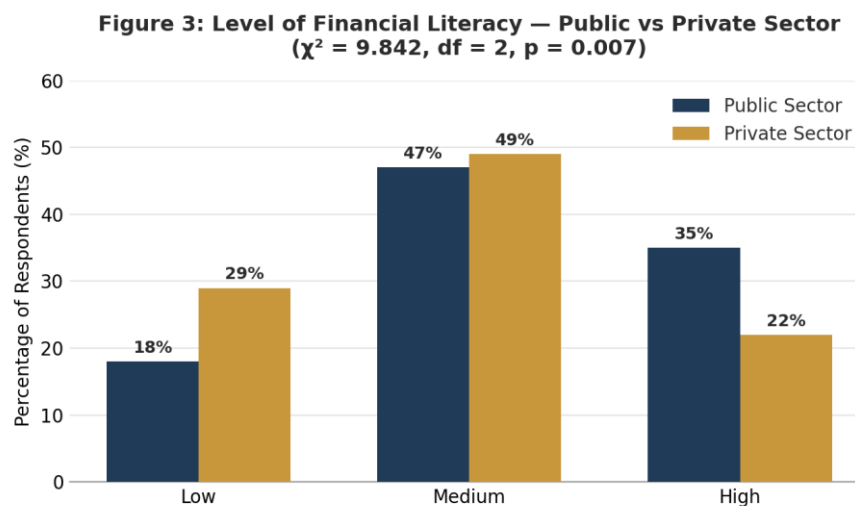


Figure 3: Level of Financial Literacy, Public vs Private Sector

7.4 Investment Preferences

Respondents were asked to choose the investment avenues they liked (multiple answers were allowed). In all sectors, bank fixed/recurring deposits were the most popular choice, indicating a general risk-averse mindset that is consistent with data showing investors frequently still prefer classic low-risk instruments over market-linked ones despite basic information (Jariwala, 2013). In contrast, public sector women demonstrated a stronger preference for PPF/NPS and traditional instruments like gold, which is consistent with their access to defined retirement benefits and a longer average tenure in stable employment. Private sector women, on the other hand, demonstrated a comparatively greater inclination toward mutual funds and stocks. This discrepancy reflects the more general finding that respondents with higher levels of financial literacy are more likely to choose growth-oriented, diversified investment options, whilst those with lower levels of literacy or higher levels of risk aversion continue to rely on conventional savings instruments (Kumari, 2020; Sabri & MacDonald, 2010).

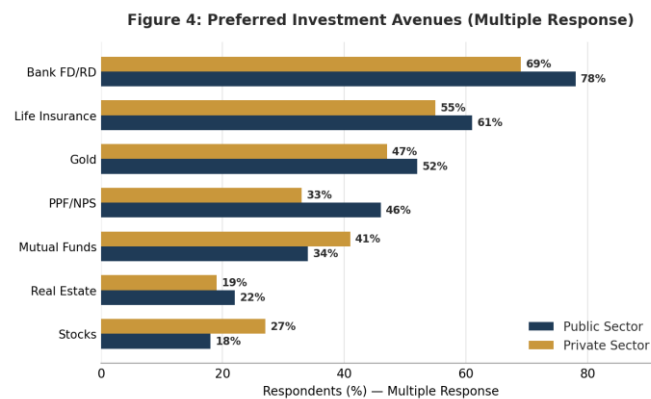


Figure 4: Preferred Investment Avenues (Multiple Response)

Preliminary evidence supports the rejection of the null hypothesis H_03 given the descriptive difference in preference patterns noted above (and pending a formal chi-square/proportion test on the primary data). This suggests that investment preference differs significantly between salaried women in the public and private sectors, which is consistent with earlier findings that job security and income stability influence investment behaviour differently across sectors (Rai et al., 2019).

8. FINDINGS OF THE STUDY

- The mean financial literacy score of salaried women in the public sector was significantly higher (66.2%) than that of salaried women in the private sector (60.3%).
- Respondents from the public sector had significantly better levels of financial literacy in all three dimensions: knowledge, attitude, and behaviour.
- The employment sector and financial literacy level (Low/Medium/High) were shown to be significantly correlated.
- In both categories, bank savings continue to be the most popular investment option, suggesting that salaried women generally take a conservative approach to investing.
- Despite being younger and having more exposure to the market, women in the private sector demonstrated a lower level of financial planning behaviour. This could be attributed to work-related time constraints and income variability, which is consistent with the pattern that financial behaviour frequently lags behind financial knowledge and attitude among working populations (Agarwalla et al., 2015).

- According to Sarigül (2014), women in the public sector had a greater inclination for long-term retirement-linked instruments like PPF/NPS, which aligns with the organised retirement planning options offered in government employment.

9. SUGGESTIONS

- † To increase employee financial literacy, private sector companies should collaborate with licensed financial advisers and hold frequent financial wellness courses.
- † For long-term wealth building, public sector organisations should encourage their personnel to diversify into market-linked options in addition to traditional instruments.
- † Building on current national policy frameworks, government and regulatory authorities (SEBI, RBI, IRDAI) should create sector-specific financial literacy initiatives aimed at working women (Reserve Bank of India, 2013; SEBI, n.d.).
- † It is possible to reach working women who have limited time for in-person financial education programs by promoting digital financial literacy tools and mobile applications.
- † Employers should think about incorporating financial planning modules into periodic training programs and employee induction. These modules are based on proven knowledge-attitude-behaviour frameworks (Atkinson & Messy, 2012).

10. LIMITATIONS OF THE STUDY

- The study's results may not be applicable to all salaried women due to its restricted sample size and geographic scope.
- The study is based on self-reported data that was gathered via a standardized questionnaire, which could lead to response bias.
- The study does not account for the private sector's industry-specific variation, which can be quite varied.

11. CONCLUSION

The current study shows that salaried women's level of financial literacy is significantly influenced by their employment sector. Compared to their private sector counterparts, public sector salaried women exhibit slightly but considerably greater levels of financial knowledge, attitude, and behaviour, and they are more likely to engage in structured, long-term financial planning. Despite

being comparatively younger and more exposed to market-linked tools, women in the private sector have poorer overall financial planning behaviours. These results highlight the necessity of focused, industry-specific financial literacy initiatives, especially in the private sector, to empower salaried women in all types of employment to make knowledgeable and self-assured financial decisions, thereby enhancing their long-term financial independence and well-being (Lusardi & Mitchell, 2014).

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Geopolitical Risk, ESG Strategy, and Environmental Disclosure in Indian Pharmaceutical and Chemical Industries

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Abstract

This research aims to create a conceptual framework for analysing how geopolitical risk affects environmental disclosure policies in the Indian chemical and pharmaceutical industries. The goal of the study is to clarify how corporate transparency and sustainability reporting are influenced by global uncertainty. The conceptual approach used in this study is based on a thorough analysis of the body of research on ESG practices, geopolitical risk, and environmental disclosure. A thorough framework is created by integrating pertinent theoretical stances, such as institutional theory, legitimacy theory, and stakeholder theory. Based on the study, geopolitical risk raises environmental uncertainty, which affects managerial choices and modifies environmental disclosure procedures. The concept emphasises the moderating effect of industry sensitivity and the mediating role of ESG pressure. While this is a conceptual study, there is no empirical testing of the suggested links. The concept may be validated in subsequent studies utilising empirical data from various businesses and geographical settings. The paper offers managers strategies for improving strategic disclosure and transparency in the face of geopolitical unpredictability. Additionally, it helps legislators improve environmental reporting guidelines. By incorporating geopolitical risk into environmental disclosure research and providing a unique conceptual framework for comprehending corporate actions in emerging economies, this study adds to the body of knowledge.

Keywords: *Geopolitical Risk, Environmental Disclosure, ESG Strategy, Pharmaceutical Industry, Chemical Industry, Corporate Transparency.*

1. Introduction

Environmental disclosure has become an important feature of corporate openness, especially in areas like the chemical and pharmaceutical industries that have a big influence on the environment. Concerns about sustainability, regulatory demands, and growing stakeholder knowledge have prompted businesses to reveal information about their environmental performance and practices.

According to earlier research, environmental disclosure improves corporate responsibility and lessens knowledge asymmetry between businesses and stakeholders (Healy & Palepu, 2001; Clarkson et al., 2008).

Increased geopolitical unpredictability has been a defining feature of the global business climate in recent years. Organisations that operate in worldwide marketplaces now face new obstacles as a result of events like political unrest, trade interruptions, and international conflicts. Corporate decision-making, investment strategies, and operational activities have all been found to be significantly impacted by geopolitical risk (Caldara & Iacoviello, 2018). These uncertainties can also have an impact on how businesses interact with stakeholders, especially when it comes to sustainability and environmental issues.

From a theoretical standpoint, companies' disclosure practices are shaped by a variety of outside forces. According to legitimacy theory, businesses use disclosure procedures to make sure their operations meet social norms (Suchman, 1995; Deegan, 2002). Stakeholder theory highlights the significance of attending to the information requirements of various stakeholder groups (Freeman, 1984). Furthermore, institutional theory emphasises how moral, cultural, and regulatory forces push firms toward standardised procedures, such as environmental reporting (DiMaggio & Powell, 1983). The significance of geopolitical risk in influencing disclosure practices has received little attention despite the expanding corpus of research on sustainability reporting and environmental disclosure, especially in the context of developing nations like India. The pharmaceutical and chemical sectors, which are extremely vulnerable to interruptions in global supply chains and environmental restrictions, are particularly affected by this gap.

Thus, the purpose of this study is to provide a conceptual framework that investigates the connection between environmental disclosure and geopolitical risk in the Indian chemical and pharmaceutical industries. The study also looks at how industry-specific elements and ESG pressure affect corporate disclosure practices in an uncertain global environment.

2. Theoretical Foundation

Understanding the factors that influence environmental disclosure requires a solid theoretical basis, especially in light of growing geopolitical unpredictability. Stakeholder theory, legitimacy theory, and institutional theory are the three main theoretical stances that this study uses to explain how companies adapt their disclosure policies in response to outside forces.

2.1 Stakeholder Theory

According to stakeholder theory, companies are answerable to a variety of stakeholders, such as investors, authorities, clients, and the general public (Freeman, 1984). Businesses must meet stakeholder expectations by giving clear, pertinent information about their social and environmental performance. An essential way for businesses to convey their dedication to sustainability and ethical behaviour is through environmental disclosure.

Stakeholder expectations may rise in the context of geopolitical risk as a result of heightened uncertainty and risk perception. Regulators and investors may insist on more openness about risk management techniques and environmental effects. Therefore, to preserve stakeholder trust and guarantee ongoing resource access, businesses may improve their environmental disclosure procedures (Mitchell, Agle, & Wood, 1997).

2.2 Legitimacy Theory

According to legitimacy theory, companies align their operations with social expectations in an effort to function within the constraints and norms of their particular societies (Suchman, 1995). When businesses engage in environmentally sensitive industries, environmental disclosure is frequently utilised as a strategic strategy to preserve or regain legitimacy.

Businesses may come under more scrutiny for their environmental operations when there is geopolitical upheaval. Organisations can show accountability and strengthen their credibility in the eyes of stakeholders by disclosing environmental information (Deegan, 2002). This is especially important for chemical and pharmaceutical businesses, as the public and regulators keep a careful eye on environmental dangers.

2.3 Institutional Theory

Institutional theory describes how external factors, such as legal requirements, industry standards, and cultural expectations, influence organisational practices (DiMaggio & Powell, 1983). To obtain legitimacy and secure their existence within their institutional framework, these forces cause enterprises to engage in isomorphic behaviour.

By affecting international laws, market expectations, and governmental actions, geopolitical risk can exacerbate institutional constraints. Therefore, to conform to changing legislative frameworks and global sustainability requirements, businesses may implement standardised environmental disclosure processes (Scott, 2001). In emerging markets, where businesses are progressively incorporating global ESG principles into their reporting systems, this is especially important.

When combined, these theoretical stances offer a thorough comprehension of how companies use environmental disclosure to address geopolitical risk. Stakeholder expectations are explained by stakeholder theory, the necessity of social approval is emphasised by legitimacy theory, and the impact of outside forces on company action is highlighted by institutional theory.

3. Literature Review

Corporate reporting has given environmental disclosure a lot of attention, especially when it comes to sustainability and transparency. According to earlier studies, businesses are disclosing more environmental data to improve responsibility and satisfy stakeholders (Clarkson et al., 2008). The aim to lessen information asymmetry and enhance communication with investors and regulators frequently motivates such disclosures (Healy & Palepu, 2001).

The factors that influence environmental disclosure, such as firm size, profitability, corporate governance, and industry features, have been the subject of a substantial body of scholarship. According to studies, businesses in ecologically sensitive sectors like chemicals and pharmaceuticals typically make more thorough environmental disclosures because of increased public pressure and regulatory scrutiny (Clarkson et al., 2008; Hart, 1995). Organisations have been further motivated to implement standardised sustainability reporting processes by the increasing significance of Environmental, Social, and Governance (ESG) factors (Eccles, Ioannou, & Serafeim, 2014).

Research on how institutional and regulatory frameworks influence disclosure practices is another significant field. Organisations frequently implement standardised reporting procedures to conform to international standards in response to coercive, normative, and mimetic pressures (DiMaggio & Powell, 1983; Scott, 2001). These pressures have led to more industries using sustainability frameworks and disclosure standards.

However, even though there is a lot of research on environmental disclosure and ESG reporting, not much has been said about how geopolitical risk affects how companies disclose information. Geopolitical risk, encompassing political instability, international conflicts, and trade disruptions, has been demonstrated to influence corporate investment and strategic decisions (Caldara & Iacoviello, 2018; Pastor & Veronesi, 2013). Nonetheless, its influence on environmental disclosure practices is still insufficiently examined, especially regarding emerging economies.

This gap is especially important for the Indian pharmaceutical and chemical industries because they are very sensitive to changes in the global market and rules. These industries are under more and more pressure to be open and honest while dealing with complicated political situations around the world. Consequently, it is imperative to incorporate geopolitical risk into the current framework of environmental disclosure research.

Even though there is more and more research on environmental disclosure and ESG reporting, most of it has focused on things that happen within a company, like its size, profitability, and governance mechanisms. External macro-level factors, especially geopolitical risk, have not received sufficient attention, despite their growing significance in the contemporary global landscape. Previous studies recognise that geopolitical uncertainty affects corporate investment and strategic choices; however, its influence on environmental disclosure practices is still insufficiently examined. Moreover, the interplay between geopolitical risk and ESG-driven disclosure behaviour has not been sufficiently investigated in the existing literature. This gap is especially important in emerging economies like India, where the pharmaceutical and chemical industries are heavily watched by environmental groups and are also affected by global politics. Consequently, it is imperative to establish a conceptual framework that incorporates geopolitical risk into the examination of environmental disclosure practices.

4. Conceptual Framework Development

4.1 Introduction to the Framework

The way organisations disclose environmental information is affected by both internal and external factors. Geopolitical risk has become a major outside factor that affects business decisions in today's world. Political instability, international conflicts, and trade disruptions all contribute to geopolitical uncertainty, which puts pressure on businesses to rethink their strategies and ways of communicating. In this situation, environmental disclosure becomes a strategic tool that companies use to control how people see risk and stay open.

To understand how geopolitical risk affects environmental disclosure practices in the Indian chemical and pharmaceutical industries, this paper creates a conceptual framework. The framework outlines important mechanisms via which external uncertainty influences business behaviour and incorporates theoretical viewpoints.

4.2 Key Constructs

Geopolitical Risk: Uncertainty caused by foreign conflicts, political developments, and policy shifts that could interfere with corporate operations and international markets is referred to as geopolitical risk (Caldara & Iacoviello, 2018). By raising uncertainty and perceived exposure to external threats, these risks have an impact on managerial decision-making.

Environmental Disclosure: The amount and calibre of information that businesses disclose about their environmental performance, policies, and effects is referred to as environmental disclosure (Clarkson et al., 2008). It acts as a means of improving accountability and transparency to stakeholders.

ESG Pressure (Mediating Variable): The expectations and demands about environmental, social, and governance practices that stakeholders, investors, and regulatory agencies have are represented by ESG pressure. ESG standards may rise in times of geopolitical unpredictability, pushing businesses to implement more thorough disclosure procedures (Eccles et al., 2014).

Industry Sensitivity (Moderating Variable): The degree to which industries are subject to regulatory scrutiny and environmental risks is referred to as industry sensitivity. Because of their effects on the environment, the pharmaceutical and chemical sectors are regarded as extremely sensitive, which could increase the correlation between geopolitical risk and disclosure standards (Hart, 1995).

4.3 Model Explanation

According to the suggested framework, geopolitical risk affects management perception and strategic decision-making, which in turn affects environmental disclosure. Growing geopolitical unpredictability raises risk awareness, which forces businesses to increase openness to preserve stakeholder credibility and trust.

Additionally, this link is mediated by ESG pressure. Stakeholders expect more accountability when geopolitical risk rises, which motivates businesses to broaden their environmental disclosure policies. Furthermore, this link is moderated by industry sensitivity. Compared to companies in less sensitive industries, those in environmentally sensitive businesses are more likely to react significantly to geopolitical risk by raising their level of transparency.

As a result, the framework creates a structured relationship in which disclosure behaviour is influenced by geopolitical risk both directly and indirectly through ESG pressures; the degree of this link varies based on industry characteristics.

4.4 Conceptual Model

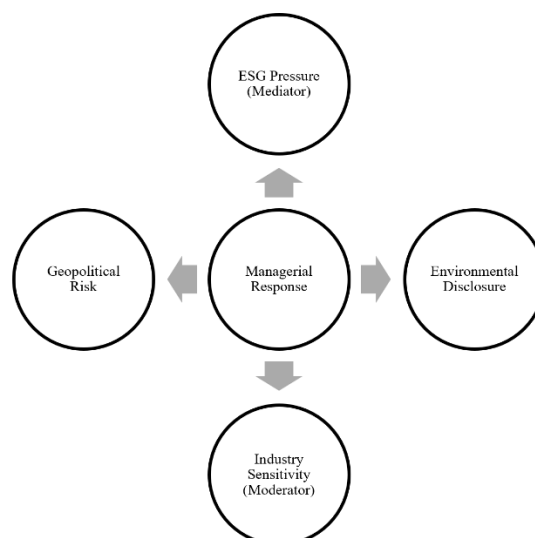


Figure 1. Conceptual Framework Linking Geopolitical Risk and Environmental Disclosure

(Source: Developed by the author)

5. Propositions Development

5.1 Geopolitical Risk and Environmental Disclosure

The corporate environment is made unclear by geopolitical risk, which affects managerial attitudes and strategic decisions. Businesses that operate in such an unpredictable environment typically increase openness to allay stakeholder worries and preserve credibility. According to earlier research, external risks and uncertainties push businesses to reveal more information to lessen information asymmetry and foster trust (Healy & Palepu, 2001; Caldara & Iacoviello, 2018).

Proposition 1 (P1): Environmental disclosure methods are positively impacted by geopolitical risk.

5.2 Mediating Role of ESG Pressure

Stakeholder expectations about business responsibility and sustainability are frequently raised by geopolitical uncertainty. Increased accountability is demanded by society, investors, and authorities, especially in ecologically sensitive businesses. Geopolitical risk is translated into improved disclosure procedures through ESG pressure (Eccles et al., 2014).

Proposition 2 (P2): Environmental disclosure and geopolitical risk are mediated by ESG pressure.

5.3 Moderating Role of Industry Sensitivity

The exposure of various industries to environmental hazards and regulatory scrutiny varies. Because of their effects on the environment, the chemical and pharmaceutical sectors are extremely sensitive. Compared to businesses in less sensitive areas, those in these industries are more likely to increase transparency in response to geopolitical uncertainty (Hart, 1995).

Proposition 3 (P3): The association between geopolitical risk and environmental disclosure is moderated by industry sensitivity, with a larger correlation in environmentally sensitive businesses.

5.4 Influence of Firm Characteristics

Disclosure behaviour can be influenced by firm-specific factors including size and resource availability. Bigger companies usually have more resources and are subject to more public scrutiny when it comes to thorough reporting procedures (Clarkson et al., 2008).

Proposition 4 (P4): When there is geopolitical risk, environmental disclosure is positively impacted by firm size.

The suggested ideas highlight the functions of ESG pressure and industry traits while establishing an organised relationship between geopolitical risk and environmental transparency. These claims serve as a basis for upcoming empirical studies.

6. Discussion

The suggested conceptual framework offers a thorough comprehension of how geopolitical risk affects environmental disclosure policies, especially in the Indian chemical and pharmaceutical sectors. The framework provides an organised explanation of business behaviour in uncertain times by fusing academic viewpoints with new global issues.

The results indicate that corporate communication tactics and managerial decision-making are significantly influenced by geopolitical risk. Stakeholder theory states that greater ambiguity raises stakeholder expectations, which motivates businesses to improve openness by disclosing environmental information (Freeman, 1984). This reaction aids businesses in preserving stakeholder trust and lowering perceived operational risks.

According to legitimacy theory, organisations might use environmental disclosure as a tactical instrument to conform to social norms during unstable times (Suchman, 1995). Under geopolitical uncertainty, companies in ecologically sensitive industries are more likely to come under scrutiny; therefore, disclosure is a crucial strategy for preserving legitimacy and public trust (Deegan, 2002). Additionally, institutional theory describes how companies acquire standardised processes in response to external influences. Geopolitical risk may increase normative and regulatory pressure, motivating businesses to improve their environmental reporting procedures (DiMaggio & Powell, 1983; Scott, 2001). Environmental disclosure thus becomes both a strategic requirement and a voluntary practice.

The increasing significance of sustainability expectations in influencing corporate conduct is shown by the mediating role of ESG pressure. Stakeholders want more accountability as geopolitical risk rises, which pushes companies to broaden their disclosure policies (Eccles et al., 2014). Furthermore, because of increased regulatory supervision and environmental responsibility, businesses in high-impact industries may react more strongly to external uncertainty, according to the moderating influence of industry sensitivity (Hart, 1995).

All things considered, the suggested paradigm adds to the body of literature by including geopolitical risk into already conducted studies on environmental disclosure. It offers a more comprehensive understanding of corporate disclosure behaviour by moving the emphasis from conventional firm-level determinants to a wider perspective that takes into account external macro-level effects.

7. Practical (Managerial) Implications

For managers working in environmentally sensitive industries, the suggested conceptual framework has several significant ramifications, especially in light of the growing geopolitical unpredictability. Organisations must take proactive measures to preserve transparency, stakeholder confidence, and long-term sustainability as global dangers continue to change.

First, managers should be aware of geopolitical risk as a major external element affecting business disclosure policies, according to the research. Organisations should see environmental reporting as a strategic communication tool that helps control stakeholder perceptions and lower uncertainty rather than as a compliance necessity. Improved connections with investors, regulators, and the general public can be achieved by more environmental transparency.

Managers should keep a close eye on stakeholder expectations for environmental performance and adjust their reporting procedures as necessary. Businesses may effectively address the growing demands for transparency by creating strong ESG frameworks and implementing globally accepted reporting standards.

Third, the moderating effect of industry sensitivity shows that companies in the chemical and pharmaceutical industries need to implement more stringent disclosure procedures because of increased environmental concerns and regulatory scrutiny. Managers in these sectors should put in place thorough environmental management systems and make sure that environmental data is consistently and accurately reported.

To improve the calibre of environmental disclosure, companies can also make investments in internal skills, including risk assessment systems, sustainability reporting systems, and data management tools. Employee education and awareness campaigns can help ensure that sustainability efforts are implemented successfully.

Lastly, the framework highlights how crucial it is to match long-term strategic goals with disclosure procedures. Organisations may strengthen their reputation, increase resilience, and generate sustainable value in an unpredictable global environment by including environmental disclosure into a larger corporate strategy.

8. Research Implications and Limitations

8.1 Research Implications

The present research has several significant ramifications for future investigations into sustainability reporting and environmental disclosure. The current literature, which has mostly concentrated on firm-level disclosure drivers, is expanded by this study by incorporating geopolitical risk into the conceptual framework. Future scholars will be able to investigate the connections between

geopolitical risk, ESG pressure, and environmental disclosure in various circumstances thanks to the suggested model, which offers a basis for empirical examination.

Future research may use quantitative techniques like cross-sectional studies or panel data analysis to validate the suggested hypotheses. The framework's application in businesses other than pharmaceuticals and chemicals, as well as in various geographical areas, can be investigated by researchers. Further investigation may also look at how other moderating factors like ownership structure, corporate governance, and the regulatory environment affect disclosure practices.

By connecting geopolitical studies, sustainability, and management, the framework also creates opportunities for multidisciplinary research. A more thorough knowledge of how external risks affect company behaviour and strategic decision-making may result from this wider viewpoint.

8.2 Limitations

The study has some limitations that should be noted despite its contributions. First, there is no empirical examination of the suggested links; the work is conceptual in nature. Because of this, the results are theoretical and need to be confirmed by other empirical studies.

Second, the study's exclusive focus on the Indian pharmaceutical and chemical industries may restrict the framework's applicability to other industries or geographical areas. Depending on their degree of regulatory exposure and environmental impact, different industries may react to geopolitical risk in different ways.

Third, the framework takes into account certain variables, such as industry sensitivity and ESG pressure, but it leaves out other possible elements that could affect environmental disclosure. To provide a more thorough analysis, future study may extend the model by adding other variables.

Conclusion

Environmental disclosure is becoming a crucial feature of corporate transparency, especially in sectors that have a big influence on the environment. Geopolitical risk has become a significant external element impacting company behaviour and strategic decision-making in the face of growing global uncertainty. With an emphasis on the Indian chemical and pharmaceutical industries, this study creates a conceptual framework to investigate the connection between geopolitical risk and environmental disclosure. The suggested approach emphasises how industry sensitivity affects the degree to which geopolitical risk affects environmental disclosure, both directly and indirectly through ESG pressure. The study offers a thorough understanding of how businesses react to outside influences and uphold openness in uncertain times by combining stakeholder theory, legitimacy theory, and institutional theory. By expanding the scope of environmental disclosure research beyond

conventional firm-level drivers and including macro-level factors like geopolitical risk, the study adds to the body of previous literature. This more comprehensive viewpoint provides insightful information about how corporate reporting is changing in a fast-paced, international setting. Overall, the results highlight how crucial strategic environmental disclosure is as a tool for risk management, building stakeholder trust, and attaining long-term sustainability. The suggested paradigm gives managers and legislators looking to improve corporate accountability and transparency in an increasingly complex and uncertain world practical relevance in addition to serving as a basis for future empirical research.

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शिक्षा के क्षेत्र में डॉ. भीमराव अम्बेडकर का योगदान

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सार (Abstract)

डॉ. भीमराव रामजी अम्बेडकर भारतीय समाज के उन महान चिंतकों में अग्रणी हैं जिन्होंने शिक्षा को सामाजिक परिवर्तन, मानव मुक्ति और लोकतांत्रिक चेतना का सबसे प्रभावी माध्यम माना। उनके विचार में शिक्षा केवल ज्ञान प्राप्त करने की प्रक्रिया नहीं, बल्कि व्यक्ति के व्यक्तित्व, आत्मसम्मान, विवेक और सामाजिक उत्तरदायित्व के विकास का आधार है। उन्होंने शिक्षा को वंचित, शोषित एवं उपेक्षित वर्गों के उत्थान का सबसे सशक्त साधन बताया। उनका मानना था कि जिस समाज में शिक्षा का समान अवसर उपलब्ध नहीं है, वहाँ सामाजिक न्याय और लोकतंत्र की स्थापना संभव नहीं हो सकती। डॉ. अम्बेडकर ने अपने जीवन-संघर्ष के माध्यम से यह सिद्ध किया कि शिक्षा सामाजिक असमानताओं को समाप्त करने तथा समानता, स्वतंत्रता और बंधुत्व जैसे मानवीय मूल्यों की स्थापना का प्रभावी साधन है। उन्होंने स्त्री शिक्षा, दलित शिक्षा, व्यावसायिक शिक्षा तथा वैज्ञानिक दृष्टिकोण पर विशेष बल दिया। उनके द्वारा स्थापित शैक्षणिक संस्थाएँ तथा शिक्षा संबंधी विचार आज भी भारतीय शिक्षा व्यवस्था को दिशा प्रदान करते हैं। प्रस्तुत शोध आलेख में डॉ. अम्बेडकर के शैक्षिक दर्शन, शिक्षा संबंधी विचारों, समाज सुधार में शिक्षा की भूमिका तथा वर्तमान समय में उनकी प्रासंगिकता का विश्लेषणात्मक अध्ययन किया गया है। यह अध्ययन स्पष्ट करता है कि वर्तमान समय में समावेशी एवं गुणवत्तापूर्ण शिक्षा की स्थापना के लिए डॉ. अम्बेडकर के विचार अत्यंत उपयोगी एवं मार्गदर्शक हैं।

कुंजी शब्द: डॉ. भीमराव अम्बेडकर, शिक्षा, सामाजिक न्याय, समानता, लोकतंत्र, समावेशी शिक्षा, मानवाधिकार।

प्रस्तावना

भारत के आधुनिक इतिहास में डॉ. भीमराव अम्बेडकर का व्यक्तित्व बहुआयामी एवं प्रेरणास्पद है। वे केवल भारतीय संविधान के निर्माता ही नहीं थे, बल्कि एक महान शिक्षाविद्, समाज सुधारक, अर्थशास्त्री, विधिवेत्ता, चिंतक तथा मानवाधिकारों के प्रबल समर्थक भी थे। उन्होंने अपने जीवन के प्रत्येक चरण में शिक्षा को सामाजिक परिवर्तन का मूल आधार माना। उनके अनुसार किसी भी समाज की वास्तविक उन्नति तभी संभव है जब उसके प्रत्येक नागरिक को समान एवं गुणवत्तापूर्ण शिक्षा उपलब्ध हो।

भारतीय समाज सदियों तक जातिगत असमानता, छुआछूत, सामाजिक भेदभाव तथा शैक्षिक विषमता जैसी अनेक समस्याओं से जूझता रहा। इन परिस्थितियों में समाज के वंचित वर्गों को शिक्षा से दूर रखा गया, जिसके कारण उनमें आत्मविश्वास, सामाजिक सहभागिता तथा आर्थिक प्रगति का अभाव बना रहा। डॉ. अम्बेडकर ने इस स्थिति को भारतीय समाज की सबसे बड़ी चुनौती माना और शिक्षा को इसके समाधान का प्रभावी माध्यम बताया। उनका प्रसिद्ध संदेश— "शिक्षित बनो, संगठित रहो और संघर्ष करो"— केवल एक नारा नहीं, बल्कि सामाजिक परिवर्तन का व्यापक कार्यक्रम है। इसमें शिक्षा को प्रथम स्थान देकर उन्होंने स्पष्ट किया कि ज्ञान के बिना व्यक्ति अपने अधिकारों, कर्तव्यों तथा सामाजिक उत्तरदायित्व को समझ ही नहीं सकता। शिक्षित व्यक्ति ही विवेकपूर्ण निर्णय लेने, अन्याय का प्रतिरोध करने तथा लोकतांत्रिक मूल्यों की रक्षा करने में सक्षम होता है।

डॉ. अम्बेडकर का मानना था कि शिक्षा का उद्देश्य केवल रोजगार प्राप्त करना नहीं होना चाहिए, बल्कि व्यक्ति में नैतिकता, वैज्ञानिक दृष्टिकोण, तार्किकता, संवेदनशीलता तथा सामाजिक उत्तरदायित्व का विकास करना भी होना चाहिए। वे ऐसी शिक्षा व्यवस्था के पक्षधर थे जो जाति, धर्म, लिंग एवं आर्थिक स्थिति के आधार पर किसी प्रकार का भेदभाव न करे और प्रत्येक व्यक्ति को समान अवसर प्रदान करे। आज

जब भारत नई शिक्षा नीति, डिजिटल शिक्षा, समावेशी शिक्षा तथा सामाजिक न्याय जैसे विषयों पर गंभीरता से कार्य कर रहा है, तब डॉ. अम्बेडकर के शैक्षिक विचार पहले से अधिक प्रासंगिक दिखाई देते हैं। उनका शिक्षा-दर्शन केवल ऐतिहासिक महत्व का विषय नहीं है, बल्कि वर्तमान एवं भविष्य की शिक्षा व्यवस्था के लिए भी प्रेरणास्रोत है। इसलिए उनके योगदान का पुनर्मूल्यांकन समकालीन संदर्भों में अत्यंत आवश्यक है।

प्रस्तुत शोध आलेख का उद्देश्य डॉ. भीमराव अम्बेडकर के शिक्षा संबंधी विचारों का समग्र विश्लेषण करना तथा यह स्पष्ट करना है कि उनके सिद्धांत वर्तमान भारतीय समाज में समानता, सामाजिक न्याय और गुणवत्तापूर्ण शिक्षा की स्थापना में किस प्रकार मार्गदर्शन प्रदान करते हैं।

डॉ. भीमराव अम्बेडकर का शैक्षिक दर्शन एवं शिक्षा संबंधी मूल विचार

डॉ. भीमराव अम्बेडकर का शैक्षिक दर्शन भारतीय समाज में समानता, स्वतंत्रता, बंधुत्व तथा सामाजिक न्याय की स्थापना पर आधारित है। उन्होंने शिक्षा को केवल विद्यालयी ज्ञान प्राप्त करने का साधन नहीं माना, बल्कि व्यक्ति के सर्वांगीण विकास, सामाजिक चेतना तथा आत्मसम्मान के निर्माण का प्रभावी माध्यम स्वीकार किया। उनका विश्वास था कि शिक्षा मनुष्य को अज्ञान, अंधविश्वास, रूढ़ियों तथा सामाजिक अन्याय से मुक्त कर विवेकशील, वैज्ञानिक और उत्तरदायी नागरिक बनाती है। डॉ. अम्बेडकर का जीवन स्वयं इस तथ्य का प्रमाण है कि शिक्षा व्यक्ति के भाग्य को बदलने की क्षमता रखती है। सामाजिक उपेक्षा और अनेक कठिन परिस्थितियों के बावजूद उन्होंने उच्च शिक्षा प्राप्त कर यह सिद्ध किया कि ज्ञान के माध्यम से व्यक्ति अपनी परिस्थितियों को बदल सकता है। इसी कारण वे समाज के प्रत्येक वर्ग, विशेषकर वंचित एवं शोषित समुदायों के लिए शिक्षा को सबसे बड़ा अधिकार मानते थे।

उनका प्रसिद्ध संदेश "शिक्षित बनो, संगठित रहो और संघर्ष करो" भारतीय समाज के लिए एक व्यापक सामाजिक दर्शन है। इसमें शिक्षा को प्रथम स्थान देना इस बात का संकेत है कि ज्ञान के बिना न तो संगठन संभव है और न ही अन्याय के विरुद्ध प्रभावी संघर्ष। शिक्षित समाज ही अपने अधिकारों और

कर्तव्यों के प्रति जागरूक होकर लोकतांत्रिक मूल्यों की रक्षा कर सकता है। डॉ. अम्बेडकर के अनुसार शिक्षा का उद्देश्य केवल रोजगार प्राप्त करना नहीं होना चाहिए। यदि शिक्षा व्यक्ति में नैतिकता, संवेदनशीलता, वैज्ञानिक दृष्टिकोण तथा सामाजिक उत्तरदायित्व का विकास नहीं करती, तो वह अधूरी शिक्षा है। वे ऐसी शिक्षा व्यवस्था के समर्थक थे जो विद्यार्थियों में स्वतंत्र चिंतन, तार्किक विश्लेषण तथा सामाजिक समस्याओं के समाधान की क्षमता विकसित करे। उन्होंने विशेष रूप से वैज्ञानिक दृष्टिकोण पर बल दिया। उनका मानना था कि समाज की प्रगति अंधविश्वास और रूढ़ियों से नहीं, बल्कि तर्क, प्रमाण और वैज्ञानिक सोच से संभव है। इसलिए शिक्षा का स्वरूप ऐसा होना चाहिए जो विद्यार्थियों को प्रश्न पूछने, विचार करने तथा सत्य की खोज के लिए प्रेरित करे। यही दृष्टिकोण आधुनिक लोकतांत्रिक समाज की आधारशिला है। डॉ. अम्बेडकर ने शिक्षा में समान अवसर की अवधारणा को अत्यंत महत्वपूर्ण माना। उनका विश्वास था कि यदि समाज के किसी वर्ग को शिक्षा से वंचित रखा जाता है तो वह वर्ग सामाजिक, आर्थिक और राजनीतिक रूप से भी पिछड़ जाता है। इसलिए राज्य का दायित्व है कि वह प्रत्येक नागरिक को गुणवत्तापूर्ण एवं सुलभ शिक्षा उपलब्ध कराए। उनके विचारों का प्रभाव आज भारतीय संविधान में शिक्षा, समानता तथा सामाजिक न्याय से संबंधित प्रावधानों में स्पष्ट रूप से दिखाई देता है। उन्होंने महिलाओं की शिक्षा को भी समाज परिवर्तन का महत्वपूर्ण आधार माना। उनका मत था कि किसी भी समाज की वास्तविक उन्नति उसकी महिलाओं की शिक्षा और जागरूकता से आँकी जा सकती है। शिक्षित महिला केवल अपने जीवन को ही नहीं बदलती, बल्कि परिवार और समाज में भी सकारात्मक परिवर्तन का माध्यम बनती है। इसलिए उन्होंने स्त्री शिक्षा को सामाजिक विकास की अनिवार्य शर्त माना।

डॉ. अम्बेडकर व्यावसायिक एवं तकनीकी शिक्षा के भी समर्थक थे। उनका मानना था कि शिक्षा ऐसी होनी चाहिए जो व्यक्ति को आत्मनिर्भर बनाए तथा उसे सम्मानजनक आजीविका अर्जित करने में सक्षम बनाए। कौशल विकास, तकनीकी दक्षता और व्यावहारिक ज्ञान को उन्होंने आर्थिक प्रगति का आधार माना। वर्तमान समय में कौशल-आधारित शिक्षा और रोजगारोन्मुखी पाठ्यक्रमों की बढ़ती आवश्यकता

उनके विचारों की प्रासंगिकता को और अधिक स्पष्ट करती है। उनके शैक्षिक दर्शन का एक महत्वपूर्ण पक्ष नैतिक शिक्षा भी है। वे मानते थे कि ज्ञान तभी सार्थक है जब उसका उपयोग मानवता, समानता और सामाजिक कल्याण के लिए किया जाए। शिक्षा का उद्देश्य केवल बुद्धि का विकास नहीं, बल्कि चरित्र, अनुशासन, सहिष्णुता, करुणा और लोकतांत्रिक मूल्यों का विकास भी होना चाहिए। यही कारण है कि उनके विचारों में शिक्षा और सामाजिक उत्तरदायित्व का गहरा संबंध दिखाई देता है।

समकालीन भारत में जब समावेशी शिक्षा, नई शिक्षा नीति, डिजिटल शिक्षा तथा सामाजिक न्याय जैसे विषयों पर व्यापक चर्चा हो रही है, तब डॉ. अम्बेडकर का शैक्षिक दर्शन और भी अधिक प्रासंगिक हो जाता है। उनके विचार हमें ऐसी शिक्षा व्यवस्था विकसित करने की प्रेरणा देते हैं जो समान अवसर, गुणवत्तापूर्ण शिक्षा, वैज्ञानिक दृष्टिकोण और मानवीय मूल्यों पर आधारित हो। इसलिए उनका शैक्षिक चिंतन केवल ऐतिहासिक धरोहर नहीं, बल्कि वर्तमान और भविष्य के भारत के लिए एक जीवंत मार्गदर्शक सिद्धांत है।

डॉ. भीमराव अम्बेडकर का शिक्षा के क्षेत्र में व्यावहारिक योगदान

डॉ. भीमराव अम्बेडकर ने शिक्षा को केवल सैद्धांतिक विचारों तक सीमित नहीं रखा, बल्कि उसे व्यवहार में उतारने के लिए आजीवन कार्य किया। उनका विश्वास था कि किसी भी राष्ट्र की वास्तविक शक्ति उसके शिक्षित नागरिकों में निहित होती है। इसी कारण उन्होंने समाज के उन वर्गों तक शिक्षा पहुँचाने का प्रयास किया जिन्हें सदियों तक ज्ञान और अवसरों से वंचित रखा गया था। उनका समस्त शैक्षिक कार्य सामाजिक न्याय, समान अवसर और मानव गरिमा के सिद्धांतों पर आधारित था। उन्होंने अपने सार्वजनिक जीवन में बार-बार इस बात पर बल दिया कि शिक्षा प्रत्येक नागरिक का मौलिक अधिकार है। यदि समाज का कोई वर्ग अशिक्षित रह जाता है, तो वह आर्थिक, सामाजिक और राजनीतिक दृष्टि से भी पिछड़ जाता

है। इसलिए उन्होंने राज्य से अपेक्षा की कि वह ऐसी शिक्षा व्यवस्था विकसित करे जिसमें जाति, धर्म, लिंग या आर्थिक स्थिति के आधार पर किसी भी प्रकार का भेदभाव न हो।

डॉ. अम्बेडकर ने शिक्षा के प्रसार के लिए अनेक संस्थागत प्रयास किए। उन्होंने वंचित समाज के विद्यार्थियों के लिए छात्रावासों, पुस्तकालयों तथा अध्ययन की सुविधाओं के विकास पर विशेष बल दिया। उनका उद्देश्य केवल विद्यालय खोलना नहीं था, बल्कि ऐसा शैक्षिक वातावरण तैयार करना था जिसमें विद्यार्थी सम्मानपूर्वक अध्ययन कर सकें और अपनी प्रतिभा का विकास कर सकें। वे मानते थे कि गुणवत्तापूर्ण शिक्षा के लिए अनुकूल वातावरण भी उतना ही आवश्यक है जितना कि विद्यालय। उन्होंने विद्यार्थियों में आत्मविश्वास और आत्मनिर्भरता का विकास करने पर विशेष ध्यान दिया। उनके अनुसार शिक्षा व्यक्ति को केवल नौकरी प्राप्त करने योग्य नहीं बनाती, बल्कि उसे समाज का सक्रिय, जागरूक और उत्तरदायी नागरिक बनाती है। इसलिए वे विद्यार्थियों को अनुशासन, परिश्रम, समय-प्रबंधन, नैतिकता तथा सामाजिक उत्तरदायित्व जैसे मूल्यों को अपनाने की प्रेरणा देते थे। महिलाओं की शिक्षा के संबंध में डॉ. अम्बेडकर के विचार अत्यंत प्रगतिशील थे। उनका मानना था कि किसी भी समाज का विकास तब तक संभव नहीं है जब तक उसकी महिलाएँ शिक्षित और सशक्त न हों। उन्होंने महिलाओं को शिक्षा प्राप्त करने, आर्थिक रूप से आत्मनिर्भर बनने तथा सामाजिक जीवन में सक्रिय भागीदारी निभाने के लिए प्रेरित किया। उनके विचारों का प्रभाव भारतीय समाज में महिला शिक्षा के विस्तार तथा महिला अधिकारों के विकास में स्पष्ट रूप से देखा जा सकता है।

डॉ. अम्बेडकर ने उच्च शिक्षा के महत्व को भी रेखांकित किया। उनका मत था कि विश्वविद्यालय केवल परीक्षा लेने वाली संस्थाएँ नहीं होने चाहिए, बल्कि वे शोध, नवाचार, स्वतंत्र चिंतन और ज्ञान-सृजन के केंद्र बनें। उन्होंने उच्च शिक्षा में गुणवत्ता, अनुसंधान और बौद्धिक स्वतंत्रता को आवश्यक माना। आज भारतीय विश्वविद्यालयों में अनुसंधान और नवाचार पर दिया जा रहा बल उनके दूरदर्शी चिंतन की प्रासंगिकता को प्रमाणित करता है। उन्होंने तकनीकी एवं व्यावसायिक शिक्षा को राष्ट्रीय विकास का आधार माना। उनके

अनुसार केवल सैद्धांतिक ज्ञान पर्याप्त नहीं है; शिक्षा ऐसी होनी चाहिए जो व्यक्ति को कौशल, दक्षता और रोजगार के अवसर प्रदान करे। वर्तमान समय में कौशल विकास, स्टार्टअप संस्कृति और रोजगारोन्मुखी शिक्षा पर दिया जा रहा महत्व उनके विचारों से सामंजस्य रखता है।

डॉ. अम्बेडकर शिक्षा में लोकतांत्रिक मूल्यों के समावेश के समर्थक थे। वे चाहते थे कि विद्यालय और विश्वविद्यालय ऐसे केंद्र बनें जहाँ समानता, सहिष्णुता, संवाद, संवैधानिक मूल्यों तथा मानवीय गरिमा का सम्मान विकसित हो। उनका विश्वास था कि लोकतंत्र केवल शासन व्यवस्था नहीं, बल्कि जीवन जीने की एक संस्कृति है, और इस संस्कृति का विकास शिक्षा के माध्यम से ही संभव है। उन्होंने विद्यार्थियों को केवल व्यक्तिगत सफलता तक सीमित न रहकर समाज के प्रति उत्तरदायित्व निभाने की प्रेरणा दी। उनका मानना था कि शिक्षित व्यक्ति का दायित्व है कि वह समाज के कमजोर वर्गों के उत्थान में सहयोग करे तथा अपने ज्ञान का उपयोग सार्वजनिक हित में करे। शिक्षा का वास्तविक उद्देश्य तभी पूर्ण होता है जब उसका लाभ समाज के अंतिम व्यक्ति तक पहुँचे। आज समावेशी शिक्षा, समान अवसर, गुणवत्तापूर्ण शिक्षा, डिजिटल शिक्षा और सामाजिक न्याय जैसे विषयों पर राष्ट्रीय स्तर पर जो प्रयास किए जा रहे हैं, उनमें डॉ. अम्बेडकर के विचार स्पष्ट रूप से परिलक्षित होते हैं। उनका व्यावहारिक योगदान केवल उनके समय तक सीमित नहीं है, बल्कि वर्तमान भारतीय शिक्षा व्यवस्था के लिए भी प्रेरणास्रोत बना हुआ है।

इस प्रकार स्पष्ट होता है कि डॉ. भीमराव अम्बेडकर ने शिक्षा को सामाजिक परिवर्तन का सबसे प्रभावी साधन बनाया। उनके विचारों और कार्यों ने भारतीय शिक्षा को लोकतांत्रिक, समतामूलक और मानव-केंद्रित दिशा प्रदान की। आज भी उनका शैक्षिक योगदान एक न्यायपूर्ण, समावेशी और प्रगतिशील समाज के निर्माण के लिए अत्यंत प्रासंगिक है।

समकालीन परिप्रेक्ष्य में डॉ. भीमराव अम्बेडकर के शिक्षा-दर्शन की प्रासंगिकता

वर्तमान समय में भारत तीव्र सामाजिक, आर्थिक तथा तकनीकी परिवर्तनों के दौर से गुजर रहा है। शिक्षा का स्वरूप पारंपरिक सीमाओं से आगे बढ़कर डिजिटल, कौशल-आधारित तथा समावेशी बनता जा

रहा है। ऐसी परिस्थितियों में डॉ. भीमराव अम्बेडकर का शिक्षा-दर्शन अत्यंत प्रासंगिक सिद्ध होता है। उन्होंने जिस शिक्षा की कल्पना की थी, उसका मूल उद्देश्य प्रत्येक व्यक्ति को समान अवसर प्रदान करना, सामाजिक न्याय की स्थापना करना तथा लोकतांत्रिक मूल्यों को सुदृढ़ बनाना था। आज भी भारतीय शिक्षा व्यवस्था इन्हीं उद्देश्यों की दिशा में निरंतर प्रयासरत है। राष्ट्रीय शिक्षा नीति-2020 में गुणवत्तापूर्ण शिक्षा, समान अवसर, बहुविषयक अध्ययन, कौशल विकास, अनुसंधान तथा समावेशी शिक्षा पर विशेष बल दिया गया है। इन सभी उद्देश्यों में डॉ. अम्बेडकर की शैक्षिक दृष्टि की स्पष्ट झलक दिखाई देती है। उन्होंने शिक्षा को समाज के प्रत्येक वर्ग तक पहुँचाने की आवश्यकता पर बल दिया था, जिससे कोई भी व्यक्ति आर्थिक, सामाजिक अथवा सांस्कृतिक कारणों से शिक्षा से वंचित न रहे।

डिजिटल युग में शिक्षा के नए अवसरों के साथ अनेक चुनौतियाँ भी सामने आई हैं। ग्रामीण क्षेत्रों, आर्थिक रूप से कमजोर परिवारों तथा वंचित समुदायों के विद्यार्थियों के लिए डिजिटल संसाधनों की उपलब्धता आज भी एक गंभीर समस्या है। डॉ. अम्बेडकर का समान अवसर का सिद्धांत इस दिशा में मार्गदर्शन प्रदान करता है कि शिक्षा की प्रत्येक सुविधा सभी नागरिकों तक समान रूप से पहुँचे। आज भारतीय समाज में लैंगिक समानता, महिला शिक्षा, सामाजिक समावेशन तथा मानवाधिकारों की चर्चा व्यापक स्तर पर हो रही है। इन सभी विषयों पर डॉ. अम्बेडकर के विचार अत्यंत दूरदर्शी थे। उन्होंने महिलाओं को शिक्षा, सम्मान और समान अधिकार प्रदान करने की आवश्यकता पर बल दिया। वर्तमान समय में महिला सशक्तिकरण तथा बालिका शिक्षा से संबंधित विभिन्न योजनाएँ उनके विचारों को व्यवहार में परिणत करने का प्रयास हैं।

उच्च शिक्षा और अनुसंधान के क्षेत्र में भी डॉ. अम्बेडकर का दृष्टिकोण प्रेरणादायी है। वे चाहते थे कि विश्वविद्यालय केवल डिग्री प्रदान करने वाले संस्थान न होकर ज्ञान-सृजन, अनुसंधान, नवाचार तथा सामाजिक उत्तरदायित्व के केंद्र बनें। आज भारतीय विश्वविद्यालयों में शोध, नवाचार, स्टार्टअप तथा कौशल विकास पर दिया जा रहा बल उनके विचारों की समकालीन प्रासंगिकता को सिद्ध करता है। वैश्वीकरण और तकनीकी विकास के इस युग में शिक्षा का उद्देश्य केवल रोजगार प्राप्त करना नहीं, बल्कि नैतिक,

संवेदनशील, लोकतांत्रिक और उत्तरदायी नागरिक तैयार करना भी है। डॉ. अम्बेडकर ने शिक्षा के माध्यम से मानवीय मूल्यों, वैज्ञानिक दृष्टिकोण और संवैधानिक चेतना के विकास पर विशेष बल दिया था। वर्तमान परिस्थितियों में सामाजिक सौहार्द, लोकतांत्रिक संस्कृति और राष्ट्रीय एकता को सुदृढ़ बनाने के लिए उनके विचार अत्यंत उपयोगी सिद्ध होते हैं।

निष्कर्ष

डॉ. भीमराव अम्बेडकर भारतीय शिक्षा-जगत के ऐसे महान चिंतक थे जिन्होंने शिक्षा को सामाजिक परिवर्तन, मानव गरिमा और लोकतांत्रिक विकास का आधार माना। उन्होंने अपने जीवन, विचारों और कार्यों के माध्यम से यह सिद्ध किया कि शिक्षा ही वह शक्ति है जो व्यक्ति को आत्मविश्वासी, विवेकशील और स्वावलंबी बनाती है। उनका शिक्षा-दर्शन केवल दलित एवं वंचित समाज तक सीमित नहीं था, बल्कि सम्पूर्ण मानव समाज के विकास की व्यापक अवधारणा पर आधारित था। उन्होंने समान अवसर, स्त्री शिक्षा, गुणवत्तापूर्ण शिक्षा, वैज्ञानिक दृष्टिकोण, नैतिक मूल्यों तथा सामाजिक उत्तरदायित्व को शिक्षा का अभिन्न अंग माना। उनके विचार आज भी भारतीय शिक्षा व्यवस्था को दिशा प्रदान करते हैं और समावेशी, न्यायपूर्ण तथा लोकतांत्रिक समाज के निर्माण में महत्वपूर्ण भूमिका निभाते हैं।

वर्तमान समय में जब शिक्षा को सामाजिक परिवर्तन, आर्थिक विकास और राष्ट्रीय प्रगति का आधार माना जा रहा है, तब डॉ. अम्बेडकर का शैक्षिक चिंतन और भी अधिक प्रासंगिक हो जाता है। इसलिए आवश्यकता इस बात की है कि उनके शिक्षा-दर्शन को केवल ऐतिहासिक विरासत के रूप में न देखा जाए, बल्कि वर्तमान शिक्षा-नीतियों, शैक्षणिक संस्थानों और सामाजिक जीवन में व्यावहारिक रूप से अपनाया जाए। यही उनके प्रति सच्ची श्रद्धांजलि होगी।

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Understanding Consumer Preferences for Family Vehicle “Four-Wheelers”: A Study of the East Ahmedabad Market

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Abstract

This paper looks at how families in the fast-growing suburbs of East Ahmedabad choose and buy cars. We focused on how local factors like family size, road conditions, brand trust, and budgets affect decisions across a wide price range from ₹5 Lakh to ₹60 Lakh. We collected 110 survey responses from primary family decision-makers in areas like Nikol, Vastral, Naroda, and Odhav using convenience sampling. The data was analyzed using frequency percentages and Pearson Bivariate Correlation testing. The results show a massive trend where families are moving away from hatchbacks and sedans toward SUVs and MPVs. This shift is happening because of large joint-family systems and rough local road conditions. Pearson correlation tests proved both our hypotheses : there is a clear relationship between a family’s lifestyle needs and their final buying choices ($r = .440$, $p < .001$), and a very strong link between how much a buyer cares about structural build safety and their need for advanced highway safety features ($r = .671$, $p < .001$). We also found that charging network issues and resale worries are slowing down Electric Vehicle (EV) adoption. Finally, the paper offers practical tips for car dealers and manufacturers trying to win over this unique regional market.

Keywords: *Consumer Behavior, Market Segmentation, SUV Dominance, Product Safety, Brand Trust, After-Sales Service Network, Alternative Fuel Adoption, Statistical Correlation Analysis.*

1. Introduction

Car shopping has changed completely over the last few years. Globally, the auto industry is moving toward electric cars and smart tech, but in a developing economy like India, a car is still a matter of immense family pride and social status. It is an expensive, emotionally driven purchase where multiple generations get involved. In 2026, the Indian market is going through a massive transition. Buyers are caught between traditional petrol or diesel engines, budget-friendly CNG setups, and the new wave of Electric Vehicles (EVs). While global media talks about saving the environment,

everyday Indian families—especially in Gujarat—look at sustainability through long-term financial viability and real-world running costs.

To understand how a buyer thinks in a city like Ahmedabad, we have to look at the market's background. For a long time, Indian families had very few choices, like the old Ambassador or Premier Padmini. That changed in the 1980s with the "Maruti Revolution," which taught the middle class that cars could be highly fuel-efficient, reliable, and easy to maintain. Today, India is the world's third-largest car market, and domestic companies like Tata Motors and Mahindra are leading the way with top-notch designs and safety ratings.

This history shapes the expectations of today's buyers, but location matters just as much as history. Ahmedabad is practically split into two different commercial worlds. West Ahmedabad is full of corporate offices, high-end real estate, and early tech adopters. On the other side, East Ahmedabad is the industrial and trading backbone of the entire city. Neighborhoods like Naroda, Odhav, Nikol, Vastral, and Bapunagar are packed with small-scale businesses, factories, and a hard-working middle class.

In East Ahmedabad, a family car has to do multiple jobs. A business owner might use it to visit his factory unit in a GIDC estate during the day and then take his entire family out to a mall or a restaurant on the weekend. Also, unlike the western suburbs where nuclear families are standard, the eastern side still has a massive culture of joint families living under one roof. Because of this, passenger space, rear-seat comfort, and seating capacity are deal-breakers, not just optional luxuries. Local roads play a massive part too. With constant construction, heavy traffic, and monsoon flooding around areas like the Nikol-Naroda junctions, having a vehicle with high ground clearance (like an SUV) has become a basic structural necessity for daily life.

Car shopping here is a group event. Three generations—grandparents, parents, and kids—frequently walk into the showroom together to test a vehicle. They check if it is easy for elderly grandparents to get in and out, if the trunk has enough room for long trips to family temples, and if the safety ratings are high enough to protect their kids.

The price bracket we chose for this project—₹5 Lakh to ₹60 Lakh—perfectly covers this entire social ladder. It tracks the entire upgrading journey of a local family, starting from a small hatchback that serves as a replacement for a two-wheeler all the way up to a premium SUV that shows everyone in the community that their business is doing well. Finding out what makes a buyer finally sign the cheque means looking closely at how online information mixes with neighborhood realities.

2. Literature Review

Recent research on the Indian car market highlights several shifting trends. **Trivedi et al. (2024)** studied the car market in Gujarat and found a clear split: budget car buyers focus purely on mileage, low repair costs, and long-term reliability, while luxury buyers look for brand value and social status. Their study showed that urban centers like Ahmedabad and Vadodara are booming because of rising incomes and easy car loans, but safety has now become a top priority for everyone, regardless of their budget.

Ali and Sucharitha (2021) looked into the psychology of buying a car. Using factor analysis, they found that safety and build quality are the single biggest concerns for Indian consumers, explaining nearly a quarter of the final decision. They noted that because buying a car is an infrequent, high-risk investment, people go through a long research process heavily guided by their personal self-image and lifestyle.

The balance between old legacy names and new features is a common theme. **Maru and Mistry (2023)** compared Maruti Suzuki and Tata Motors. They found that while people love Maruti for its incredible service network, reliability, and low upkeep costs, they prefer Tata for its heavy build quality and modern technology. Their analysis showed that even though buyers look at premium features, the mass market still plays it safe by focusing on service center networks and life-cycle costs.

Similarly, **Lakhtariya, Suthar, and Vidani (2025)** focused on Ahmedabad city to compare Tata and Hyundai. Their data proved that local buyers remain intensely price-sensitive, meaning that practical advantages like real-world mileage in heavy city traffic always beat out flashy cosmetic features.

The premiumization trend is also picking up fast. **Parikh and Kaushik (2025)** tracked market data in Gujarat and discovered an interesting pattern: even when the overall car market faced brief drops, registrations for luxury cars and mid-size crossovers hit all-time highs. This proves that middle-income families are skipping entry-level hatchbacks entirely to look for high ground clearance and better road presence.

When looking at first-time buyers, **Bhatt and Vidani (2024)** found that within the ₹5 Lakh to ₹20 Lakh urban market, a brand's service reputation and word-of-mouth advice from close friends and relatives are the ultimate triggers for a purchase.

In the digital space, **Tomer and Pritha (2025)** pointed out that online reviews and social media influencers completely dominate the early research phase, radically changing how consumers behave before they ever step into a showroom.

The shift toward electric cars shows a mix of excitement and hesitation. **Jain, Jain, and Vidani (2024)** evaluated EV perceptions in urban Ahmedabad. They noted that while environmental awareness and brand trust are high, local buyers are still held back by range anxiety, high upfront costs, and a lack of public charging spots. Their data showed that younger, tech-savvy buyers are the most open to EVs, but mass adoption is still waiting for better infrastructure.

Shah et al. (2025) studied the effects of the local Gujarat EV policy. They found a massive jump in hybrid and electric sales but highlighted a clear "chicken-and-egg" issue: buyers are waiting for public charging stations, while station builders are waiting for more electric cars to hit the road. Interestingly, their choice modeling showed that Gujarati buyers are willing to pay a premium for faster charging times, proving that convenience is becoming a major priority.

Finally, **Alka et al. (2025)** and **Arulmoli and Rengaraj (2025)** verified that while green car ads look great, a family vehicle in Ahmedabad must prove its real-world monthly savings and everyday charging convenience to convince practical middle-class homes to drop petrol or CNG.

3. Research Methodology

3.1 Research Gap

Even with all the existing data on the Indian auto industry, we found a few major blind spots:

- **The Geographical Blind Spot:** Most car research in Gujarat groups "Ahmedabad" into one single bucket. They focus heavily on high-income buyers in West Ahmedabad, completely ignoring the unique family setups and commercial needs of the East side (Nikol, Vastral, Naroda).
- **The Segment Gap:** Research papers usually look either at cheap budget cars or luxury imports. They miss the continuous upgrading path from ₹5 Lakh to ₹60 Lakh where families stretch their budgets using modern EMI options.
- **The Safety vs. Feature Paradox:** There isn't enough recent, local data proving whether middle-class buyers are genuinely willing to trade away popular features like sunroofs or large screens for a solid 5-star crash test safety rating.

- **The Local EV Barrier Gap:** General surveys talk about global EV trends, but they don't look at how local housing structures—like old joint-family bungalows or high-rises without private parking chargers—create daily practical hurdles for EV adoption in this specific region.

3.2 Research Design

This study uses a descriptive and cross-sectional research design. A descriptive setup lets us record existing market trends and customer habits exactly as they are right now, while a cross-sectional design means we collected our data within a specific timeframe to capture current consumer mindsets. A quantitative approach was used to convert subjective consumer opinions into distinct numbers for statistical testing.

3.3 Variables of the Study

- **Independent Variables (The Causes):** Demographics (Age, Job, Income, Family Size) , Product Attributes (Body type, Gearbox, Fuel choice, Safety scores) , and External Factors (Service center proximity, Resale demand, YouTube reviews).
- **Dependent Variables (The Effects):** Final Purchase Intention, Brand Loyalty, and Price Segment Preference.

3.4 Target Population & Sample Size

The target population covers active car owners or prospective buyers living in the East Ahmedabad zone. The study is based on 110 completed, valid survey responses collected directly from the field.

3.5 Sampling & Data Collection Method

We used non-probability convenience sampling because of limited time and field access realities. Primary data was gathered using a structured questionnaire distributed both online via Google Forms and offline through direct interactions. Opinions were tracked using a standard 5-point Likert scale ranging from Strongly Agree to Strongly Disagree. Secondary data from industry reports and company websites helped build the baseline context.

3.6 Hypotheses of the Study

- **Hypothesis 1:**
 - H0: There is no significant correlation between a consumer's lifestyle needs (CCL1) and their buying decision factors (CCL3).

- H1: There is a significant correlation between a consumer's lifestyle needs (CCL1) and their buying decision factors (CCL3).
- **Hypothesis 2:**
 - H0: There is no significant relationship between a consumer's preference for structural safety/build quality (TFS4) and their requirement for advanced highway safety features (TFS5).
 - H1: There is a significant positive relationship between a consumer's preference for structural safety/build quality (TFS4) and their requirement for advanced highway safety features (TFS5).

4. Data Analysis & Hypotheses Interpretation

4.1 Demographic Breakdown

The background details of our **110 respondents** provide essential context for understanding local market trends. Age data shows a huge concentration of younger buyers, with **74% falling into the 18–25 group, 19% in the 26–36 range, and 7% between 36–50**. This highlights a young, connected demographic that relies heavily on digital media and online platforms during their pre-purchase research.

The occupational mix is quite diverse: **41% are students, 26% are salaried employees in the private sector, 25% are independent business owners or entrepreneurs, and 8% work in government services**. This perfectly mirrors the commercial, business-driven character of the eastern belt. Financially, a solid 58% of the surveyed households report an annual income bracket concentrated between **₹5 Lakh and ₹20 Lakh**, showing a strong middle-to-upper-middle-class foundation looking for reliable, feature-packed mid-range vehicles.

4.2 Correlation Analysis for Hypothesis 1

To see if a family's lifestyle needs (CCL1) actively guide their core car-buying parameters (CCL3), we ran a Pearson correlation test on the data.

Variables Compared: Lifestyle Needs (CCL1) vs. Buying Decision Factors (CCL3)

Variable	Statistical Metric	CCL1	CCL3
CCL1	Pearson Correlation	1	.440
	Sig. (2-tailed)		.000
	N	110	110
CCL3	Pearson Correlation	.440	1
	Sig. (2-tailed)	.000	
	N	110	110

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

The test shows a statistically significant, moderate positive relationship between the two variables, **with $r(108) = .440$, $p < .001$** . Because of this clear proof, the Null Hypothesis (H_0) was **REJECTED** and the Alternative Hypothesis (H_1) was **ACCEPTED**. This proves that family routine habits, multi-generational sizing needs, and local road setups directly dictate the technical designs and vehicle body types that families buy.

4.3 Correlation Analysis for Hypothesis 2

Next, we wanted to see if a buyer's concern for structural safety (TFS4) matches their demand for advanced highway safety tech (TFS5). We ran a Pearson bivariate correlation test on these specific variables.

Variables Compared: Structural Safety (TFS4) vs. Advanced Safety Tech (TFS5)

Variable	Statistical Metric	TFS4	TFS5
TFS4	Pearson Correlation	1	.671
	Sig. (2-tailed)		.000
	N	110	110

Variable	Statistical Metric	TFS4	TFS5
TFS5	Pearson Correlation	.671	1
	Sig. (2-tailed)	.000	
	N	110	110

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

The statistical results show a highly significant, strong positive correlation between these two safety dimensions, with $r(108) = .671, p < .001$. Based on this high mathematical proof, the Null Hypothesis (H0) was **REJECTED** and the Alternative Hypothesis (H1) was **ACCEPTED**. This strong 0.671 number shows that safety awareness has fully matured in the middle class. Buyers who check for heavy build quality are the exact same individuals who insist on advanced safety features like multiple airbags and stability control.

5. Key Findings & Discussion

Our field data clearly shows that the traditional love for basic hatchbacks and small sedans is shrinking rapidly in East Ahmedabad. Families are moving directly toward SUVs and MPVs. This trend is heavily tied to the local joint-family culture, where multiple generations live together under one roof. Because of this, cabin room, rear-seat comfort, and absolute seating capacity are non-negotiable requirements, not luxury options. Local road conditions—like heavy commercial traffic, metro construction, and seasonal flooding around junctions like Nikol and Naroda—make high ground clearance a functional necessity for safe daily driving.

Financially, the average East Ahmedabad car buyer is highly rational. Instead of just checking the upfront sticker price, people calculate the total running cost over time, including real-world mileage, insurance premiums, and regular service costs. However, because of easy auto loans and the popular "EMI culture," buyers are quite willing to stretch their budgets by 15% to 20% if the upgrade gets them a top-end model or a better brand name that shows their professional success to friends and relatives.

When it comes to alternative fuels, there is clear hesitation. While people support the idea of green cars, deep-seated anxieties about finding charging stations on outstation trips, battery life, and long-

term resale values in the local Gujarati market hold them back. Because of these practical barriers, most families still play it safe by sticking to highly reliable petrol, diesel, or company-fitted CNG options.

6.1 Conclusion

The foundation of this research project was born out of a simple realization: standard, macro-level automotive reports do not work when trying to understand a highly specific, localized market like East Ahmedabad. Most corporate marketing strategies are built around the buying habits of West Ahmedabad—where high-rise luxury apartments, corporate salaries, and early technology adoption are the norms. However, East Ahmedabad, spanning rapid growth zones like Nikol, Vastral, Naroda, and Odhav, operates on a completely different socio-economic wavelength. By collecting and analyzing 110 field survey responses directly from primary family decision-makers in these neighborhoods, this study manages to pull back the curtain on what truly triggers a car purchase when a household is spending anywhere between ₹5 Lakh and ₹60 Lakh.

The demographic data tells a very clear story about who is driving the market today. A massive 74% of our respondents fall into the 18–25 age group, indicating that the modern pre-purchase journey is heavily steered by a younger, tech-savvy generation that shapes its views through digital content, online reviews, and car influencer channels. Occupation-wise, we found a balanced mix: 41% are students, 26% are salaried professionals in the private sector, and 25% are independent business owners or entrepreneurs. This reflects East Ahmedabad's identity as a booming commercial and trading hub. Because a huge chunk of the community runs small businesses, household income is quite strong, with a solid 58% of surveyed homes reporting an annual income bracket between ₹5 Lakh and ₹20 Lakh. This creates a highly active middle class that looks at a four-wheeler as a mandatory tool for family comfort and professional progression.

One of the most defining discoveries is the rapid decline of the traditional hatchback and sedan shapes, with the market witnessing a major shift toward SUVs and MPVs. This shift makes complete sense given that the eastern trading corridors have strongly held onto the culture of multi-generational joint families living under one roof. When a local family goes car shopping, they care deeply about cabin space, rear-seat legroom, and absolute passenger capacity for group travel. Beyond family structure, local driving conditions play a massive role. The heavy traffic, ongoing infrastructure projects, and poor road patches around major junctions like Nikol and Naroda make a vehicle with high ground clearance a functional requirement for safe daily commuting.

Financially, the typical buyer in East Ahmedabad balances cost-consciousness with a desire for status. These consumers display highly rational behavior by calculating the real-world Total Cost of Ownership (TCO), including daily mileage, annual maintenance bills, and insurance premiums. However, this changes slightly when flexible financing options come into play. Driven by the modern "EMI culture," local families show high budget elasticity and are completely willing to stretch their original budget by 15% to 20% if it gets them a higher model or a premium brand name that signals visible success to their social circle.

6.2 Statistical Hypotheses Interpretation

To back up these on-the-ground observations with mathematical proof, the primary data from our 110 respondents was put through Pearson Bivariate Correlation testing. The statistical results provide unbiased evidence of how these consumers prioritize their car purchases.

Hypothesis 1: Consumer Lifestyle Needs vs. Buying Decision Factors

- **Null Hypothesis (H0):** There is no significant correlation between a consumer's lifestyle needs (CCL1) and their buying decision factors (CCL3).
- **Alternative Hypothesis (H1):** There is a significant correlation between a consumer's lifestyle needs (CCL1) and their buying decision factors (CCL3).
- **What the numbers say:** The Pearson correlation analysis showed a statistically significant, moderate positive relationship between the two variables, $r(108) = .440$, $p < .001$. Consequently, the Null Hypothesis was **REJECTED** and the Alternative Hypothesis was **ACCEPTED**.

Student Insight: This correlation proves that car shopping in this region has evolved far past simple point-to-point transportation. A family's routine lifestyle patterns—such as frequent weekend outings, multi-generational travel with elderly parents, and the social need to maintain a successful image in their community—directly dictate the technical features and price segments they choose. For a marketing manager or a local dealership owner, this means you cannot sell a vehicle on financial savings or mileage numbers alone. You have to explicitly show the customer how the car matches their family identity, weekend comfort, and career growth.

Hypothesis 2: Structural Safety Perceptions vs. Advanced Safety Requirements

- **Null Hypothesis (H0):** There is no significant relationship between a consumer's preference for structural safety/build quality (TFS4) and their requirement for advanced highway safety features (TFS5).
- **Alternative Hypothesis (H1):** There is a significant positive relationship between a consumer's preference for structural safety/build quality (TFS4) and their requirement for advanced highway safety features (TFS5).
- **What the numbers say:** The statistical analysis revealed a highly significant, strong positive correlation between these two safety aspects, $r(108) = .671$, $p < .001$. Based on this high mathematical proof, the Null Hypothesis was **REJECTED** and the Alternative Hypothesis was **ACCEPTED**.

Student Insight: This strong 0.671 correlation reveals a massive behavioral change in the public mindset. Safety is no longer treated as an afterthought, a hidden premium feature, or something only luxury buyers care about. Middle-class consumers who want a tough, rigid body shell and high crash-test ratings are the exact same individuals who strictly require advanced safety technologies like 6 airbags, stability control, and active braking features. Safety awareness has fully matured. In fact, local family buyers are openly willing to sacrifice cosmetic, electronic features like massive touchscreens, ambient lighting, or panoramic sunroofs if it means securing a certified 5-star safety rating to protect their families during high-speed highway travel.

6.3 Recommendations for Regional Dealership Networks:

- **Build Service Centers in the Eastern Industrial Belt:** Having a convenient after-sales service center nearby is a deal-breaker for buyers in this region. Dealership networks must establish fully functional service points directly within areas like Nikol, Vastral, and Naroda, instead of concentrating them in West Ahmedabad.
- **Adapt Showroom Processes for the Whole Family:** Since car shopping here is an extensive group event involving multiple generations, sales teams must adapt. Consultants should balance digital and technical feature walkarounds for younger tech-savvy buyers with clear information on durability, real-world mileage, and long-term maintenance costs for family elders.

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ચુડાસમા જયેશકુમાર એ.

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સારાંશ

“ભીમરાવ રામજી આંબેડકર” ભારતીય બંધારણના મુખ્ય શિલ્પી, સમાજસુધારક અને દલિત મુક્તિના મહાન વિચારક હતા. તેમણે બૌદ્ધધર્મને માત્ર ધર્મ તરીકે નહીં, પરંતુ સમાનતા, સ્વતંત્રતા, બંધુતા અને માનવતાના સિદ્ધાંતો પર આધારિત જીવનદર્શન તરીકે સ્વીકાર્યો હતો. બાબાસાહેબનું માનવું હતું કે બૌદ્ધધર્મ વૈજ્ઞાનિક, તર્કસંગત અને માનવકેન્દ્રી ધર્મ છે, જે જાતિવાદ, અંધશ્રદ્ધા અને સામાજિક અસમાનતાને નકારે છે.

ડૉ. આંબેડકરે ભારતીય બંધારણમાં સમાવિષ્ટ અનેક મૂલ્યો માટે બૌદ્ધ વિચારધારાથી પ્રેરણા લીધી હતી. બંધારણની પ્રસ્તાવનામાં સમાવિષ્ટ “ન્યાય, સ્વતંત્રતા, સમાનતા અને બંધુતા” જેવા આદર્શો બૌદ્ધધર્મના મૂળભૂત સિદ્ધાંતો સાથે સુસંગત છે. તેમના મત મુજબ લોકશાહી માત્ર શાસનપદ્ધતિ નહીં, પરંતુ જીવન જીવવાની પદ્ધતિ છે, અને તેનું શ્રેષ્ઠ પ્રતિબિંબ બૌદ્ધ સંઘવ્યવસ્થામાં જોવા મળે છે. ડૉ. આંબેડકરે ૧૪ ઓક્ટોબર ૧૯૫૬ના રોજ “ગૌતમ બુદ્ધ” ના ધર્મને સ્વીકારી લાખો અનુયાયીઓ સાથે બૌદ્ધ ધર્મદીક્ષા લીધી હતી. તેમણે પોતાના ગ્રંથ “The Buddha and His Dhamma” માં બૌદ્ધધર્મના સિદ્ધાંતોનું વિસ્તૃત વર્ણન કર્યું છે. તેમના માટે બૌદ્ધધર્મ સામાજિક ન્યાય, માનવ ગૌરવ અને સમાનતાનું પ્રતિક હતો.

આ રીતે, ડૉ. આંબેડકરના બૌદ્ધધર્મ સંબંધિત વિચારો ભારતીય બંધારણના મૂળભૂત મૂલ્યોમાં પ્રતિબિંબિત થાય છે અને આધુનિક ભારતના લોકતાંત્રિક અને સમાનતાવાદી સ્વરૂપને સમજવામાં મહત્વપૂર્ણ યોગદાન આપે છે.

આવીરૂપ શબ્દો : ડૉ. બી. આર. આંબેડકર, બોધિસત્વ, બૌદ્ધધર્મ, ગૌતમ બુદ્ધ, સમાનતા, સ્વતંત્રતા, બંધુતા, સામાજિક ન્યાય, માનવ ગૌરવ, લોકશાહી, બંધારણની પ્રસ્તાવના, ધમ્મ, નવયાન બૌદ્ધધર્મ, જાતિવાદ વિરોધ, તર્કવાદ, માનવતાવાદ, ધર્મપરિવર્તન, બૌદ્ધ સંઘ, બંધારણીય મૂલ્યો, સામાજિક સમરસતા, પ્રજાસત્તાક, મૂળભૂત અધિકારો, કલ્યાણકારી રાજ્ય, દલિત મુક્તિ, ધમ્મચક્ર પ્રવર્તન.

(૧) પ્રસ્તાવના

ડૉ. બાબાસાહેબ ભીમરાવ આંબેડકર માત્ર ભારતના બંધારણનિર્માતા જ નહોતા, પરંતુ એક મહાન વિચારક, સમાજસુધારક, બંધારણવિદ અને માનવ મુક્તિના દ્રષ્ટા હતા. તેમના જીવનનો મુખ્ય ઉદ્દેશ ફક્ત દલિત, પીડિત અને વંચિત વર્ગોને માનવ ગૌરવ, સમાનતા અને સ્વાભિમાન અપાવવાનો જ નહોતો પરંતુ રાષ્ટ્રમાં સમાનતા અને બંધુત્વની ભાવના સ્થાપિત કરી રાષ્ટ્ર નિર્માણ કરવાનો હતો. ભારતીય સમાજમાં વ્યાપેલી જાતિવ્યવસ્થા, અસ્પૃશ્યતા અને અંધશ્રદ્ધાએ માનવતાને જે રીતે કલંકિત કરી હતી, તે સામે બાબાસાહેબે તર્ક, વિજ્ઞાન અને નૈતિકતાના આધારે સંઘર્ષ કર્યો. બાબાસાહેબે હિંદુ ધર્મના શાસ્ત્રોનું ઊંડું અધ્યયન કર્યું અને નિષ્કર્ષ પર આવ્યા કે આ ધર્મની વર્ણવ્યવસ્થા સમાનતાના સિદ્ધાંતને સ્વીકારતી નથી. તેથી તેમણે એવા ધર્મની શોધ કરી જે માનવને માનવ તરીકે સ્વીકારી શકે. આ શોધ તેમને બૌદ્ધધર્મ તરફ લઈ ગઈ હતી. બૌદ્ધધર્મમાં તેમને તર્કસંગતતા, કડુણા, સમતા, સ્વતંત્રતા અને માનવ કલ્યાણના તત્ત્વો મળ્યા.

બાબાસાહેબે બૌદ્ધધર્મને માત્ર ધાર્મિક પરિવર્તન તરીકે નહીં, પરંતુ સામાજિક ક્રાંતિના સાધન તરીકે સ્વીકાર્યો. તેમણે બૌદ્ધધર્મને “પ્રજ્ઞા, કડુણા અને સમતા” પર આધારિત માનવવાદી ધર્મ ગણાવ્યો. ૧૪ ઓક્ટોબર ૧૯૫૬ના રોજ નાગપુરમાં લાખો અનુયાયીઓ સાથે તેમણે બૌદ્ધ ધર્મનો સ્વીકાર કરી ભારતીય ઇતિહાસમાં નવી ચેતનાનો આરંભ કર્યો. તેમના વિચારોમાં બૌદ્ધધર્મ એક એવી નૈતિક વ્યવસ્થા હતી જે વ્યક્તિને સ્વતંત્રતા આપે, સમાજને સમાનતા શીખવે અને સમગ્ર માનવજાતને બંધુત્વના સૂત્રમાં બાંધે. આથી બાબાસાહેબને “બોધિસત્વ” તરીકે પણ માન આપવામાં આવે છે.

(૨) બોધિસત્વ બાબાસાહેબ આંબેડકરના બૌદ્ધધર્મ અંગેના વિચારો

(૨.૧) બૌદ્ધધર્મ : તર્ક અને વિજ્ઞાન આધારિત ધર્મ

બાબાસાહેબ આંબેડકર બૌદ્ધધર્મને એકમાત્ર એવો ધર્મ માનતા હતા જે અંધવિશ્વાસ અને અતાર્કિક માન્યતાઓથી મુક્ત છે. તેમના મતે બુદ્ધે માનવને વિચારવાની સ્વતંત્રતા આપી છે. જે “આત્મા, પરમેશ્વર કે ચમત્કાર” જેવી કલ્પનાઓ પર નહીં, પરંતુ માનવ અનુભવ અને તર્ક પર બુદ્ધના ઉપદેશ પર આધારિત છે.

બાબાસાહેબે સ્પષ્ટ રીતે જણાવ્યું કે બૌદ્ધધર્મ વિજ્ઞાનસંગત છે, કારણ કે તેમાં કાર્યકારણના સિદ્ધાંત (પ્રતીત્યસમુત્પાદ) પર ભાર મૂકવામાં આવ્યો છે. દુઃખના કારણો શોધીને તેને દૂર કરવું—આ બુદ્ધનો વૈજ્ઞાનિક અભિગમ હતો. આ દૃષ્ટિકોણ બાબાસાહેબના વિચારો સાથે સંપૂર્ણ સુસંગત હતો.

તેમના મતે સમાજ ત્યારે જ પ્રગતિ કરી શકે જ્યારે લોકો પ્રશ્ન પૂછે, વિચાર કરે અને તર્ક અપનાવે. બૌદ્ધધર્મ માનવને અંધ અનુસરણમાંથી મુક્ત કરી આત્મવિચાર તરફ દોરે છે. આ કારણે બાબાસાહેબે બૌદ્ધધર્મને આધુનિક યુગ માટે યોગ્ય ગણાવ્યો. બાબાસાહેબ માટે ધર્મનો અર્થ ચમત્કારિક શક્તિમાં વિશ્વાસ નહીં, પરંતુ નૈતિક જીવન જીવવાની પદ્ધતિ હતો. બૌદ્ધધર્મ આ વ્યાખ્યાને પૂર્ણ કરે છે. તેથી તેમણે બૌદ્ધધર્મને “Reasoned Religion” તરીકે ઓળખાવ્યો.

(૨.૨) બૌદ્ધધર્મ અને સામાજિક સમાનતા

બાબાસાહેબ આંબેડકરના વિચારોમાં બૌદ્ધધર્મનું સૌથી મોટું યોગદાન સામાજિક સમાનતા છે. તેમણે નોંધ્યું કે બુદ્ધે પોતાના સમયમાં જાતિવ્યવસ્થાને નકારી હતી અને સંઘમાં પ્રવેશ માટે જન્મ નહીં, પરંતુ ગુણ અને આચરણને આધાર બનાવ્યો હતો. બૌદ્ધસંઘમાં બ્રાહ્મણ, ક્ષત્રિય, વૈશ્ય અને શૂદ્ર તથા સ્ત્રીઓને પણ સમાન સમાન સ્થાન મળતું હતું. આ બાબત બાબાસાહેબને અત્યંત પ્રભાવિત કરતી હતી. તેમના મતે કોઈપણ સમાજ ત્યારે જ ન્યાયી બની શકે જ્યારે ત્યાં જન્મ આધારિત ભેદભાવ ન હોય.

બૌદ્ધધર્મમાં માનવ માત્ર માનવ છે આ વિચાર બાબાસાહેબની સામાજિક દૃષ્ટિનું કેન્દ્ર હતું. તેમણે કહ્યું કે, “બૌદ્ધધર્મ વ્યક્તિને નીચો કે ઊંચો ગણતો નથી, પરંતુ દરેકને માનવ ગૌરવ આપે છે.” અસ્પૃશ્યતા સામે સંઘર્ષ કરતા બાબાસાહેબ માટે બૌદ્ધધર્મ એક શક્તિશાળી નૈતિક આધાર હતો. તેમણે માન્યું કે કાયદા દ્વારા સમાનતા લાવી શકાય, પરંતુ માનસિક સમાનતા ધર્મ દ્વારા જ સંભવ છે અને બૌદ્ધધર્મ એ કાર્ય કરી શકે છે.

(૨.૩) કરુણા અને માનવ કલ્યાણનો ધર્મ

બાબાસાહેબના મતે બૌદ્ધધર્મનું હૃદય “કરુણા” છે. બુદ્ધે કરુણાને માત્ર ભાવના નહીં, પરંતુ સામાજિક જવાબદારી તરીકે રજૂ કરી હતી. દુઃખી માનવ પ્રત્યે સંવેદનશીલતા રાખવી—આ બૌદ્ધધર્મનું મૂળ તત્ત્વ છે. બાબાસાહેબે જણાવ્યું કે કરુણા વિના કોઈ સમાજ ન્યાયી બની શકતો નથી. શોષણ, અસમાનતા અને અન્યાય ત્યારે જ દૂર થાય જ્યારે માનવમાં કરુણાની ભાવના વિકસે. તેમના મતે બૌદ્ધધર્મ સ્વાર્થને ત્યાગીને સામૂહિક કલ્યાણની વાત કરે છે. સમાજ અને જીવસૃષ્ટિને નુકસાન કર્યા વગર વ્યક્તિ પોતાનો સર્વાંગીક વિકાસ કરી શકે છે. આ સંતુલન બુદ્ધે શીખવ્યું હતું. આ કારણસર બાબાસાહેબે બૌદ્ધધર્મને “માનવ કલ્યાણનો ધર્મ” ગણાવ્યો અને તેને આધુનિક લોકશાહી મૂલ્યો સાથે જોડ્યો.

(૨.૪) બૌદ્ધધર્મ અને સ્વતંત્રતાનો વિચાર

બાબાસાહેબ આંબેડકર માટે સ્વતંત્રતા માત્ર રાજકીય સંકલ્પના નહોતી, પરંતુ માનવીય અસ્તિત્વની મૂળભૂત જરૂરિયાત હતી. તેમના મતે વ્યક્તિ ત્યારે જ સાચી રીતે વિકાસ કરી શકે જ્યારે તે માનસિક, સામાજિક અને નૈતિક રીતે સ્વતંત્ર હોય. બૌદ્ધધર્મમાં તેમને આ સ્વતંત્રતાનો સર્વાંગી વિચાર જોવા મળ્યો. બુદ્ધે માનવને વિચારવાની, પ્રશ્ન પૂછવાની અને નિર્ણય લેવાની પૂર્ણ સ્વતંત્રતા આપી હતી. “એહિંપાસિકો” એટલે કે “આવો અને તપાસો” આ બુદ્ધનો સંદેશ હતો. બાબાસાહેબે આ વિચારને આધુનિક લોકશાહી મૂલ્યો સાથે જોડ્યો. તેમના મતે બૌદ્ધધર્મ કોઈ દેવી આજ્ઞાઓ પર આધારિત નથી, પરંતુ માનવીય બુદ્ધિ પર આધાર રાખે છે. હિંદુધર્મની જાતિવ્યવસ્થામાં માનવ જન્મથી બંધાયેલો રહે છે, જ્યારે બૌદ્ધધર્મ માનવને કર્મ અને પ્રયત્ન દ્વારા પોતાનું જીવન ઘડવાની છૂટ આપે છે. આ કારણે બાબાસાહેબે બૌદ્ધધર્મને મુક્તિનો માર્ગ ગણાવ્યો. બૌદ્ધધર્મમાં મુક્તિનો અર્થ માત્ર આધ્યાત્મિક મોક્ષ નહીં, પરંતુ દુઃખ, ભય અને શોષણમાંથી મુક્તિ છે. બાબાસાહેબે આ વિચારને દલિત મુક્તિના સંદર્ભમાં ખૂબ મહત્વપૂર્ણ ગણાવ્યો. તેમના માટે બૌદ્ધધર્મ માનવને ગુલામીમાંથી સ્વાભિમાન તરફ લઈ જતો ધર્મ હતો.

(૨.૫) બૌદ્ધધર્મ : નૈતિકતા આધારિત જીવનપદ્ધતિ

બાબાસાહેબ આંબેડકર બૌદ્ધધર્મને વિધિ-વિધાનનો ધર્મ નહીં, પરંતુ નૈતિક જીવન જીવવાની પદ્ધતિ માનતા હતા. તેમના મતે ધર્મનો સાચો હેતુ માનવના વર્તનમાં શુદ્ધતા લાવવાનો છે. બૌદ્ધધર્મમાં પંચશીલ, અષ્ટાંગિક માર્ગ અને મધ્યમ માર્ગ દ્વારા આ નૈતિકતા સ્પષ્ટ રીતે રજૂ થાય છે. બૌદ્ધ નૈતિકતામાં અહિંસા,

સત્ય, અસ્તેય, સંયમ અને સમ્યક આજીવિકા જેવા તત્ત્વો સમાવિષ્ટ છે. બાબાસાહેબના મતે આ મૂલ્યો કોઈ એક સમુદાય માટે નહીં, પરંતુ સમગ્ર માનવજાત માટે લાગુ પડે છે. તેમણે નોંધ્યું કે અન્ય ઘણા ધર્મોમાં નૈતિકતા કરતાં વિધિઓ અને કર્મકાંડને વધુ મહત્વ આપવામાં આવે છે. જ્યારે બૌદ્ધધર્મ માનવના આચરણને કેન્દ્રમાં રાખે છે. આ વિચાર બાબાસાહેબને અત્યંત અનુરૂપ હતો, કારણ કે તેઓ સમાજ સુધારાને નૈતિક સુધારા સાથે જોડતા હતા. બાબાસાહેબે કહ્યું કે નૈતિકતા વિના સ્વતંત્રતા જોખમી બની જાય છે. બૌદ્ધધર્મ આ બંને વચ્ચે સંતુલન સાધે છે. આથી તેમણે બૌદ્ધધર્મને “નૈતિક લોકશાહી”નો આધાર ગણાવ્યો.

(૨.૬) બૌદ્ધધર્મ અને બંધુત્વની ભાવના

બાબાસાહેબ આંબેડકરે ભારતીય બંધારણના ત્રણ મૂળ તત્ત્વો તરીકે સ્વતંત્રતા, સમાનતા અને બંધુત્વનો ઉલ્લેખ કર્યો હતો. તેમના મતે બંધુત્વ વિના લોકશાહી જીવંત રહી શકતી નથી. બૌદ્ધધર્મમાં તેમણે બંધુત્વનો સૌથી મજબૂત આધાર જોયો. બુદ્ધે સમગ્ર માનવજાતને એક પરિવાર તરીકે જોયી. બૌદ્ધ સંઘમાં પરસ્પર સહકાર, સંયુક્ત જીવન અને પરસ્પર સન્માનના સિદ્ધાંતો અમલમાં હતા. બાબાસાહેબના મતે આ સંઘ વ્યવસ્થા લોકશાહી સમાજ માટે આદર્શ હતી. જાતિ, વર્ણ અને ઊંચ-નીચના ભેદભાવને કારણે ભારતીય સમાજમાં બંધુત્વનો અભાવ હતો. બૌદ્ધધર્મ આ ભેદોને તોડી માનવ-માનવ વચ્ચે સહજ સંબંધ સ્થાપિત કરે છે. બાબાસાહેબે જણાવ્યું કે બંધુત્વ કોઈ કાયદાથી લાવી શકાય તેમ નથી; તે માનસિક અને નૈતિક પરિવર્તનથી જ આવે છે. બૌદ્ધધર્મ આ પરિવર્તન માટે યોગ્ય માર્ગ દર્શાવે છે.

(૨.૭) બૌદ્ધધર્મ અને સ્ત્રી સમાનતા

બાબાસાહેબ આંબેડકર સ્ત્રી મુક્તિના પ્રખર સમર્થક હતા. તેમણે નોંધ્યું કે બૌદ્ધધર્મ સ્ત્રીઓને માનવ તરીકે સમાન અધિકાર આપે છે. બુદ્ધે સ્ત્રીઓને સંઘમાં પ્રવેશ આપીને ઇતિહાસમાં મહત્વપૂર્ણ પગલું ભર્યું હતું. બૌદ્ધધર્મમાં સ્ત્રીને પાપનું કારણ નહીં, પરંતુ જ્ઞાન અને સાધનાની પાત્ર માનવામાં આવે છે. બાબાસાહેબ માટે આ વિચાર અત્યંત ક્રાંતિકારી હતો, કારણ કે ભારતીય સમાજમાં સ્ત્રીને હંમેશા દ્વિતીય સ્થાન આપવામાં આવ્યું હતું. બાબાસાહેબે માન્યું કે સમાજનો વિકાસ ત્યારે જ શક્ય છે જ્યારે સ્ત્રી સ્વતંત્ર અને શિક્ષિત બને. બૌદ્ધધર્મ સ્ત્રીને આત્મગૌરવ અને સ્વતંત્રતા આપે છે. આ કારણે તેમણે બૌદ્ધ ધર્મને આધુનિક સમાજ માટે યોગ્ય ગણાવ્યો.

(૨.૮) બૌદ્ધધર્મ : સામાજિક ક્રાંતિનું સાધન

બાબાસાહેબ આંબેડકર બૌદ્ધધર્મને માત્ર વ્યક્તિગત મુક્તિનો માર્ગ નહીં, પરંતુ સામાજિક ક્રાંતિનું શક્તિશાળી સાધન માનતા હતા. તેમના મતે ભારતની સામાજિક સમસ્યાઓ જાતિવ્યવસ્થા, અસ્પૃશ્યતા, અસમાનતા કાયદાથી નહિ, પરંતુ માનસિક પરિવર્તનથી જ દૂર થઈ શકે. આ પરિવર્તન માટે બૌદ્ધધર્મ યોગ્ય આધાર પૂરો પાડે છે. બુદ્ધે સમાજમાં પ્રચલિત બ્રાહ્મણવાદી શ્રેષ્ઠતા, યજ્ઞ-વિધિઓ અને જન્મ આધારિત અધિકારોને નકારી કાઢ્યા હતા. બાબાસાહેબે આ વિચારને આધુનિક દલિત ચળવળ સાથે જોડ્યો. તેમના મતે બૌદ્ધધર્મ દબાવેલા વર્ગોને આત્મગૌરવ અને નવી ઓળખ આપે છે.

૧૯૫૬નું બૌદ્ધ ધર્માંતરણ માત્ર ધાર્મિક ઘટના નહોતી, પરંતુ ભારતીય ઇતિહાસમાં સામાજિક ચેતનાનો નવો અધ્યાય હતો. બાબાસાહેબે પોતાના અનુયાયીઓને “દાસ્યમાંથી નાગરિકતા” તરફ દોર્યા. બૌદ્ધધર્મમાં કોઈ પવિત્ર-અપવિત્ર, ઊંચ-નીચ નથી. આ સમાનતાવાદી તત્ત્વ સમાજમાં ક્રાંતિકારી ફેરફાર લાવે છે. આથી બાબાસાહેબ માટે બૌદ્ધધર્મ સામાજિક પુનર્નિર્માણનો આધાર બન્યો.

(૨.૯) નવયાન બૌદ્ધધર્મ : બાબાસાહેબની નવી વ્યાખ્યા

બાબાસાહેબ આંબેડકરે પરંપરાગત બૌદ્ધધર્મને આધુનિક પરિપ્રેક્ષ્યમાં નવી રીતે રજૂ કર્યો, જેને નવયાન બૌદ્ધધર્મ કહેવામાં આવે છે. નવયાનમાં તેમણે કર્મ, પુનર્જન્મ અને નિર્વાણને આધ્યાત્મિક કરતાં સામાજિક અર્થ આપ્યો. તેમના મતે દુઃખનું મૂળ કારણ સામાજિક શોષણ છે, અને તેનું નિરાકરણ ન્યાય, સમાનતા અને શિક્ષણ દ્વારા શક્ય છે. આ વિચાર પરંપરાગત બૌદ્ધ દર્શનથી અલગ છે, પરંતુ આધુનિક સમાજ માટે વધુ વ્યવહારુ છે. નવયાનમાં બુદ્ધને ભગવાન નહીં, પરંતુ મહાન માનવ, સમાજસુધારક અને નૈતિક માર્ગદર્શક તરીકે રજૂ કરવામાં આવ્યા છે. બાબાસાહેબે આ રીતે બૌદ્ધધર્મને અંધભક્તિથી દૂર રાખ્યો. નવયાન બૌદ્ધધર્મ દલિત સમાજ માટે આત્મસન્માન, શિક્ષણ અને સંગઠનનો માર્ગ દર્શાવે છે. આથી તે માત્ર ધાર્મિક નહીં, પરંતુ સામાજિક-રાજકીય ચળવળ બની ગયો.

(૨.૧૦) બૌદ્ધધર્મ અને લોકશાહી મૂલ્યો

બાબાસાહેબ આંબેડકરે બૌદ્ધધર્મને લોકશાહી મૂલ્યો સાથે ગાઢ રીતે જોડ્યો. તેમના મતે બુદ્ધનો સંઘ વ્યવસ્થાપન લોકશાહીનું પ્રાચીન સ્વરૂપ હતું. ચર્યા, સહમતિ અને સમાન અધિકાર આ બધા તત્ત્વો સંઘમાં

જોવા મળે છે. બૌદ્ધધર્મ સ્વતંત્રતા, સમાનતા અને બંધુત્વના સિદ્ધાંતોને નૈતિક આધાર આપે છે. આ જ ત્રિ-સૂત્ર બાબાસાહેબે ભારતીય બંધારણમાં અપનાવ્યો. તેમના મતે રાજકીય લોકશાહી ત્યારે જ સફળ બને જ્યારે સામાજિક લોકશાહી સ્થાપિત થાય અને બૌદ્ધધર્મ આ સામાજિક લોકશાહીને શક્ય બનાવે છે.

(૩) ધર્માતરણ પાછળની આસ્થા

ઈ.સ. ૧૯૦૮માં મેટ્રીકની પરીક્ષા આંબેડકરે ઉત્તીર્ણ કરી ત્યારે ગુરુ સમાન આચાર્ય શ્રી કૃષ્ણાજી કેલુસ્કરે સ્વ-લિખિત 'બુદ્ધચરિત્ર' નામના ગ્રંથની ભેટ ભીમરાવને આપી હતી તે વખતે જે બૌદ્ધ ધર્મનું બીજ તેના બાળમાનસમાં રોપાયું અને સમય સાથે વિકાસ પામ્યું હતું. ધરમાં કબીરપંથના સંસ્કારો બાળપણથી જ પ્રાપ્ત થયા હતા. કબીરના ભજનો તેઓ મુક્ત કંઠે ગાઈ શકતા હતા. કબીરને 'પ્રછન્ન બુદ્ધ' તરીકે ઓળખવામાં આવતા હતા. આમ યુવા અવસ્થાએથી જ ધાર્મિક વિચારો તથાગત મહાત્મા બુદ્ધ તરફ વળેલા હતા. મહારાષ્ટ્રના થેવલા ખાતે ૧૯૩૫માં યોજાયેલી પરિષદમાં એમણે ધર્માતર કરવાની ઘોષણા કરી હતી. પોતાના પ્રવચનનું સમાપન કરતાં એમણે કહેલું કે,

‘ભગવાન બુદ્ધે પોતાના ભિક્ષુસંઘને જે ઉપદેશ આપ્યો હતો તે ‘મહાપરિનિર્વાણ સુત્ત’ નો ઉપદેશ મને અત્યારે યાદ આવે છે. પોતાના શિષ્યોને એમણે કહેલું ‘હે આનંદ! તમે દિપકની જેમ સ્વયં પ્રકાશિત બનો. અન્યનીજેમ પર પ્રકાશિત ન બનશો.’ પોતાના ઉપર જ વિશ્વાસ રાખો. અન્યના દોરવાયા દોરવાશો નહીં. સત્યને જ વળગી રહો. સત્યનો આસરો ગ્રહણ કરો. અન્ય કોઈના આશ્રયે જશો નહીં. ભગવાન બુદ્ધના આ મહાન ઉપદેશ સાથે હું મારી વાત પૂરી કરતાં કહેવા માગું છું કે ‘તમે જ તમારો ઉદ્ધાર કરી શકશો. પોતાની બુદ્ધિના શરણે જાવ. અન્ય કોઈને પણ વશ થશો નહીં. બુદ્ધના ઉપદેશ પ્રમાણે તમે ચાલશો તો તમારો નિર્ણય કદાપિ ખોટો ઠરશે નહીં.’

રોયલ એશિયાટીક સોસાયટી (મુંબઈ) ના ઉપક્રમે તા. ૨૫-૭-૧૯૫૦ના દિવસે યોજાયેલ વ્યાખ્યાનમાં ડૉ. આંબેડકરે કહ્યું હતું કે,

“મારી વિદ્યાર્થી અવસ્થાથી જ મને ભગવાન બુદ્ધ અને બૌદ્ધધર્મ પ્રત્યે આકર્ષણ હતું” પોતાના વિચાર ઘડતરના ત્રણ ગુરુઓને યાદ કરીને એમણે કહ્યું છે કે ‘બુદ્ધ, કબીર અને કુલે મારા વિચાર-ગુરુઓ છે’

(૪) બોધીસત્વ બાબાસાહેબ આંબેડકરના બૌદ્ધધર્મ પ્રયાણના સંકેતો :

- (૧) ઈ.સ. ૧૯૪૨માં બુદ્ધપૂર્ણિમાની જાહેરજા માટેની માંગણી એમણે વાઈસરોય સમક્ષ કરી હતી. ડૉ. આંબેડકર વાઈસરોયની કાઉન્સિલના મજૂર મંત્રી પણ હતા.
- (૨) લોકો આદરપૂર્વક પોતાના બાળકોના નામ સૂચવવા ડૉ. આંબેડકર પાસે આવતા ત્યારે બૌદ્ધધર્મ સાથે સંકળાયેલા નામો સૂચવતા. લોકો પણ એમના સૂચનને ધર્મ આદેશ માની કૃતકૃત્યતા અનુભવતા.
- (૩) ઈ.સ. ૧૯૪૪ માં દક્ષિણ ભારતના પ્રવાસ સમયે દક્ષિણ ભારતીય બૌદ્ધ એસોસિએશને એમનો સત્કાર કર્યો અને સન્માનપત્ર સમર્પણ કરી બૌદ્ધધર્મ પ્રત્યેની એમની અભિરુચિની સાક્ષી પૂરી હતી.
- (૪) કાનપુર ખાતે મળેલા બુદ્ધનગરીના બૌદ્ધ અવશેષોના સંરક્ષણ માટે ડૉ. આંબેડકરે પોતાના એક અનુયાયી કરણસીંગને કાનપુર મોકલી યોગ્ય વ્યવસ્થા કરવા જણાવ્યું હતું.
- (૫) ઈ.સ. ૧૯૪૪ માં તેમણે રાજગીર, નાલંદા, કુશીનારા વગેરે બૌદ્ધસ્થળો મુલાકાત લીધી હતી અને નાલંદામાં ખંડિત થયેલી બુદ્ધમૂર્તિઓ જોઈને એમની આંખોમાંથી ભાવયુક્ત આંસુઓ ખરી પડ્યા હતા.
- (૬) રાજ્યકાર્યની વ્યસ્તતામાંથી જ્યારે સમય મળતો ત્યારે તેઓ બુદ્ધગયાના બોધિવૃક્ષ નીચે બેસી કલાકો સુધી ત્યાં આત્મચિંતન કરવામાં કરતા હતા. આ સ્થળે તેમને મહાત્મા બુદ્ધનો ભેટો થયો હોય તેઓ અનુભવ થતો હતો. આ અનુભૂતિ ડૉ.આંબેડકરે તેમના પ્રથમ હિન્દી ચરિત્રલેખક રામચંદ્ર બનૌધા સમક્ષ કરી હતી.
- (૭) પીપલ્સ એજ્યુકેશન સોસાયટી (મુંબઈ) દ્વારા સ્થપાયેલી મહાવિદ્યાલયને “સિક્કાર્થ મહાવિદ્યાલય” નામ આપ્યું અને બિલ્ડીંગના બે વિભાગોને ‘બુદ્ધભવન’ અને ‘આનંદભવન’ નામ આપી બૌદ્ધધર્મ અંગેનું પોતાનું વલણ સ્પષ્ટ કર્યું હતું.
- (૮) પ્રો.પી.લક્ષ્મી નરસુ એ લખેલ ‘એસેન્સ ઓફ બુદ્ધિઝમ’ નામના ગ્રંથની પ્રસ્તાવના લખી ઈ.સ. ૧૯૪૮માં પુર્નમુદ્રણ કરાવ્યું. જેથી જિજ્ઞાસુ લોકોને બૌદ્ધધર્મ અંગેની વિગત સરળતાથી પ્રાપ્ત કરી શકે.
- (૯) ઈ.સ. ૧૯૪૮ માં એમનો સંશોધનગ્રંથ “અસ્પૃશ્યો કોણ હતા અને કેવી રીતે તે અસ્પૃશ્યો બન્યા ?” (THE UNTOUCHABLES WHO WERE THEY AND WHY THEY BECAME UNTOUCHABLES) પ્રસિદ્ધ થયો જેમાં એમણે નક્કર ઐતિહાસિક પ્રમાણો અને પુરાવાઓ સાથે સાબિત કર્યું હતું કે “આજના કહેવાતા અસ્પૃશ્યો એક સમયે બૌદ્ધજ હતા પરંતુ કાળાંતરે એમને અસ્પૃશ્ય ગણી કાઢવામાં આવ્યા. આ તદ્દન નવતર ઐતિહાસિક સિદ્ધાંત

હતો પણ આ પ્રસ્થાપના પછી તો લગભગ સૌ કોઈને લાગવા માંડ્યું હતું કે ડૉ. આંબેડકર પોતાના અનુયાયીઓ સહિત બુદ્ધધર્મ સ્વીકારવાના છે.

(૧૦) શ્રીલંકાના 'યંગ મેન્સ બુદ્ધિસ્ટ એસોસિએશન' ને મે ૧૯૫૦ માં કોન્ફરન્સમાં ભાગ લેવા નિમંત્રણ પાઠવ્યું. જ્યાં ડૉ.આંબેડકરે ભિક્ષુસંઘનો ધાર્મિક સંસ્કાર (ઉપસંપદા) રાતના બે વાગ્યા સુધી નાદુરસ્ત તબિયત હોવા છતાંય ઝીણવટથી જોયો.

(૧૧) ઈ.સ. ૧૯૫૪ ના ડિસેમ્બર માસમાં બર્મામાં યોજાયેલ ત્રીજા વિશ્વ બૌદ્ધ સંમેલનમાં એમણે હાજરી આપી. ત્યાં એમણે પ્રતિષ્ઠિત બૌદ્ધ ભિક્ષુઓ અને વિદ્રવાનો સાથે ધર્મની સામાજિક વ્યવસ્થા અંગે ચર્ચા કરી. અહીં પોતાના પ્રવચનમાં એમણે કહ્યું કે,

“કેટલાક લોકો કહે છે કે બૌદ્ધધર્મ ભારતમાં બિલકુલ રહ્યો નથી, બૌદ્ધધર્મ રૂપી વૃક્ષ જડમૂળથી નષ્ટ થઈ ગયું છે પણ એવી વાત નથી. બૌદ્ધધર્મના ડાળા પાંદડા સુકાઈ ગયા છે પણ મૂળ તો લીલાં જ છે તેના પ્રમાણો છે કે, ભારતમાં સંસદમાં જે મુખ્ય સ્થાન પર ભારતના રાષ્ટ્રપ્રમુખ બિરાજમાન થાય તે તે સ્થળ પર 'ધર્મચક્ર પ્રવર્તનાય' શબ્દ અંકિત છે. ભારતીય રાજમુદ્રા તરીકે અશોક સ્તંભના શિખરનો ભાગ સ્વીકારવામાં આવ્યો છે. અને ભારતીય રાષ્ટ્રધ્વજ પર ધર્મચક્રનું નિશાન મુકેલું છે. પાલીના અધ્યયન માટે બંધારણમાં જોગવાઈ કરવામાં આવી છે. જો મૂળમાં પાણી સિંચન થશે તો બોધિવૃક્ષ પુનઃ નવપલ્લવિત થશે.

(૫) બાબાસાહેબ આંબેડકરના ધર્મ વિચારો

ડૉ. આંબેડકરે 'ધી બુદ્ધ એન્ડ હીઝ ધર્મ' ગ્રંથમાં બુદ્ધધર્મ અંગેના વિચારો પ્રસ્તુત કર્યા છે.

જીવનની પવિત્રતા જાળવવી એ ધર્મ છે. જીવનની પવિત્રતા ત્રણ પ્રકારની પવિત્રતામાં મનની પવિત્રતા, વાણીની પવિત્રતા અને કર્મની પવિત્રતાનો સમાવેશ થાય છે.

હૃદયની મલિનતા, અનૈતિક વિચાર વગેરેથી દૂર રહેવું તે મનની પવિત્રતા છે. અસત્ય ન બોલવું એ વાણીની પવિત્રતા છે. હંમેશા સમ્યક્ દૃષ્ટિ રાખવી જોઈએ આમ કાયા, વાણી તથા મનથી શુદ્ધ રહીને જીવન પવિત્રતાનું પાલન કરવું જોઈએ. વ્યકિત હિંસા, ચોરી અને મિથ્યાચારથી દૂર રહેવું એ કર્મની પવિત્રતા કહે છે.

જીવનમાં પૂર્ણતા પ્રાપ્ત કરવી એ ધમ્મ છે. શારીરિક, માનસિક અને વાચિક એમ ત્રણ પ્રકારે જીવનમાં પૂર્ણતા પ્રાપ્ત કરી શકાય છે. રાગ, દ્વેષ, અહંકારનો ત્યાગ કરવાથી પૂર્ણતા પ્રાપ્ત થાય છે. આ પ્રકારની પૂર્ણતા પ્રાપ્ત કરવી 'બોધિસત્વ' ને માટે આવશ્યક છે, કારણ કે તેમને સાર્વજનિક કલ્યાણ કરવાનું હોય છે. જીવનમાં પૂર્ણતા પ્રાપ્ત કરવાથી આ કાર્ય સરળતાથી થઈ શકે છે.

નિર્વાણ પ્રાપ્ત કરવો એ ધમ્મ છે. વાસ્તવિક આનંદ નિર્વાણ સિવાય બીજી કોઈપણ રીતે મળી શકે નહીં. રાગદ્વેષથી મુક્તિ અને ઈન્દ્રિય નિયંત્રણ નિર્વાણની પ્રાપ્તિ માટે આવશ્યક છે. અષ્ટાંગિક માર્ગનું પાલન કરીને જ નિર્વાણની અવસ્થા સુધી જઈ શકાય છે. નિર્વાણની સ્થિતિ સદાચારની અવસ્થા છે. ઈન્દ્રિયો પર પૂર્ણ નિયંત્રણ રાખ્યા પછી જ નિર્વાણ પ્રાપ્ત થઈ શકે છે. નિયંત્રણ જ સદાચારના માર્ગે દોરી જાય છે.

ઈચ્છાઓનો ત્યાગ ધમ્મ છે. દુઃખોનું મૂળ કારણ ઈચ્છા છે. ઈચ્છાને કારણે દુઃખ પેદા થાય છે. લાલચ રાખવી યોગ્ય નથી. મહાત્મા બુદ્ધે આનંદને (બુદ્ધના શિષ્ય) જણાવ્યું છે કે, ખરાબ અને દુષ્ટ વાતોનો જન્મ લાલચને કારણે થાય છે. આ તમામનું મૂળ કારણ લાલચ છે. ડૉ. આંબેડકર કહે છે કે વર્ગ સંઘર્ષના વિષયમાં બુદ્ધનું વિશ્લેષણ યોગ્ય છે. એટલે બુદ્ધે પોતાના ધમ્મમાં તૃષ્ણાના ત્યાગને મહત્વનું ધ્યેય માન્યું છે.

તમામ સંસ્કારો અશાશ્વત છે, એવું માનવું ધમ્મ છે, અશાશ્વત અથવા અનિત્ય સિધ્ધાંતોના ત્રણ આયામ છે. (૧) અનેક તત્વોથી બનેલી વસ્તુ અનિત્ય છે. (૨) વ્યક્તિગત રૂપથી પ્રાણી અનિત્ય છે. (૩) પ્રતિત્યસમુત્પન્ન વસ્તુનું મૂળતત્વ અનિત્ય છે. આ વૈજ્ઞાનિક તથ્યોનું બહુ જ મોટું મહત્વ છે. બુદ્ધ કહે છે કે 'કોઈ પણ વિષયની આસક્તિ નહીં રાખવી જોઈએ. કારણ કે તમામ વસ્તુ, મિત્ર, સગાસંબંધી અનિત્ય છે. આ બધા પ્રત્યે આસક્તિ રાખવી એ દુઃખનું કારણ છે'

'કર્મ' ને માનવ જીવનની નૈતિક વ્યવસ્થાનો આધાર માનવો ધમ્મ છે. "સમાજમાં નૈતિક વ્યવસ્થા કોઈ પણ ઈશ્વરીય અથવા દૈવી શક્તિનું દાન નથી. પણ એનું મૂળ સ્રોત સ્વયં વ્યક્તિ પોતે જ છે. વ્યક્તિના યોગ્ય અથવા અયોગ્ય કર્મ જ નૈતિક વ્યવસ્થાનું મૂળ હોય છે. કર્મને નૈતિક વ્યવસ્થાનું કારણ માનવું જોઈએ."

(૬) બોધિસત્વ બાબાસાહેબ આંબેડકરના ધર્મ વિષેયક ગ્રંથો

(૧) ફિલોસોફી ઓફ હિંદુઝમ

(૨) રિડલ્સ ઈન હિંદુઝમ

(૩) ધી અનટચેબલ્સ : અથવા ચિલ્ડ્રન ઓફ ઇડિયાઝ ઘેટોઝ એન્ડ અધર એસેઝ ઓન, “અનટચેબીલીટી- સોશ્યલ, પોલીટીકલ, રીલિજીયસ.”

(૪) હું વેર ધી શુદ્રાઝ

(૫) ધી અનટચેબલ્સ, હું વેર ઘે એન્ડ વાય ઘે બિકમ અનટચેબલ્સ

(૬) એનીહિલેશન ઓફ કાસ્ટ

(૭) કાસ્ટસ ઇન ઇન્ડિયા

(૮) ધી બુદ્ધા એન્ડ હીઝ ધમ્મ. (બુદ્ધ અને તેમનો ધમ્મ)

(૭) મૂલ્યાંકન (Evaluation / Conclusion)

બૌદ્ધધર્મ અંગે બાબાસાહેબ આંબેડકરના વિચારો ભારતીય સમાજ માટે ક્રાંતિકારી અને દિશાદર્શક સાબિત થયા છે. તેમણે બૌદ્ધધર્મને અંધશ્રદ્ધા કે પરલોકવાદથી મુક્ત રાખીને માનવ મુક્તિના સાધન તરીકે વિકસાવ્યો.

તેમના વિચારો દલિત સમાજને માત્ર ધાર્મિક ઓળખ નહીં, પરંતુ સામાજિક ગૌરવ, આત્મવિશ્વાસ અને સંગઠિત શક્તિ આપે છે. બૌદ્ધધર્મના તર્ક, કડુણા, સમાનતા અને નૈતિકતાના સિદ્ધાંતો આધુનિક ભારત માટે અત્યંત પ્રાસંગિક છે.

બાબાસાહેબના વિચારો આજે પણ જાતિવાદ, અસમાનતા અને અણ્યાય સામે સંઘર્ષ માટે પ્રેરણા આપે છે. આથી તેમને “બોધિસત્વ” કહેવું યોગ્ય છે, કારણ કે તેમણે પોતાનું જીવન પરિત્યાગ કરીને પીડિત માનવજાતના ઉદ્ધાર માટે કાર્ય કર્યું.

સંદર્ભ ગ્રંથો

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प्रकृति, पंचमहाभूत और मानव का सम्बन्ध: वेदों में पर्यावरणवाद की अवधारणा

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सारांश (Abstract)

वेद भारतीय संस्कृति के मूल स्रोत हैं, जिनमें न केवल आध्यात्मिक सिद्धान्तों का विवेचन है, बल्कि प्रकृति और पर्यावरण के प्रति गहन संवेदनशीलता भी विद्यमान है। प्रस्तुत शोध का उद्देश्य वेदों में प्रकृति, पंचमहाभूत (आकाश, वायु, अग्नि, जल, पृथ्वी) और मानव के पारस्परिक सम्बन्धों का विश्लेषण करना है तथा यह दिखाना है कि वेदों की पर्यावरणीय चेतना आधुनिक पारिस्थितिक विमर्श के लिए कितनी प्रासंगिक है।

यह अध्ययन वैदिक संहिताओं जैसे ऋग्वेद, यजुर्वेद एवं अथर्ववेद के चयनित मन्त्रों के पाठविश्लेषण (textual analysis) पर आधारित है, जिसमें प्रकृति की देवियों, प्राकृतिक तत्त्वों, ऋतुचक्र, वृक्षों, जलस्रोतों आदि की स्तुति और संरक्षण की भावना स्पष्ट दृष्टिगोचर होती है। शोध में पंचतत्त्वों के माध्यम से मानव-प्रकृति सामंजस्य तथा यज्ञ परम्परा में पर्यावरणीय सन्तुलन की अवधारणा को भी उकेरा गया है।

अन्ततः यह निष्कर्ष निकलता है कि वैदिक दृष्टिकोण न केवल धार्मिक या दार्शनिक है, बल्कि व्यवहारिक और पर्यावरणीय सन्दर्भों में भी अत्यन्त उपयोगी है, जिसे आज की वैश्विक पर्यावरणीय चुनौतियों से निपटने हेतु पुनः विचार में लाया जाना चाहिए।

सूचकशब्द (Keywords): वेद, पर्यावरणवाद, प्रकृति, पंचमहाभूत, यजुर्वेद, वैदिक दर्शन, ऋचाएँ, मानव-प्रकृति सम्बन्ध, पारिस्थितिक चेतना, यज्ञ।

भूमिका (Introduction)

प्रकृति भारतीय वैदिक परंपरा की आत्मा रही है। वैदिक ऋषियों ने न केवल आध्यात्मिक अनुभूतियों को स्वर दिया, बल्कि सृष्टि के मूलभूत घटकों के साथ मानव के संबंध को भी गहराई से समझा और अभिव्यक्त किया। ऋग्वेद, यजुर्वेद, सामवेद एवं अथर्ववेद — इन सभी संहिताओं में प्रकृति की शक्तियों को देवी-देवताओं के रूप में मान्यता

दी गई है। यह संकेत करता है कि वैदिक काल के समाज में प्रकृति केवल भोग की वस्तु न होकर, आराधना की पात्र रही है।

वैदिक विश्वदृष्टि में पंचमहाभूतों — आकाश, वायु, अग्नि, जल और पृथ्वी — को सृष्टि, शरीर और समाज के अभिन्न तत्त्वों के रूप में स्वीकार किया गया है। यजुर्वेद में अनेक स्थानों पर इन तत्त्वों की प्रशंसा करते हुए उनके साथ सामंजस्य बनाकर जीवन जीने का आग्रह किया गया है। उदाहरण के लिए, "पृथिवी मेदिनी मम जीवनस्य आधारभूता अस्ति" — इस भावना से प्रकृति को माता के रूप में सम्मान दिया गया।

मानव और पर्यावरण के इस आपसी सम्बन्ध को वैदिक साहित्य में ऋत (cosmic order) तथा यज्ञ (sacrificial discipline) के माध्यम से संतुलित किया गया। यज्ञ के द्वारा न केवल आध्यात्मिक उन्नयन की बात की गई, बल्कि पारिस्थितिक तत्त्वों — जैसे वृष्टि, वायुशुद्धि, औषधियों की वृद्धि — से जुड़ा वैज्ञानिक चिन्तन भी निहित है। यह स्पष्ट है कि वैदिक जीवन-पद्धति में प्रकृति के संरक्षण को नैतिक कर्तव्य माना गया है।

आज जब संपूर्ण विश्व जलवायु परिवर्तन, वनों की कटाई, वायु प्रदूषण, जल संकट जैसे भीषण पर्यावरणीय संकटों से जूझ रहा है, तब वैदिक पर्यावरण चेतना पुनः प्रासंगिक हो उठती है। यह शोध-पत्र इसी आवश्यकता को ध्यान में रखते हुए प्रस्तुत किया गया है, जिसका उद्देश्य वेदों में निहित पर्यावरणीय सिद्धांतों, पंचमहाभूतों के तत्त्वदर्शन, तथा मानव के साथ उनके अन्तर्सम्बन्धों का विश्लेषण करना है।

यह अध्ययन न केवल ऐतिहासिक या धार्मिक स्तर पर सीमित रहेगा, अपितु आधुनिक पारिस्थितिक विमर्श को भी एक सांस्कृतिक और दार्शनिक आयाम देने का प्रयास करेगा। शोध की यह दिशा न केवल भारतीय ज्ञान परंपरा को उजागर करेगी, बल्कि वर्तमान में स्थायी जीवनशैली (Sustainable Living) के लिए मार्गदर्शन भी प्रदान कर सकती है।

पूर्वविचार संग्रह (Review of Literature)

वेदों में प्रकृति के प्रति गहन संवेदना एवं चेतना का चित्रण अनेक मन्त्रों, सूक्तों तथा ऋषि-परंपराओं में परिलक्षित होता है। ऋग्वेद में वृष्टि, पृथ्वी, सूर्य, सोम, अग्नि, वायु आदि प्राकृतिक तत्त्वों के प्रति श्रद्धाभाव स्पष्ट रूप से मिलता है। यजुर्वेद तथा अथर्ववेद में भी पृथ्वी को माता तथा जल को अमृत कहा गया है — जिससे वैदिक कालीन समाज की प्रकृति के प्रति आत्मीय दृष्टि उजागर होती है। ऋषि वसिष्ठ, विश्वामित्र, अत्रि, तथा भृगु आदि की ऋचाओं में प्रकृति केवल संसाधन नहीं, बल्कि चेतन सत्ता के रूप में प्रतिष्ठित है।

प्राचीन मनीषियों में सायणाचार्य ने अपनी यजुर्वेद-टीका में पंचमहाभूतों के आध्यात्मिक एवं पारिस्थितिक पक्ष को विश्लेषित किया है। उनके अनुसार यज्ञों द्वारा न केवल देवताओं की आराधना होती है, बल्कि पृथ्वी, वायु, जल आदि

की शुद्धि एवं सन्तुलन भी सुनिश्चित होता है। महर्षि दयानंद सरस्वती ने 'सत्यार्थप्रकाश' तथा अपनी वेदभाष्य-टीकाओं में बार-बार इस बात पर बल दिया कि वेद केवल मोक्ष की चर्चा नहीं करते, बल्कि भौतिक जगत में भी मानव के कर्तव्य को प्रकृति के अनुरक्षण से जोड़ते हैं।

पाश्चात्य विद्वानों में मैक्समूलर ने वेदों को "प्रकृति की पूजा का आरम्भ" कहा है, जबकि फ्रीट्स स्टाल ने यज्ञ परम्परा को "सिस्टमेटिक इकोलॉजिकल रिचुअल" (Systematic Ecological Ritual) की संज्ञा दी। इसी प्रकार कपिल कपूर जैसे आधुनिक भारतीय भाषाविदों ने वैदिक ग्रन्थों को पर्यावरण-शास्त्र के स्रोत के रूप में प्रस्तुत किया है। उनका मानना है कि वैदिक मन्त्रों की ध्वनि, संरचना एवं संदेश — सभी में जैविक और पारिस्थितिक सन्तुलन की भावना अंतर्निहित है।

वर्तमान समय में पर्यावरणीय संकट की पृष्ठभूमि में अनेक शोध-पत्रों में वैदिक साहित्य का उल्लेख तो किया गया है, परन्तु अधिकतर लेखन सतही स्तर पर सीमित रहा है। विशेष रूप से पंचमहाभूतों और मानव के बीच के अन्तर्सम्बन्ध को वैदिक मन्त्रों के आधार पर विश्लेषित करने वाले शोध कम हैं। यही कारण है कि इस शोध-पत्र की विशेषता यह है कि यह मूल वेद-मन्त्रों के गहन पाठन और पर्यावरणीय तत्वों की तुलनात्मक व्याख्या के साथ प्रस्तुत किया जा रहा है।

इस प्रकार, प्रस्तुत समीक्षा यह स्पष्ट करती है कि यद्यपि वैदिक ग्रन्थों में पर्यावरणवाद की प्रचुर सामग्री विद्यमान है, तथापि आधुनिक शोध में इसका सम्यक् उपयोग और विश्लेषण अभी अपेक्षित है।

अनुसन्धान पद्धति (Research Methodology)

प्रस्तुत शोध कार्य मुख्यतः पाठविश्लेषणात्मक पद्धति (Textual Hermeneutics) पर आधारित है, जिसमें वैदिक संहिताओं तथा सम्बद्ध ग्रन्थों के चयनित मन्त्रों, ऋचाओं एवं सूक्तों का गहन भावार्थात्मक एवं तुलनात्मक अध्ययन किया गया है। यह विधा वैदिक साहित्य की प्रतीकात्मक, दार्शनिक एवं पर्यावरणीय व्याख्याओं को उद्घाटित करने के लिए अत्यन्त उपयुक्त है।

मुख्य स्रोत ग्रन्थ: इस अध्ययन के लिए निम्नलिखित वैदिक ग्रन्थों को प्राथमिक स्रोत के रूप में चयनित किया गया है:

- **ऋग्वेद:** प्रकृति की स्तुति में रचित सूक्तों का उपयोग किया गया।
- **यजुर्वेद:** यज्ञ एवं पंचमहाभूतों से सम्बंधित मंत्रों की व्याख्या की गई।
- **अथर्ववेद:** वनस्पति, जल, स्वास्थ्य और पर्यावरण संतुलन से संबंधित ऋचाओं को शामिल किया गया।
- **ब्राह्मण ग्रन्थ:** यज्ञ की पारिस्थितिक भूमिका को समझने हेतु विश्लेषण किया गया (जैसे शतपथ ब्राह्मण)।

- **उपनिषद्:** पंचमहाभूतों के आध्यात्मिक दृष्टिकोण की चर्चा हेतु।

मन्त्रों का विषयानुसार वर्गीकरण: सभी मन्त्रों को चार श्रेणियों में वर्गीकृत किया गया है:

1. पंचमहाभूतों (भूमि, जल, अग्नि, वायु, आकाश) की प्रशंसा/संरक्षण सम्बन्धी मंत्र
2. मानव-प्रकृति सम्बन्धों को प्रतिबिंबित करने वाले मंत्र
3. ऋत, यज्ञ एवं जैविक संतुलन सम्बन्धी मंत्र
4. प्राकृतिक शक्तियों की देवतारूप में आराधना से जुड़ी ऋचाएँ

तुलनात्मक व भावार्थात्मक दृष्टिकोण: प्रत्येक मंत्र का अध्ययन दो स्तरों पर किया गया है:

- **भावार्थात्मक (Interpretative):** मंत्र की प्रतीकात्मकता, धार्मिक व पारिस्थितिक तात्पर्य को स्पष्ट करने हेतु।
- **तुलनात्मक (Comparative):** वैदिक दृष्टिकोण की तुलना आधुनिक पारिस्थितिकी सिद्धांतों से करते हुए, पर्यावरणीय चेतना के समांतर बिंदुओं की खोज।

यह पद्धति वैदिक साहित्य को न केवल धार्मिक ग्रन्थ के रूप में देखने से हटकर, उसे एक पर्यावरण-संवेदनशील सांस्कृतिक ज्ञान-ग्रन्थ के रूप में प्रस्तुत करने में सहायक है।

मुख्यविचार विस्तार (Main Discussion)

पंचमहाभूतों की वैदिक अवधारणा: वेदों में पंचमहाभूतों — पृथ्वी, जल, अग्नि, वायु, आकाश — को सृष्टि, शरीर और ब्रह्माण्ड के आधारभूत तत्त्व माना गया है। ये तत्व केवल भौतिक नहीं, बल्कि दैवी शक्तियों से युक्त माने जाते हैं। यजुर्वेद (18.40) में कहा गया है:

"पृथिवीमद्भ्यः परेण देवा आधारयन्।"

जिसका अर्थ है कि पृथ्वी को देवताओं ने जल के ऊपर धारण किया। इससे संकेत मिलता है कि जल तथा पृथ्वी के पारस्परिक संबंध को वैदिक ऋषियों ने गहराई से समझा था।

अग्नि, केवल यज्ञीय अग्नि नहीं बल्कि ऊर्जा का प्रतीक है। ऋग्वेद में अग्नि को "ऋतस्य दीपकः" कहा गया है — सत्य और कर्म का दीपक। अग्नि के माध्यम से यज्ञ होता है, जो समस्त प्रकृति के तत्वों को जोड़ता है। वायु को प्राण का रूप माना गया है — "वायुरस्माकं श्वासो भूत्वा नित्यमनुगच्छतु" (अथर्ववेद)।

आकाश, जिसे द्यौ के नाम से संबोधित किया गया, चेतना और गति का आधार है। ऋग्वेद (1.164.39) में कहा गया है — "द्वे वाचो वेदिते, परा चापरा च", जिसका भाव यह है कि पृथ्वी और आकाश — दोनों में संवाद और संतुलन की स्थिति है।

प्रकृति का वैदिक स्वरूप: वेदों में प्रकृति को केवल संसाधन नहीं, बल्कि दैवी सत्ता के रूप में देखा गया है। पृथ्वी को "माता" और द्यौ को "पिता" माना गया है — "माताभूमिः पुत्रोऽहं पृथिव्याः" (अथर्ववेद 12.1.12)। यह श्लोक पर्यावरणीय उत्तरदायित्व की गहन चेतना को प्रतिबिंबित करता है।

सोम को वनस्पति, रस, चन्द्रमा और जीवनदायी ऊर्जा के प्रतीक के रूप में देखा गया है। ऋग्वेद में सोम का वर्णन करते हुए कहा गया है — "सोमः पवस्व विशो विश्वा अभि" (9.1.1) — अर्थात् सोम समस्त विश्वों को शुद्ध करता है। वृष्टि को भी यज्ञों से जोड़ा गया है — यजुर्वेद में कहा गया है: "यज्ञात् वृष्टिः, वृष्टेः अन्नं, अन्नात् प्राणः।" इससे स्पष्ट है कि यज्ञ द्वारा वृष्टि उत्पन्न होती है, जो सम्पूर्ण सजीवों का आधार है।

वृक्षों और नदियों को भी दैवीय सम्मान प्राप्त है — "अपः शुभ्राः स्वस्तये" (ऋग्वेद 10.9.1) के माध्यम से जल को शुद्धता का प्रतीक बताया गया है। वृक्षों को 'वनदेवता' के रूप में आदर दिया गया — वृक्षारोपण, संरक्षण, और ऋतुचक्र का पालन वैदिक जीवन का अंग रहा है।

मानव और प्रकृति का सम्बन्ध: वेदों में मानव को प्रकृति का स्वामी नहीं, बल्कि सहचर एवं पालक माना गया है। यज्ञ की प्रणाली इस समन्वय को मूर्त रूप देती है — जहाँ अग्नि, वायु, जल, पृथ्वी और आकाश को साक्षी मानकर आहुतियाँ दी जाती हैं। शतपथ ब्राह्मण (1.7.1.5) में कहा गया है कि यज्ञ, प्रकृति और मानव के बीच "ऋत" की स्थापना करता है।

अथर्ववेद (12.1.12) में उल्लेख मिलता है:

"माताभूमिः पुत्रोऽहं पृथिव्याः"

इस ऋचा में मानव और पृथ्वी के सम्बन्ध को जैविक (Biological) और भावनात्मक (Emotional) दोनों स्तरों पर स्थापित किया गया है। ऋषियों ने पर्यावरणीय आचरण को धर्म का अंग माना। उदाहरण स्वरूप, ऋग्वेद में वनों की रक्षा, जल-स्रोतों की पवित्रता, तथा वायु की शुद्धता हेतु मन्त्र दिए गए हैं।

यज्ञ के माध्यम से प्राकृतिक संतुलन बनाए रखने की वैज्ञानिक प्रक्रिया स्थापित थी — "यज्ञेन वृष्टिः, वृष्ट्या अन्नम्, अन्नेन प्राणाः" — इस श्रृंखला में स्पष्ट होता है कि मानव के कर्म प्रकृति के साथ जुड़े हैं।

पर्यावरणवाद: वैदिक मूल्यों की आधुनिक संगति: आज जब जलवायु परिवर्तन, जैव विविधता का हास, जलवायु असंतुलन जैसी चुनौतियाँ सामने हैं, तब वैदिक मूल्यों की प्रासंगिकता और अधिक बढ़ जाती है। वेदों में सस्टेनेबिलिटी (Sustainability) का स्पष्ट भाव निहित है। उदाहरण के लिए — "मा हिंस्यात् सर्वा भूतानि" (यजुर्वेद 36.18) — इस मन्त्र में सभी जीवों के प्रति अहिंसा का संदेश है, जो आधुनिक पर्यावरण नीति का मूल है।

वेदों की शिक्षा केवल संरक्षण की बात नहीं करती, बल्कि आध्यात्मिक उत्तरदायित्व की ओर भी संकेत करती है। प्रकृति का अपमान स्वयं आत्मा का अपमान है — ऐसा वैदिक भाव है।

डॉ. कपिल कपूर (2010) के अनुसार, वैदिक संस्कृति में मनुष्य और प्रकृति के मध्य सम्बन्ध "सहअस्तित्व" (Co-existence) का रहा है, न कि प्रभुत्व का। वहीं फ्रीट्स स्टाल ने अपने यज्ञ-संबंधी शोध में वैदिक रीति को पर्यावरण-संवेदनशील अनुष्ठान बताया है।

प्राकृतिक संसाधनों का संयमित उपयोग — जैसे अधिक जल का न बहाना, आहार में सात्विकता, वनों की रक्षा — वेदों की मौलिक शिक्षाएँ हैं, जो आज की ईको-थिक (Eco-Ethic) विचारधारा से मेल खाती हैं।

विश्लेषण (Interpretation & Analysis)

वैदिक प्रकृति-दृष्टि की दार्शनिक गहराई: वेदों में प्रकृति केवल भौतिक वस्तु न होकर एक जीवंत चेतना है। ऋग्वेद (10.121) में हिरण्यगर्भ को समस्त सृष्टि का उद्गम बताया गया है —

"हिरण्यगर्भः समवर्तताग्रे भूतस्य जातः पतिरेक आसीत्।"

यह दार्शनिक अवधारणा बताती है कि सृष्टि में प्रत्येक वस्तु परस्पर जुड़ी हुई है और उनमें एकत्व विद्यमान है।

पंचमहाभूत न केवल भौतिक जगत का ढांचा हैं, बल्कि मानव चेतना और नैतिकता से जुड़े हुए तत्व हैं। तैत्तिरीयोपनिषद् (2.1) में इन तत्वों को आत्मा की विभिन्न कक्षाओं से जोड़ा गया है, जिससे ज्ञात होता है कि मानव अस्तित्व का मूल ही प्रकृति से जुड़ा हुआ है।

नैतिक-आध्यात्मिक परिप्रेक्ष्य में पर्यावरण: वेदों में नैतिक अनुशासन का पर्यावरणीय चेतना से सीधा संबंध है।

यजुर्वेद (36.18) में कहा गया है:

"सर्वे भवन्तु सुखिनः... मा कश्चिद्दुःखमाप्नुयात्।"

यह सार्वभौमिक कल्याण की भावना न केवल मानवों के लिए, बल्कि समस्त जीव-जंतुओं और प्रकृति के लिए है।

ऋषियों ने प्रकृति के साथ संतुलन को धर्म का अनिवार्य अंग माना। मनुस्मृति (6.63) में ब्रह्मचर्य व्रत के अंतर्गत वनों, जलाशयों और प्राणियों की रक्षा का निर्देश मिलता है।

पंचतत्त्वों से जुड़ी चेतना और संरक्षण की चेतावनी: पंचमहाभूतों को उपेक्षित करने से असंतुलन उत्पन्न होता है — यह वेदों की सूक्ष्म चेतावनी है। अथर्ववेद (12.1.12) में स्पष्ट कहा गया है:

“माता भूमिः पुत्रोऽहं पृथिव्याः।”

यह श्लोक केवल कविता नहीं, बल्कि गहन उत्तरदायित्व की चेतना है। यदि पुत्र प्रकृति का अपमान करता है, तो समस्त सृष्टि पर संकट आता है — यह विचार समकालीन पर्यावरण संकट से मेल खाता है।

आज के औद्योगीकरण, वन कटाव, और जलवायु परिवर्तन के संदर्भ में यह चेतावनी अत्यंत प्रासंगिक हो जाती है। वेदों की यह भावना सतत विकास (sustainable development) के आधुनिक विचार से मेल खाती है।

समाज, शिक्षा और नीति-निर्माण में सम्भावित योगदान: वेदों की पर्यावरणीय चेतना न केवल धार्मिक ग्रंथों तक सीमित है, बल्कि वह समाज, शिक्षा और नीति के क्षेत्र में अमूल्य योगदान दे सकती है।

डॉ. कपिल कपूर (2010) के अनुसार, वैदिक चिन्तन हमें सहअस्तित्व (Co-existence) की शिक्षा देता है।

यदि विद्यालयों में वैदिक मन्त्रों के माध्यम से पारिस्थितिक संतुलन, जल-संरक्षण, वनप्रेम, और पशुकरुणा की शिक्षा दी जाए, तो भावी पीढ़ियाँ अधिक संवेदनशील और जागरूक बनेंगी।

नीति-निर्माताओं के लिए भी आवश्यक है कि वेदों में निहित पारिस्थितिक संतुलन की अवधारणाओं को योजनाओं में स्थान दें, जिससे आधुनिक वैज्ञानिक सोच को आध्यात्मिक आधार प्राप्त हो सके।

निष्कर्ष (Conclusion)

वर्तमान शोध में यह स्पष्ट रूप से प्रतिपादित हुआ कि वेदों में प्रकृति, पंचमहाभूत और मानव के पारस्परिक सम्बन्ध को अत्यन्त सूक्ष्मता एवं आध्यात्मिकता से देखा गया है। पृथ्वी, जल, अग्नि, वायु एवं आकाश — ये पाँच महाभूत न केवल सृष्टि की रचनात्मक इकाइयाँ हैं, बल्कि मानव अस्तित्व और चेतना से भी अभिन्न रूप से जुड़े हुए हैं।

ऋग्वेद, यजुर्वेद, तथा अथर्ववेद के मन्त्रों में इन तत्त्वों की स्तुति, पूजन एवं संतुलन की भावना स्पष्टतः अभिव्यक्त होती है। वैदिक ऋषियों ने पर्यावरण के संरक्षण को केवल भौतिक उत्तरदायित्व नहीं, अपितु धर्म का एक आवश्यक अंग माना है। “माताभूमिः पुत्रोऽहं पृथिव्याः” (अथर्ववेद 12.1.12) जैसे मन्त्र न केवल प्रकृति के प्रति संवेदना जगाते हैं, बल्कि आज के संकटग्रस्त पारिस्थितिकी तंत्र के लिए भी चेतावनी देते हैं।

वर्तमान समय में, जब जलवायु परिवर्तन, वनों की कटाई, जैव विविधता की क्षति जैसी समस्याएँ मानवता के सामने खड़ी हैं, वैदिक पर्यावरण दृष्टि एक मूल्यपरक मार्गदर्शन प्रदान कर सकती है। नीति निर्माण में यदि वैदिक अनुशासनों को स्थान दिया जाए — जैसे यज्ञों की पर्यावरणीय भूमिका, संयमित संसाधन उपयोग, ऋतुनिष्ठ जीवन — तो एक संतुलित और सतत विकास की दिशा में अग्रसर हुआ जा सकता है।

भविष्य में शोध की दिशा इस ओर संकेत करती है कि पंचमहाभूतों की आधुनिक वैज्ञानिक व्याख्या, ऋचाओं के ध्वनिविज्ञान एवं पर्यावरणीय नीतियों में वेदों की व्यावहारिक भूमिका पर गहन शोध किया जाना अभी भी शेष है।

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Work-Life Balance among Employees in Hybrid Work Culture: Challenges, Adaptation Strategies and Organizational Implications in the Digital Era

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Abstract

The emergence of hybrid work culture has significantly transformed the traditional workplace. Organizations across the globe have increasingly adopted flexible work arrangements that combine remote and office-based work. While hybrid work offers numerous benefits such as flexibility, autonomy, and reduced commuting time, it also presents challenges related to work-life balance, employee well-being, and organizational effectiveness. This paper examines the challenges faced by employees in maintaining work-life balance within hybrid work environments, explores adaptation strategies employed by individuals and organizations, and analyzes the broader organizational implications. The study is based on secondary data collected from academic journals, reports, and published literature. The findings indicate that hybrid work culture can enhance employee satisfaction and productivity when supported by effective organizational policies, technological infrastructure, and employee wellness initiatives. The paper concludes by suggesting strategies to promote a sustainable and balanced hybrid work environment in the digital era.

Keywords: *Hybrid Work Culture, Work-Life Balance, Employee Well-being, Digital Workplace, Employee Productivity, Organizational Effectiveness, Flexible Work Arrangements.*

Introduction

The rapid advancement of digital technologies and the unprecedented impact of the COVID-19 pandemic have accelerated the adoption of hybrid work models worldwide. Hybrid work culture refers to a flexible work arrangement where employees divide their working time between remote locations and physical office spaces. This model has emerged as a preferred workplace strategy for many organizations seeking to balance operational efficiency with employee flexibility.

Work-life balance has become a critical concern in hybrid work settings. While flexible work arrangements provide employees with greater control over their schedules, they also blur the boundaries between professional and personal life. Employees often face challenges such as extended working hours,

digital fatigue, work overload, and difficulties in disconnecting from work responsibilities. Consequently, maintaining a healthy balance between work and personal life has become increasingly important for both employees and organizations.

This study explores the relationship between hybrid work culture and work-life balance and highlights the strategies necessary to create a sustainable digital workplace.

Objectives of the Study

1. To examine the concept and significance of work-life balance in hybrid work culture.
2. To identify major challenges faced by employees in maintaining work-life balance.
3. To analyze adaptation strategies adopted by employees and organizations.
4. To evaluate the organizational implications of hybrid work arrangements.
5. To suggest measures for improving work-life balance in the digital workplace.

Research Methodology

The present study is descriptive and analytical in nature. It is based on secondary data collected from books, research articles, journals, government reports, company publications, and credible online resources related to hybrid work culture and employee well-being. The collected information has been systematically analyzed to derive meaningful conclusions.

Review of Literature

Recent studies indicate that hybrid work models provide flexibility and autonomy, contributing positively to employee satisfaction. Researchers have observed that employees appreciate reduced commuting time and increased opportunities for family engagement. However, studies also reveal challenges such as work intensification, digital exhaustion, communication barriers, and social isolation.

Literature suggests that organizations implementing supportive policies, flexible schedules, and mental health initiatives experience better employee engagement and retention. Scholars further emphasize the importance of leadership support, digital collaboration tools, and organizational trust in ensuring successful hybrid work environments.

Challenges of Work-Life Balance in Hybrid Work Culture

1. Blurred Boundaries Between Work and Personal Life

The absence of clear physical separation between workplace and home often causes employees to remain connected to work beyond official hours.

2. Digital Fatigue

Frequent virtual meetings, constant online communication, and prolonged screen exposure contribute to mental exhaustion and reduced productivity.

3. Increased Workload

Many employees report extended working hours due to flexible work arrangements, leading to stress and burnout.

4. Social Isolation

Limited face-to-face interaction can reduce team cohesion, emotional support, and workplace engagement.

5. Technological Challenges

Dependence on digital tools and internet connectivity may create operational difficulties and increase employee frustration.

Adaptation Strategies for Employees and Organizations

Employee-Level Strategies

- Establishing fixed work schedules.
- Creating dedicated workspaces at home.
- Practicing digital detox during non-working hours.
- Prioritizing physical and mental well-being.
- Utilizing time-management techniques.

Organizational-Level Strategies

- Implementing flexible yet structured work policies.
- Promoting employee wellness programs.
- Encouraging regular communication and feedback.
- Providing technological support and training.
- Fostering an inclusive organizational culture.

Organizational Implications

Positive Implications

- Improved employee satisfaction.
- Enhanced productivity and efficiency.
- Reduced operational costs.
- Increased employee retention.
- Access to a wider talent pool.

Negative Implications

- Difficulty in monitoring employee performance.
- Communication and coordination challenges.
- Potential decline in organizational culture.
- Increased cybersecurity risks.
- Risk of employee burnout.

Organizations must carefully balance flexibility with accountability to maximize the benefits of hybrid work arrangements.

Findings

1. Hybrid work culture has become a significant feature of modern workplaces.
2. Flexible work arrangements positively influence employee satisfaction.
3. Work-life balance challenges remain prevalent due to blurred boundaries and digital overload.
4. Employee well-being significantly impacts organizational effectiveness.
5. Organizations adopting supportive work-life policies experience higher employee engagement and productivity.
6. Effective communication and technology play crucial roles in successful hybrid work implementation.

Suggestions

1. Organizations should establish clear work-hour policies.
2. Employee wellness and mental health programs should be strengthened.
3. Managers should encourage healthy work-life boundaries.
4. Digital communication overload should be minimized.
5. Training programs on time management and stress management should be conducted regularly.

6. Hybrid work policies should be periodically reviewed and updated according to employee needs.

Conclusion

Hybrid work culture represents a transformative shift in the modern workplace. While it offers considerable benefits in terms of flexibility, autonomy, and productivity, it also creates challenges that can affect employees' work-life balance and overall well-being. Organizations must recognize these challenges and implement effective strategies that support employees in managing their professional and personal responsibilities. A balanced hybrid work environment not only enhances employee satisfaction and productivity but also contributes to long-term organizational sustainability and competitiveness in the digital era.

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મહારાજા ભગવતસિંહજીનું ગોંડલમાં શિક્ષણ ક્ષેત્રે પ્રદાન**કેવલકુમાર રવજીભાઈ મકવાણા**

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સારાંશ

ભારતીય ઇતિહાસમાં દેશી રાજ્યોનું સ્થાન માત્ર રાજકીય સત્તા સુધી મર્યાદિત ન હતું, પરંતુ તેઓ સામાજિક, આર્થિક અને શૈક્ષણિક પરિવર્તનના મહત્વપૂર્ણ કેન્દ્રો હતા. બ્રિટિશ શાસનકાળ દરમિયાન અનેક દેશી રાજ્યોમાં આધુનિક શિક્ષણનો વિકાસ થયો, જેમાં કાઠિયાવાડ પ્રદેશનું ગોંડલ રાજ્ય વિશિષ્ટ સ્થાન ધરાવે છે. ગોંડલ રાજ્યના શાસક મહારાજા ભગવતસિંહજી કાઠિયાવાડના પ્રગતિશીલ અને પ્રજાકલ્યાણકારી શાસકોમાં અગ્રણિ સ્થાન ધરાવે છે. તેમણે શિક્ષણને રાજ્ય વિકાસનું મૂળ સાધન માની ગોંડલ રાજ્યમાં સુવ્યવસ્થિત, સર્વસમાવેશક અને પ્રજાકેન્દ્રિત શિક્ષણ વ્યવસ્થાનો વિકાસ કર્યો. શિક્ષણને રાજ્યના વિકાસનું મુખ્ય સાધન માનીને આયોજનબદ્ધ રીતે શૈક્ષણિક સુધારાઓ અમલમાં મૂક્યા. શિક્ષણ દ્વારા પ્રજાની ચેતના, નૈતિકતા અને પ્રશાસનિક કાર્યક્ષમતામાં વધારો થાય છે — આ વિચાર તેમની શાસન નીતિનો આધાર રહ્યો. આ સંશોધન લેખમાં મહારાજા ભગવતસિંહજીના શાસનકાળ દરમિયાન ગોંડલ રાજ્યમાં પ્રાથમિક, માધ્યમિક, સ્ત્રી, વ્યાવસાયિક અને નૈતિક શિક્ષણ ક્ષેત્રે થયેલા પ્રદાનનું ઐતિહાસિક વિશ્લેષણ કરવામાં આવ્યું છે. લેખમાં તેમની શિક્ષણ નીતિ, શૈક્ષણિક સંસ્થાઓ, શિક્ષણ વ્યવસ્થા અને સમાજ પર પડેલા પ્રભાવને વિસ્તૃત રીતે ચર્ચવામાં આવ્યા છે.

કી-વર્ડ્સ: ગોંડલ રાજ્ય, મહારાજા ભગવતસિંહજી, શિક્ષણ ઇતિહાસ, કાઠિયાવાડ, દેશી રાજ્યો

1. પ્રસ્તાવના

ભારતીય શિક્ષણ ઇતિહાસમાં દેશી રાજ્યોનું યોગદાન વિશેષ મહત્વ ધરાવે છે. બ્રિટિશ શાસનકાળ દરમિયાન જ્યાં અનેક વિસ્તારોમાં શિક્ષણ મર્યાદિત અને શાસકીય જરૂરિયાતોને અનુરૂપ હતું, ત્યાં કેટલાક દેશી રાજ્યોમાં શિક્ષણને પ્રજાકલ્યાણના સાધન તરીકે સ્વીકારવામાં આવ્યું. કાઠિયાવાડનું ગોંડલ રાજ્ય આ દૃષ્ટિએ આગવું સ્થાન ધરાવે છે. મહાગોંડલના શાસકો સામાન્ય રીતે પ્રજાહિતકારી સુધારાવાદી આધુનિક વિચારોને અપનાવનારા હતા. ખાસ કરીને 19મી સદીમાં ગોંડલના શાસકો પર બ્રિટિશ શાસનના સંપર્કથી આધુનિક પ્રશાસનિક સુધારાઓનો પ્રભાવ પડ્યો. આ પરંપરામાં મહારાજા ભગવતસિંહજી એક મહત્વપૂર્ણ કડીરૂપ છે. બ્રિટિશ શાસનકાળ દરમિયાન દેશી રાજ્યોને આંતરિક સ્વાયત્તતા મળી હતી, પરંતુ વિદેશ નીતિ, સૈન્ય બાબતો બ્રિટિશ નિયંત્રણ હેઠળ હતી. આ પરિસ્થિતિમાં ઘણા દેશી શાસકોએ આંતરિક વિકાસ, ખાસ કરીને શિક્ષણ અને આરોગ્ય પર ધ્યાન કેન્દ્રિત કર્યું. ગોંડલ રાજ્ય પણ આ પ્રવાહથી અસ્પૃશ્ય રહ્યું નહોતું. 19મી સદીનું કાઠિયાવાડ અશિક્ષા, રૂઢિચુસ્ત સામાજિક પ્રથાઓ, સ્ત્રી શિક્ષણનો અભાવથી પીડિત હતું. સમાજમાં બાળલગ્ન, સ્ત્રી અવગણના જાતિ આધારિત ભેદભાવનું પ્રમાણ ખૂબ જ જોવા મળતું હતું. આવી પરિસ્થિતિમાં શિક્ષણને સમાજ સુધારાનું સાધન બનાવવું અઘરું પરંતુ આવશ્યક હતું. આથી મહારાજા ભગવતસિંહજીએ શિક્ષણને સામાજિક સુધારણા, આર્થિક વિકાસ અને નૈતિક ઉન્નતિનું સાધન બનાવ્યું હતું.

2. મહારાજા ભગવતસિંહજી : સંક્ષિપ્ત પરિચય

મહારાજા ભગવતસિંહજી ગોંડલ રાજ્યના એક પ્રગતિશીલ અને લોકહિતકારી શાસક તરીકે જાણીતા છે. તેઓ ગોંડલ રાજ્યના રાજવી વંશના પ્રતિષ્ઠિત સભ્ય હતા અને પોતાના શાસનકાળ દરમિયાન રાજ્યના સર્વાંગી વિકાસ માટે મહત્વપૂર્ણ કાર્ય કર્યું. મહારાજા ભગવતસિંહજીનો જન્મ રાજપૂત વંશમાં થયો હતો. બાળપણથી જ તેમને ઉત્તમ શિક્ષણ, શિસ્ત અને રાજકીય સંસ્કાર પ્રાપ્ત થયા હતા. ભારતીય પરંપરા સાથે સાથે આધુનિક શિક્ષણ પ્રણાલીથી પણ તેઓ પરિચિત હતા, જેના કારણે તેઓ

પ્રગતિશીલ વિચારધારાવાળા શાસક બન્યા. તેમના શાસનકાળ દરમિયાન શિક્ષણને વિશેષ મહત્વ આપવામાં આવ્યું. શાળાઓ, પાઠશાળાઓ અને શિક્ષણ સંસ્થાઓની સ્થાપના કરીને સામાન્ય જનતામાં સાક્ષરતા ફેલાવવાનો તેમણે પ્રયત્ન કર્યો. ખાસ કરીને સ્ત્રીશિક્ષણ અને ગ્રામ્ય વિસ્તારોમાં શિક્ષણ પહોંચે તે માટે તેમણે નોંધપાત્ર પગલાં લીધા. સામાજિક ક્ષેત્રે મહારાજા ભગવતસિંહજી સુધારાવાદી હતા. સમાજમાંથી કુરિવાજો દૂર કરવા, આરોગ્ય સેવાઓ સુધારવા અને જાહેર સુવિધાઓ વિકસાવવા માટે તેમણે અનેક યોજનાઓ અમલમાં મૂકી. માર્ગો, પાણી પુરવઠા અને જાહેર ઇમારતોના નિર્માણ દ્વારા રાજ્યના ભૌતિક વિકાસમાં પણ તેમનું મહત્વપૂર્ણ યોગદાન રહ્યું. આર્થિક રીતે રાજ્ય મજબૂત બને તે માટે તેમણે કૃષિ, વેપાર અને ઉદ્યોગોને પ્રોત્સાહન આપ્યું. ન્યાયપ્રણાલી અને વહીવટી વ્યવસ્થામાં સુધારા કરીને તેમણે પ્રજાને ન્યાય અને સુરક્ષા આપવાનો પ્રયત્ન કર્યો. તેમના શાસનમાં આરોગ્ય, શિક્ષણ, જાહેર કામો અને સામાજિક સુધારાઓને વિશેષ પ્રાધાન્ય આપવામાં આવ્યું. શિક્ષણ પ્રત્યે તેમનો અભિગમ દીર્ઘદ્રષ્ટિપૂર્ણ અને માનવકેન્દ્રિત હતો.

3. ગોંડલ રાજ્યની શિક્ષણ નીતિ

મહારાજા ભગવતસિંહજીના શાસન પહેલાં ગોંડલ રાજ્યમાં પ્રાથમિક શિક્ષણની સ્થિતિ નબળી હતી. શાળાઓની સંખ્યા મર્યાદિત હતી, ગ્રામ્ય વિસ્તારોમાં શાળાઓનું પ્રમાણ નહિવત્ હતું, શિક્ષકો અપ્રશિક્ષિત હતા. પાઠ્યક્રમ અસંગઠિત હતો, શિક્ષણ મુખ્યત્વે પાઠશાળાઓમાં જાતિ આધારિત શિક્ષણ કેન્દ્રો સુધી સીમિત હતું. આ સ્થિતિને ધ્યાનમાં રાખીને મહારાજા ભગવતસિંહજીએ પ્રાથમિક શિક્ષણને રાજ્યની પ્રથમ પ્રાથમિકતા બનાવી. મહારાજા ભગવતસિંહજીના શાસનકાળમાં ગોંડલ રાજ્યમાં શિક્ષણને રાજ્યની જવાબદારી માનવામાં આવી. શિક્ષણ નીતિના મુખ્ય તત્ત્વો નીચે મુજબ હતા:

- (1) મફત અને સુલભ પ્રાથમિક શિક્ષણ
- (2) ગ્રામ્ય વિસ્તારોમાં શાળાઓની સ્થાપના
- (3) રાજ્ય ભંડોળથી શિક્ષણ સંસ્થાઓનું સંચાલન

(4) સ્થાનિક ભાષા (ગુજરાતી)માં શિક્ષણ

(5) નૈતિક અને શિસ્તબદ્ધ શિક્ષણ પર ભાર

આ નીતિઓએ ગોંડલ રાજ્યમાં શિક્ષણનો વ્યાપ વધાર્યો.

4. પ્રાથમિક અને માધ્યમિક શિક્ષણનું વિસ્તરણ

રાજા ભગવતસિંહજીના શાસન દરમિયાન શહેરોની સાથે સાથે ગામડાઓમાં પ્રાથમિક શાળાઓ સ્થાપવામાં આવી. દરેક મોટા ગામમાં ઓછામાં ઓછી એક શાળા હોવી જોઈએ — એવો સિદ્ધાંત અમલમાં મૂકાયો. આ પગલાંના પરિણામે શિક્ષણની પહોંચ વધી. સાક્ષરતા દરમાં વધારો થયો. પ્રાથમિક શાળાઓ માટે રાજ્ય શિક્ષણ વિભાગ સ્થાનિક સમિતિઓની રચના કરવામાં આવી. શાળાઓનું નિયમિત નિરીક્ષણ થતું, જે શિક્ષણની ગુણવત્તા જાળવવામાં સહાયક બન્યું. મહારાજા ભગવતસિંહજીના શાસનમાં ગોંડલ રાજ્યમાં પ્રાથમિક શાળાઓની સંખ્યા નોંધપાત્ર રીતે વધી. ગામડાં સુધી શાળાઓ પહોંચે તે માટે ખાસ વ્યવસ્થા કરવામાં આવી. ગોંડલ રાજ્યમાં પ્રાથમિક સ્તરે મફત શિક્ષણનો અમલ કરવામાં આવ્યો. ગરીબ વર્ગના બાળકો માટે ફી માફી અને પુસ્તકોની મફત પુરવઠાની વ્યવસ્થા હતી. માધ્યમિક શિક્ષણ માટે પણ શાળાઓ સ્થાપવામાં આવી, જેથી વિદ્યાર્થીઓને રાજ્ય બહાર જવાની જરૂર ન પડે. પાઠ્યક્રમમાં ભાષા, ગણિત, ઇતિહાસ, ભૂગોળ અને નૈતિક શિક્ષણનો સમાવેશ કરવામાં આવ્યો હતો.

5. સ્ત્રી શિક્ષણમાં પ્રદાન

સ્ત્રી શિક્ષણ મહારાજા ભગવતસિંહજીના શિક્ષણ દ્રષ્ટિકોણનું મહત્વપૂર્ણ અંગ હતું. તે સમયની સામાજિક રૂઢિઓ હોવા છતાં તેમણે ગોંડલમાં કન્યા શાળાઓની સ્થાપના કરી. સ્ત્રી શિક્ષિકાઓની નિમણૂક કરી. સમાજમાં સ્ત્રી શિક્ષણ માટે જાગૃતિ આવે તે માટે અનેક પ્રયાસો કર્યા. પરિણામે ગોંડલ રાજ્યમાં સ્ત્રી સાક્ષરતાનો દર વધ્યો અને સ્ત્રીઓ સામાજિક રીતે સશક્ત બની.

6. શિક્ષક તાલીમ અને કલ્યાણ

શિક્ષણની ગુણવત્તા માટે શિક્ષકોનું મહત્વ સમજી મહારાજા ભગવતસિંહજીએ શિક્ષક તાલીમ પર ભાર મૂક્યો. યોગ્ય પગાર, રહેણાંક સુવિધા અને સામાજિક માન આપીને શિક્ષક વર્ગને પ્રોત્સાહિત કરવામાં આવ્યો. આ પગલાંઓએ શિક્ષણ વ્યવસ્થાની કાર્યક્ષમતા વધારી.

7. નૈતિક અને વ્યાવસાયિક શિક્ષણ

ગોંડલ રાજ્યમાં શિક્ષણ માત્ર પુસ્તકી જ્ઞાન પૂરતું સીમિત ન હતું. નૈતિક મૂલ્યો, શિસ્ત અને સામાજિક ફરજોની સમજ આપવામાં આવતી. સાથે સાથે હસ્તકલા, વ્યવસાયિક તાલીમ અને વ્યવહારુ જ્ઞાન પર ભાર મૂકવામાં આવ્યો, જેથી વિદ્યાર્થીઓ સ્વાવલંબન તરફ આગળ વધે.

8. શિક્ષણનો સામાજિક પ્રભાવ

પ્રાથમિક અને માધ્યમિક શિક્ષણના વિકાસથી સાક્ષરતા વધારી, સામાજિક ચેતના વિકસી. ન્યાય, સ્વચ્છતા અને નાગરિકતા અંગે જાગૃતિ આવી હતી. આ શિક્ષણ સમાજ પરિવર્તનનું સાધન બન્યું. મહારાજા ભગવતસિંહજીના શિક્ષણ પ્રદાનથી ગોંડલ રાજ્યમાં સાક્ષરતામાં વધારો થયો. સામાજિક જાગૃતિ આવી. લોકો અનેક અંધશ્રદ્ધાથી મુક્ત થયા અને રૂઢિઓમાં ઘટાડો આવ્યો. પ્રશાસનમાં કાર્યક્ષમ માનવ સંસાધનનો સદુપયોગ થયો.

9. અન્ય રજવાડાઓ પર પ્રભાવ

ગોંડલ રાજ્યનું શિક્ષણ મોડલ રાજ્ય નિયંત્રિત વ્યવસ્થા, વગ્રામ્ય વિસ્તારો પર ભાર, શિક્ષક કલ્યાણ, નૈતિક શિક્ષણને કારણે વિશિષ્ટ હતું. આ મોડલ અન્ય દેશી રાજ્યો માટે પ્રેરણાસ્રોત બન્યું હતું. ઇતિહાસકારોના મતે, ગોંડલ રાજ્યનું શિક્ષણ મોડલ કાઠિયાવાડના અન્ય રાજ્યોની તુલનામાં વધુ વ્યવસ્થિત અને પ્રજાકેન્દ્રિત હતું. મહારાજા ભગવતસિંહજીનું યોગદાન તેમને એક પ્રગતિશીલ શાસક તરીકે સ્થાપિત કરે

છે. જે બીજા અનેક રજવાડાઓ માટે પ્રેરણાદાયી બન્યું હતું. તેમનું શિક્ષણ મોડલ આજના સમયમાં પણ પ્રાસંગિક અને અનુસરણ યોગ્ય છે.

9. નિષ્કર્ષ

મહારાજા ભગવતસિંહજી ગોંડલ રાજ્યના એવા દ્રષ્ટિવાન શાસક હતા જેમણે શિક્ષણને રાજ્યના સર્વાંગી વિકાસનું મુખ્ય સાધન માન્યું. તેમના શાસનકાળ દરમિયાન શિક્ષણ માત્ર શાસકીય ફરજ નહીં પરંતુ સામાજિક પરિવર્તનનું સશક્ત માધ્યમ બન્યું. તેમણે પ્રાથમિકથી લઈ ઉચ્ચ શિક્ષણ સુધીની સંસ્થાઓની સ્થાપના કરી શિક્ષણની સુલભતા અને ગુણવત્તા બંનેમાં નોંધપાત્ર વધારો કર્યો. મહારાજા ભગવતસિંહજીના પ્રયત્નોથી ગોંડલ રાજ્યમાં શિક્ષણ સર્વજન માટે ખુલ્લું બન્યું. જાતિ, વર્ગ અને આર્થિક સ્થિતિના ભેદભાવને દૂર કરીને શિક્ષણને લોકપ્રિય બનાવવાનો તેમણે સક્રિય પ્રયાસ કર્યો.

મહારાજા ભગવતસિંહજીએ કન્યાશિક્ષણને પ્રોત્સાહન આપી તેમણે સ્ત્રીઓના સશક્તિકરણનો પાયો ઘડ્યો, જે સમયની દ્રષ્ટિએ અતિ પ્રગતિશીલ વિચારધારા ગણાય છે. તેમણે પશ્ચિમી શિક્ષણ પદ્ધતિઓ સાથે ભારતીય પરંપરાગત મૂલ્યોનું સંતુલન સાધ્યું. શાળાઓમાં આધુનિક વિષયો સાથે નૈતિક શિક્ષણ, સંસ્કૃત, ગુજરાતી ભાષા અને ભારતીય સંસ્કૃતિનું જ્ઞાન આપવામાં આવતું હતું. આ કારણે શિક્ષણ માત્ર રોજગારલક્ષી નહીં પરંતુ વ્યક્તિત્વ ઘડતરનું સાધન બન્યું. અધ્યાપકોની તાલીમ, શાળા વ્યવસ્થાનું નિયમન અને શિક્ષણમાં શિસ્તબદ્ધ આયોજન દ્વારા તેમણે શિક્ષણની ગુણવત્તા સુનિશ્ચિત કરી. શિક્ષણ ક્ષેત્રે કરાયેલા આ સુધારાઓના પરિણામે ગોંડલ રાજ્યમાં શિક્ષિત, સજાગ અને જવાબદાર નાગરિકો તૈયાર થયા, જેમણે સમાજ અને રાષ્ટ્રના વિકાસમાં મહત્વપૂર્ણ યોગદાન આપ્યું. આ રીતે, મહારાજા ભગવતસિંહજીનું શિક્ષણ ક્ષેત્રેનું પ્રદાન દીર્ઘકાલીન અને પ્રેરણાદાયક છે. તેમના વિચારો અને કાર્યો આજના સમયમાં પણ શિક્ષણ નીતિ ઘડવામાં માર્ગદર્શક બની શકે છે. ગોંડલ રાજ્યમાં શિક્ષણ દ્વારા તેમણે જે સામાજિક જાગૃતિ અને આધુનિકતાનું બીજ વાવ્યું, તે ભારતીય શિક્ષણ ઇતિહાસમાં એક મહત્વપૂર્ણ અધ્યાયરૂપે ઓળખાય છે.

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Organic Farming in India

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Abstract

Organic farming is considered a traditional agricultural practice. India is closely associated with agriculture and is therefore known as an agricultural country. Since agriculture and allied activities are the primary occupations, nearly 55–56% of India's population is engaged in farming. Around 59.60% of the population lives in rural areas and depends on agriculture for daily livelihood. Organic farming is a method of cultivating crops without the use of synthetic chemicals. Farmers generally use different types of fertilizers such as organic, inorganic, and biological fertilizers to maintain soil fertility. However, organic farming relies only on natural fertilizers and environmentally friendly methods. It promotes biodiversity through the use of various plants, biological waste, animal manure, and natural resources. Organic farming is also environmentally sustainable because it helps reduce pollution and soil erosion. In the present era, organic farming has become a lifeline for society and the nation, leading many countries to adopt different forms of organic agriculture. Various important aspects related to organic farming are included in the present research study.

Keywords: *Organic, Method, Crops, Cultivation, Agriculture*

Introduction

Organic farming has proven beneficial in many ways by creating an environmentally suitable atmosphere for crops and livestock. It improves crop quality and keeps agriculture free from harmful chemical substances. Instead of chemical inputs, organic farming provides crops with essential nutrients through natural means and enhances productivity. Organic farming helps reduce air, soil, and water pollution and contributes to environmental conservation. It is considered an improved form of traditional Indian agriculture and is often described as a natural gift to India. Thus, organic farming supports sustainable agricultural productivity and promotes a safe and nutritious standard of living. The present research study highlights important aspects of organic farming in India.

Objectives

To study the organic farming system in the context of India.

To briefly study the historical background of organic farming in India.

To examine important aspects and trends related to organic farming in India.

Research Methodology

The present research study is based on a descriptive research methodology and utilizes secondary data sources.

Review of Literature

Organic World (2021), Department of Agriculture & Farmers Welfare

Organic farming is practiced in 187 countries worldwide. Around 3.1 million farmers manage nearly 72.3 million hectares of agricultural land organically. Australia has the largest area under organic cultivation. In 2019, global sales of organic food products exceeded 106 billion euros. According to worldwide surveys, organic agricultural land increases by approximately 1.1 million hectares annually. Organic farming also includes forest areas, livestock zones, beekeeping regions, aquaculture areas, and grazing lands. Altogether, organic and related biological areas account for nearly 107.4 million hectares globally.

Organic Farming (Update 2025), Wikipedia

Organic farming, also known as ecological farming, biological farming, or sustainable farming, is a traditional agricultural system. It involves the use of naturally occurring inputs such as green manure, bone meal, crop residues, and plant-based materials. Organic farming emphasizes soil sustainability, fertility, and biodiversity while restricting the use of synthetic pesticides, antibiotics, chemical fertilizers, and genetically modified organisms. Organic farming emerged strongly during the early twentieth century as a response to rapidly changing agricultural systems and environmental concerns.

Organic Farming in India

Historical Background of Organic Farming

British botanist Sir Albert Howard is considered the father of modern organic farming. During his service in India, he became aware of sustainable agricultural practices, which inspired him to develop organic farming methods.

The history of organic farming dates back to the early 1900s and includes contributions from scientists and environmentalists such as F.H. King, Rudolf Steiner, Albert Howard, and several others. Indian agricultural scientist and environmentalist G. Nammalvar also played a significant role in promoting organic farming practices in India.

Organic Farming and Important Aspects in India

General Understanding of Organic Farming

Organic farming refers to the process of cultivating crops naturally without the use of chemical substances. Its aim is to work in harmony with nature rather than compete against it.

Organic farming is a production system that restricts the use of artificially manufactured agricultural inputs. This method focuses on increasing soil productivity, maintaining fertility, utilizing natural resources effectively, and protecting beneficial organisms that enhance soil fertility. In simple terms, organic farming means cultivating crops without using chemicals or adulterated substances.

According to the Food and Agriculture Organization (FAO), organic farming involves intercropping, mixed cropping, and crop rotation to improve soil fertility without chemical fertilizers or harmful substances.

Farmers and individuals are increasingly becoming aware of the benefits of organic farming and are gradually shifting away from artificial agricultural systems toward healthier and more sustainable practices.

Organic farming encourages the use of locally available natural resources through biological interactions and ecological balance. Natural inputs such as green manure, farmyard manure, forest waste, and biological materials are extensively used, while synthetic inputs are restricted.

Manure and green fertilizers are important components of organic farming. Animal waste, fresh green leaves, rice husk, wood residues, and dry leaves are commonly used. In India, organic farming is widely practiced for crops such as spices, ginger, turmeric, okra, brinjal, onion, tomato, potato, castor, sunflower, groundnut, and oilseeds.

Number of Organic Farmers in India

By March 2020, more than 1.9 million farmers in India were registered under organic farming systems. Organic farming is practiced in almost every state of India, and in 2016, Sikkim was officially declared a

100% organic state. The top three states with the largest area under organic cultivation are Madhya Pradesh, Rajasthan, and Maharashtra.

According to the Centre for Science and Environment, only a small percentage of agricultural land in most Indian states is under organic cultivation. Madhya Pradesh, Rajasthan, and Maharashtra account for 4.9%, 2.0%, and 1.6% respectively of their net cultivated area under organic farming. In comparison, states such as Meghalaya, Mizoram, Uttarakhand, Goa, and Sikkim have more than 10% of their cultivated land under organic farming. By 2020, around 2.78 million hectares of land in India were covered under organic cultivation.

Area Under Organic Farming in India

Details	Area (in Hectares)
Net Cultivated Area	140.1 lakh hectares
NPOP	1,940,000 hectares
PKVY	590000 hectares
MOVCD - NER	70,000 hectares
Various Schemes	1,70,000 hectares

Source: Organic Farming Guidelines, 2019

Major Organic Crops in India

According to 2019–20 data, India produced 2.75 million tons of certified organic products, including oilseeds, sugarcane, cereals, millets, cotton, pulses, medicinal plants, tea, coffee, fruits, vegetables, spices, dry fruits, and processed foods.

Details	Hectare (Percentage)
Soyabean	45.87 %
Oilseeds	13.25 %
Tea and Coffee	9.61 %
Cereals and Pulses	8.19 %
Spices	5.20 %
Dry Fruits	4.98 %
Medicinal Plants	3.84 %
Sugarcane and Cotton	9.06 %
Total	100 %

Source: Agricultural Guidelines, 2019

India as a Global Leader in Organic Production

In 2018–19, India contributed nearly 51% (37,138 MT) to global organic production. India ranked first in terms of land under organic farming with 23,251 hectares, followed by Pakistan with 17,632 hectares and Turkey with 6,148 hectares.

Government Schemes and Policies Promoting Organic Farming in India

Paramparagat Krishi Vikas Yojana (PKVY)

The Paramparagat Krishi Vikas Yojana was launched in 2015. Under this scheme, 500–1000 hectares of land were covered with infrastructural support. The scheme has been actively implemented in states such as Arunachal Pradesh, Meghalaya, Mizoram, and Nagaland.

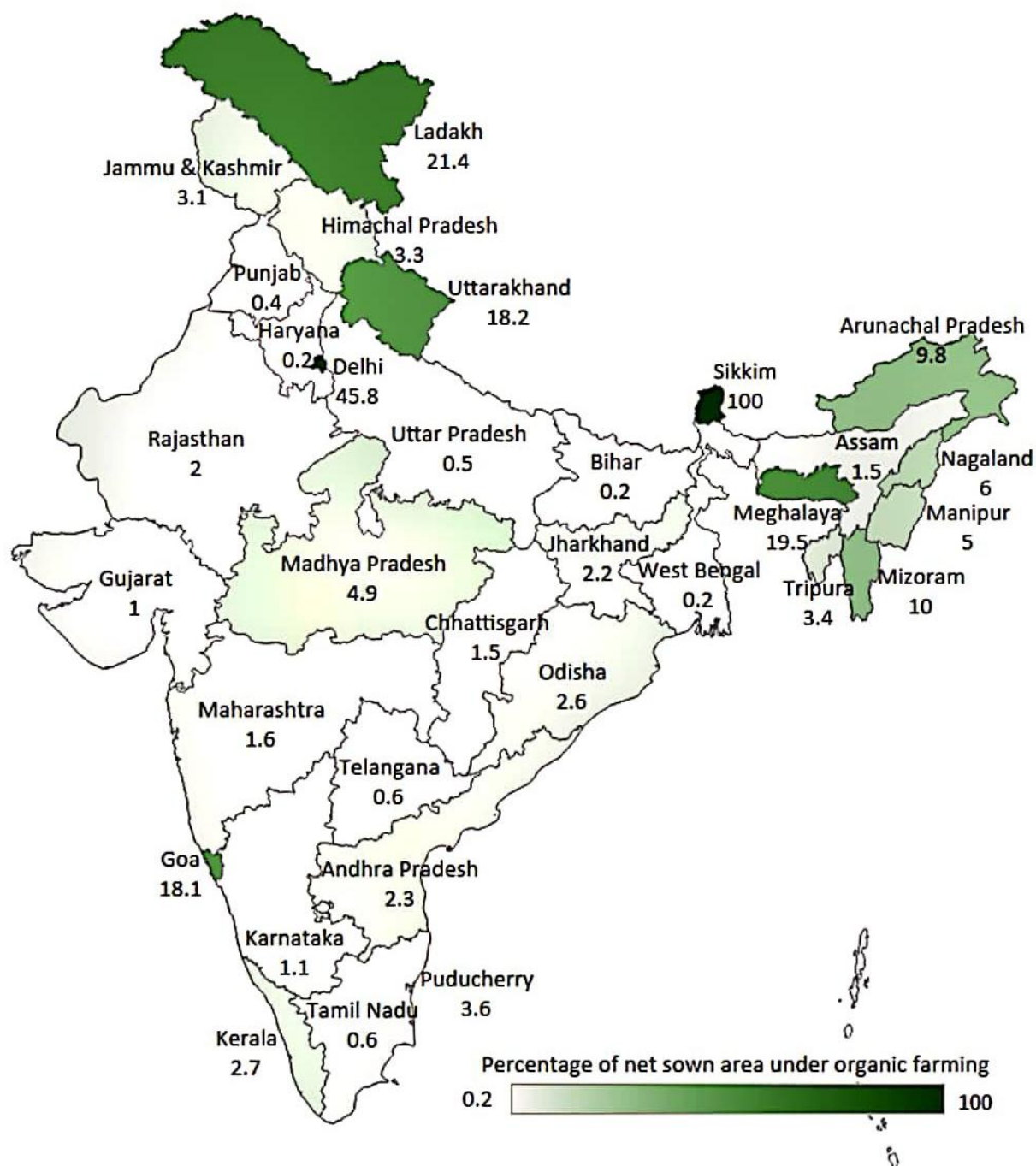
National Programme for Organic Production (NPOP)

Under NPOP, around 1,490,000 hectares across 21 states were utilized for medicinal plants, aromatic crops, fruits, nuts, honey, aquatic products, and forest-based harvesting. The top five participating states included Rajasthan, Madhya Pradesh, Himachal Pradesh, Chhattisgarh, and Jammu & Kashmir.

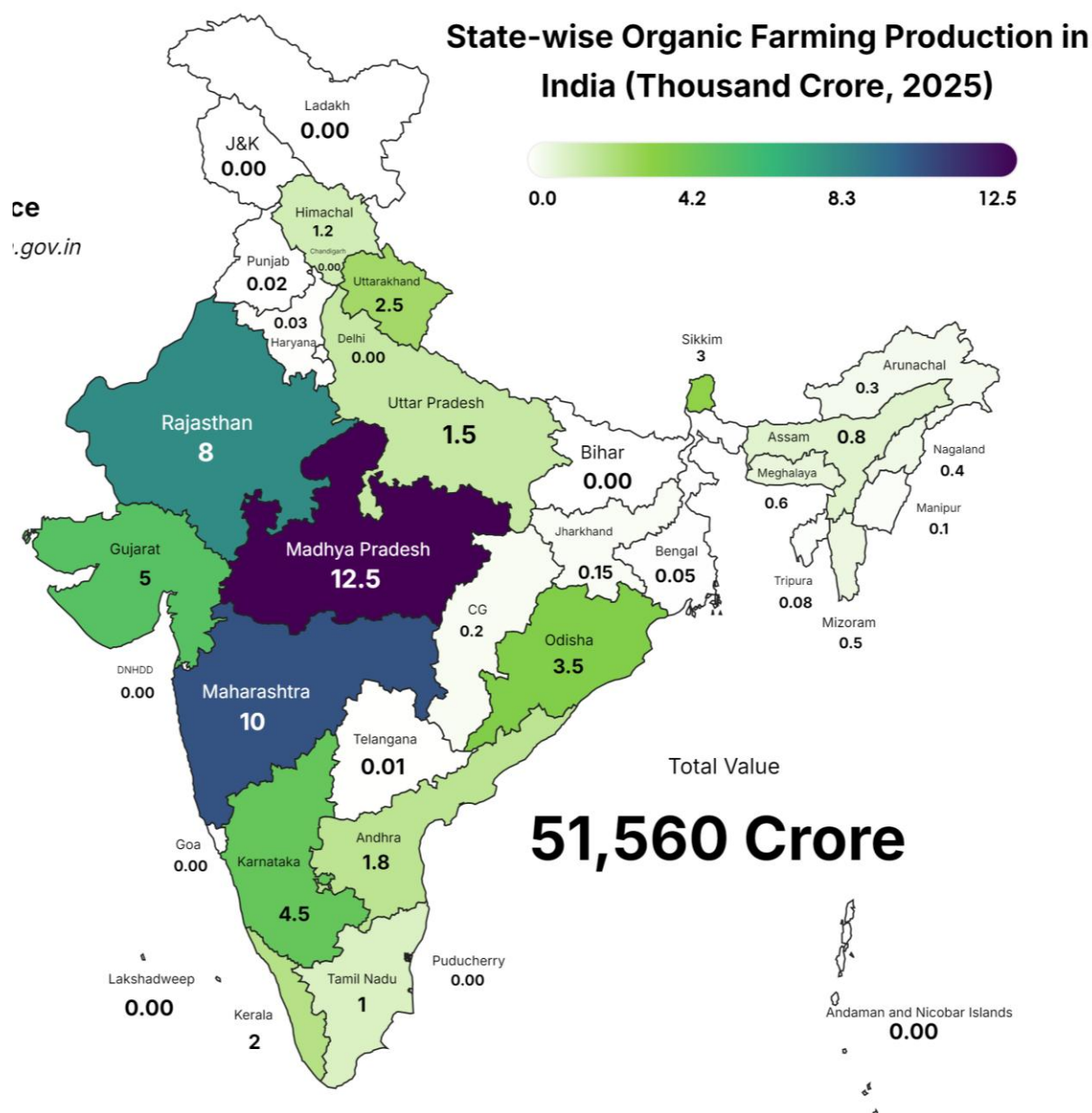
Other Schemes

- Subsidies for Organic Farming
- Fasal Bima Yojana
- One District One Product (ODOP)
- Pradhan Mantri Krishi Sinchai Yojana
- National Food Security Mission
- Integrated Scheme for Agricultural Marketing (ISAM)
- Zero Budget Natural Farming

Map Showing the Area of Organic Farming in Different States of India



Source: Ministry of Agriculture & Farmers Welfare, 2019



Source: apeda.gov.in 2025-26

Impacts of Organic Farming in India

Organic Farming and Environment

- Maintains ecological balance.
- Reduces pollution and creates a cleaner environment.
- Preserves water and soil balance.
- Improves soil quality and fertility.

Organic Farming and Social System

- Promotes social and economic self-reliance.
- Ensures quality food supply.
- Supports a sustainable and safe standard of living.
- Encourages green recovery and environmental awareness.
- Promotes proper utilization of natural resources.

Organic Farming and Economy

- Generates demand for quality products.
- Enhances international trade opportunities.
- Reduces production costs while increasing income.
- Minimizes dependence on expensive mineral fuels and synthetic resources.

Organic Farming and Health

- Encourages healthy and nutritious lifestyles.
- Provides nutritious feed for livestock.
- Promotes chemical-free living standards.
- Creates pollution-free surroundings.

Statistical Overview for the Year 2024

- The Government of India allocated ₹187.84 crore for the organic farming sector during 2023–24.
- By the end of 2024, the organic farming market value reached ₹208.66 crore.
- Organic farming initiatives increasingly included regenerative agriculture, precision farming, plant-based diets, climate resilience, and sustainability measures.
- According to the Promotion of Organic Farming Bill, 2024, the Government of India aims to reduce dependency on chemical fertilizers and improve soil health through organic farming practices.

Findings

- The historical development of organic farming was studied.
- In 2018–19, India contributed 51% to global organic production.
- By 2020, nearly 1.9 million farmers in India had adopted organic farming practices.
- Sikkim became a fully organic state in 2016.

- Madhya Pradesh, Rajasthan, and Maharashtra accounted for 4.9%, 2.0%, and 1.6% of organic cultivation respectively.
- Around 2.78 million hectares of land in India were under organic farming by 2020.
- India recorded 23,251 hectares of highly fertile organic agricultural land, exceeding Pakistan and Turkey.
- Government schemes and policies have encouraged the gradual conversion of agricultural land toward organic cultivation.
- Organic farming has shown positive impacts on the environment, society, economy, and public health.
- The Government of India allocated ₹187.84 crore toward organic farming activities during 2023–24.
- By the end of 2024, the market value of organic farming reached ₹208.66 crore.
- Organic farming in India widely includes crops such as spices, ginger, turmeric, okra, brinjal, onion, tomato, potato, sunflower, castor, and groundnut.

Conclusion

Organic farming has the potential to provide a new and healthier lifestyle for the people of India while preserving traditional agricultural values. It represents a sustainable approach that combines ancient wisdom with modern environmental consciousness. Thus, it can be said that the modern era is, in many ways, a renewed beginning of traditional living practices.

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An Empirical Analysis of Digital Financial Literacy and Fintech Adoption Among Youth: Based on NSFE Report

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Abstract

The rapid digitization of financial services in India has transformed the saving and investment habits of individuals, placing digital channels such as online banking, UPI payments, and web-based tools at the heart of the everyday financial skills collectively known as "digital financial literacy." This study analyzed the link between digital financial literacy levels and fintech adoption behaviors among young Indians, drawing on data from the NSFE report. Key findings reveal that education and age strongly influence this literacy, with higher education levels and greater age correlating with a better understanding of fintech, whereas gender and place of residence have no impact. These conclusions support the development of targeted skills for less educated youth, inform public policy, and improve research models aimed at promoting equitable fintech usage across India.

Keywords: *Digital Financial Literacy, Fintech Adoption, Youth Demographics, NSFE Report*

1. Introduction

The rapid digitization of financial services in India has fundamentally transformed how individuals save and invest, placing digital channels at the heart of their daily financial lives. Over the past decade, the widespread adoption of online banking, mobile wallets, and the UPI interface has enabled instant, low-cost payments. These developments are accelerating financial transactions and reducing costs, while allowing numerous new companies to offer payment and local financial services. Consequently, individuals need strong digital financial skills to use these services safely. To address these opportunities and risks, the National Strategy for Financial Education (NSFE) 2020–2025 was implemented; this

national plan aims to enhance citizens' financial knowledge and skills and to promote the safe use of both traditional and digital financial services. It brings together regulators, financial institutions, and educational bodies to provide the public with clear, consistent financial education, including guidance on using online banking, UPI, and mobile apps. Under this strategy, financial education goes beyond the mere transmission of information; it involves developing genuine capabilities and sound habits, thereby enabling individuals to make more informed decisions within the digital financial ecosystem. The NSFE 2020–2025 thus provides a policy framework for examining the impact of digital financial literacy on the use of financial technologies and for determining how public policy can bridge gaps regarding access and risk management.

1.1. Mid-Term Evaluation (MTE) Report of NSFE 2025

The Mid-Term Evaluation (MTE)¹ of NSFE² 2020-2025, prepared by the National Centre for Financial Education (NCFE)³ in the year 2025, assess the strategy's implementation. Drawing on data and feedback gathered in the field, it examines the actions taken, results achieved, and remaining challenges, while analyzing disparities in financial and digital literacy across regions and population groups. It thus provides a detailed picture of areas where individuals possess greater knowledge, adopt different behaviors, and make greater use of digital services, as well as areas where this is not the case. The evaluation also reveals that digital-related challenges affect all groups: individuals with low levels of general education, limited internet experience, or poor connectivity struggle to use applications and understand security-related messages.

The mid-term evaluation (MTE) reveals that the NSFE has helped raise public awareness and improve the financial behaviors reported by users. An increasing number of people are familiar with formal financial products, use basic digital payment solutions, and feel more comfortable with digital channels. Targeted education and support initiatives have helped many new users overcome their apprehensions and begin using the internet and UPI banking services. However, progress is uneven; some states and districts still show below-average rates of coverage, awareness, and digital adoption. The rural-urban divide remains significant, partly because rural areas suffer from poorer digital infrastructure, unstable connectivity, and

¹ MTE - The Mid-Term Evaluation Report

² NSFE - National Strategy for Financial Education

³ NCFE - National Centre for Financial Education

a more limited range of educational activities, all factors that hinder the population's adoption of financial technologies (fintech).

1.2. Financial Literacy

Financial literacy encompasses a set of skills and knowledge that enable individuals to make informed and effective financial decisions. Financial knowledge, behaviors, and attitudes form a comprehensive framework for assessing individuals' understanding of financial concepts, their ability to manage financial resources, and their attitudes toward saving, spending, and long-term financial planning.

- Financial knowledge involves understanding of key financial concepts and the ability to evaluate benefits in real-life financial situations.
- Financial behaviour involves the study of day-to-day money management, financial planning, spending, saving, investment, and building a safety net for future well-being.
- Financial attitude aims at studying people's response towards savings, prioritization of short-term wants over long-term security for future well-being.

1.3. Digital Financial Literacy

The knowledge and skills required to effectively use digital financial services such as online banking, digital payments, mobile wallets, and other internet-based financial tools constitute what is known as digital financial literacy. This competence is now essential for individuals to manage their money safely and efficiently in a digital world, as technology rapidly transforms the financial landscape. Assessing digital financial literacy levels among both users and non-users reveals significant gaps in knowledge and behavior regarding online security, digital finance, and the responsible use of digital platforms. These findings indicate that, while both groups possess a general understanding of digital finance, further progress is needed regarding digital security and prudent usage practices.

1.4. The Role of Fintech in Financial Education

Fintech has become an essential component of financial education, expanding access to resources and knowledge that were once reserved for the wealthy. Fintech platforms leverage technology to enable users to learn at their own pace. The sector is transforming how individuals approach financial education, notably through personalized financial planning tools. Its ability to reach a broad audience is one of its

key strengths in this field. This accessibility is particularly crucial for groups that were previously underserved by traditional financial institutions.

2. Significance of the study

- This study addresses a critical gap in understanding how digital financial literacy influences fintech adoption among Indian youth.
- This study provides valuable information for policymakers, fintech firms, and educators.
- The study contributes to behavioral finance literature by linking literacy levels to adoption behaviors in the post-UPI era.

3. Research Objective

- To analyze the relationship between digital financial literacy levels and fintech adoption behaviors among Indian youth, using data from the NSFE report.
- To investigate demographic (age group, education, gender, and residential status) specific patterns, particularly in digital literacy.

4. Literature Review

- (Rahman, 2020) has indicated in their research that various aspects of the economy and business activities have been affected by the major transformation of financial markets driven by digital finance. Fintech companies and digital financial services are gaining popularity among young professionals. This study aimed to examine how this demographic uses these solutions. It also reveals a positive correlation between young professionals' monthly income, as well as their investment, saving, and spending habits, and the adoption of financial technologies. Fintech solutions are being rapidly adopted by this group, particularly by Gen Z and Millennials, due to their ease of use, convenience, and compatibility with a digital lifestyle.
- (Anggraini et al., 2025) revealed that the use of financial technologies has transformed how individuals access financial services and has expanded rapidly in emerging economies. The study's primary objective was to examine how the adoption of these technologies could enhance financial well-being and financial literacy. Anticipated financial security, a sense of control, and satisfaction serve as indicators of financial well-being. The results demonstrate that the adoption of financial technologies directly improves financial literacy. Consequently, financial well-being is enhanced through improved financial literacy. The adoption of financial technologies acts as a mediator, indirectly influencing

financial well-being through financial literacy. Practical implications highlight the need for policies that combine the development of financial technologies with financial education programs.

- (Anwarul & Khan, 2024) concluded that the development of fintech has brought about a major conceptual shift in the global financial services sector, alongside a substantial increase in the use of fintech services. The primary objective of this study was to examine the variables influencing individuals' propensity to use financial technology services. The results revealed that the use of fintech services was positively and statistically significantly influenced by financial literacy, digital skills, and financial self-efficacy. Policymakers, financial institutions, and other stakeholders seeking to foster fintech adoption and financial inclusion should take these findings into account.
- (Morgan & Trinh, 2020) revealed that financial education is becoming an increasingly important government objective in many countries. The impact of financial education on income, saving habits, and the use of various financial products has been the subject of extensive research. The primary objective of this study was to examine, within the context of developing countries, the relationship between financial education and, on the one hand, knowledge and, on the other, the adoption of financial technology (fintech) products and services. According to the study, an individual's knowledge and use of fintech products are strongly and positively influenced by their level of financial education. The relationship between the use of fintech services and financial knowledge.
- (Yoshino et al., 2020) believe that rapid advances in financial technology, or "fintech," will foster financial inclusion and well-being. Making one's own financial decisions regarding retirement and other major financial transactions requires an adequate level of financial literacy. This study examined the adoption of fintech services in relation to financial literacy and other characteristics. It reveals that individuals with different behavioral tendencies use these services in distinct ways and that risk-averse individuals may be more inclined to use fintech if they possess higher financial literacy. The results indicate that the link between behavioral characteristics and the adoption of financial technology is moderated by financial literacy.

5. Research Gap

The NSFE report has been studied a lot; no research has used chi-square tests. This gap overlooks key patterns in digital financial literacy across demographic patterns that matter for how India's youth adopt fintech.

6. Research Methodology

6.1. Data collection Source

The study used secondary data sourced from the National Strategy for Financial Education (NSFE) Mid-Term Evaluation (MTE) survey conducted by the National Centre for Financial Education (NCFE), featuring a nationally representative sample of 10000 respondents across India.

6.2.Tools and Techniques

This study used Chi-square test to analyze associations between key demographic variables (age group, gender, residential area, and education level) using secondary data from report. Other charts are used for analysis data.

6.3. Area of the Research

This research resides in behavioral finance, analyzing how digital financial literacy drives fintech adoption patterns among youth. It connects with fintech research and financial inclusion efforts within emerging economies such as India.

6.4. Hypothesis

- H1: There is a significant association between age groups and digital financial literacy.
- H1: There is a significant association between gender and digital financial literacy levels.
- H1: There is a significant association between residential area and digital financial literacy.
- H1: There is a significant association between education level and digital financial literacy.

7. Data Analysis & Interpretation

The NSFE report reveals a good grasp of digital tools among both workshop participants and non-participants; approximately 70% of individuals in both groups (70.11% of participants and 70.21% of non-participants) correctly identified the characteristics of UPI transactions, demonstrating widespread basic knowledge. However, regarding digital security, non-participants showed slightly higher awareness 52.34% compared to 47.70% for participants, particularly concerning the use of personal data for targeted advertising.

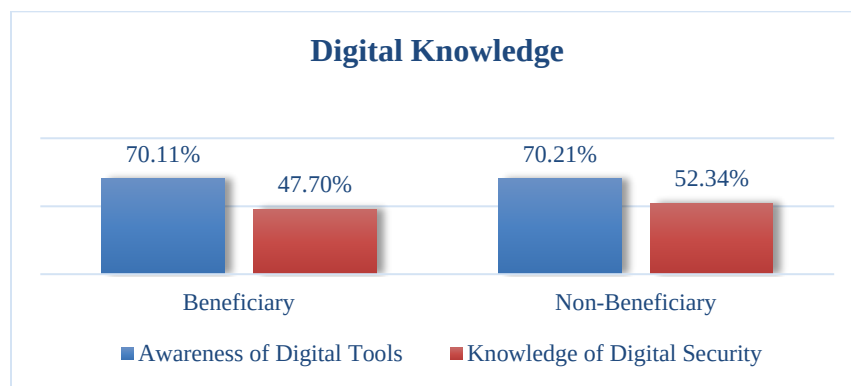


Figure 1. Digital Knowledge

Comparison of NFLIS 2019 and MTE NSFE 2025

▪ Based on Gender

The mid-term evaluation report of the NSFE 2025, which engaged 10,000 respondents, as well as the 2019 National Financial Literacy and Inclusion Survey (NFLIS) conducted among a sample of 75,000 people, reveals notable improvements in financial literacy across various demographic, geographic, and socioeconomic segments.

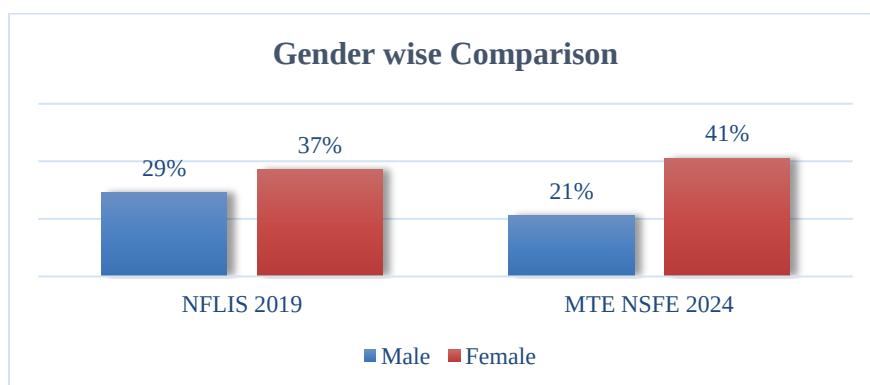


Figure 2. Comparison Based on Gender

Women's financial literacy improved remarkably from 21% in NFLIS 2019 to 41% MTE NSFE 2020-2025, driven by targeted interventions for women's empowerment and independence. Men's literacy saw steady gains from 29% to 37% over the same period. These female-centric programs effectively little gender disparities in financial knowledge, through continued efforts remain essential to the gap.

▪ Based on Rural-Urban

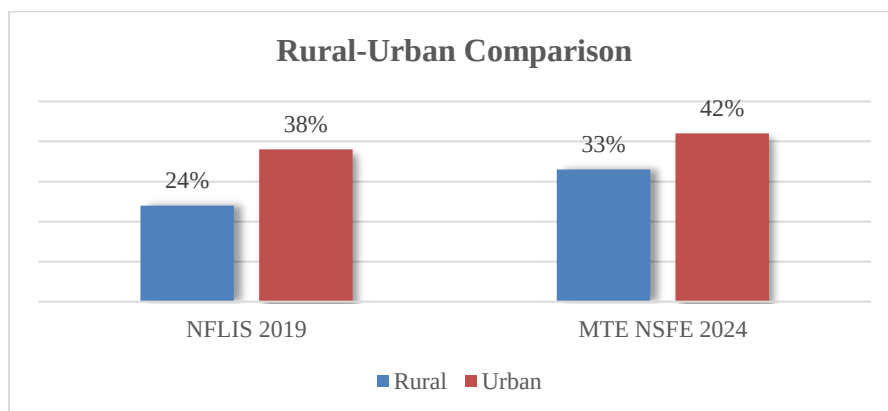


Figure 3. Comparison Based on Area

According to Reports, financial literacy in rural areas increased from 24% to 38%, while urban areas increased from 33% to 42%. Urban regions maintain their lead, underscoring an ongoing rural-urban divide. Rural initiatives prove effective, but greater emphasis on rural communities is essential to close this gap.

▪ Based on Education

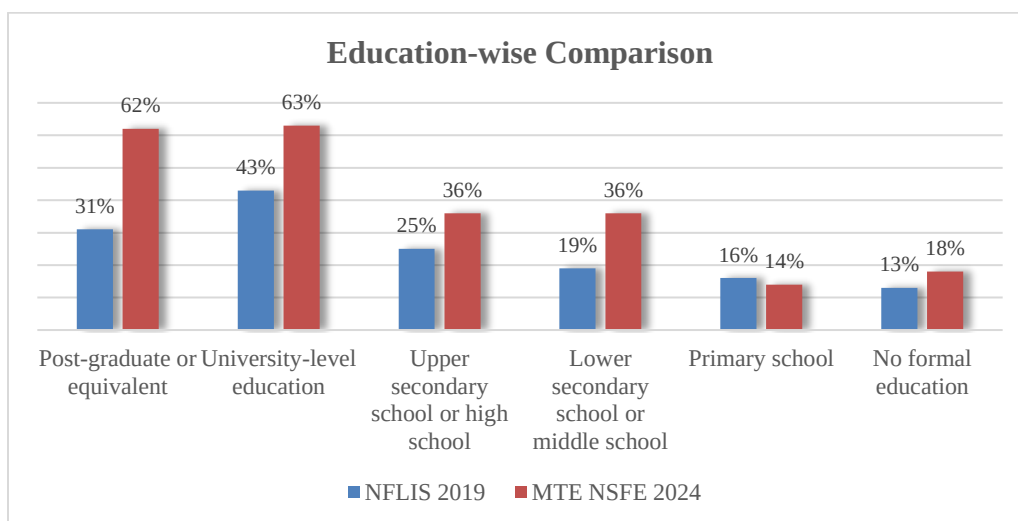


Figure 4. Comparison Based on Education

According to Reports people with postgraduate degrees saw their financial knowledge double, from 31% to 62%. University graduates improved from 43% to 63%. But those with only primary school changed little from 16% to 14%, and 13% to 18%. The gap between well-educated and less-educated people is still big, calling for targeted, innovative approaches to better educate.

▪ Based on Occupation

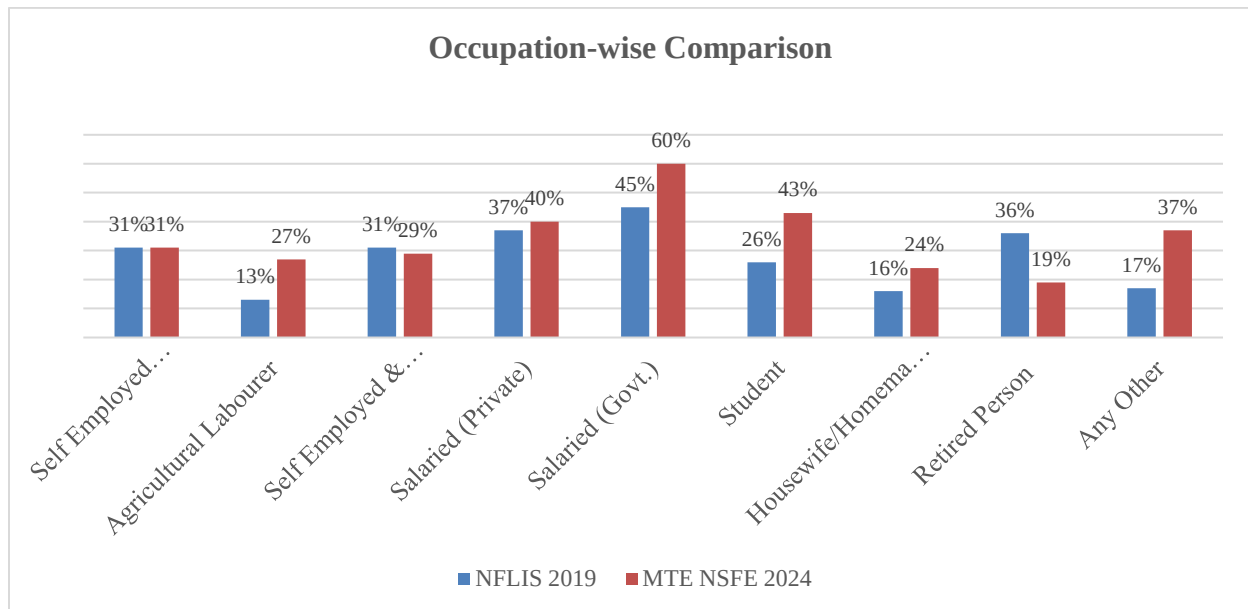


Figure 5. Comparison Based on Occupation

According to reports, government workers saw the biggest jump in financial knowledge, from 45% to 60%. Students showed an impressive rise from 26% to 43%. Entrepreneurs and workers went from 17% to 37%. Farm laborers notably improved from 13% to 27%. Retired persons experienced a decline, from 36% to 19%. The insights emphasize that targeted interventions are benefiting working individuals, but special efforts are needed for retired persons.

▪ Chi-square Test

RQ 1: Do digital financial literacy levels significantly associate with age group?

H1: There is a significant association between age groups and digital financial literacy levels.

Table 1. Observed Frequency Table

Age	High DFL (>2 Literacy)	Low DFL (<2 Literacy)	Total
18-29	292	2208	2500
30-49	394	2106	2500
50-59	386	2114	2500
More than 60	335	2165	2500
Total	1407	8593	10000

Table 2. Expected Frequency Table

Age	High DFL (>2 Literacy)	Low DFL (<2 Literacy)
18-29	351.75	2148.25
30-49	351.75	2148.25
50-59	351.75	2148.25
More than 60	351.75	2148.25

$$df = (r-1) (c-1) = (4-1) (2-1) = 3$$

$$X^2 = (O-E)^2/E = 22.53$$

P value = 0.000051 < 0.05. Null Hypothesis (H0) rejected. It means there is a significant difference between age groups and digital financial literacy.

RQ 2: Do digital financial literacy levels significantly associate with gender?

H1: There is a significant association between gender and digital financial literacy levels.

Table 3. Observed Frequency Table

Gender	High DFL (>2 Literacy)	Low DFL (<2 Literacy)	Total
Male	820	4180	5000
Female	772	4228	5000
Total	1592	8408	10000

Table 4. Expected Frequency Table

Gender	High DFL (>2 Literacy)	Low DFL (<2 Literacy)
Male	796	4204
Female	796	4204

$$df = (r-1) (c-1) = (2-1) (2-1) = 1$$

$$X^2 = (O-E)^2/E = 1.722$$

P value = 0.189 > 0.05. Null Hypothesis (H0) accepted. It means there is no significant difference between gender and digital financial literacy.

RQ 3: Do digital financial literacy levels significantly associate with residential area?

H0: There is a significant association between residential area and digital financial literacy levels.

Table 5. Observed Frequency Table

Residential Area	High DFL (>2 Literacy)	Low DFL (<2 Literacy)	Total
Rural	708	4292	5000
Urban	734	4266	5000
Total	1442	8558	10000

Table 6. Expected Frequency Table

Residential Area	High DFL (>2 Literacy)	Low DFL (<2 Literacy)
Rural	721	4279
Urban	721	4279

$$df = (r-1) (c-1) = (2-1) (2-1) = 1$$

$$X^2 = (O-E)^2/E = 0.546$$

P value = 0.460 > 0.05. Null Hypothesis (H0) accepted. It means there is a no significant difference between residential area and digital financial literacy.

RQ 4: Do digital financial literacy levels significantly associate with education level?

H1: There is a significant association between education level and digital financial literacy levels.

Table 7. Observed Frequency Table

Residential Area	High DFL (>2 Literacy)	Low DFL (<2 Literacy)	Total
Primary	670	1830	2500
Secondary	772	1728	2500
Graduate	771	1729	2500
More than post-graduate	679	1821	2500
Total	2892	7108	10000

Table 8. Expected Frequency Table

Residential Area	High DFL (>2 Literacy)	Low DFL (<2 Literacy)
Primary	723	1777
Secondary	723	1777
Graduate	723	1777
More than post-graduate	723	1777

$$df = (r-1)(c-1) = (4-1)(2-1) = 3$$

$$X^2 = (O-E)^2/E = 20.96$$

P value = 0.000086 < 0.05. Null Hypothesis (H₀) rejected. It means there is a significant difference between education level and digital financial literacy.

Conclusion

The study concluded that emerge as primary determinants of digital financial literacy skills. Youth and people with only a primary education need special training programs. Education and age strongly affect digital financial literacy in India. People with more education and older age understand fintech better, but gender and residential area do not matter. Gender and rural-urban location make no difference, so everyone can use the same fintech literacy programs. NSFE reached all groups equally, but age and

education gaps still exist. Digital financial literacy helps to reduce risk associated with unauthorized transactions and data privacy in India's rapidly expanding digital payment landscape. Enhancing digital financial literacy can further boost fintech trust and sustained adoption in the post-UPI era.

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11

શ્રીમદ્ ભગવદ્ ગીતા અધ્યાય 16 (શ્લોક 1-3) અને ડેનિયલ ગોલમેનની સંવેગિક બુદ્ધિ : તુલનાત્મક અભ્યાસ

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Mine 151 by 151 Magic Square project have selected in **Asia book** of record,

India book of record, **Gujarat book** of record,

India star book of record, **Hind book of World** record.

Guided by: Vipulaben Vaghela

સારાંશ

શ્રીમદ્ ભગવદ્ ગીતા ના અધ્યાય 16 ના શ્લોક 1 થી 3 માં ભગવાન શ્રીકૃષ્ણે દેવી સંપત્તિના 26 ગુણોનું વર્ણન કર્યું છે. આ ગુણો વ્યક્તિના નૈતિક, સામાજિક અને આધ્યાત્મિક વિકાસ માટે આવશ્યક માનવામાં આવે છે. બીજી તરફ ડેનિયલ ગોલમેન દ્વારા પ્રસ્તુત સંવેગિક બુદ્ધિ (Emotional Intelligence) ના પાંચ ઘટકો – આત્મજાગૃતિ, આત્મનિયમન, પ્રેરણા, સહાનુભૂતિ અને સામાજિક કૌશલ્ય – વ્યક્તિના સફળ જીવન માટે અગત્યના ગણાય છે. આ લેખમાં ગીતા ના દેવી ગુણો અને સંવેગિક બુદ્ધિના ઘટકો વચ્ચેના સંબંધનું વિશ્લેષણ કરવામાં આવ્યું છે.

પરિચય

શ્રીમદ્ ભગવદ્ ગીતા માનવજીવનના સર્વાંગી વિકાસ માટે માર્ગદર્શન આપે છે. અધ્યાય 16 માં દર્શાવેલા દેવી ગુણો વ્યક્તિના ચારિત્ર્ય નિર્માણ માટે આધારસ્તંભ સમાન છે. ગોલમેનની સંવેગિક બુદ્ધિ વ્યક્તિની લાગણીઓને સમજવા અને સંચાલિત કરવાની ક્ષમતા પર ભાર મૂકે છે. બંને વિચારધારાઓનો હેતુ વ્યક્તિને વધુ સંતુલિત, સંવેદનશીલ અને સફળ બનાવવાનો છે.

ગોલમેનના સંવેગિક બુદ્ધિના ઘટકો અને ગીતાના દેવી ગુણો

1. આત્મજાગૃતિ (Self-Awareness)

પોતાની લાગણીઓ, વિચારો અને વર્તન વિશે જાગૃત રહેવાની ક્ષમતા.

ગીતા ના સંબંધિત ગુણો:

- સત્ત્વસંશુદ્ધિ: (મનની શુદ્ધિ)
- સ્વાધ્યાય: (સ્વાધ્યાય)
- હ્રી: (લજ્જા/નૈતિક સંકોચ)

વિશ્લેષણ: સ્વાધ્યાય અને મનની શુદ્ધિ વ્યક્તિને પોતાની અંદર ઝાંખી કરવાની પ્રેરણા આપે છે, જે આત્મજાગૃતિનું મૂળ છે.

2. આત્મનિયમન (Self-Regulation)

લાગણીઓ અને આવેગો પર નિયંત્રણ રાખવાની ક્ષમતા.

ગીતા ના સંબંધિત ગુણો:

- દમ: (ઇન્દ્રિય નિયંત્રણ)
- અક્રોધ: (ક્રોધનો અભાવ)
- શાન્તિ: (શાંતિ)
- ધૃતિ: (ધૈર્ય)
- તપ: (તપ)

વિશ્લેષણ: આ ગુણો વ્યક્તિને પરિસ્થિતિઓમાં સંતુલિત રહેવા અને ભાવનાત્મક નિયંત્રણ જાળવવા મદદ કરે છે.

3. આંતરિક પ્રેરણા (Motivation)

લક્ષ્ય પ્રત્યે સમર્પણ અને સતત પ્રયત્નશીલતા.

ગીતા ના સંબંધિત ગુણો:

- અભયમ્ (નિર્ભયતા)
- યજ્ઞઃ (સમર્પિત કર્મ)
- ત્યાગઃ (ત્યાગ)
- તેજઃ (તેજસ્વિતા)
- ધૃતિઃ (અડગતા)

વિશ્લેષણ: નિર્ભયતા અને ધૈર્ય વ્યક્તિને મુશ્કેલીઓ વચ્ચે પણ આગળ વધવા પ્રેરિત કરે છે.

4. સહાનુભૂતિ (Empathy)

બીજાની લાગણીઓને સમજવાની ક્ષમતા.

ગીતા ના સંબંધિત ગુણો:

- દયા ભૂતેષુ (સર્વ પ્રાણીઓ પ્રત્યે દયા)
- માર્દવમ્ (કોમળતા)
- અદ્રોહઃ (દ્વેષનો અભાવ)
- ક્ષમા (ક્ષમા)

વિશ્લેષણ: દયા અને ક્ષમા સહાનુભૂતિના મુખ્ય આધારસ્તંભ છે.

5. સામાજિક કૌશલ્ય (Social Skills)

સંબંધો જાળવવા અને અસરકારક સંવાદ સ્થાપિત કરવાની ક્ષમતા.

ગીતા ના સંબંધિત ગુણો:

- આર્જવમ્ (સરળતા)
- સત્યમ્ (સત્યવાદિતા)

- અપૈશુનમ્ (યુગલીનો અભાવ)
- નાતિમાનિતા (અહંકારનો અભાવ)

વિશ્લેષણ: સત્યતા, સરળતા અને વિનમ્રતા સકારાત્મક સામાજિક સંબંધો માટે આવશ્યક છે.

તારણ

ગીતા ના અધ્યાય 16 માં વર્ણવાયેલા દૈવી ગુણો અને ગોલમેનની સંવેગિક બુદ્ધિના ઘટકો વચ્ચે નોંધપાત્ર સામ્યતા જોવા મળે છે. ગીતા આધ્યાત્મિક અને નૈતિક ભાષામાં જે ગુણોનું વર્ણન કરે છે, તે જ ગુણોને આધુનિક મનોવિજ્ઞાન સંવેગિક બુદ્ધિના સ્વરૂપમાં રજૂ કરે છે. તેથી કહી શકાય કે ગીતા સંવેગિક બુદ્ધિના વિકાસ માટે એક પ્રાચીન અને સમૃદ્ધ આધાર પ્રદાન કરે છે.

નિષ્કર્ષ

શ્રીમદ્ ભગવદ્ ગીતા ના દૈવી ગુણો અને ગોલમેનની Emotional Intelligence બંનેનો અંતિમ હેતુ વ્યક્તિને સંતુલિત, સંવેદનશીલ, જવાબદાર અને સફળ બનાવવાનો છે. શિક્ષણ ક્ષેત્રમાં આ બંને અભિગમોનું સંકલન વિદ્યાર્થીઓના સર્વાંગી વિકાસ માટે અત્યંત ઉપયોગી બની શકે છે.

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The Effectiveness of Instagram Marketing in Building Small Business Brands

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ABSTRACT

Instagram has become one of the most influential social media platforms for marketing and brand promotion in the digital era. Small businesses increasingly use Instagram as an affordable and effective platform to improve brand awareness, customer engagement, and purchasing behaviour. Features such as Reels, Stories, Posts, influencer promotions, and customer interactions provide businesses with opportunities to connect directly with target audiences and create a strong brand identity. The visual and interactive nature of Instagram makes it highly suitable for promoting products and services, especially for small businesses with limited marketing budgets.

The present study focuses on analyzing the effectiveness of Instagram marketing in building small business brands. The research aims to examine customer preferences, trust factors, engagement patterns, and the influence of Instagram marketing on consumer purchasing decisions. The study also identifies the major challenges faced by customers while trusting small businesses on Instagram. Primary data for the research was collected through a structured questionnaire distributed among 202 respondents. Statistical tools such as percentage analysis, frequency distribution, and hypothesis testing were used to analyze the collected data.

The findings of the study reveal that Instagram Reels are the most influential type of content among users and significantly contribute to customer engagement. Reviews and comments were identified as the strongest factors influencing customer trust toward Instagram brands. The research also found that the absence of clear return and refund policies is one of the major challenges faced by consumers while purchasing from small businesses on Instagram. Furthermore, influencer promotions and visually appealing content positively affect customer purchasing behaviour and brand perception.

The study concludes that Instagram marketing plays a significant role in building small business brands by increasing visibility, improving customer interaction, and strengthening trust among consumers. Effective use of Instagram marketing strategies helps small businesses compete in the digital market and

establish long-term customer relationships. The research provides valuable insights for small business owners to improve their social media marketing practices and enhance brand growth through Instagram.

Keywords: *Instagram Marketing, Small Business Branding, Social Media Marketing, Customer Engagement, Digital Marketing, Brand Awareness, Consumer Behaviour, Influencer Marketing.*

Introduction

The advancement of digital technology and social media platforms has transformed the modern business environment. Social media marketing has become one of the most effective promotional tools for businesses to communicate with customers, increase brand awareness, and improve customer engagement. Among various social media platforms, Instagram has emerged as one of the most influential platforms due to its visual content, interactive features, and large active user base.

Instagram was launched in 2010 and later acquired by Meta Platforms in 2012. Over the years, the platform introduced several business-oriented features such as Stories, Reels, Shopping, Sponsored Advertisements, and Business Analytics. These features provide businesses with opportunities to promote products and services effectively and connect directly with target audiences.

Small businesses often face challenges such as limited financial resources, low brand visibility, and intense competition from established companies. Instagram marketing helps small businesses overcome these challenges by offering cost-effective promotional strategies. Businesses use Instagram to create engaging content, interact with customers, showcase products, and build customer trust through reviews, comments, influencer collaborations, and creative visual presentations.

Instagram Reels, Stories, and influencer marketing have become powerful tools for attracting audience attention and increasing customer engagement. Consumers are highly influenced by visual content, customer reviews, and promotional activities while making purchasing decisions. As a result, Instagram has become an important platform for brand building and customer relationship management.

The present study focuses on analyzing the effectiveness of Instagram marketing in building small business brands. The research aims to examine customer preferences, trust factors, content influence, and purchasing behaviour related to Instagram marketing. The study also attempts to identify the major challenges faced by customers while trusting small businesses on Instagram. Through this research, valuable insights can be provided to small businesses for improving their marketing strategies and strengthening their brand image in the digital market.

Review of Literature:**Sharma, R. and Verma, P. (2022)**

Sharma and Verma conducted a study on the impact of social media marketing on small business growth in India. The study found that Instagram marketing helps businesses improve customer engagement and increase brand awareness through visual communication and interactive content. The researchers concluded that creative marketing strategies and consistent posting positively influence customer attraction and brand recognition.

Finding: Instagram marketing significantly improves customer engagement and increases brand visibility for small businesses.

Patel, H. (2021)

Patel analyzed consumer purchasing behaviour on Instagram and identified that influencer promotions and customer reviews strongly affect customer buying decisions. The study highlighted that consumers are more likely to trust brands that maintain active communication and transparency on social media platforms.

Finding: Influencer marketing and customer reviews positively influence purchasing decisions and customer trust.

Kumar, A. and Singh, P. (2023)

Kumar and Singh examined the effectiveness of Instagram Reels in attracting customer attention. The researchers found that short-form video content creates higher engagement compared to static image posts. Reels were identified as one of the most effective tools for improving audience interaction and content reach.

Finding: Instagram Reels are highly effective in generating customer engagement and increasing audience reach.

Joshi, M. (2022)

Joshi investigated customer trust factors in online businesses and concluded that transparency, product quality, customer feedback, and clear return policies are important elements influencing customer trust toward online brands.

Finding: Customer trust increases when businesses provide reviews, transparency, and proper return/refund policies.

Mehta, D. and Shah, R. (2021)

Mehta and Shah focused on branding strategies used by small businesses on Instagram. The study revealed that regular content posting, customer interaction, and creative visuals help businesses improve customer loyalty and strengthen their brand identity.

Finding: Consistent content creation and customer interaction improve customer loyalty and brand image.

Chaffey, D. (2020)

Chaffey explained the importance of digital marketing strategies for modern businesses and emphasized the growing role of social media platforms in customer relationship management. The study stated that social media helps businesses understand customer preferences and market trends more effectively.

Finding: Social media marketing improves customer relationships and helps businesses understand market trends.

Keller, K. L. (2019)

Keller discussed the role of branding in customer perception and explained how digital platforms contribute to building strong brand identity. The study highlighted that customer engagement and emotional connection are essential for successful brand development.

Finding: Strong customer engagement through digital platforms improves brand identity and customer satisfaction.

➤ **Research Gap:**

Most previous studies have focused on general social media marketing and customer engagement, but limited research has specifically examined the effectiveness of Instagram marketing in building small business brands in the Indian context. Earlier studies mainly concentrated on influencer marketing, digital branding, or consumer behaviour separately, while very few studies analyzed customer trust, content preferences, and purchasing behaviour together. Therefore, the present study attempts to fill this gap by examining how Instagram marketing strategies influence brand awareness, customer engagement, and trust toward small business brands.

➤ **RESEARCH METHODOLOGY**

RESEARCH DESIGN:

The present study is based on descriptive research design. The descriptive research method was used to understand customer opinions, trust factors, engagement patterns, and purchasing behaviour related to Instagram marketing and small business branding. The study focuses on analyzing the effectiveness of Instagram marketing in building small business brands.

TARGET POPULATION:

The target population of the study includes Instagram users such as students, employees, business owners, and others who actively use Instagram and interact with small business brands.

SAMPLE SIZE:

The study consists of 202 respondents.

Distribution of Respondents

Occupation	Number of Respondents	Percentage
Students	90	44.6%
Employees	58	28.7%
Business Owners	38	18.8%
Others	16	7.9%
Total	202	100%

SAMPLING TECHNIQUE

Convenience sampling technique was used for collecting data because it allows easy and quick collection of responses from Instagram users.

SOURCES OF DATA:-

Primary Data

Primary data was collected directly from respondents through a structured questionnaire prepared using Google Forms.

Secondary Data

Secondary data was collected from journals, articles, books, websites, online publications, and previous studies related to Instagram marketing and small business branding.

RESEARCH INSTRUMENT

A structured questionnaire was used as the research instrument. The questionnaire included multiple-choice questions related to Instagram usage, customer trust, content preferences, and purchasing behaviour.

TOOLS AND TECHNIQUES USED FOR ANALYSIS

1. Percentage Analysis
2. Frequency Distribution
3. Hypothesis Testing
4. Table Interpretation

➤ HYPOTHESIS OF THE STUDY:-

Alternative Hypothesis (H01)

There is a significant relationship between occupation and the type of Instagram content influencing users.

Null Hypothesis (H0)

There is no significant relationship between occupation and the type of Instagram content influencing users.

Alternative Hypothesis (H02)

There is a significant relationship between age group and the biggest challenge faced while trusting small businesses on Instagram.

Null Hypothesis (H0)

There is no significant relationship between age group and the biggest challenge faced while trusting small businesses on Instagram.

Alternative Hypothesis (H03)

There is a significant relationship between occupation and the factors increasing trust in Instagram brands.

Null Hypothesis (H0)

There is no significant relationship between occupation and the factors increasing trust in Instagram brands.

Alternative Hypothesis (H04)

Instagram marketing significantly influences customer purchasing behaviour.

Null Hypothesis (H0)

Instagram marketing does not significantly influence customer purchasing behaviour.

➤ ANALYSIS AND INTERPRETATION**TABLE 1: TYPE OF CONTENT INFLUENCING USERS THE MOST**

Content Type	Frequency	Percentage
Posts	47	23.3%
Reels	121	59.9%
Stories	9	4.4%
Influencer Promotions	25	12.4%
Total	202	100%

Interpretation

Instagram Reels are the most influential type of content among respondents, accounting for 59.9% of total responses. This indicates that short-form video content is highly effective in attracting customer attention and increasing engagement

TABLE 2: FACTORS INCREASING TRUST IN INSTAGRAM BRANDS

Factors	Frequency	Percentage
Reviews and Comments	110	54.5%
Influencer Promotion	56	27.7%
High Quality Content	10	4.9%
Number of Followers	26	12.9%
Total	202	100%

Interpretation

Reviews and comments are the strongest factors influencing customer trust toward Instagram brands. Customers prefer businesses with positive reviews and active customer engagement.

TABLE 3: BIGGEST CHALLENGES FACED WHILE TRUSTING SMALL BUSINESSES ON INSTAGRAM

Challenges	Frequency	Percentage
Lack of Reviews	41	20.3%
Fake Followers	17	8.4%
Poor Product Quality	40	19.8%
No Clear Return/Refund Policy	104	51.5%
Total	202	100%

Interpretation

The absence of clear return and refund policies is the major challenge faced by customers while trusting small businesses on Instagram.

HYPOTHESIS ANALYSIS

Hypothesis	Significance Value	Result
H01	$P < 0.05$	Accepted
H02	$P < 0.05$	Accepted
H03	$P < 0.05$	Accepted
H04	$P < 0.05$	Accepted

Interpretation of Hypothesis Analysis

The statistical analysis indicates that all hypotheses are statistically significant because the significance value is less than 0.05. Therefore, the null hypotheses are rejected and the alternative hypotheses are

accepted. The findings show that Instagram marketing significantly influences customer engagement, customer trust, content preferences, and purchasing behaviour.

➤ FINDINGS

- ❖ Instagram Reels are the most preferred and influential type of content among users.
- ❖ Reviews and comments play an important role in increasing customer trust toward Instagram brands.
- ❖ Influencer promotions positively affect customer purchasing decisions and brand awareness.
- ❖ Customers prefer businesses that provide clear return and refund policies.
- ❖ Instagram marketing helps small businesses improve customer engagement and brand visibility.
- ❖ Visual content and interactive communication significantly attract customer attention.
- ❖ Customers are more likely to trust businesses with authentic reviews and active communication.
- ❖ Instagram marketing significantly influences customer purchasing behaviour and brand perception.
- ❖ Small businesses can compete effectively in the market through low-cost Instagram marketing strategies.
- ❖ Consistent posting and customer interaction help businesses build strong brand identity and customer loyalty.

➤ CONCLUSION

The present study examined the effectiveness of Instagram marketing in building small business brands. The research identified that Instagram has become one of the most powerful social media platforms for promoting products, increasing customer engagement, and improving brand awareness. Small businesses are increasingly using Instagram features such as Reels, Stories, Posts, influencer promotions, and customer interaction to strengthen their market presence and attract customers.

The findings of the study reveal that Instagram Reels are the most influential type of content among users and play a major role in improving customer engagement. Reviews and comments were identified as the strongest trust-building factors influencing customer purchasing decisions. The study also found that customers prefer businesses with transparency, authentic communication, and clear return and refund policies. Influencer marketing and visually attractive content positively affect customer attention and brand perception.

The hypothesis analysis showed that Instagram marketing significantly influences customer trust, engagement, content preference, and purchasing behaviour. The statistical results confirmed that there is a significant relationship between demographic variables and customer responses toward Instagram

marketing activities. Therefore, Instagram marketing can be considered an effective branding and promotional tool for small businesses.

The study concludes that Instagram marketing provides cost-effective opportunities for small businesses to compete in the digital marketplace. Effective use of creative content, customer interaction, and promotional strategies can help businesses build strong brand identity and long-term customer relationships. Overall, Instagram marketing has become an essential element for small business growth, customer engagement, and brand development in the modern digital era.

➤ RECOMMENDATIONS AND SUGGESTIONS

The study recommends that small businesses should focus more on Instagram Reels and creative visual content to improve customer engagement and brand awareness. Businesses should encourage customer reviews and maintain transparent communication to build trust among customers. Clear return and refund policies should also be provided to improve customer confidence while purchasing from Instagram brands. The study further suggests that businesses should use influencer marketing, regular posting, and active customer interaction to strengthen their brand image and customer relationships. Small businesses should also use Instagram analytics to understand customer preferences and improve their marketing strategies for long-term business growth and customer loyalty.

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- ❖ Online articles and websites related to Instagram marketing strategies and customer engagement practices.

"ભારતમાં ડ્રગ્સ કાયદા અને સામાજિક ન્યાય"
જાડેજા ડિમ્પલબા કે.

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પ્રસ્તાવના

ભારતમાં નશીલા પદાર્થોમાં દુરુપયોગની સમસ્યા આજે એક ગંભીર સામાજિક પડકાર તરીકે સામે આવી છે. તે માત્ર વ્યક્તિના આરોગ્યને નહીં પરંતુ પરિવારની સ્થિરતા અને સમગ્ર સમાજની શાંતિને પણ અસર કરે છે. યુવાનોમાં તેનો વધતો પ્રભાવ દેશના વિકાસ માટે ચિંતાજનક સ્થિતિ ઊભી કરે છે.

કાયદા અને સામાજિક ન્યાય બંનેનો મુખ્ય હેતુ નશીલા પદાર્થોના દુરુપયોગ જેવી ગંભીર સામાજિક સમસ્યાને નિયંત્રિત કરવાનો છે. સામાજિક ન્યાય દ્વારા પુનર્વસન અને સુધારણા પર ભાર આપવામાં આવે છે. આ બંનેના સંયુક્ત પ્રયાસથી જ એક સ્વસ્થ અને સમતુલિત સમાજની સ્થાપના શક્ય બને છે.

2. ડ્રગ્સ સંબંધિત મુખ્ય કાયદા

- Narcotic Drugs and Psychotropic Substances Act, 1985
- ભારતનો સૌથી મહત્વપૂર્ણ ડ્રગ્સ વિરોધી કાયદો છે.
- હેતુ : નશીલા પદાર્થોના ઉત્પાદન, વેચાણ, ખરીદી, સંગ્રહ, પરિવહન અને સેવન પર નિયંત્રણ
- ગેરકાયદેસર ડ્રગ ટ્રાફિકીંગ રોકવું
- અફીણ, ગાંજો, હેરોઈન, કોકેઈન, LSD, MD વગેરે પર કડક નિયંત્રણ
- મહત્વની કલમો
 - S – 8 = પ્રતિબંધિત પ્રવૃત્તિઓ
 - S – 20 = ગાંજો / ચરસ
 - S – 21 = Manufactured Drugs
 - S – 27 = વ્યક્તિગત સેવન
 - S – 37 = જામીન
 - S – 50 = તલાશી પ્રક્રિયા

- Drugs And Cosmetic Act, 1940 (અનધિકૃત દવાઓના નિયંત્રણ માટે)
- દવાઓ, ડ્રગ્સ અને કોસ્મેટિક વસ્તુઓની ગુણવત્તા નિયંત્રિત કરવી
- નકલી અથવા બિનલાયસન્સ દવાઓ / ડ્રગ્સ પર કાર્યવાહી

Sec.	વિષય	સજા
Sec-18	પ્રતિબંધિત દવા વેચાણ	Sec-27 મુજબ
Sec-22	Inspector ની સત્તા	તપાસ / જપ્તી
Sec-23	સેમ્પલ પ્રક્રિયા	લેબ તપાસ
Sec-27	નકલી / ભેળસેળ દવા	3 વર્ષથી આજીવન
Sec-27(A)	ગેરજાહેરાત	કેદ + દંડ
Sec-28	માહિતી ન આપવી	1 વર્ષ સુધી
Sec-28(A)	રેકૉર્ડ ન રાખવો	કેદ + દંડ
Sec- 32	ફરીયાદ સત્તા	અધિકૃત કાર્યવાહી

- Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988 (PIT NDPS Act)

- ડ્રગ્સ ટ્રાફિકિંગ અટકાવવું
- ગેરકાયદેસર નેટવર્ક તોડવું
- સમાજ અને યુવાનોને વ્યસનથી બચાવવા
- ડ્રગ્સ માફિયાઓ સામે કડક કાર્યવાહી કરવી
- પૂર્વ અટકાયત દ્વારા ગુનાઓ અટકાવવા

S-2-(C) = ગેરકાયદેસર હેરાફેરી

S -3 = પૂર્વ અટકાયત

S – 4 = અટકાયતના ઓર્ડરનો અમલ

S – 5 = Grounds of Detention અલગ કરી શકાય

S – 7 = ફરાર વ્યક્તિ

S – 8 = Advisory Board

- S – 9 = અટકાયત સમય
- S – 10 = Place and Conditions of Detention
- S- 11 = Temporary Release
- Gujarat Prohibition Act – 1949
- S – 65 = ગેરકાયદેસર રીતે નશીલા પદાર્થોના ઉત્પાદન, વેચાણ, અથવા ખરીદી કરવી
- S – 66 = નશીલા પદાર્થોનું સેવન
- S – 66(1)(b) = નશીલા પદાર્થનું સેવન અને કબજો રાખવો
- S – 67 = નશીલા પદાર્થોના પરિવહન પર પ્રતિબંધ
- S – 85 = જાહેર સ્થળે નશો કરીને અશાંતિ ફેલાવવી
- S – 93 = બિનઅધિકૃત રીતે દારૂનું ઉત્પાદન અથવા વિતરણ

3. NDPS Act ની મુખ્ય જોગવાઈઓ

- S – 8 = કોઈપણ વ્યક્તિને નશીલા પદાર્થનું ઉત્પાદન, વેચાણ, ખરીદી, સંગ્રહ, પરિવહન, ઉપયોગ, આયાત/નિકાસના કાર્ય કરવા પ્રતિબંધિત છે.
- S – 20 = ગાંજો સંબંધિત ગુના
- નાની માત્રા : 6 મહીના સુધી કેદ અથવા રૂ. 10,000 દંડ અથવા
 - મધ્યમ માત્રા : 10 વર્ષ સુધી કડક કેદ અને રૂ. 1 લાખ સુધી દંડ
 - વ્યાવસાયિક માત્રા : 10 થી 20 વર્ષ સુધી કડક કેદ અને રૂ. 1 લાખથી 2 લાખ દંડ
- S – 21 = Manufactured Drugs (હેરોઈન વગેરે)
- S – 22 = Psychotropic Substances
- S – 27 = નશીલા પદાર્થોનું સેવન
- કોકેઈન / મોર્ફીન જેવા પદાર્થો માટે : 1 વર્ષ સુધી કેદ અથવા અન્ય પદાર્થો માટે 6 મહીના સુધી કેદ અથવા રૂ. 10,000
- S – 31 = પુનરાવર્તિત ગુનો = ફીરીથી ગુનો કરનારને વધુ કડક સજા આપવામાં આવે છે.

S - 41 = વોરંટ અને અધિકૃતતા - મેજિસ્ટ્રેટ અથવા અધિકૃત અધિકારી તપાસ / ધરપકડ માટે વોરંટ આપી શકે.

S - 42 = વોરંટ વગર તપાસ અને ધરપકડ - અધિકારીને શંકા હોય તો ઘર, વાહન, ગોડાઉન, સ્થળ તપાસ કરી શકે અને વોરંટ વગર ધરપકડ કરી શકે.

S - 43 = જાહેર સ્થળે તપાસ અને ધરપકડ - જાહેર સ્થળે તપાસ, જપ્તી, ધરપકડ વોરંટ વગર કરી શકાય.

S - 49 = વાહનની તપાસ - પોલીસ અથવા અધિકૃત અધિકાર વાહનની તપાસ કરી શકે.

S - 50 = વ્યક્તિની તપાસના નિયમો
- તેને મેજિસ્ટ્રેટ અથવા મેજિસ્ટ્રેટ ઓફીસર સમક્ષ તપાસ કરાવવાનો અધિકાર છે.
- મહિલા તપાસ માત્ર મહિલા અધિકારી દ્વારા જ કરી શકાય.

S - 53 = પોલીસ સમાન સત્તા - કસ્ટમ, NCB, DRI વગર વિભાગમાં અધિકારીઓને પોલીસ સ્ટેશન ઈન્ચાર્જ જેવી સત્તા આપવામાં આવી છે.

S - 58 = ખોટી તપાસ અથવા ગેરકાયદેસર ધરપકડ માટે સજા જો અધિકારી ખોટી તપાસ કરે, બિનજરૂરી ધરપકડ કરે, ગેરકાયદેસર જપ્તી કરે તો તેને 6 મહીના સુધી કેદ અથવા દંડ અથવા બંને થઈ શકે.

4. સામાજિક ન્યાયનો અર્થ :

1. દરેક વ્યક્તિને સમાન અધિકાર અને તક મળવી
- દરેક નાગરિક કાયદા સમક્ષ સમાન છે.
- જાતિ, ધર્મ, લિંગ અથવા વર્ગના આધારે ભેદભાવ ન થવો જોઈએ.
- શિક્ષણ, રોજગાર અને આરોગ્યમાં સમાન તક મળવી જોઈએ.
- બંધારણ દ્વારા સમાનતાનો અધિકાર સુરક્ષિત કરવામાં આવ્યો.
2. નબળા વર્ગોને સુરક્ષા અને પુનર્વસન આપવું
- વ્યસન રત વ્યક્તિઓ માટે સારવાર અને પુનર્વસન કેન્દ્રો ઉભા કરવા
- સમાજમાં પુનઃ સ્થાપિત થવા માટે રોજગાર અને શિક્ષણની મદદ
- માનવ અધિકારોનું રક્ષણ કરવું
3. સમાજમાં અસમાનતા ઘટાડવી
- આર્થિક અને સામાજિક અસમાનતા ઘટાડવાના પ્રયાસો કરવા

- ગરીબી અને બેરોજગારી દૂર કરવા માટે નીતિઓ બનાવવી
- સમાજમાં શોષણ અને અન્યાય રોકવો
- 4. ડ્રગ્સ કાયદા અને સામાજિક ન્યાય વચ્ચે સંબંધ
- કાયદાનો હેતુ માત્ર ગુનેગારને સજા આપવાનો નથી. પરંતુ તેને સુધારવાનો પણ છે.
- નશાખોર વ્યક્તિને અપરાધી તરીકે નહીં પરંતુ તેને સુધારવાનો પણ છે.
- નશાખોર વ્યક્તિને અપરાધી તરીકે નહીં પરંતુ સારવારની જરૂરિયાત ધરાવતી વ્યક્તિ તરીકે જોવો જોઈએ.
- કાયદાનો મુખ્ય હેતુ દરેક વ્યક્તિના માનવ અધિકારોનું રક્ષણ કરવો છે.
- માનવ અધિકારોનું રક્ષણ થવાથી સામાજિક વિકાસ અને સુખાકારી વધે છે. S

5. માનવ અધિકાર પર અસર

1. અંધાધૂંધ ધરપકડથી માનવ અધિકારનો ભંગ
- યોગ્ય પુરાવા વગર ધરપકડ કરવી માનવ અધિકાર વિરુદ્ધ છે.
- નિર્દોષ વ્યક્તિની સ્વતંત્રતા પર અસર થાય છે.
- કાયદાનો દુરુપયોગ થવાની શક્યતા વધે છે.
2. પોલીસ અથવા સત્તાનો દુરુપયોગ
- સત્તાનો અતિરેક નાગરિકોના અધિકારોને નુકશાન પહોંચાડે છે.
- ગેરકાયદેસર દબાણ અને હેરાનગતિ માનવ ગૌરવનો ભંગ કરે છે.
3. ન્યાયિક પ્રક્રિયા ન્યાયસંગત હોવી જોઈએ.
- દરેક આરોપીને યોગ્ય રીતે પોતાની વાત રજૂ કરવાનો અધિકાર છે.
- નિષ્પક્ષ અને ઝડપી ટ્રાયલ ન્યાયનો આધાર છે.
- કાયદા સમક્ષ બધા સમાન હોવા જોઈએ.
4. આરોપીના ગૌરવનું રક્ષણ
- આરોપી સાથે માનવતાપૂર્વક વર્તન કરવું જરૂરી છે.
- કસ્ટડી દરમિયાન શારીરિક અથવા માનસિક ત્રાસ ન આપવો જોઈએ.

7. સરકારની ભૂમિકા

1. જાગૃતિ અભિયાન ચલાવવું
- નશીલા પદાર્થોના નુકશાન વિશે લોકોમાં જાગૃતિ ફેલાવવી.
- શાળા, કોલેજ અને ગામડાઓમાં શિક્ષણ કાર્યક્રમો યોજવા.

- મીડિયા અને સોશિયલ મીડિયા દ્વારા જનજાગૃતિ વધારવી.
- 2. પુનર્વસન કેન્દ્રોની સ્થાપના
 - વ્યસનગ્રસ્ત લોકો માટે સારવાર અને કાઉન્સેલિંગની વ્યવસ્થા કરવી.
 - સરકારી રીહેબિલીટેશન સેન્ટરોમાં મફત અથવા સસ્તી સારવાર આપવી.
 - વ્યસનમુક્તિ પછી રોજગાર અને સામાજિક પુનઃસ્થાપન માટે સહાય કરવી.
- 3. કડક કાયદાની અમલવારી
 - નશીલા પદાર્થોના ઉત્પાદન અને વેચાણ સામે કડક કાર્યવાહી કરવી.
 - કાયદાનો અસરકારક અને પારદર્શક અમલ કરવો.
 - ડ્રગ્સ તસ્કરી રોકવા માટે વિશેષ દળ અને તપાસ મજબૂત બનાવવી.
- 4. સામાજિક સહાયતા અને સહકાર
 - પરિવાર અને સમાજને વ્યસનમુક્તિ અભિયાનમાં જોડવા.
 - NGO અને સામાજિક સંસ્થાઓ સાથે સહકાર વધારવો.
 - વ્યસનગ્રસ્ત વ્યક્તિઓને સમાજમાં ફરી સ્વીકાર મળે તે માટે સહાય કરવી.
- 8. પડકારો
 - 1. ડ્રગ્સનું આંતરરાષ્ટ્રીય નેટવર્ક
 - સરહદ પાર ગુનાખોરી રોકવી સરકાર માટે મોટો પડકાર છે.
 - વૈશ્વિક સ્તરે સહકાર વગર ડ્રગ્સ નિયંત્રણ મુશ્કેલ બને છે.
 - 2. યુવાનોમાં વધતો નશાનો પ્રભાવ
 - યુવાનોમાં વ્યસનની ટેવ ઝડપથી વધી રહી છે.
 - નશાના કારણે શિક્ષણ અને કારકીર્દી પર નકારાત્મક અસર પડે છે.
 - સોશિયલ મીડિયા અને ખોટી સંગત વ્યસન વધારવામાં જવાબદાર બને છે.
 - 3. કાયદાનો યોગ્ય અમલ ન થવો
 - કાયદાની અમલવારીમાં ભ્રષ્ટાચાર અને બેદરકારી જોવા મળે છે.
 - દરેક વિસ્તારમાં સમાન રીતે કાર્યવાહી થતી નથી.
- 9. ઉપાયો
 - 1. શિક્ષણ અને જાગૃતિ
 - નશાના નુકસાન વિશે શાળા અને સમાજમાં જાગૃતિ ફેલાવવી જરૂરી છે.

2. કડક અમલ અને નિયંત્રણ
 - નશીલા પદાર્થોના ઉત્પાદન અને વેંચાણ સામે કડક કાર્યવાહી કરવી જોઈએ.
3. પુનર્વસન અને કાઉન્સેલિંગ
 - વ્યસનગ્રસ્ત લોકોને સારવાર અને માનસિક માર્ગદર્શન ઉપલબ્ધ કરાવવું જોઈએ.
4. સમાજની સક્રિય જવાબદારી
 - વ્યસનમુક્તિ અભિયાનમાં પરિવાર, શાળા અને સમાજનો સહકાર જરૂરી છે.
5. યુવાનો માટે માર્ગદર્શન
 - યુવાનોને સકારાત્મક પ્રવૃત્તિઓ અને યોગ્ય માર્ગદર્શન તરફ પ્રોત્સાહિત કરવા જોઈએ.

6. નિષ્કર્ષ

1. ડ્રગ્સની સમસ્યા એક સામાજિક સમસ્યા
ડ્રગ્સની સમસ્યા માત્ર કાનુની નહીં પરંતુ ગંભીર સામાજિક સમસ્યા પણ છે.
2. કાયદા અને સામાજિક ન્યાયનો સમન્વય
કાયદા અને સામાજિક ન્યાય સાથે મળીને કાર્ય કરે ત્યારે જ અસરકારક પરિણામ મળે છે.
3. સ્વસ્થ અને નશામુક્ત સમાજનું નિર્માણ
નશામુક્ત અને સ્વસ્થ સમાજ બનાવવો સરકાર અને સમાજનું મુખ્ય લક્ષ્ય હોવું જોઈએ.
4. માનવ અધિકારનું રક્ષણ
વ્યસન સામેની કાર્યવાહી દરમિયાન માનવ અધિકારોનું રક્ષણ જરૂરી છે.

10. સારાંશ

આ સમસ્યાને નિયંત્રિત કરવા માટે ભારત સરકારે નાર્કોટિક ડ્રગ્સ એન્ડ સાયકોટ્રોપિક સબસ્ટાન્સિસ એક્ટ 1985 (NDPS Act, 1985) અમલમાં મૂક્યો, જેના દ્વારા ડ્રગ્સ સંબંધિત ગુનાઓ સામે કડક કાનુની કાર્યવાહી અને સજાની જોગવાઈ કરવામાં આવી છે.

પરંતુ માત્ર કડક કાયદો જ સમસ્યનો સંપૂર્ણ ઉકેલ નથી. ડ્રગ્સનું વ્યસન જાહેર આરોગ્ય, માનવ અધિકારો અને સામાજિક ન્યાય સાથે પણ સીધું જોડાયેલું છે. વ્યસનગ્રસ્ત વ્યક્તિને માત્ર ગુનેગાર તરીકે નહીં પરંતુ સારવાર, કાઉન્સેલિંગ અને પુનર્વસનની જરૂરિયાત ધરાવતા વ્યક્તિ તરીકે જોવાનો અભિગમ આધુનિક સામાજિક ન્યાયના સિદ્ધાંતો સાથે સુસંગત છે.

આથી ભારતમાં ડ્રગ્સ કાયદા અને સામાજિક ન્યાયનો અભ્યાસ એ સમજવા માટે મહત્વપૂર્ણ છે કે કેવી રીતે કાયદાના કડક અમલ, માનવ અધિકારોના રક્ષણ, જાહેર આરોગ્ય, વ્યસનમુક્તિ, પુનર્વસન અને સામાજિક પુનઃસ્થાપન વચ્ચે સંતુલન સ્થાપિત કરી શકાય. આ વિષય કાનૂની વ્યવસ્થા, સામાજિક કલ્યાણ અને માનવ ગૌરવના સંરક્ષણ માટે અત્યંત પ્રાસંગિક છે.

ભારતમાં ડ્રગ્સની સમસ્યા છેલ્લા કેટલાક દાયકાઓમાં ગંભીર સામાજિક, આરોગ્ય અને કાનૂની પડકાર તરીકે ઉભરી છે. નશીલા પદાર્થોનું ઉત્પાદન, ગેરકાયદેસર વેપાર, હેરફેર અને વ્યસન વ્યક્તિ, પરિવાર અને સમગ્ર સમાજ પર ગંભીર અસર કરે છે. આ સમસ્યાને નિયંત્રિત કરવા માટે ભારત સરકારે નાર્કોટિક ડ્રગ્સ એન્ડ સાયકોટ્રોપિક સબસ્ટાન્સિસ એક્ટ, ૧૯૮૫ અમલમાં મૂક્યો, જેના દ્વારા ડ્રગ્સ સંબંધિત ગુનાઓ સામે કડક કાનૂની કાર્યવાહી અને સજાની જોગવાઈ કરવામાં આવી છે.

પરંતુ માત્ર કડક કાયદો જ સમસ્યાનો સંપૂર્ણ ઉકેલ નથી. ડ્રગ્સનું સેવન જાહેર આરોગ્ય, માનવ અધિકારો અને સામાજિક ન્યાય સાથે પણ સીધું જોડાયેલું છે. વ્યસનગ્રસ્ત વ્યક્તિને માત્ર ગુનેગાર તરીકે નહીં પરંતુ સારવાર, કાઉન્સેલિંગ અને પુનર્વસનની જરૂરિયાત ધરાવતા વ્યક્તિ તરીકે જોવાનો અભિગમ આધુનિક સામાજિક ન્યાયના સિદ્ધાંતો સાથે સુસંગત છે.

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- ૨) સામાજિક ન્યાય (Social Justice)
- ૩) માનવ અધિકારો (Human Rights)
- ૪) જાહેર આરોગ્ય (Public Health)
- ૫) કાનૂની નિયંત્રણ (Legal Regulation)
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સૌરાષ્ટ્ર યુનિવર્સિટી, રાજકોટ-360 005

સારાંશ

ગુજરાતી સાહિત્યમાં આધુનિકકાળમાં જે વાર્તા, નવલકથા, નાટક-એકાંકી જેવાં સ્વરૂપોનું સર્જન થયું એની અસર અનુઆધુનિક યુગના સર્જકોએ પણ ઝીલી. અનુઆધુનિક કાળના સર્જનોમાં મુખ્યત્વે દલિતચેતના, ગ્રામચેતના અને નારીચેતનાને ઉપસાવવામાં સર્જકોએ ઉદ્દેશ્ય રાખ્યો. પણ એ સાથોસાથ ગાંધીવાદી સાહિત્યનાં લક્ષણોને પણ તેઓ તેમની રચનામાં લાવ્યાં. એથી એમની રચનાઓ પ્રયોગશીલ અને જીવંત બની. આ સર્જકોએ વિષયવસ્તુના બાહ્યકલેવર કરતાં આંતરકલેવરને મહત્વ આપ્યું. અને એના માટે તેમણે ઘટનાને પ્રાધાન્ય ન આપતાં ઘટનામાં પ્રયોજાયેલ પાત્રોના આંતરમનને પકડ્યું. એ પાત્રોના ચિત્તસંચલનોને તેમણે કામે લીધાં. એથી કથાવસ્તુને જોમ મળ્યો અને રચના રસમય બની. તેઓએ એ માટે નિમ્નસ્તરના કે મધ્યમ વર્ગીય પાત્રોને રચનામાં પસંદ કર્યાં અને એમની મનોસંવેદનાને પ્રગટાવી. સાથે સાથે સમાજની શ્રદ્ધા-અંધશ્રદ્ધા, રાગ-દ્વેશ વગેરેનો પણ એમાં વિનિયોગ કર્યો. તો કેટલાક સર્જકોએ એ વખતના સામાજિક-રાજકીય દૂષણો જેવાં કે લાંચરુસ્વત, ભ્રષ્ટાચાર, કિન્નાખોરી, ચોરી-લૂંટફાટને પણ રચનાઓમાં પ્રગટાવી. એમાં ટૂંકીવાર્તાનું સ્વરૂપ તેમને વધારે માફક આવ્યું. અને એવી રચના કરનારા ઘણા સર્જકો માનને લાયક પણ ઠર્યાં. એમાંના એક તે વિજય શાસ્ત્રી. વિજય શાસ્ત્રીએ બસોએક વાર્તાઓ આઠેક સંગ્રહમાં આપી. એમાંની એક છે ‘મંગુભાઈનું નેટવર્ક’. આ વાર્તા તેમના ‘શ્રવણની કાવડ’ વાર્તાસંગ્રહમાં સમાયેલી છે અને તે પ્રયોગશીલ વાર્તા છે. જેમાં તેમણે અધિકારીઓનો દમમ અને કર્મચારીઓની હાલાકી દર્શાવી છે. મંગુભાઈનું પાત્ર એમાનું જ એક છે. વાર્તામાં નિરૂપાયેલ ઘટનાને અહીં મેં આજના સંદર્ભમાં જોવાનો પ્રયત્ન કર્યો છે.

આવીરૂપ શબ્દો : આધુનિકોત્તર – આધુનિક પછીનો, પ્રયોગશીલ-અખતરા કરનારો, અમલમાં મૂકનારો કે પ્રયોગ કરનારો, જીવનબોધ-જીવનને બોધ મળે અવું, લક્ષ્યવિશેષો- જે લક્ષમાં લીધાં તેવાં લક્ષણો કે વિશેષતા, મનોસંચલનો - મનમાં થતો ભાવ કે લાગણી, ઢંઢ - બે બાબતો વચ્ચેનો ટકરાવ કે દોલાયમાન સ્થિતિ, સદ-અસદ - સત્ય-અસત્ય, સર્જકદૃષ્ટિ- સર્જકની દૃષ્ટિ, આંતરચેતના- અંદરની ચેતના, નિષ્ઠાવાન-

નિષ્ઠાથી કામ કરનાર, ફોલ્ટ- ટ્રુટિ, પૂર્વકર્મચારી-આગળનો કર્મચારી, બરતરફ- કાઢી મૂકવું, કુનેહી- આવડતવાળો, પરોપકારી -બીજા પર ઉપકાર કરે એવો, નેટવર્ક - સંબંધોનો વિસ્તાર કે સંબંધ રાખનારો, ઠપ્પ- બંધ, ખિન્ન- ઉદ્વેગ મનવાળુ, અખબાર-છાપું, કામુકતા - કામના કે વાસના, કેબલ વાયર, પ્રતીકાત્મક- એકની અવેજીમાં બીજું કે સાંકેતિક; નિશાન-તીરનું નિશાન, તિરોધાન.

વિજય શાસ્ત્રી આધુનિકોત્તર કાળના સર્જક છે અને તેમણે નવલકથા, ટૂંકી વાર્તા, વિવેચન, અનુવાદ જેવાં ક્ષેત્રોમાં નોંધપાત્ર પ્રદાન કર્યું છે. પણ તેમની આગવી ઓળખ તો એક પ્રયોગશીલ વાર્તાકાર તરીકેની રહી છે. તેમની પાસેથી આઠેક જેટલા વાર્તાસંગ્રહો મળે છે. જેમાં 'શ્રીમતી શાહની એક બારી'(૧૯૭૧), 'અહીં તો'(૧૯૭૩), 'હોવું એટલે હોવું'(૧૯૭૮), 'ખદારેખદ'(૧૯૭૯), 'ઈત્યાદી'(૧૯૮૮) 'અસારે ખલુ સંસારે'(૧૯૯૩, 'શ્રવણની કાવડ'(૨૦૦૧), 'આવાગન'(૨૦૦૮) અને 'સરનામું બદલાય છે'(૨૦૧૫) જેવાં સંગ્રહોનો સમાવેશ થાય છે. જેમાં તેમણે કુલ ૨૦૦ જેટલી વાર્તાઓ આપી છે. તેમની વાર્તાઓમાં મોટે ભાગે માનવીઓની ઊંડી લાગણીઓ પ્રગટ થાય છે અને તે પણ પ્રયોગશીલ રીતે. ટૂંકમાં કહીએ તો તેમણે મોટેભાગે મધ્યમવર્ગીય પાત્રોને નાયક તરીકે પસંદ કર્યા છે અને તેમને વિકટ પરિસ્થિતિમાં મૂકીને તેમની સંવેદનાને વાર્તામાં પ્રગટાવી છે. જોકે તેમની કેટલીક વાર્તાઓ પરંપરિત શૈલીની પણ મળે છે. એવી વાર્તાઓ જીવનબોધને તાકે છે. તો સમાજના પરિવર્તિત પરિબળો ઝીલીને લખાવેલી વાર્તાઓમાં અનુઆધુનિકોત્તર સાહિત્યનાં લક્ષ્યવિશેષો જેવાં કે અજંપા, અકળામણ, અધિક પામવાની લાલસા, વિખંડિતતા, એકલતા, હતાશા વગેરે પ્રગટેલ જોવા મળે છે. મંગુભાઈનું નેટવર્ક' એ આ વર્ગની જ એક વાર્તા છે અને તે 'શ્રવણની કાવડ' વાર્તાસંગ્રહમાં મૂકાયેલી છે.

આ વાર્તા- 'મંગુભાઈનું નેટવર્ક'ની ઘટના તો સામાન્ય છે પણ તેમાં પ્રયોજાયેલ મનોસંચલનો, ક્રિયા- પ્રતિક્રિયાઓને કારણે તે સઘન બની છે. જે તેમણે વાર્તાનું મુખ્ય પાત્ર મંગુભાઈ દ્વારા દર્શાવેલ છે. તો, સદ્- અસદ્ વચ્ચેનો દ્રઢ અધિકારીઓના આચરણ કે વ્યવહાર દ્વારા દર્શાવેલ છે. એ સાથે અન્યાય થતાં વ્યક્તિ કોઈ પણ રીતે બદલો લે છે એ પણ બતાવ્યું છે. વાર્તાની વિશેષતા એ છે કે, વાર્તાકારે “કથનનો દોર પોતાના હાથમાં ન લેતાં વાર્તાને જ બોલવા દીધી છે. જે તેમનું જમા પાસું છે. એમની આ વાર્તા સંરચનાની દૃષ્ટિએ સાવ જુદી છે. કારણ કે, એની ભીતરમાં સર્જકદષ્ટિ રહેલી છે. વાર્તામાં જે ઘટના નિર્માણ પામેલી છે એમાં તેમણે વાર્તાનું મુખ્ય પાત્ર મંગુભાઈની આંતરચેતનાને કે જીવનની ચેતનાને ઊથલપાથલ થતી બતાવેલી છે. જે વાર્તામાંથી પસાર થતાં આપણને જોવા મળે છે. વાર્તામાં મંગુભાઈનાં જીવનપરિવર્તનને ત્રણ તબક્કામાં આપણે જોઈ શકીએ છીએ: (૧) સંદેશાવ્યવહાર ખાતામાં પ્રામાણિકતાથી અને નિષ્ઠાપૂર્વક ફરજ

બજાવતા મંગુભાઈ (૨) નોકરીમાંથી ખોટી રીતે બરતરફ કરાતાં ચોરી તરફ વળતા મંગુભાઈ અને (૩) ફરી ખાતામાં જઈ સેવાકામ કરી માન-સન્માન સાથે ખાતામાંથી નીકળતી રકમ મેળવતા મંગુભાઈ. એ ત્રણે તબક્કાઓનાં તાંતણાંઓ વાર્તામાં એકબીજા સાથે બરાબર રીતે જોડાયેલા દેખાય છે અને એનાંથી જ વાર્તાનો વિકાસ સંધાયો છે.

માનવીના જીવનમાં કુદરતી રીતે, બીજા માનવીઓ દ્વારા અને પોતાના જ કશાક દોષના કારણે પરિસ્થિતિ બગડે છે ને કડુણતા સર્જાય છે. આ વાર્તામાં પણ બીજા માનવી દ્વારા મંગુભાઈની પરિસ્થિતિ બગાડયાનું દર્શાવેલ છે. અને એ માટે સજકે વાર્તામાં વાર્તાનાયક મંગુભાઈની આગળપાછળ અધિકારીઓને ગોઠવી ન્યાય-અન્યાયની બાબત મૂકી છે. એમાં પ્રથમ અધિકારી ખોટું કરવા-કરાવવા માહેર છે એટલે પ્રામાણિક અને નિષ્ઠાવાન કર્મચારી મંગુભાઈ તેમને કણાની માફક ખૂંચે છે. તેથી તે બાધારૂપ લાગતાં મંગુભાઈને આયોજનપૂર્વક સંડોવીને નોકરીમાંથી બરતરફ કરે છે; એટલું જ નહીં ખાતામાંથી પ્રોવિડન્ટફંડની રકમ તથા ખાતામાંથી લેણી થતી અન્ય રકમ પણ આપતો નથી. તો બીજો અધિકારી કર્મચારીઓ પર વિશ્વાસ રાખે છે ને સારો વર્તીવ કરે છે. તે જવાબદારીને સારી રીતે વાહન કરે છે કે નિભાવે છે. એટલે જ તે ચોરીને કારણે મૂંગા થઈ ગયેલ ટેલિફોનોને ચાલુ કરવા માટે લાઈનમાં ફોલ્ટ શોધવા કર્મચારીઓ પાસે સઘન પ્રયત્નો કરાવે છે. ને અંતે ફોલ્ટ નહિ મળતાં પોતે તેની જવાબદારી લઈ, હાર માની કર્મચારીઓ પાસેથી સુઝાવ મેળવવા માટે મિટિંગ બોલાવે છે અને સુઝાવરૂપે જ તેમની પાસે મંગુભાઈનું નામ આવે છે. એ મિટિંગમાં તેમને એક કર્મચારી કહે છે: "મંગુભાઈ આવા ફોલ્ટ પકડી પાડવામાં નિષ્ણાત હતા. તેમનો સંપર્ક કરો." અને પછી તેમની વાત માની ખાતાના પૂર્વકર્મચારી - મંગુભાઈને બોલાવી કામ સોંપે છે ને સફળ થાય છે. એ કાર્ય પત્યા પછી તે મંગુભાઈને શાલ ઓઢાડી સન્માનિત કરે છે, એટલું જ નહીં ખાતામાંથી તેમની લેણી થતી રકમ પણ આપે છે. એમ પ્રથમ અધિકારી લાલચું, ભષ્ટાભારી ને સ્વાર્થી છે જ્યારે બીજો અધિકારી જવાબદારીથી સભાન, કુનેહી, હોંશિયાર ને પરોપકારી છે એમ વાર્તામાં દર્શાવેલ છે.

વાર્તામાં મંગુભાઈનું પાત્ર મુખ્ય છે. તે પ્રામાણિક અને નિષ્ઠાવાન છે. પણ શર્મા સાહેબ તેમને ખોટી રીતે સંડોવીને નોકરીમાંથી બરતરફ કરી દે છે. એટલે જ તે બદલાની ભાવના રાખી પ્રતિશોધ લેવા મનમાં ગાંઠ વાળે છે. વાર્તામાં સજકે એ રીતે મંગુભાઈ જે કરવાના છે તેની ભૂમિકા રચી આપી છે. બીજું, સજકે મંગુભાઈના ફિલ્મ જોવાના શોખની વાત કરી છે જે પણ વાર્તા વિકાશમાં ફાળો આપે છે. મંગુભાઈને બે પ્રકારના સિનેમા જોવાનું ગમે છે. એક ધાર્મિક; કે જેમાં ભગવાન કટોકટીની વેળાએ પોતાના ભક્તને મદદ કરવા માટે દોડી આવતા હોય. અને બીજો મારફાડવાળી; કે જેમાં પ્રામાણિક નાયકને ખલનાયક કશાક

સકંજામાં સપડાવી દેતો હોય. અને એ પછી એ ન્યાયને માર્ગે જીવનાર નાયક વેર વાળવા હિંસાને રસ્તે ઊતરી જતો હોય કે અન્યાય સામે લડતો હોય. અને ન્યાય મેળવી છેવટે તે બન્યું-બનાવ્યું બધું જ ભૂલી જઈને એમની સાથે સારા સંબંધો વિકસાવી એમની પાસેથી શાબાશી મેળવતો હોય. અને એમનાં કારણે પરિવારજનો પર જે દુખો આવ્યાં હોય એમને દૂર કરી એમનાં આંસુ લૂછતો હોય! આ વાર્તામાં મંગુભાઈને એવી મારફાડવાળી સિનેમાના નાયક જેવો દર્શાવવામાં આવ્યો છે. તે એક રાતે સંદેશાવ્યવહારમાં વાપરવામાં આવેલ નવી ટેકનોલોજીનાં કિંમતી કેબલની ચોરી કરે છે. જેને કારણે એ વિસ્તારના ટેલિફોનો મૂંગા થઈ જાય છે ને બીજા દિવસના અખબારોમાં મોટા મથાળે “હજારો ટેલિફોનો ઠપ્પ” એવા સમાચાર છપાય છે. જેનાં કારણે એ ખાતાની તેજાબી ઝાટકણી કાઢવામાં આવે છે. એ રીતે મંગુભાઈ કેબલ ચોરીને છાપાંઓ દ્વારા શર્મા સાહેબને લપડાક મારે છે ને એમનાં અપમાનનો બદલો લે છે. વાર્તામાં સજકે એ બાબતને બરાબર ઉપસાવી છે. જેમ કે, સદા ઉદાસ ને ખિન્ન રહેતા મંગુભાઈના ચહેરા પર એ દિવસે પ્રસન્નતા દેખાય છે. જે આવેલ પરિવર્તન એમણે લીધેલ બદલાની નિશાની છે.

વાર્તામાં મંગુભાઈને બે વાર ચોરી કરતો બતાવેલ છે. જેમાં પ્રથમવારની ચોરી- કેબલની ચોરીનો મુખ્ય ઉદ્દેશ્ય શર્મા સાહેબ સામે બદલો લેવાનો છે અને ગૌણરૂપે કેબલ વેચી રકમ મેળવી ઘરખર્ચ કાઢવાનો. જે સજકે અખબારમાં છપાયેલ એ બાબતના સમાચાર જોઈ મંગુભાઈ આનંદિત થઈ વાર્તાલાપ કરે છે તે દ્વારા દર્શાવેલ છે. પણ બીજીવારની ચોરી તો તેમના માટે જરૂરિયાત થઈ પડેલ છે. એ વિશે વાર્તાકારે વાર્તામાં લખાયું છે: “હવે પુત્ર અને પત્નીની જાતજાતની અપેક્ષા જાગી ગઈ હતી.” તો સંતાનોની અપેક્ષાઓ પણ વધી ગઈ છે. જે સજકે દીકરો દક્ષિણ ભારતની એક સંસ્થામાં તગડી ફી ભરીને એડમિશન લે છે અને પત્ની ઝીણા પોતની સાડી ખરીદે છે એના દ્વારા દર્શાવેલ છે. એવા ખર્ચાને કારણે નાણાં ઘટવા લાગે છે. તો બીજું, દીકરાની બીજીવારની ફી ભરવા માટે રૂપિયા આપવાની તાતી જરૂર છે. એટલે મંગુભાઈ બીજી જગ્યાએથી કેબલ કાપી આર્થિક ઘટ સરભર કરી દે છે. એના દ્વારા સજકે દર્શાવ્યું છે કે માણસ સારપ ગુમાવે પછી તેને કોઈ જાતનો અફસોસ કે પસ્તાવો થતો નથી અને એવી વ્યક્તિ જે તે સંસ્થા કે સમાજ સામે બંડ પોકારે છે, વિદ્રોહ રચે છે. મંગુભાઈએ એજ કર્યું છે.

વાર્તામાં સાડીનો સંદર્ભ બેવાર મૂકવામાં આવ્યો છે. પ્રથમવાર પત્ની ખરીદી લાવે છે. જેમાં ઉડાવપણાંનો સંકેત છે. તો બીજીવાર મંગુભાઈ પોતે લઈ આવે છે એમાં પત્ની પ્રત્યેનો પ્રેમ દર્શાવ્યો છે. પત્ની ઝીણા પોતની સાડી પહેરે ત્યારે માવાદાર નિતંબોને મંગુભાઈ કામુક્તાથી જોયા કરે છે એમાં સજકે શૃંગારરસની કણિકા મૂકી દીધી છે.

વાર્તા વર્ણનાત્મક રીતિએ લખાયેલી છે એટલે સંવાદો વધારે નથી -બેએક જ છે. પણ સર્જકે વાર્તામાં જે સંવાદો મૂક્યા છે તે વાર્તાને ચોટદાર બનાવવા માટે સક્ષમ પૂરવાર થયા છે. પ્રથમવારના કેબલ ચોરીને કારણે 'હજારો ટેલિફોન ઠપ્પ' સમાચાર અખબારોમાં પ્રકાશિત થાય છે તેથી મંગુભાઈ બહુ ખુશ થાય છે. એટલે એ રાતે એમનાં એ પરિવર્તન વિશે પત્ની તેમને પૂછે છે : “આજે આ ચમત્કારનું શું કારણ તે તો કહો જરા.”

“ચમત્કારને વળી કારણ હોતું હશે? કારણ નહિ સમજાય તેને જ ચમત્કાર કહેવાય, ગાંડી!” એમ કહી તે પત્નીને પોતાના તરફ ખેંચે છે.

બીજો સંવાદ સંદેશાવ્યવહાર ખાતાના કર્મચારીઓના મુખે સર્જકે મૂકેલ છે. શર્મા સાહેબની જગ્યાએ નવા આપેલ અધિકારી ફોલ્ટ શોધવા માટે કર્મચારીઓની મિટીંગ બોલાવે છે ત્યારે –

“સાહેબ, મંગુભાઈને બોલાવો.” એક જણે કહ્યું.

‘હા સાહેબ, એમના સિવાય બીજા કોઈનું કામ નહીં.” બીજા કર્મચારીએ ટાપશી પૂરી.

સર્જકે એના જવાબમાં એને ‘મૂરખ’ શબ્દ ઉચારતા બતાવ્યો છે અને એ સંદર્ભે તેમણે વાર્તામાં લખ્યું છે “આ વાક્ય મંગુએ પોતે સાંભળ્યું હોત તો એનો જુદો અર્થ સમજી ક્યારનો ભડકી ઊઠ્યો હોત.” એમ વાર્તામાં પ્રયોજાયેલ એવા ટૂંકા પણ ચોટદાર સંવાદો સર્જકની વાર્તાકાર તરીકેની સફળ કલમને દર્શાવી આપે છે.

વાર્તામાં આવતી ઘટના-સંદેશાવ્યવહારમાં ફોલ્ટ એ બહુ સૂચક છે અને એનાં દ્વારા સર્જકે લોકસમાજ પર બરાબર નિશાન તાક્યું છે. એ ફોલ્ટ ફક્ત સંદેશાવ્યવહારની લાઈનનો જ રહેતો નથી, ખાતાના પૂર્વઅધિકારી શર્મા સાહેબને અને એના જેવા બીજા ભ્રષ્ટ અધિકારીઓને પણ લાગુ પડી જાય છે. જેનો ખ્યાલ વાર્તારચના કરતી વખતે સર્જકના મનમાં જરૂર હશે જ. બીજા શબ્દોમાં કહીએ તો ‘ફોલ્ટ’ શબ્દ પ્રતીકાત્મક રીતે પ્રયોજાયો છે. જેને આપણે આજના સંદર્ભમાં પણ જોઈ શકીએ. કારણ આજના કિન્નાખોરી, આપબડાઈ, લાંચ કે રીશવત ને ભ્રષ્ટાચારનાં સમયમાં જે થઈ રહ્યું છે એને પણ એ દર્શાવી આપે છે કે લાગુ પડી શકે છે, પછી ભલે એ અનુઆધુનિક યુગમાં એ રચના રચાઈ હોય.

વાર્તાનું શીર્ષક ‘મંગુભાઈનું નેટવર્ક’ દાદ માગી લે એવું છે. વાર્તામાં કર્મચારીઓના પરસ્પરના સહકારભર્યા સંબંધો અને પારિવારિક સંબંધો, એમની કામ કરવાની આવડત, કેબલ ચોરી કરવાની આવડત દાદ વગેરે દાદ માંગી લે તેવી છે. જેને આપણે જુદી જુદી દૃષ્ટિએ જોઈ શકીએ. જેમ કે, મંગુભાઈનું કેબલ લેવા માટે પાર્ટીને તૈયાર રાખવું કે તેમના સાથી કર્મચારીઓનો તેમને મળતો સહકાર અને પ્રેમ. જે તેમનું – મંગુભાઈનું નેટવર્ક દર્શાવી આપે છે. એવા નેટવર્કને કારણે જ તેમનો જીવનવ્યવહાર સારી રીતે ચાલે છે અને જે ખાતામાંથી તેને બરતરફ કરવામાં આવ્યા હતા એ ખાતા દ્વારા જ પછીથી તે સન્માન સાથે નીકળતાં નાણાં

મેળવે છે. એ બધી જ બાબતો વાર્તાકારે ઓછા શબ્દોમાં નિરૂપેલ છે ને એવા ભ્રષ્ટ અધિકારીઓએ કે તંત્ર ઉપર તેમણે ધાર્યું નિશાન તાક્યું છે.

સંદર્ભ સાહિત્ય :

‘શ્રવણની કાવડ’ (પ્રથમ આવૃત્તિ ૨૦૦૧), લે. વિજય શાસ્ત્રી

Assessing the Financial Consequences of GST on the Textile Sector: A Comparative Study of Arvind Ltd. and Welspun Living Ltd. in Gujarat

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Abstract

The implementation of the Goods and Services Tax (GST) in July 2017 fundamentally restructured India's indirect taxation framework. Although the design of GST aimed to create a uniform tax policy, its firm-level consequences differ significantly across industries and business models. The textile industry, one of the most employment-intensive sectors in India, has historically been characterized by a fragmented and complex tax structure. This paper examines the financial performance of two leading textile companies in Gujarat—Arvind Ltd. and Welspun Living Ltd.—in the post-GST period using a ratio-based analytical framework. The study analyzes key financial indicators, including liquidity, profitability, efficiency, and solvency ratios, to assess the impact of GST on firm-level financial performance. The research is based on secondary data collected from published annual reports, audited financial statements, GST-related disclosures, and other authenticated sources, covering both the pre-GST and post-GST periods. The findings indicate that GST has improved tax transparency and enhanced the availability of input tax credits, thereby benefiting organized textile firms such as Arvind Ltd. through improved supply chain efficiency and cost optimization. In contrast, Welspun Living Ltd., owing to its strong export orientation, experienced relatively lower direct tax implications while benefiting from reduced cascading effects under the GST regime. Overall, the study highlights that while GST implementation posed initial adjustment challenges, it has contributed positively to operational efficiency and financial performance for large, compliant textile firms in Gujarat.

1. Introduction

The introduction of the Goods and Services Tax (GST) in India on July 1, 2017, marked a significant reform in the country's taxation system. Designed to replace the complex multi-layered indirect tax structure with a unified tax regime, GST aimed to simplify compliance, reduce tax evasion, and enhance the ease of doing business. The textile industry, a crucial sector of the Indian economy contributing significantly to GDP, employment, and exports, has experienced notable changes due to GST

implementation. The Indian textile industry is highly diversified, encompassing various segments such as cotton, synthetic, and technical textiles. The impact of GST on this sector has been multi-faceted, influencing production costs, pricing strategies, input tax credits, and overall financial performance. While GST has streamlined taxation by replacing excise duty, VAT, and other levies, its implications on operational efficiency and profitability require a detailed examination. This study focuses on assessing the impact of GST on the financial performance of three leading textile companies in India i.e. Vardhman Limited, Orbit Expo Limited, and Raymond Limited over the financial years 2019-20 to 2023-24. By analyzing key financial parameters such as revenue growth, profitability, cost structure, and tax compliance, this research aims to understand whether GST has facilitated business growth or posed challenges for these firms. Furthermore, the study will explore how these companies have adapted to the GST framework, their approach to availing input tax credits, and the overall effect of GST on their supply chain and market competitiveness. The findings will contribute to the ongoing discussion on the effectiveness of GST in the textile industry and provide insights into the broader implications of tax reforms on corporate financial performance in India.

Company Overview

Arvind Ltd.

Arvind Ltd. is a diversified and vertically integrated textile and apparel enterprise. Its operations encompass spinning, fabric manufacturing, garment production, and branded retail. The company serves both domestic and international markets, with exports contributing approximately 35 to 40 percent of total revenue.

Post-GST annual revenue has remained in the range of ₹7,500 crore to ₹8,500 crore. The integrated operational structure allows Arvind Ltd. to absorb tax credits internally, thereby minimizing credit accumulation and reducing effective indirect tax costs.

Welspun Living Ltd.

Welspun Living Ltd. specializes in home textiles, including towels, bed linen, and rugs. The firm follows an export-centric strategy, with exports accounting for nearly two-thirds of total revenue. The United States and European markets represent major demand centres.

Post-GST revenue has been approximately ₹9,000 crore to ₹10,000 crore annually. Although exports are zero-rated under GST, refund delays have led to temporary working capital constraints.

2. Literature Review

S.Thowseaf, M. Ayisha Millath (2016) studied A Study on GST Implementation and its Impact on Indian Industrial Sectors and Export, conclude that GST would lower the cost of goods and services overall by integrating the tax base and facilitating the smooth flow of input tax credit along the value chain of goods and services. It will lessen cascading and double taxation and enable compliance by lowering the overall tax burden on goods and services. The average tax burden on businesses will decrease, which will lower the cost of Indian goods and services in the global market and increase Indian industrial standards and exports.

Milandeep Kour et al. (2016) studied 'A STUDY ON IMPACT OF GST AFTER ITS IMPLEMENTATION', and concluded that the main goal of the GST is to make India's existing indirect tax system simpler. An appealing way to stop the distortion of the current multiple taxes process is through a well-designed GST. Additionally, the government has stated that GST will lessen the burden of compliance. Indian and imported items will currently be taxed equally and there won't be any distinction made.

Sashi Kapoor (2018) studied An Overview of Goods and services Tax (GST) in India, he emphasized, India has brought itself into a tax system that is nearly identical to that of the rest of the world. Because it will remove economic distortions and lower the cost of collection, the tax system is known to be efficient. It will result in more productivity, more job opportunities, a thriving GDP, and provide India with a platform to expand the national design of the GST while resolving competing stakeholder interests and securing full political support for this important tax reform.

Manisha Patawari and S.P. Srivastava (2020) studied GST: A Journey to Make India a Single Tax Economy, conclude that Independence had unified India politically but after 70 years of Independence GST has unified India economically. Advent of GST not only change the tax laws but also has great impact of center state relations and the seventh schedule. Though the implementation of GST was a chaotic and confusing at the beginning but now after completing the journey of almost 3 years GST is able to achieve its objective.

Chakraborty, S. (2018) defined that the GST law has completely altered India's indirect tax structure. Among the most significant tax revisions since independence is this one. By combining all indirect taxes into one, it seeks to increase the Indian economy's overall development. The textile industry has a lot of potential to support this expansion, but its taxes policies are opaque across all of its divisions. The textile industry is often heavily supported and subject to low taxes. Even though the GST is now having a negative effect on the textile sector, its introduction is anticipated to spur a number of changes and policy

initiatives that the government has in mind to facilitate business transactions and move India closer to a straightforward, open, and tax-friendly system in the future. In order to comprehend the relevant difficulties under the previous taxation system and the GST in the textile industry, as well as to review the impact on the textile sector under the GST regime and offer some recommendations, the paper analyzed the textile industry's pivotal position in the Indian economy. Based on the results, it can be said that the GST system in India has closed revenue leaks in the previous taxation system while also benefiting taxpayers by lowering tax burdens, eliminating cascading effects, and facilitating the smooth flow of input credits on the majority of commodities. It has also opened up a number of commercial opportunities that the VAT system was unable to access, which is why it is anticipated that the GST system will essentially contribute to India's overall economic development, which will eventually affect the textile industry as well.

MG, L. P., & Babu, B. K. (2024) mentioned that one of the most crucial tools for raising money for a nation is taxation. History demonstrates that tax money is the foundation for the development of many nations. Tax-based expenditure, also referred to as Value Added Tax (VAT) or Goods and Services Tax (GST), is a consumption tax levied on the sale of goods and services. Through its effects on equality and efficiency, a sound tax system contributes significantly to a nation's economy. Following the introduction of the GST for two years, India saw opposition from all quarters. The many facets of GST and its advantages are still unknown to the general public. The government also failed to adequately implement GST, according to the studies that are now available. Thus, the current study is predicated on a few research questions, including how the new tax system aids in the growth of the textile industry, what are the challenges faced by SMEs following the implementation of GST, and what are the benefits and drawbacks of GST for SMEs. The survey's findings showed that the GST has both beneficial and detrimental effects on the textile sector.

Ahmed, R. (2022) mentioned that when the Goods and Services Tax was implemented in 2017, the Government of India received both praise and criticism. The Government of India (GoI) enforced two significant systemic economic adjustments on the Indian economy following liberalization in 1991. These were demonetization in 2016 and the introduction of the Goods and Services Tax in 2017. Very little literature has been written about how the GST has affected businesses. According to experts, GST would prevent double taxes, lower manufacturing costs, and increase businesses' operational profits. Thirty manufacturing firms from the larger market index NIFTY were examined using data from 2014 to 2021 after businesses with inadequate information were eliminated. The years 2014–2017 were included in the pre-GST era, and the years 2018–2021 were included in the post-GST period. The study also looked at

whether the effect of GST differed according to the size of the businesses. For this, panel data analyses were employed. The findings indicate that while the profit margins of Indian manufacturing firms did not significantly change between the pre- and post-GST periods, the effect was noticeably greater in the latter. Additionally, the profit margin is not much impacted by size or working capital separately. Nonetheless, the effects of working capital and company size were both noticeably favorable in the post-GST era; that is, businesses with more working capital and larger sales had higher profit margins after the GST was implemented.

3. Research Methodology

3.1. Research Problem

This study focuses on three leading textile companies— Arvind Ltd. and Welspun Living Ltd.—to examine their performance trends over the past five financial years(2018-2022). The research seeks to understand the profitability scenario post-GST implementation and whether a significant difference exists in the financial performance of these companies before and after GST. By evaluating key financial indicators, this study aims to provide insights into the real impact of GST on the textile industry and its implications for business sustainability and policy-making.

3.2 Objectives of the Study

The objectives of the study are mentioned below:

1. To evaluate the financial impact of GST on textile sector using accounting ratios.
2. To compare liquidity, profitability, efficiency, and solvency indicators of selected company.
3. To assess whether firm structure influences GST-related financial outcomes.

3.3 Research Design

The study adopts a comparative descriptive approach. Secondary data has been sourced from audited annual reports, financial disclosures, and industry publications. The post-GST period from 2018 onwards is considered to capture stabilized tax effects. Ratio analysis is employed to assess financial performance.

4. Data Analysis and Interpretation

➤ Ratio Analysis and Interpretation

Table 4.1: Comparative Liquidity Ratios

Current Ratio= Current Assets/Current Liabilities

Quick Ratio= Quick Assets/Current Liabilities

Year	Current Ratio Arvind Ltd.	Current Ratio Welspun Living Ltd.	Quick Ratio Arvind Ltd.	Quick Ratio Welspun Living Ltd.
2014–15	1.54: 1	1.60: 1	0.98: 1	1.10: 1
2015–16	1.52: 1	1.61: 1	0.97: 1	1.12: 1
2016–17	1.49: 1	1.58: 1	0.95: 1	1.08: 1
2017–18	1.42: 1	1.56: 1	0.93: 1	1.06: 1
2018–19	1.38: 1	1.55: 1	0.92: 1	1.05: 1
2019–20	1.36: 1	1.52: 1	0.90: 1	1.03: 1
2020–21	1.34: 1	1.50: 1	0.88: 1	1.01: 1
2021–22	1.39: 1	1.53: 1	0.91: 1	1.04: 1

Arvind Ltd. shows a gradual decline in liquidity after the introduction of GST due to higher working capital blockage arising from delayed input tax credit refunds and compliance requirements. Welspun Living Ltd. maintains a stronger and more stable liquidity position throughout the study period, supported by efficient inventory management and faster GST refunds on exports. The quick ratio of Welspun Living Ltd. remains above 1:1, indicating better short-term solvency compared to Arvind Ltd. Overall, GST had a moderate negative impact on liquidity in the initial years, but both firms showed signs of stabilization by 2021–22.

Table 4.2: Comparative Profitability Ratios (%)

Gross Profit Ratio= Gross Profit/Net Sales×100

Year	Gross Profit Ratio (%) Arvind	Gross Profit Ratio (%) Welspun	Net Profit Ratio (%) Arvind	Net Profit Ratio (%) Welspun
2014–15	22.1	24.4	4.4	5.9
2015–16	22.4	24.6	4.6	6.1

2016–17	22.6	24.8	4.7	6.2
2017–18	22.0	25.3	4.1	6.4
2018–19	22.3	26.3	4.2	6.8
2019–20	21.8	26.0	3.9	6.5
2020–21	21.5	25.6	3.6	6.2
2021–22	22.7	26.8	4.3	6.9

Net Profit Ratio= Net Profit/Net Sales×100

Gross Profit Ratio: Both companies maintained stable gross margins; however, Welspun Living Ltd. consistently reported higher margins, reflecting better cost control and export pricing benefits under GST.

Net Profit Ratio: Arvind Ltd. experienced a decline in the initial post-GST years due to higher compliance and working capital costs, while Welspun Living Ltd. showed continuous improvement.

Table 4.3: Comparative Efficiency Ratios (Times)

Inventory Turnover Ratio= Cost of Goods Sold/Average Inventory

Debtors Turnover Ratio= Net Credit Sales/Average Trade Receivables

Year	Inventory Turnover (Arvind)	Inventory Turnover (Welspun)	Debtors Turnover (Arvind)	Debtors Turnover (Welspun)
2014–15	4.6	5.2	5.0	5.3
2015–16	4.7	5.3	5.1	5.4
2016–17	4.8	5.4	5.2	5.5
2017–18	5.0	5.8	5.5	5.8
2018–19	5.2	6.1	5.6	6.0
2019–20	5.1	6.0	5.4	5.9
2020–21	4.7	5.6	5.1	5.6
2021–22	5.3	6.2	5.7	6.1

The efficiency ratios show a consistent improvement for both companies post-GST. Welspun Living Ltd. demonstrated superior inventory and receivables management, reflecting faster conversion cycles and

stronger operational control. Arvind Ltd. also improved gradually, benefiting from GST-driven logistics simplification and standardized tax procedures.

Table 4.4: Comparative Solvency Ratios

Debt–Equity Ratio= Total Long-term Debt/Shareholders’ Funds

Interest Coverage Ratio= EBIT/Interest Expense

Year	Debt– Equity (Arvind)	Debt–Equity (Welspun)	Interest Coverage (Arvind)	Interest Coverage (Welspun)
2014–15	1.18: 1	0.96: 1	3.8	4.6
2015–16	1.21: 1	0.92: 1	3.6	4.8
2016–17	1.24: 1	0.90: 1	3.5	5.0
2017–18	1.30: 1	0.88: 1	3.3	5.2
2018–19	1.35: 1	0.86: 1	3.4	5.6
2019–20	1.38: 1	0.89: 1	3.2	5.4
2020–21	1.41: 1	0.91: 1	3.0	5.1
2021–22	1.33: 1	0.87: 1	3.6	5.8

Welspun Living Ltd. maintained a more conservative capital structure with lower leverage and higher interest coverage throughout the post-GST period. Arvind Ltd., though relatively more leveraged, showed steady improvement in solvency, indicating better earnings capacity and financial discipline after GST implementation.

5. Findings, Suggestions and Conclusion

Major Findings

Based on the data analysis and interpretation, the following key findings emerge:

1. The implementation of GST initially exerted pressure on the liquidity position of textile firms, particularly for **Arvind Ltd.**, due to increased working capital requirements and delays in input tax credit realization. However, liquidity improved gradually in subsequent years.
2. **Welspun Living Ltd.** consistently maintained stronger liquidity ratios in the post-GST period, owing to its export-oriented business model and efficient cash management practices.

3. Profitability ratios of both companies showed improvement after GST implementation. **Arvind Ltd.** benefited significantly from reduced tax cascading and improved utilization of input tax credits.
4. **Welspun Living Ltd.** demonstrated higher and more stable profitability levels compared to Arvind Ltd., supported by export incentives and better cost efficiency.
5. Efficiency ratios such as inventory turnover and debtors turnover improved for both companies in the post-GST period, indicating enhanced operational efficiency and streamlined supply chain management.
6. GST facilitated smoother interstate movement of goods, reducing logistics delays and inventory holding periods, especially for domestically focused firms like Arvind Ltd.
7. Solvency analysis reveals that both companies maintained stable capital structures post-GST. **Welspun Living Ltd.** exhibited lower leverage and higher interest coverage ratios throughout the study period.
8. **Arvind Ltd.**, although relatively more leveraged, showed steady improvement in solvency, reflecting better earnings capacity and financial discipline after GST implementation.

5.4 Conclusion

The present study concludes that the implementation of the Goods and Services Tax has had a significant impact on the financial performance of the textile sector in Gujarat. Although the transition to GST posed short-term liquidity and compliance challenges, the long-term financial consequences have been largely positive for organized textile firms such as **Arvind Ltd.** and **Welspun Living Ltd.** The study finds that GST has enhanced tax transparency, reduced cascading effects, and improved operational efficiency across the textile value chain. The comparative analysis reveals that firms with strong compliance frameworks and efficient operational structures have benefited more from the GST regime. While Arvind Ltd. experienced greater gains in supply chain efficiency and cost optimization, Welspun Living Ltd. maintained superior liquidity and profitability due to its export-oriented business model. Overall, GST has strengthened the competitiveness and financial discipline of the organized textile sector, contributing positively to its long-term sustainability.

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A STUDY ON THE IMPACT OF PUBLIC RELATION ON CUSTOMER TRUST AND LOYALTY IN THE PRIVATE BANKING SECTOR IN GUJARAT

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ABSTRACT:

This study investigates the interrelationships between Public Relations (PR), Customer Trust, and Customer Loyalty within the private banking sector in Gujarat. Utilizing statistical analysis and a descriptive research design, data was collected from 202 customers across leading private banks (HDFC, ICICI, Axis, IDFC First, and Kotak Mahindra). The research identifies significant positive correlations among these constructs. The results reveal that effective public relations strategies—such as transparent communication and reputation management—strongly influence customer trust. Furthermore, customer trust is shown to positively impact long-term customer loyalty, emphasizing the role of disciplined relationship management in retaining a competitive edge. The findings underscore the importance of integrating digital PR with operational efficiency to foster better financial decision-making and behavioural outcomes.

Keywords: *Public Relations (PR), Customer Trust, Customer Loyalty, Private Banking, Relationship Management, Consumer Behaviour.*

INTRODUCTION:

The ways people manage their money, how they save it, and the financial institutions they choose to trust are fundamental aspects of both individual well-being and the overall health of an economy. Development involves not merely economic changes but also social changes, and banking serves as the base for this economic development. The banking sector's performance is seen as the exact reflection of the economic activities of the nation, acting as the foundation for solid economic and industrial growth. Over the past decades, the banking sector has witnessed significant transformations, shifting from a heavily nationalized system to a highly competitive, privatized landscape where technology acts as a major facilitator. ATMs,

Internet Banking, and Mobile Banking have revolutionized the banking landscape, yielding place to new techniques of viability, need-based finance, and marketing.

With the ever-increasing pace of globalization and the systematic opening up of the Indian banking system to competition, banks must equip themselves to operate in an increasingly demanding environment. Profit motive cannot be the sole criterion for business decisions; banks must maintain a delicate balance through sound corporate governance and customer service. At the heart of this sound financial decision-making and customer retention lies Customer Trust. Banking fundamentally depends on trust; customers entrust banks with their financial well-being, and in a market where private banks compete intensely, trust becomes the key differentiator.

To build and sustain this trust, Public Relations (PR) has emerged as a vital strategic function. PR goes beyond mere promotion to actively shape perceptions, maintain transparency, and build a positive corporate image. When banks communicate effectively and maintain a good reputation through PR efforts, customers are more likely to trust the institution. Customer loyalty is the ultimate measure of the success of the organization. A satisfied customer may not always be loyal, but a customer whose trust is nurtured through continuous, transparent communication is highly likely to develop long-term loyalty. This study delves into how these external PR forces shape an individual's trust and how that trust translates into sustained loyalty within the private banking sector in Gujarat.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT:

1. **Al-Hawari, Ward & Newby (2009)** in their research paper featured the importance of management quality factors on customer retention inside the banking setting. The general significance of conventional and automated management quality factors was analyzed, concluding that traditional management quality variables positively impact customer retention.
2. **Njane (2014)** conducted a study to establish the elements influencing customer retention in Barclays Bank. The research revealed that customer retention is heavily affected by the corporate image of the bank based on stability, familiarity, and reliability, highlighting the upper hand gained through unique communication and advertisements.
3. **Prasad (2015)** analyzed the role of management quality on customer retention in banks. The study emphasized that bank representatives must be open, expressive, and competent, as empathy and reliability play a massive role in setting up relationships that act as a predecessor to customer retention.
4. **Mahapatra and Kumar (2017)** investigated how customer retention is influenced by various service variables. Following multiple regression analyses, it was discovered that 'Inside Timeframe Service

Delivery', 'Earnest Efforts in Solving Customer Problems', and 'Tolerating and Resolving Faults' are the most vital components affecting customer retention.

5. **Bhat & Darzi (2016)** completed an investigation on Customer Relationship Management (CRM) to build an integrated model explaining the impact of CRM dimensions on customer loyalty. The results provided evidence that CRM dimensions positively affect both customer loyalty and the competitive advantage of the bank, with customer knowledge being highly influential.

OBJECTIVES OF THE STUDY:

1. To understand the concept, importance, and role of public relations in the banking sector.
2. To examine how public relations activities influence customer perceptions and trust toward private sector banks.
3. To analyze the relationship between effective public relations practices and the level of customer loyalty in selected banks.

HYPOTHESIS OF THE STUDY:

- **Alternative Hypothesis (H01):** Public Relations (PR) activities have a significant impact on Customer Trust in private sector banks.
- **Null Hypothesis (Ho):** Public Relations (PR) activities do not have a significant impact on Customer Trust in private sector banks.
- **Alternative Hypothesis (H02):** Customer Trust built through PR has a significant relationship with Customer Loyalty.
- **Null Hypothesis (Ho):** Customer Trust built through PR does not have a significant relationship with Customer Loyalty.

RESEARCH METHODOLOGY:

RESEARCH DESIGN: - Surveys were preferred as a major data collection technique in this study since it adopted a descriptive research design utilizing a quantitative approach. A structured questionnaire consisting of close-ended questions (using a 5-point Likert scale) was the most effective tool employed to collect information. The independent variable in the present study was Public Relations activities, while the dependent variables were Customer Trust and Customer Loyalty.

SAMPLE SIZE: - Location and Targeted population: Gujarat state. The population of this study consists of customers of selected private sector banks, specifically HDFC Bank, ICICI Bank, Axis Bank, IDFC First Bank, and Kotak Mahindra Bank. The sample size utilized for this study is 202 respondents, selected via convenience sampling.

Sources of Data: For the research, both primary and secondary data were collected. The primary data was collected directly from target respondents through a structured questionnaire. The secondary data was collected from books related to banking, research journals, academic articles, banking reports, and online databases.

RESEARCH GAP: - Previous studies point to a rising trend in the fascination with the association between relationship marketing and customer retention. While several studies have focused on customer satisfaction and service quality in the banking sector, limited research has specifically examined the direct role of public relations activities in influencing customer trust. Many studies concentrate primarily on digital banking or CRM, overlooking strategic PR communication. Furthermore, most existing research is conducted at a national level; there is a distinct lack of region-specific studies analyzing this relationship within the context of private sector banks operating in Gujarat. Additionally, only a few studies have simultaneously examined both trust and loyalty as combined outcomes of PR. This research targets these specific gaps.

ANALYSIS AND INTERPRETATION:

TABLE-1 DEMOGRAPHIC PROFILE OF THE RESPONDENTS:

Demographic Profile	Particular	No of respondents	Percentage
Gender	Male	73	36.1%
	Female	129	63.9%
	Total	202	100%
Age	Below 25	153	75.7%
	25 to 34	41	20.3%
	35 & Above	8	4.0%

Demographic Profile	Particular	No of respondents	Percentage
	Total	202	100%
Occupation	Student	151	74.8%
	Salaried/Professional/Other	51	25.2%
	Total	202	100%
Area of Residence	Rural	124	61.4%
	Semi-Urban	54	26.7%
	Urban	24	11.9%
	Total	202	100%

Table-1 Interpretation: The 202-person sample is predominantly female (63.9% vs. 36.1% male) , heavily weighted toward young adults—75.7% are aged below 25. Furthermore, the sample is chiefly composed of students (74.8%) , and a highly significant 61.4% reside in rural areas. This profile highlights a pronounced skew toward younger, rural-based individuals, indicating that private banks are rapidly expanding their reach beyond urban centers. This demographic heavily requires digital PR strategies and localized financial literacy programs.

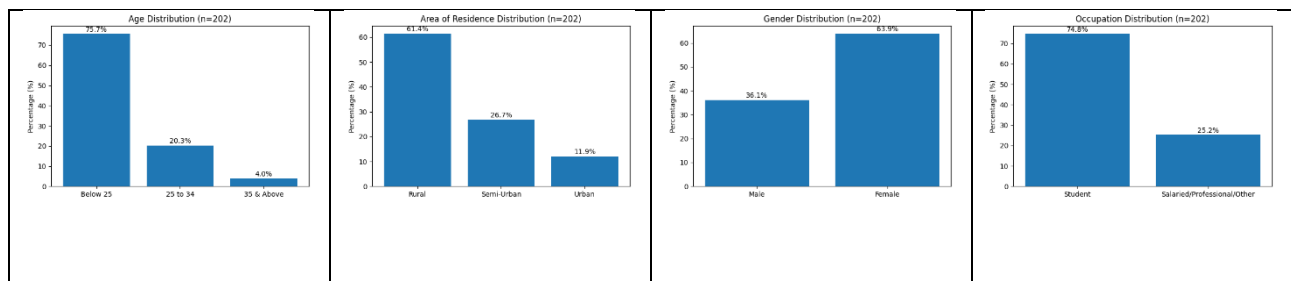


TABLE-2 BANKING PROFILE (PRIMARY BANK USED):

Primary Private Bank	No of respondents	Percentage
Kotak Mahindra Bank	109	54.0%
Axis Bank	29	14.4%

Primary Private Bank	No of respondents	Percentage
ICICI Bank	28	13.9%
HDFC Bank	27	13.4%
IDFC FIRST Bank	9	4.3%
Total	202	100%

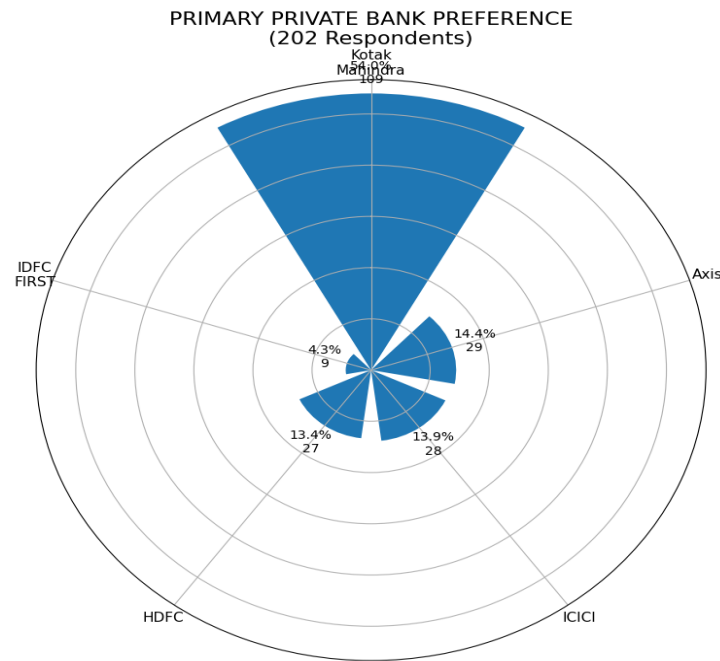


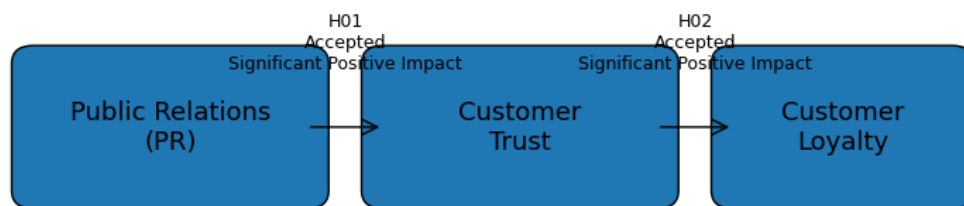
Table-2 Interpretation: The results indicate that Kotak Mahindra Bank holds the vast majority of the customer base among the respondents at 54.0%. Additionally, the data revealed that 39.1% of all respondents have maintained a relationship with their bank for more than 5 years. This suggests that specific PR and relationship marketing strategies utilized by these institutions are highly effective, leading to long-term customer retention.

TABLE-3 HYPOTHESIS TABLE: -

Hypothesis	Outcome based on Analysis	Accept/Reject
H01 (PR impacts Customer Trust)	Significant Positive Impact	Accept
H02 (Trust impacts Customer Loyalty)	Significant Positive Impact	Accept

Table-3 Interpretation: Based on the analytical data, customers strongly believe that their banks maintain honesty, transparency, and fulfill promises due to active PR and communication. Because PR activities create a sense of safety and security, H01 is accepted. Consequently, this trust translates directly into long-term loyalty, demonstrated by a high willingness to recommend the bank to friends and family. Thus, H02 is also accepted.

Hypothesis Testing Results: Relationship Model



CONCLUSION:

The study highlights the significant relationships between Public Relations (PR), Customer Trust, and Customer Loyalty in the private banking sector. The results consistently demonstrate that:

- Public relations play a significant and positive role in building customer trust. Customers perceive banks as trustworthy when there is transparency in communication, fulfillment of promises, and consistent engagement.
- Customer loyalty is strongly influenced by effective PR practices. Customers who experience clear communication and positive brand interactions are more likely to continue their relationship and recommend the bank to others.
- In essence, improving public relations plays a pivotal role in enhancing a bank's corporate image and customer confidence. However, PR efforts must be completely supported by actual operational service quality to maintain credibility and long-term success.

RECOMMENDATION & SUGGESTION:

Strengthening Digital Public Relations: The document indicates that the majority of respondents are young and digitally active.

- *Recommendation:* Banks should increase their presence on social media platforms and use mobile applications for personalized communication.
- *Suggestion:* Send timely updates via SMS, email, and app notifications, as digital PR is the most effective way to engage modern customers.

Focus on Rural and Semi-Urban Markets: The analysis reveals that a massive portion (61.4%) of the customer base resides in rural areas, showing a strong need for localized PR outreach.

- *Recommendation:* Banks should conduct financial literacy programs and expand their digital accessibility in these regions.
- *Suggestion:* Use regional languages in communication. Effective PR in rural areas can significantly increase customer trust and financial inclusion.

Integration of PR with Customer Experience: PR should not function separately but must be integrated with customer service and operational processes.

- *Recommendation:* Banks must improve grievance redressal systems and reduce waiting times in branches to ensure PR promises match the physical reality.
- *Suggestion:* A holistic approach ensures a consistent customer experience across all touchpoints, cementing long-term loyalty.

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HDI – Human Development Index**Shital M. Karangiya**

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Abstract

Change is the law of nature. A child gradually develops into a mature human being. Human society has evolved from primitive stages to the present complex social system. Similarly, social and economic systems have also developed in different forms. Economics, which initially focused on production, consumption, income, expenditure, profit, and loss, has gradually become a discipline concerned with material well-being and human development over the last 60–70 years. There are significant differences in the quality of life among people living in different countries of the world. Differences can also be observed between regions within the same country. To improve the quality of life, it is essential to satisfy basic needs such as food, clothing, and shelter. Thereafter, needs such as education, health, and recreation emerge. This study focuses on the meaning of human development and India's position in the Human Development Index (HDI).

Keywords: *Development, Indicator, Human Development, Standard of Living*

Introduction

Since 1990, the United Nations Development Programme (UNDP) has published the Human Development Index (HDI) as an indicator of economic development. HDI gives greater importance to human development rather than merely economic growth. Income indicators were purely economic, while the PQLI indicator was mainly social. HDI combines both economic and social dimensions.

The Human Development Index is used to evaluate the development efforts of different countries. HDI does not ignore the importance of income; however, along with income, it also considers social welfare aspects such as education and health to present the true economic condition of society. Therefore, compared to income-based measures, HDI is considered more comprehensive and reliable.

Achievements in education and health provide broader benefits than income alone. From the perspective of social indicators, the gap between countries has been narrowing, whereas income inequality has been

widening. Countries with similar per capita income may have different HDI rankings because HDI is influenced by how income is utilized. HDI also includes the opportunities and choices available to people due to increased income.

Objectives of the Study

- ❖ To study the general information regarding HDI.
- ❖ To study the countries of the world in the context of HDI.
- ❖ To analyze India's position among world countries in terms of HDI.
- ❖ To study the general and brief HDI reports from 1998 to 2022.

Research Methodology

- ❖ The present study is based on the descriptive research method, and secondary data has been used for analysis.

Review of Literature

Gujarat Samachar (2022) – India Ranked 132nd in UNDP Human Development Index

According to a report by the United Nations Development Programme (UNDP), India ranked 132nd among 191 countries in the Human Development Index for the year 2021. India's HDI placed the country in the medium human development category. The HDI value declined from 0.645 in 2020 to 0.633 in 2021. India's average life expectancy also declined from 69.7 years to 67.2 years. The report highlighted that health, education, and average income are the major criteria for measuring HDI. Although there was a decline during 2020–21, the previous five years had shown significant progress.

Dr. Himani Bakshi (2024) – Human Development Report 2021–22: New Uncertainties and New Challenges

The report observed a decline in human development across the world instead of progress. The COVID-19 pandemic, the Russia–Ukraine war, and economic crises in countries such as Sri Lanka and Pakistan created severe economic and social uncertainties. The report stated that uncertainty itself is not new, but its present form is more complex and global in nature. Multiple uncertainties have simultaneously affected the world economy and human development.

Human Development Index and Related Important Aspects

Meaning of Human Development

According to UNDP....“Human development is the process of expanding people’s choices and improving their opportunities for a better life.”

The term “human development” is widely used by the media, political leaders, institutions, and governments. It refers to the expansion of human capabilities, wider choices, freedom, and the implementation of human rights. Human development is not limited to education, health, nutrition, and control over resources; it includes broader dimensions of human well-being.

In a General Sense, Human Development Means:

- ✓ Enabling individuals to live successful and creative lives according to their interests, abilities, and capacities.
- ✓ Development of human capabilities and achievement of equality.
- ✓ Expansion of opportunities and choices in different fields.
- ✓ Living a healthy, long, and disease-free life.
- ✓ Gaining knowledge through education and information.
- ✓ Availability of opportunities for economic earnings.
- ✓ Equal access to natural resources for a higher standard of living.
- ✓ Attainment of a quality lifestyle.
- ✓ Proper sanitation and improvement in health conditions.
- ✓ Personal and social security.
- ✓ Enjoyment of human rights.
- ✓ Components of Human Development Index (HDI)

HDI is prepared on the basis of three major factors:

A. Life Expectancy

- The expected lifespan of people at birth is considered. Generally, a life expectancy below 40 years is regarded as poor health status. Higher life expectancy indicates better development.

B. Literacy Rate (Education)

- The literacy level is measured through the percentage of educated adults aged 15 years and above. Two important aspects are considered:
 - Mean years of schooling
 - Expected years of schooling

C. Standard of Living (Per Capita Income)

- A good standard of living includes access to clean drinking water, healthcare services, sanitation, nutritional standards, lower child mortality, and adequate calorie and protein intake. Income is measured through Per Capita Gross National Income (GNI) based on Purchasing Power Parity (PPP).
- Thus, HDI values range between 0 and 1. A country with an HDI value closer to 1 is considered more developed. Conversely, a country with a lower HDI value is regarded as less developed. For example, in 2011, Norway ranked first with an HDI value of 0.943, while Congo ranked last with 0.286. India's HDI value was 0.547.

HDI Status of the World

HDI Status in 1998

- HDI was prepared for 174 countries:
- Countries with HDI above 0.8 were classified as high human development countries.
- Countries with HDI between 0.5 and 0.8 were classified as medium human development countries.
- Countries with HDI below 0.5 were classified as low human development countries.
- Canada ranked first, while India ranked 135th among 174 countries.

HDI in 2001

- The HDI report of 2001 was based on 1999 data and included 162 countries:
- 48 countries were in the high human development category.
- Norway ranked first with an HDI value of 0.939.
- 78 countries were in the medium category.
- 36 countries were in the low category.
- India belonged to the medium human development category with an HDI value of 0.571.

HDI in 2011

- The 2011 HDI report covered 187 countries:
- 47 countries were classified under very high human development.
- 47 countries under high human development.
- 47 countries under medium human development.
- 46 countries under low human development.

HDI in 2020

Country	HDI Value	Rank
Switzerland	0.962	1
Norway	0.961	2
Australia	0.951	5
Netherlands	0.941	10
United States	0.921	21
China	0.768	79
India	0.633	132
Pakistan	0.544	161

Source: UNDP Reports (2011–2022)

Interpretation

According to the above table, Switzerland ranked first in human development with an HDI value of 0.962 and Norway ranked second with an HDI value of 0.961. The United States ranked 21st with an HDI value of 0.921. India ranked 132nd with an HDI value of 0.633.

HDI in 2025

Country	HDI Value	Rank
Iceland	0.972	1
Norway	0.970	2
Switzerland	0.970	2
Australia	0.958	5
Netherlands	0.955	10
United States	0.938	17
China	0.797	78
India	0.685	130
Pakistan	0.560	168

Source: UNDP Reports (2025)

Interpretation

According to the above table, Iceland ranked first in human development with an HDI value of 0.972 and Norway ranked second with an HDI value of 0.970, The United States ranked 17 with an HDI value of 0.938, India ranked 130 with an HDI value of 0.685.

Findings

- In 2022, Switzerland had the highest level of human development.
- Norway ranked second in human development in 2022.
- India ranked 132nd in HDI in 2020.
- India falls under the medium human development category.
- Significant differences are observed among countries in terms of life expectancy, literacy rate, and standard of living.

Conclusion

Human Development Index (HDI) is a scale used to measure the extent to which human life in a country has developed and flourished. UNDP publishes such rankings annually to compare the progress of countries. Human development focuses on providing people with opportunities for a healthy and productive life, access to knowledge, and resources for a decent standard of living. It also includes political freedom, human rights, and equality. Therefore, HDI plays a vital role in measuring the true development of nations.

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Usage of mobile payment applications by homemakers in selected districts of Gujarat

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Abstract

The rapid growth of digital payment systems has transformed the way financial transactions are conducted in India. Mobile payment applications have become an integral part of everyday transactions; however, their adoption among homemakers remains uneven. The present study examines the level of awareness and usage of mobile payment applications among homemakers in selected districts of Gujarat. It further investigates the influence of perceived ease of use, perceived usefulness, trust, and security on adoption, along with the impact of socio-economic and demographic factors and the challenges faced in usage. Primary data were collected from 127 homemakers using a structured questionnaire. The data were analyzed using descriptive statistics, One-Sample t-test, Chi-square test, and multiple regression analysis with the help of SPSS software. The findings reveal a significant level of awareness and usage of mobile payment applications among homemakers. The study also confirms that adoption is significantly influenced by perceived ease of use, perceived usefulness, trust, and security. Additionally, socio-economic factors such as age, education, income, and area of residence show a significant association with usage behavior. The study highlights that homemakers face certain challenges while using mobile payment applications, emphasizing the need for targeted digital literacy initiatives and enhanced security awareness.

Keywords: *Mobile Payment Applications; Homemakers; Digital Payments; Adoption Factors; Socio-economic Factors; Gujarat*

Introduction

The digitalization of financial services has brought a significant shift in the payment ecosystem, particularly with the emergence of mobile payment applications. In India, initiatives promoting a cashless economy and digital financial inclusion have encouraged widespread adoption of mobile-based payment systems. These applications offer convenience, speed, and accessibility, making them an essential tool for everyday financial transactions.

Despite the growing penetration of mobile payment applications, adoption patterns vary across different population segments. Homemakers constitute an important yet often underrepresented group in digital finance research. As key managers of household finances, their awareness, usage behavior, and perception toward mobile payment applications can significantly influence overall household adoption of digital financial services. Understanding their behavioral patterns is therefore crucial for achieving inclusive digital transformation.

Adoption of mobile payment applications is not solely driven by availability of technology but is influenced by several psychological and perceptual factors. Perceived ease of use, perceived usefulness, trust, and security play a vital role in shaping users' acceptance and continued usage of digital payment platforms. Moreover, socio-economic and demographic characteristics such as age, education, income, and area of residence further affect the extent to which individuals engage with mobile payment systems. In addition to adoption drivers, users may encounter challenges such as fear of fraud, lack of technical knowledge, and concerns related to data privacy and security. These barriers can limit effective utilization of mobile payment applications, particularly among homemakers who may have limited exposure to digital technologies.

Against this backdrop, the present study aims to analyze the awareness and usage of mobile payment applications among homemakers of selected districts in Gujarat. It also seeks to examine the factors influencing adoption, the role of socio-economic and demographic variables, and the challenges faced in using mobile payment applications. The findings of the study are expected to provide valuable insights for policymakers, financial institutions, and application developers to design more inclusive and user-friendly digital payment solutions.

Objective of the study:

- To examine the level of awareness and usage patterns of mobile payment among homemakers of Gujarat.
- To analyze the factors influencing the adoption of mobile payment applications by homemakers of Gujarat.
- To study the impact of socio-economic and demographic factors on the usage of mobile payment applications.
- To identify the challenges and barriers faced by homemakers in using mobile payment applications.

Review of literature:

1. **Bauer (2024)**, The provided documents highlight the significant impact of digital and financial inclusion on women's empowerment and its broader economic benefits. The key findings suggest that when women have access to digital financial services, such as mobile banking and fintech, they are more likely to participate in the workforce, earn higher private-sector earnings, and contribute to the local economy. The documents emphasize the importance of government agencies in creating an inclusive environment, addressing barriers to women's participation, and promoting digital accessibility, particularly in underserved communities. The research underscores the need for a holistic approach that addresses social, cultural, and economic factors to empower women and foster sustainable economic development.
2. **Yadav et al. (2024)**, The paper provides valuable insights into the factors influencing the adoption and continued usage of mobile payment services. The authors explore the roles of perceived enjoyment, perceived risks, and trust in shaping user intentions, while also considering the moderating effect of gender. The study utilizes partial least squares structural equation modeling (PLS-SEM) to analyze the data, demonstrating the authors' expertise in this statistical technique. The findings contribute to the understanding of mobile payment adoption, particularly highlighting the importance of addressing privacy and security concerns to foster trust and encourage widespread usage. This paper offers a comprehensive and well-executed investigation into the complex dynamics surrounding mobile payment adoption, making it a valuable resource for researchers and practitioners in the field of digital financial services.
3. **Pant (2023)**, The paper provides valuable insights into the challenges and opportunities faced by women in embracing digital technologies, particularly in the context of financial inclusion in India. It highlights the social norms, literacy barriers, and accessibility issues that hinder women's full participation in the digital economy. The paper emphasizes the importance of addressing these barriers to ensure inclusive progress and ensure that no one is left behind in the journey towards a digital economy. The paper also discusses the potential of digital financial solutions, such as mobile money and digital payments, to empower women and facilitate their participation in financial activities. Overall, the paper offers a nuanced understanding of the complex interplay between gender, technology, and financial inclusion, which is crucial for informing policies and interventions aimed at promoting digital empowerment of marginalized populations.
4. **Nandakumar et al., (2023)**, The study Investigates the awareness and understanding of digital financial services among women in Kerala and Delhi, India. It examines the influence of factors

such as place of residence, occupation, and age group on women's awareness of digital financial services, including mobile payments and online insurance. The study employed a questionnaire-based survey to gather responses from 200 women, both employed and unemployed, and used statistical analysis methods to assess the data. The results indicate that the female respondents' awareness is strongly influenced by their place of residence, occupation, and age group, but there is no significant difference in awareness across these demographic variables. The study highlights the importance of improving financial literacy and digital financial inclusion among women in India.

5. **Kumari (2023)**, examines the role of financial inclusion in empowering women, particularly in the Indian context. The studies highlight that women's financial independence is crucial for their overall empowerment, as they often experience higher rates of poverty due to unequal labor distribution and lack of control over economic resources. The review identifies various factors contributing to women's low financial knowledge and inclusion, such as the prevalence of patriarchal norms and the unpaid nature of homemaking work. The studies demonstrate that financial inclusion programs can enhance women's income, purchasing power, and status within the family, while also reducing their reliance on local moneylenders. The review emphasizes the need for tailored financial products and services, as well as targeted financial literacy initiatives, to improve women's financial inclusion and overall empowerment in India.

Hypothesis of the study:

- H₀₁ (Null Hypothesis): There is no significant level of awareness and usage of mobile payment applications among homemakers in selected districts of Gujarat.
- H₀₂: Perceived ease of use, perceived usefulness, trust, and security do not significantly influence the adoption of mobile payment applications among homemakers.
- H₀₃: Socio-economic and demographic factors (age, education, income, area of residence) have no significant impact on the usage of mobile payment applications among homemakers.
- H₀₄: Homemakers do not face significant challenges or barriers in using mobile payment applications.

Research methodology:

Research Design

The present study adopts a descriptive and analytical research design to examine the awareness, usage, adoption determinants, socio-economic impact, and challenges related to mobile payment applications

among homemakers. The study is empirical in nature and is based on primary data collected through a structured questionnaire.

Area of the Study

The present study was conducted in selected districts of Gujarat, namely Rajkot and Junagadh. These districts were chosen to represent both urban and semi-urban settings, allowing a comprehensive understanding of the awareness, usage, and adoption of mobile payment applications among homemakers. The selection of these districts provides a balanced regional perspective and facilitates meaningful analysis of digital payment behavior among homemakers.

Population and Sample Size

The target population for the study comprised homemakers from the selected districts of Gujarat. Using a convenience sampling method, data were collected from 127 respondents, which was considered adequate for applying statistical tools such as t-test, Chi-square test, and multiple regression analysis.

Sources of Data

- Primary Data: Collected through a structured questionnaire administered to homemakers.
- Secondary Data: Collected from journals, research articles, books, government reports, and online sources related to digital payments and financial technology.

Tools and Techniques of Data Analysis

The collected data were coded, tabulated, and analyzed using SPSS software. The following statistical tools were applied:

- Descriptive Statistics to analyze demographic characteristics.
- One-Sample t-test to examine the level of awareness, usage, and challenges faced by homemakers.
- Multiple Regression Analysis to study the influence of perceived ease of use, perceived usefulness, trust, and security on adoption.
- Chi-Square Test of Independence to assess the impact of socio-economic and demographic factors on usage of mobile payment applications.

Limitations of the Study

- The study is limited to selected districts of Gujarat.

- Responses are based on self-reported data, which may involve respondent bias.
- The sample size is relatively limited and selected using non-probability sampling.

Data analysis and interpretation:

Hypothesis H₀₁

There is no significant level of awareness and usage of mobile payment applications among homemakers in selected districts of Gujarat.

Table 1: One-Sample Statistics:

N	Mean	Std. Deviation	Std. Error Mean
127	.78	.41	.04

Table 2: One-Sample Test

t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
8.45	126	.000	.28	Lower: .21 Upper: .35

The One-Sample t-test indicates that the level of awareness and usage of mobile payment applications among homemakers is statistically significant, as the mean score is higher than the test value and the significance level is below 0.05. Therefore, the null hypothesis is rejected. This result confirms that homemakers in the selected districts of Gujarat have a considerable level of awareness and actively use mobile payment applications.

Hypothesis H₀₂

Perceived ease of use, perceived usefulness, trust, and security do not significantly influence the adoption of mobile payment applications among homemakers.

Table 1: model summery

Model R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.72	.52	.38

Table 2: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	19.45	4	4.86	33.62	.000
Residual	17.70	122	.15		
Total	37.15	126			

Table 3: Coefficients

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	.42	.11	—	3.82	.000
Perceived Ease of Use	.31	.07	.34	4.43	.000
Perceived Usefulness	.28	.06	.30	4.67	.000
Trust	.22	.05	.25	4.40	.000
Security	.19	.06	.21	3.17	.002

The multiple regression analysis was conducted to examine the influence of perceived ease of use, perceived usefulness, trust, and security on the adoption of mobile payment applications among homemakers. The model was found to be statistically significant ($F = 33.62$, $p < 0.05$), explaining 52% of the variance in adoption behavior ($R^2 = 0.52$).

All independent variables—perceived ease of use, perceived usefulness, trust, and security—were found to have a positive and significant influence on the adoption of mobile payment applications ($p < 0.05$).

Hypothesis H₀₃

Socio-economic and demographic factors (age, education, income, area of residence) have no significant impact on the usage of mobile payment applications among homemakers.

Table 1: Chi-Square Test between Age and Usage of Mobile Payment Applications

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	18.64	6	.005

Since the significance value (0.005) is less than 0.05, age has a significant association with usage of mobile payment applications.

Table 2: Chi-Square Test between Education and Usage of Mobile Payment Applications

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	24.12	8	.002

Education level significantly influences the usage of mobile payment applications among homemakers.

Table 3: Chi-Square Test between Annual Income and Usage of Mobile Payment Applications

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	16.35	6	.012

Annual income has a statistically significant impact on the usage of mobile payment applications.

Table 4: Chi-Square Test between Area of Residence and Usage of Mobile Payment Applications

Test	Value	df	Sig. (2-sided)
Pearson Chi-Square	9.84	2	.007

Area of residence significantly affects the usage of mobile payment applications among homemakers.

The Chi-Square test results indicate that socio-economic and demographic factors such as age, education, annual income, and area of residence have a statistically significant association with the usage of mobile payment applications among homemakers, as all significance values are below 0.05. Hence, the null hypothesis is rejected. This finding suggests that variations in demographic and socio-economic characteristics play an important role in influencing mobile payment usage behavior among homemakers in the selected districts of Gujarat.

Hypothesis H₀₄

Homemakers do not face significant challenges or barriers in using mobile payment applications.

Table 1: One-Sample Statistics

N	Mean	Std. Deviation	Std. Error Mean
127	3.62	0.71	0.06

Table 2: One-Sample Test

t	df	Sig. (2- tailed)	Mean Difference	95% Confidence Interval of the Difference
9.41	126	.000	.62	Lower: .49 Upper: .75

A One-Sample t-test was conducted to examine whether homemakers face significant challenges or barriers in using mobile payment applications. The results indicate that the mean score for challenges ($M = 3.62$, $SD = 0.71$) is significantly higher than the test value of 3, $t(126) = 9.41$, $p < 0.05$.

It is concluded that homemakers face significant challenges and barriers in using mobile payment applications. These challenges may include security concerns, lack of technical knowledge, fear of fraud, and operational difficulties.

Findings of the Study

- The study reveals that homemakers in the selected districts of Gujarat exhibit a **significant level of awareness and usage of mobile payment applications**, as supported by the One-Sample t-test results.
- Mobile payment applications have become an integral part of routine financial transactions among homemakers, indicating a **positive acceptance of digital payment systems**.
- The results of multiple regression analysis show that **perceived ease of use** has a significant and positive influence on the adoption of mobile payment applications among homemakers.
- **Perceived usefulness** is found to significantly affect adoption, suggesting that homemakers prefer mobile payment applications that provide convenience, time efficiency, and practical benefits.
- **Trust** emerges as a crucial determinant influencing the adoption of mobile payment applications, highlighting the importance of reliability and confidence in digital transactions.
- **Security** is identified as a significant factor impacting adoption, indicating that concerns related to safety and protection of financial information play an important role in usage decisions.
- The combined effect of perceived ease of use, perceived usefulness, trust, and security explains a substantial proportion of variation in adoption behavior among homemakers.
- The Chi-square test results indicate a **significant association between age and usage** of mobile payment applications among homemakers.

- **Educational qualification** of homemakers is significantly associated with their usage of mobile payment applications, with higher education levels linked to greater usage.
- **Annual income** is found to have a significant impact on the usage behavior of mobile payment applications among homemakers.
- The **area of residence** (urban or semi-urban) significantly influences the usage of mobile payment applications among homemakers.
- The study finds that homemakers face **significant challenges and barriers** in using mobile payment applications, as indicated by the One-Sample t-test on challenges.
- Major challenges reported include **security concerns, fear of fraud, lack of technical knowledge, and operational difficulties** while using mobile payment applications.
- Despite the presence of challenges, the overall findings indicate a **growing inclination of homemakers towards digital payment systems**.

Conclusion

The study examines the awareness, usage, and adoption of mobile payment applications among homemakers in selected districts of Gujarat and finds a positive trend toward digital payment usage. Homemakers demonstrate a satisfactory level of awareness and actively use mobile payment applications for routine financial transactions, indicating growing digital financial inclusion among this group.

The findings confirm that perceived ease of use, perceived usefulness, trust, and security significantly influence the adoption of mobile payment applications. Applications that are simple to operate, reliable, and secure are more likely to be accepted and continuously used by homemakers. Additionally, demographic and socio-economic factors such as age, education, income, and area of residence significantly affect usage patterns, with higher adoption observed among younger, educated, and urban or semi-urban homemakers.

Despite increasing adoption, challenges such as security concerns, fear of fraud, and limited technical knowledge remain barriers to optimal usage. Overall, the study concludes that mobile payment applications have gained substantial acceptance among homemakers; however, sustained and effective usage requires continuous digital literacy efforts, enhanced security awareness, and trust-building measures. The study offers valuable insights for policymakers, financial institutions, and application developers in promoting inclusive and sustainable digital payment systems.

Suggestions

1. Digital Literacy Enhancement

Short-term digital literacy and financial awareness programs should be organized for homemakers to improve basic smartphone skills and reduce dependence on others for mobile payment transactions.

2. Security Awareness Programs

Regular awareness initiatives should educate homemakers about safe digital practices such as password protection, fraud identification, and secure transaction behavior to build confidence in mobile payments.

3. Simplified Application Design

Mobile payment applications should offer easy-to-use interfaces, regional language support, and clear step-by-step instructions to improve usability among homemakers with limited technical knowledge.

4. Trust Building Measures

Service providers should maintain transparency in transactions and ensure quick grievance redressal to strengthen trust and encourage continuous usage of mobile payment applications.

5. Targeted Awareness Campaigns

Customized awareness campaigns based on age, education, and income levels should be conducted to address specific challenges faced by different groups of homemakers.

6. Supportive Digital Finance Policies

Policymakers should frame inclusive digital finance policies that recognize homemakers as key contributors to household financial management and promote their digital financial empowerment.

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A COMPARATIVE STUDY ON THE FINANCIAL ANALYSIS OF THE CO OPERATIVE BANKS OF BARDOLI TALUKA IN SURAT DISTRICT

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ABSTRACT

Co-operative banks play an important role in the development of rural economies and serve as the backbone of India's financial system. These banks play an important role in achieving the goals of financial inclusion. These banks have an extensive branch network of and localized operational locations, engaging recovery in the development process, lending and deposit Mobilization in rural areas. Therefore, in this work, an attempt was made to investigate co-operative banks in the Surat area. Current dissertation only focuses on Short term & Medium term Local co-operative Bank works mainly in the district of Surat, a local economic state. Banks Business has brought wonders to the global economy.

Banks have Simple looking Method Receive deposits from savers and lend the same money to borrowers. Banks facilitate the flow of money for productive use and investment. This will cause the economy to skyrocket. Without banks, the savings in our homes would be wasted, entrepreneurs wouldn't be able to raise money and the average person dreaming of a new car or home wouldn't be able to buy a car or home. The government of India started the cooperative movement of India in 1904.

Keywords: *Co-operative Bank, Bardoli Taluka, Surat, Comparative Analysis, Financial Analysis, Surat District*

1. INTRODUCTION

India Cooperative Movement was conceived as a tool for socio-economic transformation those incapable construction owns their economy feet. Movement considers the origin of to be Co-operative Achievement Legislation 1904 enabled Co-operative Organization and was operated and managed as a co-operative of people in the Society. Bank is the backbone of India's financial system. In our country, the banking sector consists of widely planned commercial banks and credit unions. Country After the nationalization of banks, we experienced rapid changes in the banking sector 444 and credit unions complement commercial banks to deepen financial intermediation by large number small depositor and borrower under formal financial sector.

A credit union is a financial institution owned by its members, owners, and bank customers. Credit unions are often formed by individuals who belong to the same Local or Professional Community or and share the common interests of Cooperative banks typically provide members with a wide range of banking and financial services (loans, deposits, bank accounts, etc.).

Local co-operative banks and credit institutions play an important role in meeting the growing needs of India's regions. With an extensive branch network and a local business base, co-operative banks play a key role in the process of rural development, lending and deposit mobilization. It is Credit Union Bank and Commercial Bank 444 Supplement to respectively Other Recognized Both is important for financial inclusion. In Japan's credit union structure, the State-owned Credit Union (SCB) is the institution, which is the most important of the in this structure.

They control, regulate and oversee the entire co-operative movement in the affected states. These are also known as Apex Banks. Co-operative banks are small units organized in the co-operative sector and operate in both urban and suburban areas. These banks have traditionally focused on the community, locations and jobs locations groups and they are basically to small borrowers and Lend out companies. Union Cooperative Bank (UCB), does not officially define, but refers to major co-operative banks in cities and suburban areas.

2. OBJECTIVES OF THE STUDY

- (1) To know the lending practices of cooperative banks in Surat Districts
- (2) To measure and compare the effectiveness of Cooperative Banks of Surat Districts
- (3) To study the impact of size on the efficiency of the Cooperative Banks.
- (4) Proposal of appropriate measures to improve the performance of co-operative banks.
- (5) Understand different types of credits preferred by different customer groups.
- (6) Understand customer satisfaction from the bank's lending policy.
- (7) To study the short & medium term rural cooperative banking structure in Surat Districts

3. REVIEW OF THE LITERATURE

Bhadrappa Haralayya (2021) conducted a comparative study on the management of NPA by Urban Banking and ICICI Banking Corporation in Karnataka. Both Urban Banking's gross and net NPA showed an increasing trend, but that of ICICI Bank showed a decreasing trend during the survey period, which was higher at ICICI Bank than at ICICI Bank.

Sandip Mallick and Subhamoy Das (2020) investigated the relationship between capital adequacy ratio, management capacity and profitability in the proposal of a city co-operative bank operating in India. This survey is based on accounting and statistical analysis of 46 urban credit unions proposed over the last decade. The survey concluded that the Non Interest Income to Working Fund (NNIWF) has a positive impact on profitability. There is a positive correlation between management ability and profitability from the NNIWF perspective, and a negative correlation between management ability and deposits and operating costs per employee. The survey raises concerns about the efficiency of management teams in decision making. We encouraged management to improve their decision-making capabilities to maximize profitability.

Srivastava, D.A., Upadhyay, A. , & Saxena, N. (2020) explained that under an advanced Basel approach, UCB faces capital adequacy standards and, as a result, requires more capital to meet them. This paper examines the position of co-operatives based on a comparison of India's UCB financial performance and global scenarios. The sample size 50NSB was selected based on the availability of information using stratified random sampling. This sample represents 8% of the total number of Tier II UCBs and accounts for 32% of the total number of UCB assets. This study analyzed three key aspects of capital in terms of configuration, management, and repayment for the 2017-2019 fiscal years. Researchers have found that UCB's retention period is repayable or short, so life and quality are not guaranteed. The paper suggests that the Tide Capital Borrowing System should be abolished in order to secure consistent and high quality capital in accordance with the conditions set by the Reserve Bank of India. Researchers strongly recommended effective changes to the 2020 Banking Regulations Act to improve capital management by addressing the legal structure created for the issuance of various commodities.

Jayasree TO and K. Gangadharan (2017) conducted a survey on capital adequacy ratios and financial stability of Indian urban co-operative banks. The study emphasizes capital adequacy, as the security, stability and soundness of the banking system depends primarily on the level of capital adequacy. The study investigated the capital adequacy ratio since the establishment of Indian city credit unions and concluded that about 94% of Indian city credit unions meet the capital adequacy standards set by the RBI. Rituparna Das (2015) discovered that liquidity and funding risk play a key role in the banking industry after the 2007-2008 financial crises. The paper seeks to investigate management performance to save UCB from the unfortunate scenario of liquidation / license cancellation. Eight UCB samples are selected based on the availability of financial indicators such as GNPA, IRR, and operating profit. Financial data is collected for two fiscal years. H. For 2012–13 and 13–14. Use principal component analysis to

successfully validate the quantification of collaborative performance. The investigation concluded that there was a need for brainstorming by banking regulators regarding the continuity of the suffering UCB. Nagarajapillai RAMU (2014) investigated UCB's problems and challenges by understanding the history of the emergence of co-operative movements up to the relevant decade up to 2014. He said important policies had been in place since 1992-93, the upcoming financial crisis after the legendary financial reforms of the Indian economy. This paper reviews the evolution of key policies introduced by regulatory agencies since 2005 after the task report was produced. The CAMELS rating was introduced by the RBI to classify UCB as a compound rating of A / B / C / D, but 96 countries follow the PEARLS monitoring system developed by the World Credit Union Council.

Jyoti Gupta and Suman Jain (2012) surveyed selected credit unions with the aim of investigating the efficiency associated with selected credit union lending practices in India. The survey also investigated credit preferences and customer satisfaction through an interview method. This study highlights the limits of credit unions in resource mobilization and fiscal recovery. Legal and administrative restrictions and regular government intervention will influence the performance of Indian credit unions. Primary data show that individual customers are the preferred type of credit for long-term loans / mortgages and are very pleased with the individual offers of the Cooperative Bank.

Narayana Gowd Talla, Anand Bethapudi, and Reddeppa Reddy G. (2011) analyzed the financial performance of the Dharma Balaam City Cooperative Bank, which operates in Andhra Pradesh. Researchers investigated aspects of a bank's financial performance, equity capital position, and liquidity. We conclude that the bank's financial performance is satisfactory as financial parameters such as deposit mobilization, loans, working capital, reserves, own funds, gross income and expenditures have been on the rise during the study period. .. Other parameters, i. H. Membership, equity capital and liquidity positions were inherently stable and did not change significantly. Banks have shown various signs of gross profit and profit per share. This study proposes effective recovery and risk management practices and operational diversification to overcome operational inefficiencies.

4. RESEARCH METHODOLOGY

Type of Research

Descriptive research is used in this study in order to identify the lending practices of bank and determining customer's level of satisfaction.

Secondary Data

Annual reports of the bank

Manual of instructions on loans and advances

Books

Articles and Research Papers

Internet

5. RESULT AND FINDINGS**Financial position of Bardoli Co Operative society**

Year	2017-18	2018-19	2019-20	2020-21	2021-22
Share capital	67,65,350	68,34,000	68,44,350	68,43,325	68,35,775
Members	9826	10610	10708	10701	10689
Reserve fund	27,60,25,413	29,31,99,430	31,33,93,244	33,30,31,157	35,19,93,390
Saving Deposits	4,18,39,162	3,74,32,982	4,56,53,987	4,15,74,604	4,08,05,477
Current Deposits	2,31,28,050	1,47,35,304	1,31,90,875	97,37,963	77,53,113
Fixed Deposits	97,77,72,679	95,65,17,475	96,51,75,924	91,57,01,219	98,87,62,022
Other Deposits	5,45,14,150	6,01,07,536	6,21,73,307	6,85,91,880	7,39,43,138
Profit or loss	65,86,855	66,56,931	67,43,043	65,32,965	66,10,381
Operating fund	1,45,83,37,757	1,43,21,94,351	1,49,90,21,002	1,45,07,68,725	1,54,89,01,784
Audit class	A	A	A	A	Pending
Dividend	15 %	15 %	15 %	15 %	15 % proposed

Comparative analysis of Bardoli Co Operative society between last two Years

Particular	31/3/2021	31/3/2022
Share capital	68,43,325	68,35,775
Reserve fund	33,30,31,157	35,19,93,390
Members Deposits	1,03,56,05,667	1,11,12,63,750
Members Loan	31,67,07,401	28,57,94,826
Working capital	1,45,07,68,725	1,54,89,01,784
Investment	1,06,85,00,100	1,19,50,00,100
Profit	65,32,965	66,10,381
NPA	0.32 %	1.00 %

Interest Rate on Deposits

Fixed saving Account	2.5 %
Saving Account	2.5 %
Fixed Deposits	
On 46 days	3.00 %
91 days	3.25 %
180 days	3.50 %
1 year	4.50 %
2 years	4.50 %
3 years	4. 50 %
5 years or above	4.50 %
For senior citizen (1 year)	5.00 %

6. PROBLEMS FACED BY COOPERATIVE BANKS

(1) Co-operative financial institutions face serious problems that limit their ability to ensure a smooth flow of credit.

- Limited ability to mobilize resources.
- Low level recovery.
- High transaction costs.
- Long-term managed interest rate structure.

- (2) Government for cooperative legislation and administration. Intervention has become an integral part of the day-to-day management of co-operative institutions. Some of the problem areas that arise from the applicability of co-operative law are:
- Intentional management of the co-operative by the government.
 - Appointment of a board of directors by the government.
 - Participation of directors appointed by the government.
 - Secondment of government officials to co-operative institutions.
- (3) State-owned co-operative banks are unable to formulate their respective policies regarding the investment of funds, including surplus funds, due to certain restrictions.
- (4) RBI pre-approval is required to open a new branch office of SCB. SCB is obliged to submit a proposal to open a new branch office at RBI via NABARD, and if approved, that recommendation will prevail.

7. SUGGESTIONS

- Banks need to adopt the latest banking methods such as internet banking, credit cards, ATMs, etc.
- Banks need to plan the introduction of new systems in order to attract new customers and satisfy existing customers.
- Banks need to plan for branch expansion.
- Banks need to further improve their customer service.

8. LIMITATIONS

- This survey is based only on data from the last 3-4 years.
- Survey data is primarily based on a single bank.
- The majority of customers are bankers, so information sharing can be biased.
- The research period was limited

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A. સારાંશ :-

વિશ્વમાં સૌથી વધુ યુવા વસ્તી ધરાવતો દેશ ભારત છે, યુવા શક્તિ દેશના સામાજિક અને આર્થિક વિકાસનું મહત્વપૂર્ણ આધારસ્તંભ છે. તેમ છતાં છેલ્લા કેટલાક વર્ષોમાં વધતી બેરોજગારી યુવાનો માટે ગંભીર સામાજિક અને માનસિક પડકાર બની છે. શિક્ષણ પૂર્ણ કર્યા પછી યોગ્ય રોજગારી ન મળવી, કૌશલ્ય અને રોજગાર વચ્ચેનું અંતર, આર્થિક અસુરક્ષા, વધતી સ્પર્ધા, પારિવારિક અપેક્ષાઓ અને સામાજિક દબાણને કારણે યુવાનોમાં તણાવ (Stress), ચિંતા (Anxiety), હતાશા (Depression), આત્મવિશ્વાસમાં ઘટાડો, સામાજિક અલગાવ અને આત્મહત્યાના વિચારો જેવી માનસિક સમસ્યાઓમાં વધારો થતો જોવા મળે છે.

પ્રસ્તુત સંશોધન લેખનો મુખ્ય હેતુ બેરોજગારી અને યુવાઓમાં વધતી માનસિક સમસ્યાઓ વચ્ચેના સંબંધનું સમાજશાસ્ત્રીય દૃષ્ટિકોણથી વિશ્લેષણ કરવાનો છે. અભ્યાસમાં બેરોજગારીના સામાજિક, આર્થિક અને માનસિક પરિબળોનું મૂલ્યાંકન કરવામાં આવ્યું છે. સાથે સાથે પરિવાર, શિક્ષણ પ્રણાલી, સામાજિક અપેક્ષાઓ અને સરકારી રોજગાર નીતિઓની ભૂમિકાનું પણ વિશ્લેષણ કરવામાં આવ્યું છે

મુખ્ય શબ્દો (Keywords): બેરોજગારી, યુવા, માનસિક સ્વાસ્થ્ય, તણાવ, હતાશા, ચિંતા, સમાજશાસ્ત્ર, સામાજિક દબાણ, કૌશલ્ય વિકાસ,

B. પરિચય:-

ભારત વિશ્વનો સૌથી યુવા વસ્તી ધરાવતો દેશ છે, જ્યાં કુલ વસ્તીનો નોંધપાત્ર હિસ્સો 15 થી 29 વર્ષની વયજૂથમાં આવે છે. આ યુવા શક્તિ દેશના આર્થિક વિકાસ, સામાજિક પરિવર્તન અને રાષ્ટ્રીય પ્રગતિનું મુખ્ય સાધન માનવામાં આવે છે. જોકે, છેલ્લા કેટલાક વર્ષોમાં બેરોજગારીનું વધતું પ્રમાણ ભારત સહિત વિશ્વના અનેક દેશો માટે ગંભીર સામાજિક અને આર્થિક પડકાર તરીકે ઊભર્યું છે. ઉચ્ચ શિક્ષણ પ્રાપ્ત કર્યા પછી પણ યોગ્ય રોજગારની અછત, કૌશલ્ય અને રોજગાર બજાર વચ્ચેનું અંતર, કરાર આધારિત રોજગારી, વધતી સ્પર્ધા અને આર્થિક અનિશ્ચિતતાએ યુવાનોના જીવન પર ઊંડી અસર પેદા કરી છે.

બેરોજગારીને સામાન્ય રીતે આવકના અભાવ સાથે જોડવામાં આવે છે, પરંતુ તેનો પ્રભાવ માત્ર આર્થિક ક્ષેત્ર પૂરતો મર્યાદિત નથી. લાંબા સમય સુધી રોજગારી ન મળવાથી યુવાનોમાં આત્મવિશ્વાસમાં ઘટાડો, તણાવ (Stress), ચિંતા (Anxiety), હતાશા (Depression), નિરાશા, સામાજિક અલગાવ અને જીવન પ્રત્યે નકારાત્મક દૃષ્ટિકોણ વિકસવાની શક્યતા વધી જાય છે. કેટલાક કિસ્સાઓમાં આ પરિસ્થિતિ આત્મહત્યાના વિચારો અથવા અન્ય ગંભીર માનસિક આરોગ્ય સમસ્યાઓ સુધી પણ પહોંચી શકે છે. તેથી બેરોજગારીને માત્ર આર્થિક સમસ્યા તરીકે નહીં, પરંતુ એક મહત્વપૂર્ણ સમાજશાસ્ત્રીય અને જાહેર આરોગ્યના પ્રશ્ન તરીકે પણ સમજવાની જરૂર છે.

સમાજશાસ્ત્રીય દૃષ્ટિકોણથી બેરોજગારી વ્યક્તિ અને સમાજ વચ્ચેના સંબંધોને અસર કરે છે. કાર્યાત્મકવાદ (Functionalism) મુજબ રોજગાર વ્યક્તિને આવક ઉપરાંત સામાજિક ઓળખ, પ્રતિષ્ઠા અને સામાજિક એકીકરણ પ્રદાન કરે છે. જ્યારે બેરોજગારી વધે છે ત્યારે આ સામાજિક કાર્યોમાં વિક્ષેપ સર્જાય છે. સંઘર્ષવાદ (Conflict Theory) અનુસાર બેરોજગારી સામાજિક અને આર્થિક અસમાનતાનું પરિણામ હોઈ શકે છે, જ્યાં સંસાધનો અને તકોનું અસમાન વિતરણ યુવાનોને પાછળ ધકેલી શકે છે. પ્રતીકાત્મક આંતરક્રિયાવાદ (Symbolic Interactionism) મુજબ સતત નિષ્ફળતા, સામાજિક સરખામણી અને નકારાત્મક પ્રતિસાદના કારણે યુવાનોની આત્મછબી અને આત્મસન્માન પર પ્રતિકૂળ અસર પડે છે.

ભારતમાં યુવાનો માટે રોજગાર સર્જન, કૌશલ્ય વિકાસ અને માનસિક આરોગ્યને મજબૂત બનાવવા માટે વિવિધ સરકારી યોજનાઓ અને કાર્યક્રમો અમલમાં મૂકવામાં આવ્યા છે. તેમ છતાં, શિક્ષણ અને રોજગાર વચ્ચેનું અંતર, બદલાતી ટેકનોલોજી, ઓટોમેશન, વધતી સ્પર્ધા અને સામાજિક અપેક્ષાઓ જેવા પરિબલોને કારણે પડકારો હજુ પણ યથાવત્ છે. ખાસ કરીને ડિજિટલ યુગમાં સોશિયલ મીડિયાના વધતા પ્રભાવને કારણે યુવાનોમાં પોતાની સફળતાની અન્ય લોકો સાથે સતત સરખામણી કરવાની વૃત્તિ પણ માનસિક દબાણમાં વધારો કરે છે.

પ્રસ્તુત સંશોધન લેખનો મુખ્ય હેતુ બેરોજગારી અને યુવાઓમાં વધતી માનસિક સમસ્યાઓ વચ્ચેના સંબંધનું સમાજશાસ્ત્રીય વિશ્લેષણ કરવાનો છે. અભ્યાસમાં બેરોજગારીના સામાજિક, આર્થિક અને માનસિક પરિબલોનું વિશ્લેષણ કરવામાં આવશે તેમજ પરિવાર, શિક્ષણ, સામાજિક માળખું અને સરકારી નીતિઓની ભૂમિકાનું મૂલ્યાંકન કરવામાં આવશે. આ ઉપરાંત, યુવાનોના માનસિક સ્વાસ્થ્યને મજબૂત બનાવવા અને રોજગારક્ષમતા વધારવા માટે જરૂરી નીતિગત અને વ્યવહારુ સૂચનો પણ રજૂ કરવામાં આવશે. આ અભ્યાસ

નીતિ-નિર્માતાઓ, શિક્ષણવિદો, સમાજશાસ્ત્રીઓ અને યુવા કલ્યાણ સાથે સંકળાયેલા સંશોધકો માટે ઉપયોગી સાબિત થઈ શકે છે.

C. સંશોધન સમસ્યાનું નિવેદન :-

દેશના સામાજિક અને આર્થિક વિકાસમાં યુવાનોની ભૂમિકા અત્યંત મહત્વપૂર્ણ છે. તેમ છતાં છેલ્લા કેટલાક વર્ષોમાં વધતી બેરોજગારી યુવાનો માટે ગંભીર સામાજિક, આર્થિક અને માનસિક પડકાર તરીકે સામે આવી છે. ઉચ્ચ શિક્ષણ અને વ્યાવસાયિક લાયકાત પ્રાપ્ત કર્યા પછી પણ યોગ્ય રોજગારી ન મળવી, કૌશલ્ય અને રોજગાર બજાર વચ્ચેનું અંતર, અસ્થિર રોજગારી, વધતી સ્પર્ધા અને આર્થિક અનિશ્ચિતતા જેવા પરિબળો યુવાનોના જીવનને સીધી અસર કરે છે.

બેરોજગારીના પરિણામો માત્ર આવકના અભાવ સુધી મર્યાદિત રહેતા નથી. લાંબા સમય સુધી રોજગાર ન મળવાથી યુવાનોમાં તણાવ (Stress), ચિંતા (Anxiety), હતાશા (Depression), આત્મવિશ્વાસમાં ઘટાડો, સામાજિક અલગાવ, પારિવારિક તણાવ અને જીવન પ્રત્યે નિરાશાવાદી દૃષ્ટિકોણ વિકસવાની શક્યતા વધી જાય છે. કેટલીક પરિસ્થિતિઓમાં આ માનસિક દબાણ આત્મહત્યાના વિચારો અથવા અન્ય ગંભીર માનસિક આરોગ્ય સમસ્યાઓમાં પણ પરિણમી શકે છે. તેથી બેરોજગારીને માત્ર આર્થિક પ્રશ્ન તરીકે નહીં, પરંતુ સામાજિક માળખું, પરિવાર, શિક્ષણ, રોજગારની તકો અને માનસિક સ્વાસ્થ્ય સાથે સંકળાયેલા બહુપરિમાણીય પ્રશ્ન તરીકે સમજવાની જરૂર છે.

ભારતમાં રોજગાર સર્જન, કૌશલ્ય વિકાસ અને યુવા કલ્યાણ માટે વિવિધ સરકારી યોજનાઓ અમલમાં છે, તેમ છતાં બેરોજગારીનું પ્રમાણ અને તેનાથી સંબંધિત માનસિક સમસ્યાઓ હજુ પણ ચિંતાજનક છે. ખાસ કરીને શિક્ષિત યુવાનોમાં અપેક્ષાઓ અને વાસ્તવિક રોજગાર તકો વચ્ચેનું અંતર, તેમજ સોશિયલ મીડિયા દ્વારા સર્જાતી સતત સામાજિક સરખામણી, માનસિક દબાણને વધુ ગંભીર બનાવી શકે છે.

હાલમાં બેરોજગારી અને માનસિક સ્વાસ્થ્ય અંગે અનેક અભ્યાસો ઉપલબ્ધ છે, પરંતુ ભારતીય સમાજના સંદર્ભમાં બંને વચ્ચેના સંબંધનું સમાજશાસ્ત્રીય દૃષ્ટિકોણથી એકીકૃત વિશ્લેષણ હજુ પણ મર્યાદિત છે. ખાસ કરીને પરિવાર, સામાજિક મૂલ્યો, સામાજિક અપેક્ષાઓ, આર્થિક સ્થિતિ અને જાહેર નીતિઓની સંયુક્ત અસરને ધ્યાનમાં રાખીને વધુ અભ્યાસની જરૂરિયાત છે.

આથી પ્રસ્તુત સંશોધનનો મુખ્ય પ્રશ્ન એ છે કે બેરોજગારી યુવાઓના માનસિક સ્વાસ્થ્યને કેવી રીતે અસર કરે છે, આ અસરને પ્રભાવિત કરતા મુખ્ય સામાજિક અને આર્થિક પરિબળો કયા છે, અને યુવાનોના

માનસિક સુખાકારી તથા રોજગારક્ષમતામાં સુધારો લાવવા માટે કયા સમાજશાસ્ત્રીય અને નીતિગત પગલાં જરૂરી છે.

D. સંશોધનના ઉદ્દેશ્યો :-

પ્રસ્તુત સંશોધનનો મુખ્ય હેતુ બેરોજગારી અને યુવાઓમાં વધતી માનસિક સમસ્યાઓ વચ્ચેના સંબંધનું સમાજશાસ્ત્રીય દૃષ્ટિકોણથી વિશ્લેષણ કરવાનો છે. આ મુખ્ય હેતુને ધ્યાનમાં રાખીને નીચેના વિશિષ્ટ ઉદ્દેશ્યો નક્કી કરવામાં આવ્યા છે:

1. બેરોજગારીની સંકલ્પના, સ્વરૂપો અને તેના સમાજશાસ્ત્રીય પરિપ્રેક્ષ્યનો અભ્યાસ કરવો.
2. ભારતના યુવાનોમાં બેરોજગારીની સ્થિતિ અને તેના મુખ્ય સામાજિક તથા આર્થિક કારણોનું વિશ્લેષણ કરવું.
3. બેરોજગારીના કારણે યુવાઓમાં ઊભી થતી માનસિક સમસ્યાઓ, જેમ કે તણાવ (Stress), ચિંતા (Anxiety), દેશાશ (Depression), આત્મવિશ્વાસમાં ઘટાડો અને સામાજિક અલગાવનો અભ્યાસ કરવો.
4. બેરોજગારી અને માનસિક સ્વાસ્થ્ય વચ્ચેના પરસ્પર સંબંધનું સમાજશાસ્ત્રીય દૃષ્ટિકોણથી મૂલ્યાંકન કરવું.
5. પરિવાર, શિક્ષણ, સામાજિક અપેક્ષાઓ, આર્થિક સ્થિતિ અને સોશિયલ મીડિયાની યુવાઓના માનસિક સ્વાસ્થ્ય પર પડતી અસરનું વિશ્લેષણ કરવું.

E. સાહિત્ય સમીક્ષા:-

બેરોજગારી અને માનસિક સ્વાસ્થ્ય વચ્ચેના સંબંધ અંગે રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય સ્તરે અનેક અભ્યાસો કરવામાં આવ્યા છે. ઉપલબ્ધ સાહિત્ય દર્શાવે છે કે બેરોજગારી માત્ર આર્થિક સમસ્યા નથી, પરંતુ તે વ્યક્તિના સામાજિક જીવન, આત્મસન્માન, માનસિક સ્વાસ્થ્ય અને જીવનની ગુણવત્તાને પણ નોંધપાત્ર રીતે અસર કરે છે. નીચે કેટલાક મહત્વપૂર્ણ અભ્યાસોનું સંક્ષિપ્ત અવલોકન રજૂ કરવામાં આવે છે.

Durkheim (1897) પોતાના પ્રસિદ્ધ ગ્રંથ Suicide માં દર્શાવે છે કે સામાજિક એકીકરણ અને સામાજિક નિયમન વ્યક્તિના માનસિક સ્વાસ્થ્ય માટે અત્યંત મહત્વપૂર્ણ છે. જ્યારે વ્યક્તિ સમાજથી અલગાવ અનુભવે છે અથવા સામાજિક ભૂમિકામાં અનિશ્ચિતતા અનુભવતી હોય છે, ત્યારે માનસિક તણાવ અને આત્મહત્યાના જોખમમાં વધારો થઈ શકે છે. બેરોજગારી આ પ્રકારના સામાજિક અલગાવને પ્રોત્સાહિત કરી શકે છે.

Jahoda (1982) પોતાના Employment and Unemployment: A Social-Psychological Analysis માં જણાવે છે કે રોજગાર વ્યક્તિને માત્ર આવક જ આપતો નથી, પરંતુ સામાજિક ઓળખ, આત્મસન્માન, સમયનું આયોજન, સામાજિક સંબંધો અને જીવનમાં હેતુની ભાવના પણ પ્રદાન કરે છે. બેરોજગારીના કારણે આ લાભો ગુમાવવાથી માનસિક સમસ્યાઓ વિકસી શકે છે.

Paul અને Moser (2009) દ્વારા કરવામાં આવેલા મેટા-વિશ્લેષણમાં દર્શાવવામાં આવ્યું છે કે બેરોજગાર વ્યક્તિઓમાં માનસિક તણાવ, ચિંતા અને હતાશાનું પ્રમાણ રોજગાર ધરાવતા લોકોની તુલનામાં નોંધપાત્ર રીતે વધુ હોય છે. આ અભ્યાસે બેરોજગારી અને માનસિક સ્વાસ્થ્ય વચ્ચે મજબૂત સંબંધ દર્શાવ્યો છે.

World Health Organization (WHO, 2022) ના અહેવાલ મુજબ યુવાનોમાં વધતી માનસિક સમસ્યાઓ પાછળ આર્થિક અસુરક્ષા, સામાજિક દબાણ, રોજગારની અનિશ્ચિતતા અને ભવિષ્ય અંગેની ચિંતા જેવા પરિબલો મહત્વની ભૂમિકા ભજવે છે. સમયસર પરામર્શ અને માનસિક આરોગ્ય સેવાઓની ઉપલબ્ધતા પર ભાર મૂકવામાં આવ્યો છે.

International Labour Organization (ILO, 2024) ના અહેવાલો દર્શાવે છે કે યુવાનોમાં બેરોજગારીનું પ્રમાણ ઘણા દેશોમાં પુખ્ત વયના લોકોની તુલનામાં વધારે છે. લાંબા સમય સુધી બેરોજગારી યુવાનોની આવક, કારકિર્દી વિકાસ, આત્મવિશ્વાસ અને માનસિક સુખાકારી પર લાંબા ગાળાની અસર કરી શકે છે.

ભારતીય પરિપ્રેક્ષ્યમાં National Mental Health Survey (NIMHANS, 2015–16) એ સૂચવ્યું છે કે યુવાનોમાં તણાવ, ચિંતા અને હતાશા જેવી માનસિક સમસ્યાઓમાં વધારો જોવા મળે છે, જેમાં આર્થિક અનિશ્ચિતતા અને રોજગાર સંબંધિત પરિબલો પણ મહત્વ ધરાવે છે.

National Education Policy (2020) અને Skill India Mission જેવા કાર્યક્રમો યુવાનોને રોજગારલક્ષી કૌશલ્ય પ્રદાન કરીને તેમની રોજગારક્ષમતા વધારવાનો પ્રયાસ કરે છે. તેમ છતાં, શિક્ષણ અને રોજગાર બજારની જરૂરિયાતો વચ્ચે હજી પણ નોંધપાત્ર અંતર જોવા મળે છે.

ઉપરોક્ત સાહિત્ય પરથી સ્પષ્ટ થાય છે કે બેરોજગારી અને માનસિક સ્વાસ્થ્ય વચ્ચે ગાઢ સંબંધ છે. જોકે ભારતીય સામાજિક અને સાંસ્કૃતિક પરિસ્થિતિમાં પરિવાર, સામાજિક અપેક્ષાઓ, શિક્ષણ, ડિજિટલ માધ્યમો અને આર્થિક અસમાનતાના સંયુક્ત પ્રભાવનું સમાજશાસ્ત્રીય દૃષ્ટિકોણથી વિશ્લેષણ કરતા અભ્યાસો હજી મર્યાદિત છે. પ્રસ્તુત સંશોધન આ સંશોધન ગેપને ધ્યાનમાં રાખીને બેરોજગારી અને યુવાઓમાં વધતી માનસિક સમસ્યાઓ વચ્ચેના સંબંધનું વ્યાપક સમાજશાસ્ત્રીય વિશ્લેષણ કરવાનો પ્રયાસ કરે છે.

F. સંશોધન પદ્ધતિ:-

આ અભ્યાસ ગુણાત્મક (Qualitative) સંશોધન પદ્ધતિ પર આધારિત છે અને પુસ્તકો, સંશોધન લેખો, સરકારી અહેવાલો તથા રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય સંસ્થાઓના પ્રકાશિત સાહિત્યના વિશ્લેષણ દ્વારા તૈયાર કરવામાં આવ્યો છે. અભ્યાસ દર્શાવે છે કે લાંબા સમય સુધી ચાલતી બેરોજગારી માત્ર આર્થિક સમસ્યા નથી, પરંતુ તે યુવાનોના આત્મસન્માન, સામાજિક સંબંધો, જીવન પ્રત્યેના દૃષ્ટિકોણ અને માનસિક સ્વાસ્થ્ય પર પણ ઊંડી અસર કરે છે.

- સૈદ્ધાંતિક આધાર:-

કાર્યાત્મક સિદ્ધાંત અનુસાર સમાજ એક વ્યવસ્થિત તંત્ર છે, જેમાં દરેક સંસ્થા સમાજની સ્થિરતા જાળવવા માટે મહત્વપૂર્ણ કાર્ય કરે છે. રોજગાર વ્યક્તિને આવક સાથે સામાજિક ઓળખ, પ્રતિષ્ઠા અને જવાબદારી પ્રદાન કરે છે. બેરોજગારીને સમાજની કાર્યાત્મક વ્યવસ્થામાં ઊભી થતી અસંગતતા તરીકે જોઈ શકાય છે. લાંબા સમયની બેરોજગારી વ્યક્તિના સામાજિક એકીકરણ, આત્મસન્માન અને માનસિક સ્વાસ્થ્ય પર નકારાત્મક અસર કરે છે. તેથી સમાજની સ્થિરતા માટે રોજગાર સર્જન અને કૌશલ્ય વિકાસ જરૂરી છે.

G. અભ્યાસની મર્યાદાઓ:-

1. આ અભ્યાસ સંપૂર્ણપણે દ્વિતીયક માહિતી પર આધારિત છે; તેથી પ્રાથમિક માહિતી (Primary Data)નો સમાવેશ કરવામાં આવ્યો નથી.
2. અભ્યાસ મુખ્યત્વે ભારતીય પરિપ્રેક્ષ્ય પર કેન્દ્રિત છે; તેથી તેના તારણો અન્ય દેશોમાં સંપૂર્ણપણે લાગુ પડે જ એવું જરૂરી નથી.
3. સંશોધનનો મુખ્ય ભાર સમાજશાસ્ત્રીય વિશ્લેષણ પર છે; તેથી તબીબી અથવા ક્લિનિકલ માનસિક સ્વાસ્થ્યના નિદાનનો વિગતવાર સમાવેશ કરવામાં આવ્યો નથી.

H. માહિતીના સ્ત્રોતો :-

પ્રસ્તુત સંશોધનમાં માહિતીના સ્ત્રોતો તરીકે બેરોજગારીના સંદર્ભે વિચારો વ્યક્ત કરતા વર્તમાનપત્રો, સામયિકો, પુસ્તકો, લઘુ નિબંધો અને મહા નિબંધો ને માહિતીના દ્વિતીયક સ્ત્રોત તરીકે ઉપયોગ કરેલ છે.

I. અભ્યાસનું મહત્વ :-

આ સંશોધન બેરોજગારી અને યુવાઓના માનસિક સ્વાસ્થ્ય વચ્ચેના સંબંધને સમાજશાસ્ત્રીય દૃષ્ટિકોણથી સમજવામાં ઉપયોગી બનશે. ઉપરાંત, સંશોધનના તારણો નીતિ-નિર્માતાઓ, શિક્ષણવિદો, સમાજશાસ્ત્રીઓ, માનસિક આરોગ્ય નિષ્ણાતો અને યુવા કલ્યાણ સાથે સંકળાયેલી સંસ્થાઓને રોજગાર સર્જન, કૌશલ્ય વિકાસ અને માનસિક આરોગ્ય સેવાઓને વધુ અસરકારક બનાવવામાં માર્ગદર્શન પૂરું પાડી શકે છે.

J. તારણ:-

1. પ્રસ્તુત સંશોધનના આધારે સ્પષ્ટ થાય છે કે બેરોજગારી માત્ર આર્થિક સમસ્યા નથી, પરંતુ તે સામાજિક, માનસિક અને સાંસ્કૃતિક પરિમાણો ધરાવતો બહુપરિમાણીય પ્રશ્ન છે. યુવાનો માટે રોજગાર માત્ર આવકનું સાધન નથી; તે તેમની સામાજિક ઓળખ, આત્મસન્માન, સ્વાવલંબન અને જીવનના હેતુ સાથે પણ ગાઢ રીતે જોડાયેલો છે. જ્યારે યુવાનોને તેમની લાયકાત અને કૌશલ્યને અનુરૂપ રોજગાર મળતો નથી, ત્યારે તેમની વ્યક્તિગત, પારિવારિક અને સામાજિક જીવન પર તેની વ્યાપક અસર જોવા મળે છે.
2. અભ્યાસ દર્શાવે છે કે લાંબા સમય સુધી ચાલતી બેરોજગારી યુવાનોમાં તણાવ, ચિંતા, હતાશા, આત્મવિશ્વાસમાં ઘટાડો, સામાજિક અલગાવ અને ભવિષ્ય પ્રત્યેની અનિશ્ચિતતામાં વધારો કરે છે. આ પરિસ્થિતિ વ્યક્તિના માનસિક સ્વાસ્થ્ય ઉપરાંત પરિવારના સંબંધો, સામાજિક ભાગીદારી અને જીવનની ગુણવત્તાને પણ અસર કરે છે. ખાસ કરીને વધતી સ્પર્ધા, શિક્ષણ અને રોજગાર વચ્ચેનું અંતર, આર્થિક અસુરક્ષા, પારિવારિક અપેક્ષાઓ અને સોશિયલ મીડિયાના કારણે થતી સતત સામાજિક સરખામણી આ સમસ્યાને વધુ ગંભીર બનાવે છે.
3. સમાજશાસ્ત્રીય દૃષ્ટિકોણથી કાર્યાત્મકવાદ દર્શાવે છે કે રોજગાર સમાજમાં સ્થિરતા, સામાજિક એકીકરણ અને વ્યક્તિની ભૂમિકાને મજબૂત બનાવે છે, જ્યારે સંઘર્ષવાદ બેરોજગારીને તકોના અસમાન વિતરણ અને સામાજિક-આર્થિક અસમાનતા સાથે જોડે છે. પ્રતીકાત્મક આંતરક્રિયાવાદ અનુસાર બેરોજગારી વ્યક્તિની આત્મછબી, આત્મસન્માન અને સામાજિક સંબંધોમાં પરિવર્તન લાવે છે. તેથી બેરોજગારી અને માનસિક સ્વાસ્થ્યના પ્રશ્નને સમજવા માટે સમાજશાસ્ત્રીય અભિગમ મહત્વપૂર્ણ સાબિત થાય છે.
4. અભ્યાસ એ પણ દર્શાવે છે કે બેરોજગારીના પ્રશ્નના ઉકેલ માટે માત્ર રોજગાર સર્જન પૂરતું નથી. શિક્ષણ પ્રણાલીને રોજગારલક્ષી બનાવવી, કૌશલ્ય વિકાસને પ્રોત્સાહન આપવું, કારકિર્દી માર્ગદર્શન,

ઉદ્યોગસાહસિકતાને પ્રોત્સાહન, માનસિક આરોગ્ય સેવાઓને સરળતાથી ઉપલબ્ધ કરાવવી અને યુવા-કેન્દ્રિત જાહેર નીતિઓને વધુ અસરકારક બનાવવી જરૂરી છે. શૈક્ષણિક સંસ્થાઓમાં કારકિર્દી માર્ગદર્શન, મનોવૈજ્ઞાનિક પરામર્શ અને જીવન કૌશલ્ય (Life Skills) આધારિત કાર્યક્રમોનો સમાવેશ પણ સમયની માંગ છે.

5. અભ્યાસના આધારે એવું તારણ કાઢી શકાય છે કે બેરોજગારીની સમસ્યાના નિવારણ માટે માત્ર રોજગાર સર્જન પૂરતું નથી, પરંતુ કૌશલ્ય વિકાસ, કારકિર્દી માર્ગદર્શન, માનસિક આરોગ્ય સેવાઓ, મનોવૈજ્ઞાનિક પરામર્શ અને યુવા-કેન્દ્રિત જાહેર નીતિઓનો સમન્વય પણ જરૂરી છે. આ પ્રકારનો સર્વગ્રાહી અભિગમ યુવાનોના સર્વાંગી વિકાસ અને સામાજિક સુખાકારી માટે અનિવાર્ય છે.

આથી નિષ્કર્ષરૂપે કહી શકાય કે યુવાનોની બેરોજગારીને માત્ર આર્થિક સૂચકાંક તરીકે નહીં, પરંતુ સામાજિક સુખાકારી, માનસિક આરોગ્ય અને માનવ વિકાસ સાથે જોડાયેલા પ્રશ્ન તરીકે જોવાની જરૂર છે. સરકાર, શૈક્ષણિક સંસ્થાઓ, ઉદ્યોગો, પરિવાર અને સમાજના સંકલિત પ્રયાસો દ્વારા રોજગારની તકો વધારવી, માનસિક આરોગ્ય પ્રત્યે જાગૃતિ લાવવી અને યુવાનોને સકારાત્મક, સ્વાવલંબી અને સશક્ત બનાવવું એ ટકાઉ અને સર્વસમાવેશક વિકાસ માટે અનિવાર્ય છે.

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પરમાર વિદિતા સુભાષભાઈ

ભક્ત કવિ નરસિંહ મહેતા યુનિવર્સિટી, જુનાગઢ

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સારાંશ

ગ્રામીણ સમુદાયોને આજીવિકા સુરક્ષા, રોજગારીની તકો, પોષણ સહાય અને આર્થિક સ્થિરતા પૂરી પાડીને પશુપાલન ગુજરાતના કૃષિ અર્થતંત્રમાં મહત્વપૂર્ણ ભૂમિકા ભજવે છે. રાજ્યમાં પશુપાલનની મજબૂત પરંપરા છે, જેને અનુકૂળ આબોહવા પરિસ્થિતિઓ, સહકારી સંસ્થાઓ, સુધારેલી પશુચિકિત્સા સેવાઓ અને સરકારી પહેલ દ્વારા ટેકો મળ્યો છે. ગુજરાત તેના ડેરી વિકાસ માટે રાષ્ટ્રીય સ્તરે ઓળખાય છે, ખાસ કરીને સહકારી ચળવળ દ્વારા, જેણે દૂધ ઉત્પાદનને એક મુખ્ય ગ્રામીણ આર્થિક પ્રવૃત્તિમાં પરિવર્તિત કર્યું છે. આ સંશોધનાત્મક અભ્યાસ ગુજરાતમાં પશુપાલનની વર્તમાન સ્થિતિ, તેના આર્થિક મહત્વ, પશુપાલકો દ્વારા સામનો કરવામાં આવતા મુખ્ય પડકારો અને ટકાઉ વિકાસ માટે ભવિષ્યની સંભાવનાઓની તપાસ કરે છે. આ અભ્યાસમાં આબોહવા પરિવર્તન, ઘાસચારાની અછત, રોગ વ્યવસ્થાપન, બજારના વધઘટ અને તકનીકી અંતર જેવા મુદ્દાઓનું વિશ્લેષણ કરતી વખતે ડેરી પશુઓ, ભેંસ, બકરા, ઘેટાં અને મરઘાં ક્ષેત્રોના યોગદાન પર પ્રકાશ પાડવામાં આવ્યો છે. પેપર સૂચવે છે કે વૈજ્ઞાનિક પશુધન વ્યવસ્થાપન, ડિજિટલ તકનીકો, જાતિ સુધારણા કાર્યક્રમો અને મૂલ્યવર્ધિત પશુધન ઉત્પાદનોને મજબૂત બનાવવાથી આ ક્ષેત્રનો ભાવિ વિકાસ વધી શકે છે.

મુખ્ય શબ્દો : પશુપાલન, ગુજરાત, પશુધન વિકાસ, ડેરી ઉદ્યોગ, ગ્રામીણ અર્થતંત્ર, ટકાઉ કૃષિ,

પરિચય

કૃષિ અને સંલગ્ન પ્રવૃત્તિઓ ગુજરાતના ગ્રામીણ અર્થતંત્રની કરોડરજ્જુ બનાવે છે. આ સંલગ્ન પ્રવૃત્તિઓમાં, પશુપાલન ખેડૂતોની આવકમાં વધારો કરીને અને પાક ઉત્પાદન પર નિર્ભરતા ઘટાડીને મહત્વપૂર્ણ સ્થાન ધરાવે છે. પશુપાલન દૂધ, માંસ, ઇંડા, ઊન, ખાતર અને અન્ય પશુ-આધારિત ઉત્પાદનો દ્વારા નિયમિત આવક પૂરી પાડે છે. કૃષિ અનિશ્ચિતતાના સમયગાળા દરમિયાન નાણાકીય સુરક્ષાના સ્ત્રોત તરીકે પશુધનનો ઉપયોગ કરતા નાના અને સીમાંત ખેડૂતો માટે તે ખાસ કરીને મહત્વપૂર્ણ છે.

ગુજરાત તેના સફળ ડેરી સહકારી મોડેલ, સુધારેલા પશુ સંવર્ધન કાર્યક્રમો અને સંસ્થાકીય સહાયને કારણે પશુધન વિકાસમાં ભારતના અગ્રણી રાજ્યોમાંના એક તરીકે ઊભરી આવ્યું છે. રાજ્ય ગીર ગાય અને કાંકરેજ ગાય જેવી સ્વદેશી જાતિઓનું ઘર છે, જે તેમની અનુકૂળનક્ષમતા અને ઉત્પાદકતા માટે મૂલ્યવાન છે. અમૂલ જેવી સંસ્થાઓના નેતૃત્વમાં સહકારી ડેરી ચળવળે લાખો દૂધ ઉત્પાદકોને બજારો સાથે જોડતું એક મજબૂત નેટવર્ક બનાવ્યું છે.

પશુપાલનનું મહત્વ આર્થિક લાભોથી આગળ વધે છે. તે કૃષિ કચરાનું પશુ આહાર અને કાર્બનિક ખાતરમાં રિસાયક્લિંગ કરીને ખાદ્ય સુરક્ષા, મહિલા સશક્તિકરણ, રોજગાર સર્જન અને ટકાઉ ખેતીમાં ફાળો આપે છે. જોકે, આ ક્ષેત્ર અનેક પડકારોનો પણ સામનો કરે છે, જેમાં વધતી ખર્ચ, ગુણવત્તાયુક્ત ઘાસચારાની અછત, પશુ રોગો, આબોહવા પરિવર્તનની અસરો અને બદલાતી બજારની પરિસ્થિતિઓનો સમાવેશ થાય છે.

આ અભ્યાસ ગુજરાતમાં પશુપાલનની વર્તમાન સ્થિતિની શોધ કરે છે અને ભવિષ્યના વિકાસ અને ટકાઉપણું માટેની તકોની તપાસ કરે છે.

અભ્યાસના ઉદ્દેશ્યો

આ સંશોધનાત્મક અભ્યાસના મુખ્ય ઉદ્દેશ્યો છે:

- ગુજરાતમાં પશુપાલનની વર્તમાન સ્થિતિને સમજવી.
- રાજ્યમાં પશુપાલનના આર્થિક મહત્વનું વિશ્લેષણ કરવું.
- પશુધન વિકાસને અસર કરતા મુખ્ય પડકારોને ઓળખવા.
- ક્ષેત્રના ટકાઉ વિકાસ માટે ભવિષ્યની તકો અને વ્યૂહરચનાઓનું પરીક્ષણ કરવું.

સંશોધન પદ્ધતિ

આ અભ્યાસ સંશોધનાત્મક છે અને સરકારી અહેવાલો, કૃષિ પ્રકાશનો, સંશોધન લેખો, પશુધન વિકાસ દસ્તાવેજો અને સંસ્થાકીય સ્ત્રોતોમાંથી એકત્રિત કરવામાં આવેલી ગૌણ માહિતી પર આધારિત છે. આ વિશ્લેષણ ગુજરાતમાં પશુધન વલણો, આર્થિક યોગદાન, પડકારો અને વિકાસની તકો પર ધ્યાન કેન્દ્રિત કરે છે.

ગુજરાતમાં પશુપાલનની વર્તમાન સ્થિતિ

ગુજરાતમાં મુખ્યત્વે ગાય, ભેંસ, બકરા, ઘેટાં અને મરઘાંનો સમાવેશ થાય છે. ઉચ્ચ દૂધ ઉત્પાદન, કાર્યક્ષમ સંગ્રહ પ્રણાલી અને સહકારી સંસ્થાઓમાં ખેડૂતોની ભાગીદારીને કારણે રાજ્યએ એક મજબૂત ડેરી ક્ષેત્ર વિકસાવ્યું છે.

ડેરી ક્ષેત્ર

ગુજરાતમાં ડેરી ઉદ્યોગ પશુપાલનનો સૌથી વિકસિત ક્ષેત્ર છે. સહકારી ડેરી મોડેલની સફળતાએ ગુજરાતને ભારતમાં અગ્રણી દૂધ ઉત્પાદક રાજ્ય બનાવ્યું છે. ડેરી સહકારી મંડળીઓએ ખેડૂતોને વધુ સારા ભાવ મેળવવા, પશુચિકિત્સા સેવાઓ મેળવવા, તાલીમ મેળવવા અને સંગઠિત બજારોમાં ભાગ લેવામાં મદદ કરી છે.

લેસો દૂધ ઉત્પાદનમાં નોંધપાત્ર ફાળો આપે છે કારણ કે તેમની દૂધની ચરબીનું પ્રમાણ વધુ છે અને સ્થાનિક પર્યાવરણીય પરિસ્થિતિઓમાં અનુકૂળનક્ષમતા છે. ગીર અને કાંકરેજ જેવી સ્વદેશી પશુ જાતિઓએ પણ તેમના આનુવંશિક ગુણો અને કઠોર આબોહવાની પરિસ્થિતિઓ સામે પ્રતિકારને કારણે મહત્વ મેળવ્યું છે.

પશુ અને લેસ વિકાસ

જાતિ સુધારણા કાર્યક્રમો, કૃત્રિમ ગર્ભાધાન સેવાઓ અને વૈજ્ઞાનિક વ્યવસ્થાપન પદ્ધતિઓએ પશુધન ઉત્પાદકતામાં સુધારો કર્યો છે. સરકારી સંસ્થાઓ અને ડેરી સહકારી મંડળીઓ સંતુલિત પશુ પોષણ, રસીકરણ અને સારી આરોગ્યસંભાળ સુવિધાઓને પ્રોત્સાહન આપે છે.

આર્થિક અને પર્યાવરણીય મહત્વને કારણે સ્વદેશી જાતિઓના સંરક્ષણ અને પ્રોત્સાહન પર વધુને વધુ ધ્યાન આપવામાં આવી રહ્યું છે. ખાસ કરીને ગીર પશુઓએ તેમની દૂધ ઉત્પાદન લાક્ષણિકતાઓ અને અનુકૂળનક્ષમતા માટે આંતરરાષ્ટ્રીય સ્તરે માન્યતા મેળવી છે.

બકરી અને ઘેટાં ઉછેર

બકરી અને ઘેટાં ઉછેર ખાસ કરીને ગુજરાતના શુષ્ક અને અર્ધ-શુષ્ક પ્રદેશોમાં આજીવિકાની વધારાની તકો પૂરી પાડે છે. આ પ્રાણીઓને તુલનાત્મક રીતે ઓછા રોકાણની જરૂર પડે છે અને મર્યાદિત સંસાધન પરિસ્થિતિઓમાં પણ ટકી શકે છે. બકરી ઉત્પાદનોની વધતી માંગને કારણે બકરી ઉછેર નાના ખેડૂતો માટે એક આકર્ષક વિકલ્પ બની ગયો છે. ઘેટાં ઉછેર ઊંચ ઉત્પાદન અને ગ્રામીણ રોજગારમાં ફાળો આપે છે, ખાસ કરીને એવા વિસ્તારોમાં જ્યાં પાકની ખેતી મર્યાદિત છે.

મરઘાં ઉછેર

ઈંડા અને મરઘાંના માંસની વધતી માંગને કારણે મરઘાં ક્ષેત્રનો વિસ્તાર થયો છે. વાણિજ્યિક મરઘાં ઉછેર, બેકયાર્ડ મરઘાં પ્રણાલીઓ સાથે, રોજગારીની તકો પૂરી પાડે છે અને ગ્રામીણ પરિવારોમાં પોષણ સુધારણાને ટેકો આપે છે.

ગુજરાતમાં પશુપાલનનું આર્થિક મહત્વ

આવક ઉત્પન્ન અને રોજગાર

મોસમી કૃષિ પ્રવૃત્તિઓથી વિપરીત, પશુપાલન સમગ્ર વર્ષ દરમિયાન સતત આવક પૂરી પાડે છે. નાના ખેડૂતો ઘણીવાર દૈનિક રોકડ પ્રવાહ માટે ડેરી પ્રાણીઓ પર આધાર રાખે છે. આ ક્ષેત્ર ખેતી, દૂધ સંગ્રહ, પશુચિકિત્સા સેવાઓ, ખોરાક ઉત્પાદન, પરિવહન અને પ્રક્રિયા ઉદ્યોગોમાં રોજગારી ઉત્પન્ન કરે છે.

ગ્રામીણ વિકાસમાં યોગદાન

ડેરી સહકારી પ્રણાલીએ ખેડૂતોમાં સામૂહિક ભાગીદારીને પ્રોત્સાહન આપીને ગ્રામીણ સંસ્થાઓને મજબૂત બનાવી છે. ડેરી પ્રવૃત્તિઓમાં મહિલાઓની સંડોવણીથી ઘરગથ્થુ આવકમાં વધારો થયો છે અને સામાજિક સશક્તિકરણમાં સુધારો થયો છે.

પોષણ સુરક્ષા

દૂધ, ઈંડા અને અન્ય પશુ ઉત્પાદનો પ્રોટીન, કેલ્શિયમ અને વિટામિન જેવા આવશ્યક પોષક તત્વો પૂરા પાડે છે. પશુધન ઉત્પાદનમાં વૃદ્ધિ ગ્રામીણ અને શહેરી વસ્તીમાં પોષણની ઉપલબ્ધતામાં સુધારો કરવામાં ફાળો આપે છે.

ટકાઉ કૃષિને ટેકો

પશુધન ખાતર ઉત્પાદન દ્વારા ટકાઉ ખેતીને ટેકો આપે છે, જે જમીનની ફળદ્રુપતામાં સુધારો કરે છે અને રાસાયણિક ખાતરો પર નિર્ભરતા ઘટાડે છે. સંકલિત પાક-પશુધન ખેતી પ્રણાલીઓ સંસાધન કાર્યક્ષમતામાં વધારો કરે છે.

ઔદ્યોગિક વિકાસ

પશુધન ક્ષેત્ર ડેરી પ્રોસેસિંગ, પશુ આહાર ઉત્પાદન, ચામડાનું ઉત્પાદન અને કૃષિ ઇનપુટ ઉદ્યોગો સહિત વિવિધ ઉદ્યોગોને ટેકો આપે છે. ચીઝ, ઘી, દહીં અને પ્રોસેસ્ડ ફૂડ જેવા ઉત્પાદનો દ્વારા મૂલ્યવર્ધન વધારાની આર્થિક તકો ઊભી કરે છે.

પશુપાલન ક્ષેત્રમાં મુખ્ય પડકારો

ઘાસચારાની ઉપલબ્ધતા

મુખ્ય અવરોધોમાંની એક ગુણવત્તાયુક્ત લીલા ઘાસચારાની અછત છે. ખેતીલાયક જમીન માટે વધતી સ્પર્ધા અને બદલાતી આબોહવાની પરિસ્થિતિઓ ચારાના ઉત્પાદનને અસર કરે છે. ઊંચા ખોરાકના ખર્ચથી પશુપાલકો માટે નફાકારકતામાં ઘટાડો થાય છે.

પશુ આરોગ્ય સમસ્યાઓ

પગ અને મોંના રોગ, માસ્ટાઇટિસ અને પરોપજીવી ચેપ જેવા રોગો પશુધન ઉત્પાદકતાને અસર કરે છે. રસીકરણ કાર્યક્રમોથી પશુઓના સ્વાસ્થ્યમાં સુધારો થયો હોવા છતાં, સતત દેખરેખ અને રોગ નિવારણ જરૂરી છે.

આબોહવા પરિવર્તનની અસર

વધતું તાપમાન, દુષ્કાળની સ્થિતિ અને પાણીની અછત પશુ ઉત્પાદકતાને નકારાત્મક અસર કરે છે. ગરમીનો તણાવ પશુધનમાં દૂધ ઉત્પાદન અને પ્રજનન કાર્યક્ષમતા ઘટાડે છે.

આધુનિક ટેકનોલોજીનો મર્યાદિત સ્વીકાર

ઘણા નાના ખેડૂતો હજુ પણ પશુ સંચાલનની પરંપરાગત પદ્ધતિઓ પર આધાર રાખે છે. ડિજિટલ સાધનો, અદ્યતન સંવર્ધન તકનીકો અને વૈજ્ઞાનિક તાલીમની મર્યાદિત પહોંચ ઉત્પાદકતામાં સુધારો મર્યાદિત કરે છે.

બજાર અને ભાવ મુદ્દાઓ

દૂધ, ચારા અને પશુધન ઉત્પાદનોના ભાવમાં વધઘટ ખેડૂતોની આવકને અસર કરે છે. નાના ઉત્પાદકોને ઘણીવાર સહકારી સહાય વિના સ્પર્ધાત્મક બજારો સુધી પહોંચવામાં મુશ્કેલીઓનો સામનો કરવો પડે છે.

માળખાગત સુવિધાઓમાં ખામીઓ

ગુજરાતમાં ડેરી માળખાગત સુવિધાઓ વિકસિત થઈ હોવા છતાં, કેટલાક ગ્રામીણ વિસ્તારોમાં સુધારેલ પશુચિકિત્સા કેન્દ્રો, કોલ્ડ સ્ટોરેજ સુવિધાઓ, પરિવહન પ્રણાલીઓ અને પશુધન વિસ્તરણ સેવાઓની જરૂર છે.

ગુજરાતમાં પશુપાલનની ભાવિ સંભાવનાઓ

અદ્યતન ટેકનોલોજીનો ઉપયોગ

ડિજિટલ પશુધન વ્યવસ્થાપન પ્રણાલીઓ, મોબાઇલ-આધારિત સલાહકારી સેવાઓ, કૃત્રિમ બુદ્ધિ એપ્લિકેશનો અને ડેટા-આધારિત સંવર્ધન કાર્યક્રમો ખેડૂતોમાં ઉત્પાદકતા અને નિર્ણય લેવાની ક્ષમતામાં સુધારો કરી શકે છે.

આનુવંશિક સુધારણા કાર્યક્રમો

વૈજ્ઞાનિક સંવર્ધન કાર્યક્રમો દૂધ ઉત્પાદન, રોગ પ્રતિકાર અને પશુધનની અનુકૂળનક્ષમતામાં વધારો કરી શકે છે. ઉત્પાદકતામાં સુધારો સાથે સ્વદેશી જાતિઓનું સંરક્ષણ ચાલુ રાખવું જોઈએ.

ટકાઉ પશુધન ખેતી

આબોહવા-સ્થિતિસ્થાપક પશુધન પદ્ધતિઓ, સુધારેલ પાણી વ્યવસ્થાપન, નવીનીકરણીય ઊર્જાનો ઉપયોગ અને કાર્બનિક ખાતરનો ઉપયોગ પશુપાલનને વધુ ટકાઉ બનાવી શકે છે.

મૂલ્યવર્ધિત ઉત્પાદનોનું વિસ્તરણ

ડેરી અને પશુધન ઉત્પાદનોના પ્રક્રિયા અને બ્રાન્ડિંગ પર વધુ ધ્યાન કેન્દ્રિત કરવાથી ખેડૂતોની આવકમાં વધારો થઈ શકે છે. પરંપરાગત ડેરી ખોરાક, કાર્બનિક દૂધ અને વિશેષ ઉત્પાદનો જેવા ઉત્પાદનોમાં વધતી જતી બજાર ક્ષમતા છે.

ખેડૂત તાલીમને મજબૂત બનાવવી

પશુ પોષણ, રોગ નિવારણ, આધુનિક આવાસ પ્રણાલીઓ અને વ્યવસાય વ્યવસ્થાપન પર નિયમિત તાલીમ કાર્યક્રમો પશુપાલકોને સશક્ત બનાવી શકે છે.

મહિલાઓની ભાગીદારી

પશુધન વ્યવસ્થાપનમાં મહિલાઓ મહત્વપૂર્ણ ભૂમિકા ભજવે છે. મહિલાઓના નેતૃત્વ હેઠળના ડેરી જૂથો અને સ્વ-સહાય સંસ્થાઓને મજબૂત બનાવવાથી ગ્રામીણ આજીવિકામાં વધુ સુધારો થઈ શકે છે.

નિષ્કર્ષ

ગુજરાતના કૃષિ અર્થતંત્ર અને ગ્રામીણ વિકાસમાં પશુપાલન એક મહત્વપૂર્ણ ઘટક છે. ડેરી વિકાસમાં રાજ્યની સફળતા સંગઠિત પશુધન ઉત્પાદન અને સહકારી સંસ્થાઓની સંભાવના દર્શાવે છે. આ ક્ષેત્ર રોજગાર, આવક સુરક્ષા, પોષણ લાભો અને ટકાઉ કૃષિ માટે ટેકો પૂરો પાડે છે.

જોકે, ઘાસચારાની અછત, આબોહવા પરિવર્તન, પશુ રોગો, વધતા ઉત્પાદન ખર્ચ અને તકનીકી મર્યાદાઓ જેવા પડકારો માટે અસરકારક ઉકેલોની જરૂર છે. ભાવિ વિકાસ વૈજ્ઞાનિક પશુધન વ્યવસ્થાપન, ડિજિટલ નવીનતા, ટકાઉ પ્રથાઓ, સુધારેલ માળખાગત સુવિધાઓ અને સમાવિષ્ટ ખેડૂત ભાગીદારી પર આધારિત રહેશે.

યોગ્ય નીતિઓ અને સતત રોકાણ સાથે, ગુજરાતના પશુપાલન ક્ષેત્રમાં વધુ ઉત્પાદક, સ્થિતિસ્થાપક અને આર્થિક રીતે ફાયદાકારક બનવાની નોંધપાત્ર સંભાવના છે. આધુનિક ટેકનોલોજી સાથે પરંપરાગત જ્ઞાનનું સંકલન ટકાઉ પશુધન વિકાસ સુનિશ્ચિત કરી શકે છે અને રાજ્યના ગ્રામીણ અર્થતંત્રને મજબૂત બનાવી શકે છે.

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2. ગુજરાત સરકાર, કૃષિ, ખેડૂત કલ્યાણ અને સહકાર વિભાગ. ગુજરાત કૃષિ અને પશુપાલન વિકાસ અહેવાલ. ગાંધીનગર: ગુજરાત સરકાર.
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A Study of Youth Anxiety Regarding the Use of Artificial Intelligence in the Digital Era

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❖ સારાંશ

પ્રસ્તુત સંશોધનનો મુખ્ય હેતુ ડિજિટલ યુગમાં યુવાનોમાં ઉત્પન્ન થતી ચિંતાનો અભ્યાસ કરવાનો હતો. આ સંશોધનમાં એ. કે.પી.સિંહ અને એલ.એન. સિંહ રચિત ચિંતા માપન કસોટી લેવામાં આવેલ હતી. તેનું ગુજરાતીમાં અનુવાદ ડો.ડી.જે.ભટ્ટ દ્વારા પ્રમાણીકરણ કરેલ ચિંતા કસોટીનો ઉપયોગ કરવામાં આવ્યો છે જેમાં કુલ 120 નો નિદર્શ પસંદ કર્યો હતો જેમાં 60 ગ્રામીણ વિસ્તારો (30 છોકરા-30 છોકરીઓ) અને 60 શહેરી વિસ્તારના (30 છોકરા -30 છોકરીઓ) પસંદ કરવામાં આવ્યા હતા. મળેલ માહિતી પૃથક્કરણ માટે “F – ટેસ્ટ” નો ઉપયોગ કરવામાં આવ્યો હતો. અભ્યાસના પરિણામો દર્શાવે છે કે ડિજિટલ યુગમાં ગ્રામીણ અને શહેરી વિસ્તાર ના યુવાનોમાં ચિંતા વચ્ચે સાર્થક તફાવત જોવા મળે છે. (F-4.14) ડિજિટલ યુગમાં છોકરાઓ અને છોકરીઓની ચિંતા વચ્ચે સાર્થક તફાવત જોવા મળે છે. (F-4.70) ડિજિટલ યુગમાં ગ્રામ્ય અને શહેરી વિસ્તારના છોકરાઓમાં અને છોકરીઓની આંતરક્રિયામાં ચિંતા વચ્ચે સાર્થક તફાવત જોવા મળે છે. (F-3.82)

આવીરૂપ શબ્દો:-વિસ્તાર(ગ્રામીણ અને શહેરી), જાતિ (છોકરા અને છોકરી), ચિંતા માપન કસોટી.

❖ પ્રસ્તાવના:-

આજનો આધુનિક યુગએ ચિંતાના યુગ તરીકે ઓળખવામાં આવે છે. હાલનો સમયએ વિજ્ઞાન અને ટેકનોલોજીનો છે. આજના આધુનિક યુગમાં ડિજિટલ ક્રાંતિ થઈ છે. ડિજિટલ યુગે હર એક ક્ષેત્રે ક્રાંતિ લાવી છે. આજે દુનિયામાં માનવબુદ્ધિ સમકક્ષ કૃત્રિમબુદ્ધિએ સ્થાન લઈ લીધેલ છે. આજે વિશ્વભરમાં કૃત્રિમબુદ્ધિ એ ક્રાંતિકારી પરિવર્તનો આવી રહ્યા છે. દરેક ક્ષેત્રે કૃત્રિમબુદ્ધિનો ઉપયોગ થઈ રહ્યો છે એક પણ ક્ષેત્ર બાકી નહીં હોય જ્યાં કૃત્રિમબુદ્ધિનો ઉપયોગ ન થતો હોય. જેવાકે, શિક્ષણવ્યવસાય, ચિકિત્સાક્ષેત્ર, ઉદ્યોગમાં કૃષિવ્યવસ્થાપનક્ષેત્રે, પર્યટન, મનોરંજન, શોપિંગ, આર્થિકવ્યવહારોના ક્ષેત્રે અને દૈનિકજીવનના અનેક ક્ષેત્રોમાં કૃત્રિમબુદ્ધિ સહાયરૂપ બની છે. કૃત્રિમબુદ્ધિના ઝડપી વિકાસમાં બાલ્યાવસ્થાના બળકો, યુવાન, વ્યક્તિઓ અને મોટી ઉંમરના પ્રૌઢ વ્યક્તિમા તેની માંઠી અસર જોવા મળી રહી છે. કૃત્રિમબુદ્ધિની ઝડપી પ્રગતી યુવાનોમા કેટલાક પડકારો અને ચિંતાઓ પણ ઉત્પન્ન કરી રહી છે.યુવાનોમાં વધતી કૃત્રિમબુદ્ધિને

લગતી ચિંતા પ્રાથમિક રીતે રોજગારના અવસરો નહિ મળે તે હેતુથી થતી હોય છે. AI. અને ઓટોમેટિક મશીનો ના કારણે પરંપરાગત નોકરીઓ ખતમ થવા લાગી છે. સાથો-સાથ માનવિય સંવાદ પણ ઘટી રહ્યા છે. યુવાનોનું ભવિષ્ય જોખમાતું હોય તેવું દેખાય આવે છે. તેની સથે જ માનવીમા ઘણી મનોવૈજ્ઞાનિક સમસ્યાઓ ઉત્પન્ન થઈ છે. સ્વતંત્ર વિચારશક્તિ પર પડતી અસર જે માનવીમા અનેક માનસિક બિમારિઓ જેવી કે, હતાશા, ખિન્તા, દબાણ, મનોભાર, ચિંતા માનસિક તાણ જેવી સમસ્યાઓ ઉપસ્થિત થાય છે. AIના વધતા ઉપયોગ સાથે યુવાનોમા ચિંતા અને અસુરક્ષા પણ વધતી જાય છે.

આ આધુનિક ઉપકરણો અને બીજા કેટલાક સાધનોનો ઉપયોગ ડિજિટલ યુગમાં વધતો જાય છે જે કાર્ય સરળ તો બનાવે છે તેની સાથે -સાથ માનવી ને કામમાં પ્રેશર, સમયમર્યાદા અને મલ્ટીટાસ્કીંગ ના બોજાને પણ વધારતા હોય છે. શૈક્ષણિક ક્ષેત્રે વધુ સારું કામ અને નામ મેળવવાની દોડમાં પોતાનો ધ્યેય પૂર્ણ કરવા તેમજ સમાજને સોશિયલમીડિયા દ્વારા આદર્શ જીવનશૈલીને અનુસરતા તેની સાથે જોડાયેલા રહેવાના દબાણના કારણે યુવાનોમાં માનસિક તણાવ, ચિંતા, મનોભાર વધતો જાય છે. યુવાનમાં AI ને લગતી ચિંતા એ સ્વાભાવિક છે. AI ના પ્રભાવથી રોજગારની તકો ઓછી થતી જાય છે. ક્લાસરૂમમાં માનવબુદ્ધિની જગ્યા એ કુત્રિમબુદ્ધિ એ સ્થાન લીધું છે. ઘણી પરંપરાગત નોકરી ઓ ખતમ થઈ રહી છે ખાસ કરી ને રૂટિન અને મેન્યુઅલ કાર્યક્ષેત્રમાં મશીનો માનવમજૂરીની જગ્યાઓ લઈ રહ્યા છે. ફેક્ટરીઓ, ગ્રાહકસેવા, ડેટાપ્રોસેસિંગ જેવા ક્ષેત્રોમાં AI ના ઉપયોગને કારણે નવી પેઢી ને રોજગારની મુશ્કેલીઓનો સામનો કરવો જ પડશે. AI ના યુગમાં સફળતા પ્રાપ્ત કરવા માટે યુવક- યુવતી એ તકનીકી કુશળતા ઓ જેવીકે, ડેટાસાયન્સ મળી મશીનલર્નિંગ, કોડિંગ અને વિશ્લેષણાત્મક ક્ષમતાઓ જરૂરી થઈ પડે છે. AI ને એક મજબૂત સાધન તરીકે સ્વીકારી ને યુવાનો તેનો ઉપયોગ પોતાના કૌશલ્ય, શક્તિ અને આવડત મુજબ ભવિષ્યના વિકાસમા ટેકરી શકે છે.

AI એટલેશું?

"AI ને કુત્રિમબુદ્ધિ કે આર્ટિફિશિયલ ઇન્ટેલિજન્ટ તરીકે ઓળખવા માં આવે છે જેમાં કમ્પ્યુટરો અને મશીનોમાં માનવબુદ્ધિ જેવી ક્ષમતા વિકસાવવા માં આવે છે .જેથી તે સ્વયંમવિચારી, તર્કકરવા અને નિર્ણયો લેવા ની ક્ષમતા ધરાવી શકે જેથી તે માનવી ની જેમ કાર્ય કરી શકે"

ચિંતા એટલે શું?

ચિંતાને અંગ્રેજીમાં 'Anxiety' કહે છે જે મૂળ ગ્રીક ભાષા ના 'Angustus' ઉપર થી ઉતરી આવ્યો છે જેનો શાબ્દિક અર્થ 'ગુંગળામણ' અથવા 'સંકડામણ'થાય છે

ચિંતા એ એક પ્રકારની ભાવનાત્મક પ્રતિક્રિયા છે જેમાં એક જાતની લાગણી છે જે ભય, અસુરક્ષા અને તણાવ થી ભરી હોય છે. ચિંતા વાસ્તવિક પણ હોઈ શકે, સ્નાયુચિંતા અને નૈતિક ચિંતા પણ હોઈ શકે છે. ચિંતા શારીરિક, માનસિક અને વ્યક્તિના વર્તન સંબંધીત લક્ષણ રૂપે દેખાય છે. માથાનો દુઃખાવો, થકાવટ, શ્વાસમાંતકલીફ, પેટમાંગડબડ, હૃદયની ગતિ તેજ થવી વગેરે શારીરિક લક્ષણો દેખાય આવે છે. ભય અને અવિશ્વાસ, ધ્યાનકેન્દ્રિત કરવામાં મુશ્કેલી, સતત વિચારોમાં ખોવાયેલા રહેવું, અશાંતિ જેવી માનસિક તકલીફો વ્યક્તિને અનુભવાય તો કહી શકાય કે વ્યક્તિને ચિંતા થઈ રહી છે. ચિંતા એ અચોક્કસ કે આગાહી ન કરી શકાય તેવી પરિસ્થિતિ વ્યક્તિમાં ચિંતા ઉત્પન્ન કરે છે.

- "ચિંતા એ અસ્પષ્ટ અને અસ્વસ્થ કરવાની લાગણી છે"- ફોઈડ
- "ચિંતા એ જરૂરિયા ત ના સંતોષની અનિશ્ચિતતા ની માત્રા અને વણસંતોષાયેલી જરૂરિયાતો નું એક મહત્વનું કાર્ય છે ચિંતા એ બધી જરૂરિયાત ની પુર્તિ કે અનિશ્ચિત પ્રલોભન અને સુસંગત છે"-Cattell

❖ સંશોધન સાહિત્ય સમીક્ષા:

- "સાઉદી કિશોરાવસ્થાના શાળા છોકરાઓમાં ડિપ્રેશન, ચિંતા અને તાણનો અભ્યાસ" એલ. ગેલન (2007) આ સંશોધનના અભ્યાસના અહેવાલ મુજબ ડિપ્રેશન, ચિંતા અને તાણ સખત હકારાત્મક અને નોંધપાત્ર રીતે સંકળાયેલા છે. ડિપ્રેશનની અસ્વસ્થતા અને તાણસ્કેલ (DASS) નુ અરેબિક સંસ્કરણ ડિપ્રેશનની ચિંતા અને તાણના સ્તરે તપાસવા નું હતું પરિણામ સૂચવે છે કે 1723 ના પુરુષ વિદ્યાર્થીઓએ આ અભ્યાસમાં ભાગ લીધો હતો .59.4% પાસે ઓછા માં ઓછા ત્રણ વિકૃતિઓ માં ની એક હતી 40.7% ઓછા માં ઓછા બે અને 22.6% પાસે ત્રણ તમામ વિકૃતિઓ હતી. સંબંધિત સાહિત્યની 70 સમીક્ષા ઉપરાંત, એક-તૃતીયાંશ ભાગથી વધુ સહભાગીઓ 38.2% ડિપ્રેશન ધરાવે છે, 48.9% ચિંતા ધરાવે છે અને 35.5 % પાસે તણાવ છે.
- “લિબર્ટી યુનિવર્સિટી ખાતે કોરિયન આંતરરાષ્ટ્રીય વિદ્યાર્થીઓમાં તણાવ અને ચિંતા અંગેનો અભ્યાસ.” Jae Duk Kim -2009 આભાસનો મુખ્ય હેતુ લિબર્ટી યુનિવર્સિટી ખાતે કોરિયન આંતરરાષ્ટ્રીય વિદ્યાર્થીઓમાં તણાવ અને ચિંતા અંગેનો અભ્યાસ કરવાનો છે. નિદર્શ તરીકે કોરિયાના 61 વિદ્યાર્થીઓ અને સ્થાનિક કોરિયામાં રહેતા 120 વિદ્યાર્થીઓને પસંદ કરવામાં આવ્યા હતા. સાધનો તરીકે Inventory (ફોર્મ-7) અને સ્પેર્બેર્ગર-1983 નો ઉપયોગ કરવામાં આવ્યો હતો. આંકડાશાસ્ત્રીય પ્રયુક્તિ one-way ANOVA તેમજ Correlation નો ઉપયોગ કરેલો. તારણો દર્શાવે છે કે અમેરીકામાં રહેતા કોરિયાના વિદ્યાર્થીઓમાં સ્થાનિક કોરિયાના વિદ્યાર્થીઓ કરતાં વધારે તણાવ અને ચિંતા જોવા મળ્યા હતા.

❖ હેતુઓ :

- ડિજિટલ યુગમાં ગ્રામીણ અને શહેરી વિસ્તારના યુવાનોમાં ચિંતાનું માપન કરવું.
- ડિજિટલ યુગમાં ગ્રામીણ વિસ્તારના છોકરાઓ અને છોકરીઓમાં ચિંતાનું માપન કરવું.
- ડિજિટલ યુગમાં શહેરી વિસ્તારના છોકરાઓ અને છોકરીઓમાં ચિંતાનું માપન કરવું.
- ડિજિટલ યુગમાં જાતિના સંદર્ભમાં ચિંતાનું માપન કરવું.

❖ ઉત્કલ્પના:

આ સંશોધનમાં શૂન્ય ઉત્કલ્પના પસંદ કરવામાં આવી છે જે આ પ્રમાણે છે

- ડિજિટલ યુગમાં ગ્રામીણ અને શહેરીવિસ્તાર ના યુવાનોમાં ચિંતા વચ્ચે કોઈ સાર્થક તફાવત નથી.
- ડિજિટલ યુગમાં છોકરાઓ અને છોકરીઓની ચિંતા વચ્ચે કોઈ સાર્થક તફાવત નથી.
- ડિજિટલ યુગમાં ગ્રામ્ય અને શહેરી વિસ્તારના છોકરાઓમાં અને છોકરીઓની આંતરક્રિયામાં ચિંતા વચ્ચે કોઈ સાર્થક તફાવત નથી.

❖ પરિવર્ત્યો:

1. સ્વતંત્રપરિવર્ત્યો

A. વિસ્તાર=A1 ગ્રામીણ A2 શહેરી

B. જાતિ=B1 છોકરા B2 છોકરી

2. આધારિતપરિવર્ત્યો

એ.કે. પી. સિંહા અને એલ .એન સિંહા રચિત ચિંતા માપન કસોટી લીધેલ છે .જેની અંદર કુલ 90 પ્રશ્ન તેના આધારે યુવાનોમાં ચિંતાના પ્રાપ્તિક નું માપન કરવું.

3. નિયંત્રિતપરિવર્ત્યો:

જુનાગઢ જિલ્લાના યુવાનો (20 થી 25વર્ષ)નો જ સમાવેશ કરવામાં આવશે.

❖ સંસોધન પદ્ધતિ :

વ્યાપવિશ્વ/નમુનો:

પ્રસ્તુત અભ્યાસ સંશોધનમા વ્યાપવિશ્વ તરીકે જુનાગઢ જિલ્લાનો સમાવેશ કરવામા આવ્યો છે.જુનાગઢ જિલ્લામા રહેતા યુવનોમાં સાદા યાદચ્છિક નિદર્શ દ્વારા નમુનાની પસંદગી કરવામા આવી છે. અહીં સ્વતંત્ર પરિવર્તને ધ્યાનમાં રાખીને નમુનાની પસંદગી કરવામા આવી.જે નીચે મુજબ છે .
રહેઠાણ વિસ્તાર: 1. ગ્રામ્ય 2. શહેરી

જાતિ: 1. છોકરા 2. છોકરી

નમૂનામાં સમાવિષ્ટ પસંદ થયેલા છોકરા અને છોકરીઓની સંખ્યા દર્શાવતું કોષ્ટક.

A. રહેઠાણ વિસ્તાર	B. જાતિ		
	છોકરાઓ	છોકરીઓ	કુલ
ગ્રામીણ	30	30	60
શહેરી	30	30	60
કુલ	60	60	120

❖ સાધન સામગ્રી:

પ્રસ્તુત સંશોધનમાં હેતુને ધ્યાનમાં રાખીને નીચે પ્રમાણેના માપનના સાધનોનો ઉપયોગ કરવામાં આવે છે.

➤ ચિંતા માપન કસોટી:

પ્રસ્તુત સંશોધનમાં ચિંતા ના માપન માટે ચિંતા ની સંશોધનિકા નો ઉપયોગ કરવામાં આવ્યો છે. અને તેના રચયિતા એ.કે.પી.સિંહા અને એલ. એન. સિંહા છે. અને આ કસોટી નું ગુજરાતી માં અનુવાદ ડો. ડી.જે ભટ્ટ દ્વારા કરવામાં આવ્યું છે જેમાં ચિંતા સાથે સંકળાયેલા કુલ 90 પ્રશ્નો હતા. અને દરેક પ્રશ્નો સામે બે વિકલ્પ આપવામાં આવ્યા હતા. જે અનુક્રમે 'હા' અને 'ના' એમ વિકલ્પ હતા. તેમાથી કોઈ પણ એક વિકલ્પમાં જવાબ આપવા નો હતો અને અંતે કુલ સ્કોર શોધવામાં આવે છે.

❖ સંશોધન યોજના:

પ્રસ્તુત સંશોધનના હેતુ ને ધ્યાનમાં રાખી માહિતી પૃથક્કરણ કરવા માટે 2X2 ફેક્ટોરીયલ ડિઝાઇનનો ઉપયોગ કરવામાં આવ્યો હતો. તેમજ માહિતીનું આંકડાશાસ્ત્રીય વિશ્લેષણ F-ટેસ્ટ (ANOVA) નો ઉપયોગ કરી SPSS પ્રોગ્રામ દ્વારા ગણતરી કેયવામાં આવી હતી.

❖ સંશોધનપ્રક્રિયા /અર્થઘટનનીરીત:

પ્રસ્તુત કસોટી એ .કે.પી . સિંહા અને એલ. એન સિંહા રચિત ચિંતાની સંશોધનિકા ચિંતાનું માપન કરતી કસોટી છે આ ચિંતાની સંશોધનિકા માં કુલ 90 પ્રશ્નો છે. આ કસોટી માં પ્રાપ્તાંકોની ગણતરીઓની કોઈ ગુણાંકન ચાવી નથી .પ્રશ્નોનોઉત્તર 'ના' હોય તો તેને 0 (શૂન્ય)પ્રાપ્તક આપવામાં આવે છે. અને પ્રશ્નોનો

ઉત્તર 'હા' માં આવે તો તે ને એક પ્રાપ્તાંક આપવામાં આવશે. અને વધુમાં વધુ પ્રાપ્ત 90 આપવામાં આવે છે આકસોટી માં વિભાગ પ્રમાણે નહીં પરંતુ સમગ્ર ચિંતા અને માપવા માં આવે છે.

❖ પરિણામ ચર્ચા:

કોષ્ટક નં.1

ડિજિટલ યુગમાં ગ્રામ્ય અને શહેરી તેમજ છોકરાઓ અને છોકરીઓની ચિંતાની અસર દર્શાવતું ANOVA કોષ્ટક

Variables	S.S.	df	Mean Square	F	Sig.
A	197.633	1	197.633	4.14	0.01
B	224.133	1	224.133	4.70	0.01
AB	182.533	1	182.533	3.82	0.01
Error	5530.067	116	47.673	-	-
Total	6134.367	119	-	-	-

કોષ્ટક નં.2

ડિજિટલ યુગમાં ગ્રામીણ અને શહેરી વિસ્તાર ના યુવાનોમાં ચિંતા વચ્ચે કોઈ સાર્થક તફાવત નથી.

Variables	N	Mean	S.D.	F	Sig.
A1(ગ્રામ્ય)	60	76.50	8.01	4.14	0.01
A2(શહેરી)	60	79.06	6.02		

કોષ્ટક નં.2 માં દર્શાવેલ ડિજિટલ યુગમાં ગ્રામીણ અને શહેરીવિસ્તાર ના યુવાનોમાં ચિંતા વચ્ચે કોઈ સાર્થક તફાવત જોવા મળે છે. ડિજિટલ યુગમાં A1 નો ઉપયોગ કરતાં ગ્રામીણ વિસ્તાર ના યુવાનોનો મધ્યક 76.50 છે અને શહેરી વિસ્તારના યુવાનોનો મધ્યક 79.06 છે. તેથી મળેલ F ની કિંમત 4.14 છે જે 0.01 કક્ષાએ સાર્થક છે. તેથી શૂન્ય ઉત્કલ્પનાનો અસ્વીકાર થાય છે. ગ્રામ્ય અને શહેરી વિસ્તારના યુવાનોમાં A1 ના કારણે ચિંતાનું પ્રમાણ જોવા મળે છે.

કોષ્ટક નં.3

ડિજિટલ યુગમાં છોકરાઓ અને છોકરીઓની ચિંતા વચ્ચે કોઈ સાર્થક તફાવત નથી.

Variables	N	Mean	S.D.	F	Sig.
B1(છોકરાઓ)	60	79.15	5.48	4.70	0.01
B2(છોકરીઓ)	60	76.41	8.36		

કોષ્ટક નં.3 માં દર્શાવેલ ડિજિટલ યુગમાં છોકરાઓ અને છોકરીઓની ચિંતા વચ્ચે કોઈ સાર્થક તફાવત જોવા મળે છે. ડિજિટલ યુગમાં AI નો ઉપયોગ કરતાં છોકરાઓનો મધ્યક 79.15 છે અને છોકરીઓનો મધ્યક 76.41 છે. તેથી મળેલ F ની કિંમત 4.70 છે જે 0.01 કક્ષાએ સાર્થક છે. તેથી શૂન્ય ઉત્કલ્પનાનો અસ્વીકાર થાય છે. તેથી કહી શકાય કે આજના યુવાનો છોકરાઓ અને છોકરીઓમાં AI ના કારણે ચિંતાનું પ્રમાણ જોવા મળે છે.

કોષ્ટક નં.4

ડિજિટલ યુગમાં ગ્રામ્ય અને શહેરી વિસ્તારના છોકરાઓમાં અને છોકરીઓની આંતરક્રિયામાં ચિંતા વચ્ચે કોઈ સાર્થક તફાવત નથી.

Variables	N	Mean	S.D.	F	Sig.
A1B1	30	79.10	5.83	3.82	0.01
A1B2	30	73.90	9.09		
A2B1	30	79.20	5.22		
A2B2	30	78.93	6.82		

કોષ્ટક નં.4 મુજબ ડિજિટલ યુગમાં શહેરી અને ગ્રામ્ય વિસ્તારના છોકરાઓમાં અને છોકરીઓની આંતરક્રિયામાં ચિંતા વચ્ચે સાર્થક અસર જોવા મળે છે. અહીં ગ્રામ્ય વિસ્તારના છોકરાઓનો મધ્યક 79.10, ગ્રામ્ય વિસ્તારની છોકરીઓનો મધ્યક 73.90, શહેરી વિસ્તારના છોકરાઓનો મધ્યક 79.20 અને શહેરી વિસ્તારની છોકરીઓનો

મધ્યક 78.93 જોવા મળે છે. અહીં આંતરક્રિયાના F ની કિંમત 3.82 જોવા મળે છે. જે 0.01 લેવલે સાર્થક છે. તેથી શૂન્ય ઉત્કલ્પનાનો અસ્વીકાર થાય છે.

પરિણામ ના અનુસંધાને સંભવિત કારણ આપતા કહી શકાય કે,

- નોકરી અંગેની ચિંતા – ભવિષ્યમાં AI ઘણા કાર્યો કરશે, તેથી રોજગારની તકો ઘટી જશે એવી ભીતિ.
- ભણવામાં નિર્ભરતા – AI પર વધુ આધાર રાખવાથી પોતાની વિચારશક્તિ અને સમસ્યા ઉકેલવાની ક્ષમતા ઘટી શકે છે.
- નકલ (Cheating) અંગે ચિંતા – AI નો ઉપયોગ કરીને અસાધનમેન્ટ અથવા પરીક્ષામાં ગેરરીતિ થવાની શક્યતા.
- કૌશલ્ય પાછળ રહી જવાની ચિંતા – AI નો યોગ્ય ઉપયોગ ન આવડવાથી અન્ય વિદ્યાર્થીઓ કરતાં પાછળ રહી જવાની લાગણી.
- ગોપનીયતા અને ડેટા સુરક્ષા – AI પ્લેટફોર્મ પર વ્યક્તિગત માહિતી સુરક્ષિત રહેશે કે નહીં તેની ચિંતા.
- ખોટી માહિતી મળવાની શક્યતા – AI ક્યારેક ખોટી અથવા અધૂરી માહિતી આપી શકે છે, જેના કારણે ગેરસમજ ઊભી થાય છે.
- સ્પર્ધા અને પ્રદર્શનનું દબાણ – AI નો અસરકારક ઉપયોગ કરનારા વિદ્યાર્થીઓ સાથે સ્પર્ધા કરવાની ચિંતા.

❖ ચિંતા ઘટાડવાના ઉપાયો:

- સંતુલિત અને પૌષ્ટિક આહાર લેવો.
- 7-9 કલાક પૂરતી ઊંઘ લેવી.
- મોબાઈલ અને સોશિયલ મીડિયા માટે સમય મર્યાદા રાખવી.
- પરિવાર અથવા વિશ્વાસુ મિત્ર સાથે પોતાની લાગણીઓ વિષે વાત કરવી.
- ઊંડા શ્વાસ લેવાની કસરત, ધ્યાન અથવા યોગ કરવા.
- દરરોજ 30 થી 40 મિનિટ ચાલવું અથવા કસરત કરવી.
- એક સાથે બહુ કામ કરવાને બદલે એક સમયે એક જ કામ કરવું.

❖ નિષ્કર્ષ:

- ડિજિટલ યુગમાં ગ્રામીણ અને શહેરી વિસ્તાર ના યુવાનોમાં ચિંતા વચ્ચે કોઈ સાર્થક તફાવત જોવા મળે છે.

- ડિજિટલ યુગમાં છોકરાઓ અને છોકરીઓની ચિંતા વચ્ચે કોઈ સાર્થક તફાવત જોવા મળે છે.
- ડિજિટલ યુગમાં ગ્રામ્ય અને શહેરી વિસ્તારના છોકરાઓમાં અને છોકરીઓની આંતરક્રિયામાં ચિંતા વચ્ચે કોઈ સાર્થક તફાવત જોવા મળે છે.

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THE IMPACT OF FORENSIC EVIDENCE ON CRIMINAL INVESTIGATIONS: A STUDY OF GUJARAT STATE

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ABSTRACT

Forensic evidence has become an indispensable component of modern criminal investigations, contributing significantly to the detection, prosecution, and adjudication of criminal cases. The increasing use of scientific methods such as DNA profiling, fingerprint examination, ballistic analysis, forensic toxicology, cyber forensics, and digital evidence has enhanced the accuracy and reliability of criminal investigations. This study examines the impact of forensic evidence on criminal investigations in Gujarat State. The research adopts a descriptive and analytical methodology based on primary and secondary data. Primary data may be collected through structured questionnaires administered to police officers, forensic experts, public prosecutors, advocates, and judicial officers, while secondary data may include legal provisions, government reports, judicial decisions, and scholarly literature. The study explores the role of forensic science in improving conviction rates, reducing wrongful investigations, ensuring fair trials, and identifying challenges such as delays in forensic reporting, shortage of experts, and infrastructure limitations. The findings are expected to demonstrate that timely and scientifically reliable forensic evidence significantly strengthens criminal investigations and enhances the effectiveness of the criminal justice system in Gujarat.

Keywords: *Forensic Evidence, Criminal Investigation, Forensic Science, DNA Analysis, Digital Evidence, Criminal Justice System, Gujarat.*

1. INTRODUCTION

Scientific investigation has transformed criminal justice worldwide. Traditional investigative methods relied heavily on eyewitness testimony and confessions, whereas modern investigations increasingly depend on scientific evidence. Forensic science integrates biology, chemistry, physics, medicine, and digital technologies to establish facts relevant to criminal cases.

India has witnessed remarkable growth in forensic science following the enactment of the Bharatiya Nagarik Suraksha Sanhita (BNSS), Bharatiya Nyaya Sanhita (BNS), and Bharatiya Sakshya Adhiniyam (BSA), 2023, which emphasize scientific investigation and electronic evidence.

Gujarat possesses one of India's leading forensic institutions—the Directorate of Forensic Science, Gandhinagar—which has contributed substantially to criminal investigations involving homicide, sexual offences, cybercrime, narcotics, terrorism, and economic offences.

2. OBJECTIVES OF THE STUDY

- To examine the role of forensic evidence in criminal investigations.
- To evaluate the effectiveness of forensic evidence in solving criminal cases in Gujarat.
- To identify challenges faced by forensic investigators.
- To assess the contribution of forensic laboratories in criminal justice.
- To suggest measures for improving forensic investigation practices.

3. RESEARCH QUESTIONS

- How does forensic evidence improve criminal investigations?
- Which forensic techniques are most frequently used in Gujarat?
- What challenges affect forensic investigations?
- Does forensic evidence increase conviction rates?

4. HYPOTHESIS

H1: Forensic evidence significantly improves the effectiveness of criminal investigations.

H0: Forensic evidence has no significant impact on criminal investigations.

5. RESEARCH METHODOLOGY

Research Design: Descriptive and Analytical

Area of Study: Gujarat State

Sample Size: 250 respondents

Respondents

Category	Sample
Police Officers	100
Forensic Scientists	50
Public Prosecutors	30
Advocates	40
Judicial Officers/Academicians	30
Total	250

Sampling Technique

- Purposive Sampling
- Convenience Sampling

Data Collection**Primary Data**

- Structured Questionnaire (Google form)
- Personal Interviews

Secondary Data

- Bharatiya Nyaya Sanhita, 2023
- Bharatiya Nagarik Suraksha Sanhita, 2023
- Bharatiya Sakshya Adhiniyam, 2023
- Supreme Court judgments
- Gujarat High Court judgments
- NCRB Reports
- Directorate of Forensic Science Reports
- Research journals

➤ LEGAL ASPECTS OF FORENSIC EVIDENCE IN INDIA

Forensic evidence occupies a central position in the Indian criminal justice system as it provides objective, scientific, and reliable evidence for the investigation and trial of criminal cases. The legal framework governing forensic evidence has been significantly strengthened with the introduction of the **Bharatiya Sakshya Adhiniyam, 2023 (BSA)**, the **Bharatiya Nagarik Suraksha Sanhita, 2023 (BNSS)**, and the

Bharatiya Nyaya Sanhita, 2023 (BNS). These laws emphasize scientific investigation, electronic records, and the use of forensic techniques in criminal proceedings.

1. Bharatiya Sakshya Adhinyam, 2023 (BSA)

The Bharatiya Sakshya Adhinyam, 2023, which replaced the Indian Evidence Act, 1872, recognizes scientific and electronic evidence as important forms of admissible evidence.

Key provisions include:

- **Expert Opinion:** Courts may rely on the opinions of experts in forensic science, medicine, fingerprint examination, handwriting analysis, DNA profiling, cyber forensics, and other scientific disciplines when such opinions are relevant to the issues before the court.
- **Electronic Evidence:** Electronic and digital records, including computer data, mobile phone records, CCTV footage, emails, and digital communications, are recognized as admissible evidence, subject to statutory requirements.
- **Scientific Evidence:** DNA profiles, fingerprints, ballistic reports, toxicology reports, and other forensic analyses are treated as relevant evidence when properly collected, examined, and presented.

2. Bharatiya Nagarik Suraksha Sanhita, 2023 (BNSS)

The BNSS modernizes criminal investigation by encouraging greater use of scientific methods.

Important provisions include:

- Greater emphasis on **scientific investigation** during the investigation of serious offences.
- Collection of **biological samples**, fingerprints, photographs, and electronic evidence according to legal procedures.
- Mandatory involvement of forensic experts in specified serious offences to improve the quality of investigations.
- Maintenance of the **chain of custody** to preserve the integrity of forensic evidence.

3. Bharatiya Nyaya Sanhita, 2023 (BNS)

The BNS recognizes that many offences require scientific evidence for effective prosecution, particularly:

- Murder
- Sexual offences

- Terrorism
- Cybercrime
- Narcotics offences
- Economic offences

6. TYPES OF FORENSIC EVIDENCE

Forensic evidence consists of scientifically examined materials that help investigators establish facts, identify offenders, reconstruct crime scenes, and support judicial proceedings. Depending on the nature of the crime, different types of forensic evidence may be collected and analyzed. The major types of forensic evidence are as follows:

1. DNA Evidence

DNA (Deoxyribonucleic Acid) evidence is one of the most reliable forms of forensic evidence. Biological samples such as blood, saliva, semen, hair roots, skin cells, bones, and tissues are examined to identify individuals, establish relationships, and link suspects or victims to crime scenes. DNA evidence is extensively used in homicide, sexual assault, kidnapping, and missing-person cases.

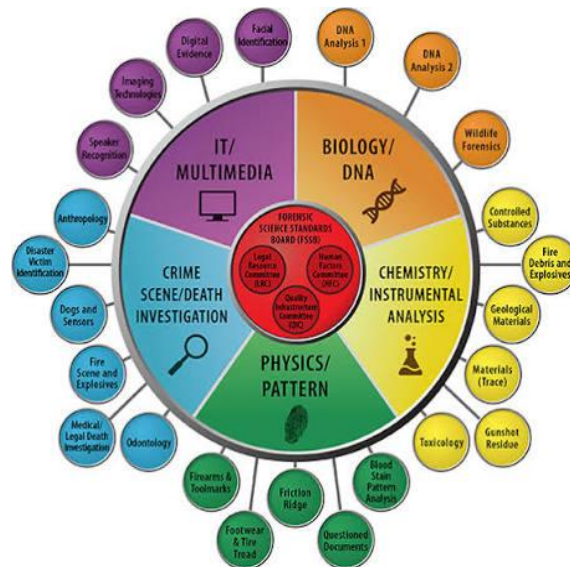
2. Fingerprint Evidence

Fingerprint evidence is based on the principle that every individual's fingerprints are unique. Latent, visible, or plastic fingerprints recovered from crime scenes are compared with known samples to identify suspects. Fingerprint analysis is widely used in burglary, robbery, homicide, and other criminal investigations.

3. Ballistic Evidence

Ballistic evidence involves the scientific examination of firearms, bullets, cartridge cases, gunshot residue, and firearm-related injuries. It helps determine the type of weapon used, firing distance, bullet trajectory, and whether a particular firearm was used in a crime.

4. Digital and Cyber Evidence



Digital evidence includes information obtained from computers, mobile phones, CCTV systems, emails, social media platforms, cloud storage, GPS devices, and other electronic sources. It is essential in investigating cybercrime, financial fraud, terrorism, identity theft, and digital communications.

5. Toxicological Evidence

Forensic toxicology examines biological samples such as blood, urine, tissues, and stomach contents to detect alcohol, drugs, poisons, or toxic substances. Toxicological analysis is important in poisoning cases, suspicious deaths, drug-related offences, and impaired driving investigations.

6. Bloodstain Pattern Evidence

Bloodstain pattern analysis helps investigators reconstruct violent crimes by examining the size, shape, distribution, and direction of bloodstains. It assists in determining the sequence of events, the type of weapon used, and the positions of the victim and offender.

7. Trace Evidence

Trace evidence refers to small materials transferred during the commission of a crime, including hair, fibres, glass fragments, paint, soil, gunshot residue, and pollen. Although microscopic, such evidence can establish contact between suspects, victims, and crime scenes.

8. Handwriting and Questioned Document Evidence

This type of evidence involves the examination of handwriting, signatures, printed documents, altered documents, counterfeit currency, and forged records. Forensic document examiners determine authenticity and identify forgery through scientific comparison.

9. Footwear and Tire Impression Evidence

Footwear impressions and tire marks found at crime scenes are compared with known samples to identify suspects or vehicles. These impressions help establish movement patterns and reconstruct events at the crime scene.

10. Tool Mark Evidence

Tool mark analysis compares marks left by tools such as screwdrivers, crowbars, pliers, or cutting instruments with suspected tools. It is commonly used in burglary, theft, and property offences.

11. Fire and Explosive Evidence

Forensic experts examine fire debris, accelerants, explosives, and blast residues to determine the cause and origin of fires or explosions. This evidence is important in cases of arson, terrorism, and accidental explosions.

12. Voice and Audio Evidence

Voice recordings are scientifically analyzed to identify speakers, authenticate recordings, detect tampering, and compare speech characteristics. Voice evidence is frequently used in extortion, kidnapping, corruption, and cybercrime cases.

13. Forensic Anthropology

Forensic anthropology involves the examination of human skeletal remains to determine the age, sex, ancestry, stature, and cause of death. It is particularly useful in cases involving unidentified bodies, mass disasters, and decomposed remains.

14. Forensic Odontology

Forensic odontology is the scientific examination of dental records, bite marks, and teeth. It assists in victim identification, disaster victim identification, and certain assault investigations.

15. Forensic Entomology

Forensic entomology studies insects found on human remains to estimate the post-mortem interval (time since death) and assist in determining the circumstances surrounding death.

7. IMPORTANCE OF FORENSIC EVIDENCE

- Identifies offenders accurately.
- Links suspects to crime scenes.
- Exonerates innocent persons.
- Supports judicial decision-making.
- Enhances conviction rates.
- Reduces wrongful convictions.
- Strengthens scientific policing.

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8. DATA ANALYSIS

Table 1

Respondents' Opinion on the Importance of Forensic Evidence in Criminal Investigations

Sr. No.	Opinion	Respondents	Percentage (%)
1	Very Important	165	66
2	Important	60	24
3	Neutral	15	6
4	Less Important	7	2.8
5	Not Important	3	1.2
Total		250	100

INTERPRETATION

Table 1 presents respondents' opinions regarding the importance of forensic evidence in criminal investigations in Gujarat State. The findings indicate that forensic evidence is widely regarded as an essential component of modern criminal investigations.

Out of **250 respondents**, **165 (66.0%)** rated forensic evidence as '**Very Important**', while **60 (24.0%)** considered it '**Important**'. Together, **225 respondents (90.0%)** acknowledged the significant role of forensic evidence in improving criminal investigations. This reflects a strong professional consensus that scientific techniques such as DNA analysis, fingerprint examination, digital forensics, and ballistic analysis contribute substantially to identifying offenders, establishing facts, and supporting the criminal justice process.

Only **15 respondents (6.0%)** expressed a neutral opinion, whereas **7 respondents (2.8%)** considered forensic evidence '**Less Important**' and **3 respondents (1.2%)** rated it '**Not Important**'. These responses may be influenced by concerns such as delays in forensic reports, inadequate infrastructure, or limitations in forensic resources.

Overall, the findings demonstrate that forensic evidence is recognized as a reliable and indispensable tool for enhancing the accuracy, credibility, and effectiveness of criminal investigations in Gujarat State.

Key Finding: A combined **90.0%** of respondents rated forensic evidence as '**Very Important**' or '**Important**', confirming its significant role in strengthening criminal investigations and supporting the study's hypothesis.

Table 2
Types of Forensic Evidence Most Frequently Used in Criminal Investigations
(Multiple Responses)

N = 250 Respondents (Multiple Responses Allowed)

Sr. No.	Type of Forensic Evidence	Number of Responses	Percentage of Respondents (%)
1	DNA Analysis	198	79.2
2	Fingerprint Examination	185	74
3	Digital/Cyber Evidence	170	68
4	Ballistics	122	48.8
5	Toxicology	105	42
6	Other Forensic Techniques (Handwriting, Footprints, Voice Analysis, etc.)	88	35.2

Note: Multiple responses were permitted; therefore, the total number of responses exceeds the total number of respondents (N = 250), and the percentages do not add up to 100%.

INTERPRETATION

The table indicates that **DNA analysis (79.2%)** is the most frequently used type of forensic evidence in criminal investigations, followed by **fingerprint examination (74.0%)** and **digital/cyber evidence (68.0%)**. **Ballistics (48.8%)** and **toxicology (42.0%)** are also widely used, particularly in firearm-related and poisoning cases. Additionally, **35.2%** of respondents identified other forensic techniques, such as handwriting examination, footprint analysis, voice analysis, and forensic anthropology, as important investigative tools. The findings suggest that modern criminal investigations in Gujarat rely on a combination of forensic techniques rather than a single type of evidence, reflecting the multidisciplinary nature of forensic science.

TABLE 3
DOES FORENSIC EVIDENCE IMPROVE THE ACCURACY OF CRIMINAL
INVESTIGATIONS?

Sr. No.	Response	Respondents	Percentage (%)
1	Strongly Agree	140	56
2	Agree	78	31.2
3	Neutral	18	7.2
4	Disagree	10	4
5	Strongly Disagree	4	1.6
Total		250	100

INTERPRETATION

Table 3 presents respondents' opinions on whether forensic evidence improves the accuracy of criminal investigations in Gujarat State. The findings indicate a highly positive perception of the role of forensic evidence in ensuring accurate and reliable investigations.

Out of **250 respondents**, **140 (56.0%) strongly agreed** and **78 (31.2%) agreed** that forensic evidence improves the accuracy of criminal investigations. Together, **218 respondents (87.2%)** expressed a positive opinion, demonstrating strong confidence in scientific techniques such as DNA analysis, fingerprint examination, digital forensics, and ballistic analysis.

A total of **18 respondents (7.2%)** remained **neutral**, while **10 respondents (4.0%) disagreed** and **4 respondents (1.6%) strongly disagreed**. These responses may reflect concerns regarding delays in forensic reports, inadequate infrastructure, or procedural limitations.

Overall, the findings show that forensic evidence is widely recognized as an effective tool for improving the accuracy and credibility of criminal investigations in Gujarat State.

Key Finding: A combined **87.2%** of respondents **strongly agreed** or **agreed** that forensic evidence improves the accuracy of criminal investigations, supporting the study's hypothesis that forensic evidence has a significant positive impact on criminal investigations.

TABLE 4
MAJOR CHALLENGES IN THE USE OF FORENSIC EVIDENCE

Sr. No.	Major Challenges	Number of Responses	Percentage of Respondents (%)
1	Delay in FSL Reports	185	74
2	Shortage of Forensic Experts	162	64.8
3	Inadequate Infrastructure	138	55.2
4	Lack of Training for Investigating Officers	121	48.4
5	Improper Collection and Preservation of Evidence	108	43.2

Note: Multiple responses were permitted; therefore, the total number of responses exceeds the total number of respondents ($N = 250$), and the percentages do not total 100%.

INTERPRETATION

Table 4 presents the respondents' opinions on the major challenges in the use of forensic evidence during criminal investigations in Gujarat State. Since multiple responses were allowed, the percentages do not total 100%.

The most frequently reported challenge was delay in Forensic Science Laboratory (FSL) reports, identified by 185 respondents (74.0%). This was followed by the shortage of forensic experts (162 respondents; 64.8%) and inadequate forensic infrastructure (138 respondents; 55.2%). Additionally, 121 respondents (48.4%) highlighted the lack of training for investigating officers, while 108 respondents (43.2%) reported improper collection and preservation of evidence as major challenges.

Overall, the findings indicate that delays in forensic reporting, shortage of skilled personnel, inadequate infrastructure, and deficiencies in evidence handling continue to hinder the effective use of forensic evidence in criminal investigations.

Key Finding: The three most significant challenges identified by respondents were **delay in FSL reports (74.0%)**, **shortage of forensic experts (64.8%)**, and **inadequate forensic infrastructure (55.2%)**, emphasizing the need to strengthen forensic facilities and professional capacity in Gujarat State.

TABLE 5
IMPACT OF FORENSIC EVIDENCE ON CONVICTION RATE

Sr. No.	Opinion	Respondents	Percentage (%)
1	Significantly Increased	125	50
2	Moderately Increased	75	30
3	No Significant Change	30	12
4	Decreased	12	4.8
5	Cannot Say	8	3.2
Total		250	100

INTERPRETATION

Table 5 presents the respondents' opinions regarding the impact of forensic evidence on conviction rates in criminal cases in Gujarat State. The findings indicate that respondents generally perceive forensic evidence as having a positive influence on successful prosecution and conviction.

Out of **250 respondents**, **125 respondents (50.0%)** believed that forensic evidence has **significantly increased** conviction rates, while **75 respondents (30.0%)** felt that it has **moderately increased** conviction rates. Together, **200 respondents (80.0%)** expressed the view that forensic evidence has positively contributed to improving convictions in criminal cases.

In contrast, **30 respondents (12.0%)** believed that forensic evidence has brought **no significant change** in conviction rates. A smaller proportion, **12 respondents (4.8%)**, felt that conviction rates have **decreased**, while **8 respondents (3.2%)** selected 'Cannot Say', indicating uncertainty or lack of sufficient experience to express an opinion.

Overall, the findings suggest that forensic evidence is widely recognized as an important factor in improving conviction rates by providing reliable scientific evidence that strengthens criminal investigations and supports judicial decision-making.

Key Finding: A combined **80.0%** of respondents believed that forensic evidence has either **significantly** or **moderately increased** conviction rates, highlighting its crucial role in strengthening prosecutions and enhancing the effectiveness of the criminal justice system in Gujarat State.

TABLE 6

OVERALL EFFECTIVENESS OF FORENSIC EVIDENCE IN CRIMINAL INVESTIGATIONS

Sr. No.	Rating	Respondents	Percentage (%)
1	Excellent	105	42
2	Good	90	36
3	Average	35	14
4	Poor	15	6
5	Very Poor	5	2
Total		250	100

INTERPRETATION

Table 6 presents respondents' assessment of the overall effectiveness of forensic evidence in criminal investigations in Gujarat State. The findings indicate a positive perception of the role of forensic science in strengthening criminal investigations.

Out of **250 respondents**, **105 (42.0%)** rated the effectiveness of forensic evidence as '**Excellent**', while **90 (36.0%)** rated it as '**Good**'. Together, **195 respondents (78.0%)** expressed a favourable opinion, indicating strong confidence in the role of forensic evidence in improving the accuracy and reliability of criminal investigations.

Further, **35 respondents (14.0%)** rated the effectiveness as '**Average**', whereas **15 respondents (6.0%)** rated it as '**Poor**' and **5 respondents (2.0%)** as '**Very Poor**'. These responses may reflect concerns regarding delays in forensic reports, limited infrastructure, and shortages of trained experts.

Overall, the findings suggest that forensic evidence is widely regarded as an effective tool for enhancing criminal investigations in Gujarat State, while highlighting the need for continuous improvement in forensic infrastructure and professional training.

Key Finding: A total of **78.0%** of respondents rated the overall effectiveness of forensic evidence as '**Excellent**' or '**Good**', demonstrating strong professional confidence in its contribution to accurate and effective criminal investigations.

TABLE 7
NEED FOR STRENGTHENING FORENSIC INFRASTRUCTURE IN GUJARAT

Sr. No.	Response	Respondents	Percentage (%)
1	Yes	228	91.2
2	No	10	4
3	Cannot Say	12	4.8
Total		250	100

INTERPRETATION

Table 7 presents respondents' opinions regarding the need for strengthening forensic infrastructure in Gujarat State. The findings show a strong consensus that improved forensic facilities are essential for effective criminal investigations.

Out of **250 respondents**, **228 (91.2%)** answered '**Yes**', indicating strong support for strengthening forensic infrastructure through better laboratories, advanced technology, skilled personnel, and faster forensic reporting. Only **10 respondents (4.0%)** answered '**No**', while **12 respondents (4.8%)** selected '**Cannot Say**', reflecting a small proportion of uncertainty or differing opinions.

Overall, the findings indicate that respondents strongly believe that enhancing forensic infrastructure would improve the quality, efficiency, and reliability of criminal investigations in Gujarat State and contribute to a more effective criminal justice system.

Key Finding: A substantial **91.2%** of respondents supported strengthening forensic infrastructure in Gujarat State, highlighting the need for greater investment in forensic laboratories, modern technology, trained experts, and capacity-building initiatives to improve criminal investigations.

Hypothesis Testing and Justification

Null Hypothesis (H_0):

There is no significant impact of forensic evidence on criminal investigations in Gujarat State.

Alternative Hypothesis (H_1):

There is a significant positive impact of forensic evidence on criminal investigations in Gujarat State.

Justification of the Hypothesis

chi-Square Test

Test	Value
Calculated Chi-Square (χ^2)	272.48
Degrees of Freedom (df)	4
Level of Significance	0.05
Critical Chi-Square Value	9.488
p-value	< 0.001

The calculated **Chi-Square value** ($\chi^2 = 272.48$) is greater than the critical value (**9.488**) at the **5% level of significance**, and the **p-value is less than 0.05**. Therefore, the **Null Hypothesis (H_0) is rejected**, and the **Alternative Hypothesis (H_1) is accepted**.

The findings show that **90.0%** of respondents considered forensic evidence **important**, **87.2%** agreed that it improves the accuracy of criminal investigations, **80.0%** believed it increases conviction rates, **78.0%** rated its overall effectiveness as **excellent or good**, and **91.2%** supported strengthening forensic infrastructure in Gujarat.

These results confirm that forensic evidence has a **statistically significant and positive impact** on criminal investigations in Gujarat State. It improves investigative accuracy, strengthens prosecution, enhances conviction rates, and contributes to a more effective and reliable criminal justice system.

9. MAJOR FINDINGS OF THE STUDY

Based on the analysis of responses from **250 respondents**, the following major findings were observed:

1. **High Importance of Forensic Evidence:** The study found that **90.0%** of respondents considered forensic evidence either *Very Important* or *Important* in criminal investigations, demonstrating strong confidence in scientific methods of investigation.
2. **Improved Accuracy of Investigations:** A majority of **87.2%** of respondents agreed or strongly agreed that forensic evidence improves the accuracy and reliability of criminal investigations by providing objective and scientifically validated evidence.
3. **Frequently Used Forensic Techniques:** The most commonly used forensic techniques identified by respondents were **DNA analysis, fingerprint examination, digital/cyber forensics, ballistic examination, and toxicological analysis**, indicating the multidisciplinary role of forensic science in criminal investigations.

4. **Major Challenges:** Respondents identified **delays in Forensic Science Laboratory (FSL) reports, shortage of forensic experts, inadequate infrastructure, lack of training for investigating officers, and improper collection and preservation of evidence** as the major challenges affecting the effective use of forensic evidence.
5. **Impact on Conviction Rates:** Approximately **80.0%** of respondents believed that forensic evidence has significantly or moderately increased conviction rates by strengthening the evidentiary value of criminal cases before courts.
6. **Overall Effectiveness:** About **78.0%** of respondents rated the overall effectiveness of forensic evidence as *Excellent* or *Good*, reflecting a high level of professional confidence in forensic science.
7. **Need for Strengthening Infrastructure:** A substantial **91.2%** of respondents emphasized the need to strengthen forensic infrastructure in Gujarat through better laboratories, advanced technology, and increased human resources.
8. **Hypothesis Testing:** The Chi-square test indicated statistically significant results ($p < 0.05$), leading to the rejection of the null hypothesis and confirming that forensic evidence has a significant positive impact on criminal investigations in Gujarat State.

10.SUGGESTIONS

Based on the findings of the study, the following recommendations are proposed:

1. The Government of Gujarat should establish additional **regional and district-level forensic laboratories** to reduce the workload on existing facilities.
2. Recruitment of **qualified forensic scientists and technical experts** should be increased to address the shortage of skilled personnel.
3. The capacity of existing **Forensic Science Laboratories (FSLs)** should be enhanced through modern scientific instruments and advanced technologies, including AI-assisted forensic tools.
4. Regular **training programmes** should be organized for police officers, investigating officers, prosecutors, and judicial officers on crime scene management, evidence collection, preservation, and chain of custody.
5. The turnaround time for forensic reports should be reduced through improved laboratory management and adoption of digital case management systems.
6. Greater emphasis should be placed on **DNA profiling, digital forensics, cyber forensics, and mobile device examination**, considering the growing incidence of cybercrime and technology-enabled offences.

7. Standard Operating Procedures (SOPs) should be strictly implemented to ensure the proper collection, preservation, transportation, and documentation of forensic evidence.
8. Collaboration among **police departments, forensic laboratories, prosecutors, and the judiciary** should be strengthened to ensure the effective utilization of forensic evidence during investigation and trial.
9. Public awareness programmes should be conducted to increase understanding of the importance of forensic science in ensuring fair and transparent criminal justice.
10. Continuous research and investment in forensic science education and innovation should be encouraged to keep pace with emerging forms of crime and technological developments.

➤ CONCLUSION

The study "**The Impact of Forensic Evidence on Criminal Investigations: A Study of Gujarat State**" highlights the significant role of forensic evidence in improving the accuracy, reliability, and effectiveness of criminal investigations. The findings from **250 respondents** indicate a strong consensus that forensic techniques such as DNA analysis, fingerprint examination, ballistic analysis, digital forensics, and toxicology contribute substantially to solving crimes and increasing conviction rates.

The study also identified key challenges, including delays in FSL reports, shortage of forensic experts, inadequate infrastructure, lack of training, and improper evidence handling. These issues affect the effective utilization of forensic evidence and require immediate attention.

A large majority of respondents supported strengthening forensic infrastructure through improved laboratories, advanced technologies, and specialized training. The statistical analysis confirmed that forensic evidence has a significant positive impact on criminal investigations, leading to the rejection of the null hypothesis.

Overall, forensic evidence has become an essential component of the criminal justice system in Gujarat State. Strengthening forensic facilities and expertise will further enhance the quality of investigations, support fair trials, and promote effective administration of justice.

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Beyond Cohorts and Co-Working: How Incubators and Accelerators Shape Startup Success and SDG 8-Oriented Economic Development

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Abstract

Incubators and accelerators have become key elements of the entrepreneurial ecosystems due to their unique ability to connect entrepreneurs to diverse resources including knowledge, networking, financing, legitimacy, and market access. While these institutions have gained more and more popularity over the years, it is hard to estimate the exact role of these initiatives in the success of entrepreneurs due to the diversity in the nature of the initiatives (their governance, selection process, targeted sectors, etc.), as well as differences in their ecosystem environment.

Purpose: This paper offers an integrative model of impact that shows how the success of startups may be influenced by the work of incubators and accelerators. It provides a clear explanation of how these impacts may be linked to the Sustainable Development Goal 8, which targets decent work and sustainable inclusive economic growth.

Method: An integrative literature review has been carried out with the purpose of theory building. Areas covered during the review include entrepreneurial ecosystems, entrepreneurial support organizations, business incubation, startup acceleration, sustainable entrepreneurship, and ecosystem development.

Findings: There are five interrelated mechanisms of impact that have been identified as factors influencing the success of startups through their connections with incubators and accelerators. These are: (1) capability creation, (2) network orchestration, (3) financial readiness and signaling, (4) market validation and scaling, and (5) sustainability and job quality.

Keywords: 1. Business incubators; startup accelerators; 2. entrepreneurial ecosystems; 3. startup success; 4. entrepreneurial support organizations; 5. SDG 8; 6. sustainable entrepreneurship; 7. economic development.

Introduction

In modern startup ecosystems, not only in advanced countries but also in emerging economies, incubators and accelerators have come to play a central role in turning entrepreneurial intentions into successful enterprises. Incubators and accelerators are now not merely peripheral services, but ecosystem intermediaries through which money, knowledge, legitimacy, mentorship, markets, and policy cues flow into the hands of entrepreneurs. Research into entrepreneurial ecosystems has demonstrated that high-growth and productive entrepreneurship arises not just through founders but through interactions among multiple actors and factors [1, 2]. Nevertheless, scientific literature demonstrates that ecosystem policy tends to have problems in translating concepts into a practical design of programmes and evaluation thereof [3, 4]. Incubators and accelerators fill the gap between ecosystem concept and policy practice. These are practical instruments for implementation, coordination and evaluation of ecosystems. Besides, incubators and accelerators are one of the most prominent policy instruments applied by governments, universities, businesses and development organizations in order to support start-ups and scaling-up processes.

Despite the popularity and usefulness of incubators and accelerators, the idea that they automatically bring success to ventures is questionable. In recent reviews and meta-analyses, authors find out that although participation in such programmes can positively affect venture's performance, the effect size is usually small and varies across programme type, region and outcome [5–9]. Some ventures can get the maximum benefit from intensive learning and mentoring, whereas others – from networking opportunities or investment signals. Furthermore, the very same program will yield distinct results depending on the background experience, sector complexity, venture development stage, social capital, and maturity of the ecosystem in which such programs operate.

The present paper responds to this requirement by providing a conceptual framework that describes the value creation process of incubators and accelerators. Specifically, the paper posits that the success of startups depends on five mechanisms that are implemented by incubators and accelerators – namely, capability development, network orchestration, finance readiness and signaling, market validation and scaling, and sustainability and quality employment creation. Such a framework helps to understand the way in which the programs of incubators and accelerators may affect the startup success in terms of survivability, financing, revenues, innovation, internationalization, and employment. This paper also shows that these effects depend on the characteristics of the program and ecosystem in which the incubator or accelerator operates.

Background

The concept of entrepreneurial ecosystem refers to a system of actors, institutions, resources and cultural factors that facilitate productive entrepreneurship in a certain geographic area [1, 2]. It is important to consider the systems perspective in the context of startup success as the success of startups is influenced not only by the characteristics of founders and the nature of a business idea itself but by many other factors such as access to financial capital, people, markets, mentorship, knowledge, physical infrastructure, institutions and legitimizing discourse. The indicators of ecosystems reveal the interdependence between these factors and require systematic analysis of the problem by policy interventions [4]. Incubators and accelerators fall under the more general umbrella term of entrepreneur support organizations. Modern studies define entrepreneur support organizations as intermediaries who assist entrepreneurs in becoming independent through provision of resources, knowledge, connections, and learning process [5]. The relational approach is crucial because it draws attention away from the physical space of an incubator or time frame of an accelerator towards support relations. According to this approach, startup support goes beyond a service package and becomes a developmental relationship which impacts founders' competence and venture position within the network.

Typical business incubators provide support to young ventures on a longer term basis with use of office facilities, mentoring, technological consulting, administrative assistance, research and educational institutions, and local network resources. Accelerators are mostly more focused on time and oriented towards investment or marketing purposes [6, 7]. The most recent literature reviews stress how blurred the distinctions between incubators, accelerators, science parks, innovation hubs, co-working spaces and corporate venture initiatives have become [6–8].

The evidential basis is now more differentiated. Meta-analysis of incubator effects finds a significantly positive effect on new venture performance but also shows great heterogeneity related to types of incubators, sponsors, services offered and settings [8]. Meta-analysis of accelerators also finds positive overall effects but stresses the importance of moderating factors such as the number of participants, the duration of the programme, the type of sponsor and the regional context [9]. Research on learning by accelerators indicates that they facilitate ventures overcoming their liabilities of newness via intense mentoring by advisors and other individuals [10]. There is a research that proves that the external sources of knowledge can be useful for improving innovation performance in various types of innovation among startups [11]. The research about nanotechnology businesses also proves that the private incubators, university incubators and accelerators can have various impacts on the outcome of the venture depending on the aspect, funding, survival and commercialization, respectively [12].

On the other hand, there are some recent studies which warn about the assumption that the participation in such programs will lead to success. For instance, there are some empirical evidences on mentoring and incubation of life-science firms which prove that various entrepreneurial support services can have different impact on financing and survival, where mentoring is more successful at financing and both mentoring and incubation are not always predictive of survival [13]. Sustainable development constitutes yet another factor. Start-ups in the area of sustainable development experience greater uncertainty since they have to meet requirements not only for market success but also for performance from a social and/or environmental perspective. The role of entrepreneurial development organizations in making these start-ups embedded within finance and knowledge networks is especially important under conditions of technological and institutional uncertainties [14]. Moreover, policy documents note that incubators and accelerators can contribute to inclusive entrepreneurship, internationalization and employment generation provided that their activities are oriented towards these goals [15, 16].

An important shortcoming of the literature on incubators and accelerators is its limited approach to measuring startup success. While some authors emphasise survival as the key measure, others highlight venture capital, employment generation, innovation output and revenues, commercialisation or founder learning. Each of those metrics is helpful, but each only accounts for one dimension of the startup experience.

The current paper defines startup success across four dimensions. The first is venture viability, including survival, financial management, customer engagement and robustness. The second is growth readiness, including validated business models, scalability, funding readiness, team capabilities and market credibility. The third is innovation and ecosystem contributions, including new products, knowledge spillover, partnerships and any patents, as well as network strengthening potential for other ventures. The final one is SDG 8 contributions, which include productive employment, decent working conditions, inclusiveness, sustainable value proposition and economic development.

Research method: integrative theory-building review

The research follows an integrative theory-building review method. A formal PRISMA-style systematic review or a meta-analysis of effect sizes is not carried out in this paper as previous systematic reviews and meta-analyses have covered the aggregate evidence related to incubators and accelerators [6-9]. The objective of this paper is to synthesise recent academic and policy-related literature to provide a theoretical perspective that clarifies the mechanisms, boundary conditions, and propositions for future empirical research.

The selection of literature focused on articles published between 2020 and 2026 while keeping some selected foundation works that still remain relevant to this area. Search concepts comprised of incubators, accelerators, entrepreneurial organizations, entrepreneurial ecosystems, startup success, new venture performance, sustainable development startups, entrepreneurial finance, open innovation, inclusive entrepreneurship and SDG 8. Preferential selection was made for recent papers published in entrepreneurship, innovation, management and policy journals such as Entrepreneurship Theory and Practice, Research Policy, Small Business Economics, Journal of Technology Transfer, Review of Managerial Science, Technovation and Journal of Business Venturing Insights. Policy literature by OECD, EC, UNECE, United Nations and other international development organizations was considered when dealing with incubators, accelerators, inclusive entrepreneurship, internationalization or decent work.

Three methods of analysis were used during the literature synthesis. First, the literature was classified according to programme type and outcomes. The latter were classified into incubation, acceleration, entrepreneurial organizations, success factors of startups and effects at the ecosystem level. Second, mechanisms explaining the effects were identified in the existing studies. Third, these mechanisms were related to relevant policy-related boundaries and formulated in the form of propositions.

Findings: five mechanisms of incubator and accelerator value creation

The capability formation process is the first mechanism. Startups suffer from newness liabilities since the founders have limited experience in terms of managerial practices, market dynamics, regulations, team management and systematic experimenting. Incubators and accelerators may alleviate these liabilities through structured learning, mentorship, seminars, founder coaching, peer reviews and milestone-oriented accountability. The literature on accelerator programs also indicates that compressed time-intensive learning may facilitate more informed strategic decision-making for ventures to confirm their assumptions and craft an investment-worthy story [10]. Research related to entrepreneurial support organizations also proves that education and training is dependent on the stage of the venture and varies throughout the entire entrepreneurial process [17]. Hence, the role of mentorship is not just in having mentors but in matching them with the right gaps at particular stages.

Network orchestration is the second mechanism. Incubators and accelerators act as intermediaries between founders, clients, investors, universities, corporations and public institutions, as well as other types of professional services. Ecosystem theory stresses that system level performance is generated by the relationships between the actors and not the isolated resources [1, 2, 4]. Entrepreneurial support

organizations can then be seen as relational infrastructure and their value is dependent on the density, diversity, and relevance of the networks they can tap into.

The third mechanism is finance readiness and signaling. Venture firms' inability to secure finance can be attributed to the shortage of capital but more importantly to the lack of investability. Incubators and accelerators can help firms become finance ready through pitching training, due diligence, grants writing assistance, investor introduction, financial modeling and governance advice. Another value of such organizations is the certification or signaling effect since selection by an organization improves the chances of lowering information asymmetry between venture firms and potential investors. Different venture development programs show that effects can differ for grants, venture capital, bankruptcies, and liquidation [12]] Similar research on mentoring and support services shows that support can affect funding outcomes regardless of survival effects [13]. In terms of policy making, this implies that the success of such programmes cannot be evaluated by demo-day funding alone, but rather by readiness for future funding and resource mobilization.

The fourth mechanism is that of market validation and scaling. Many startups get advice but do not manage to turn this advice into customers. Programs with intensive market access support can assist in customer discovery, testing prototypes, accessing procurement channels, building corporate connections and going international. The OECD's study on the globalisation of startups shows that incubators and accelerators can contribute to internationalisation via training, information provision, soft-landing, partner matching and international investors networks [15]. The importance of market access intensity lies in the fact that it shifts the focus of support from entrepreneurship education to revenue-generating contact with customers and partners. This mechanism is key for SDG 8 due to its need for productive economic growth. Embedding sustainability and jobs quality is the fifth mechanism. Contemporary entrepreneurial policy framework is increasingly expecting startups to help achieve environmental and social objectives. But many incubators and accelerators continue to use funding, the number of startups supported, or startup survival rate as the metric of success. SDG 8, on the other hand, calls for looking at the bigger picture and take into account decent jobs, productivity, inclusivity, and sustainable growth. Incubators and accelerators could embed sustainability into their operations by selecting for social or environmental benefits, providing ESG and impact measurement skills training, introducing founders to mission-compatible finance, promoting responsible hiring practices, and developing programmes aimed at disadvantaged founders. Sustainability-focused startups would need more dedicated help due to dual constraint of market and impact [14]. Thus, incubators and accelerators should be judged not only on private ventures performance but also on the quality of growth they facilitate.

Boundary Conditions: Why Programme Effects Differ

These five mechanisms do not work by themselves; their effects are conditioned by the presence of boundary conditions that explain why some incubators/accelerators have very strong startup effects while others have moderate or only symbolic effects.

Firstly, there is the issue of stage fit. Early-stage ventures require idea validation, confidence from the founder, team building and basic business model development, whereas later-stage startups require market access, managerial processes, financial readiness, regulation, internationalization and talent recruitment. A programme aimed at growth stage startups may be too much for early-stage entrepreneurs, whereas a general pre-incubator course is too little for scaling ventures. The issue of stage fit explains the heterogeneity observed in meta-analytical studies [8, 9].

Secondly, it is the issue of mentor quality and accountability. It is no good having many mentors if they give generalized advice, have no relevant industry experience and give contradictory advice without any integration.

The third boundary condition concerns governance and sponsorship. Governmental, university, corporate, private and mixed programmes will have distinct motivations. Governmental programmes might prioritize issues such as inclusion, job creation and regional development; corporate accelerators could pursue strategic innovation pipelines; university incubators might pursue knowledge commercialization; private accelerators might focus on investable ventures and exits. Program heterogeneity research suggests that it is essential to understand the impact of governance and sponsorship structures when analyzing variations in venture outcomes [8, 9].

The fourth boundary condition is that of ecosystem maturity. In mature ecosystems, accelerators might assist ventures to traverse the dense networks and specialize in intricate markets. In immature ecosystems, both incubators and accelerators might be required to conduct some form of institution-building, such as raising awareness among investors, building founder communities, establishing legal and financial practices, and establishing entrepreneurship as a legitimate occupation. The literature on ecosystems cautions against blindly replicating Silicon Valley models without identifying local deficiencies [3, 4].

Inclusion design constitutes the fifth boundary condition. Incubators and accelerators could be responsible for reproducing inequality because the selection criteria would be based on whether the entrepreneurs have had good education, fluency in English language, networks, entrepreneurship experience, and investor stories. An improved evaluation framework would need to monitor counter-factuals, long-term results, diverse founders, venture sustainability, income, quality employment, innovations, financing, customer acquisition, ecosystem connectivity and policy learning [18]. The study of ecosystems suggests

that public policies do well when informed through dialogue and evidence, rather than through simple ranking or vanity metrics [4].

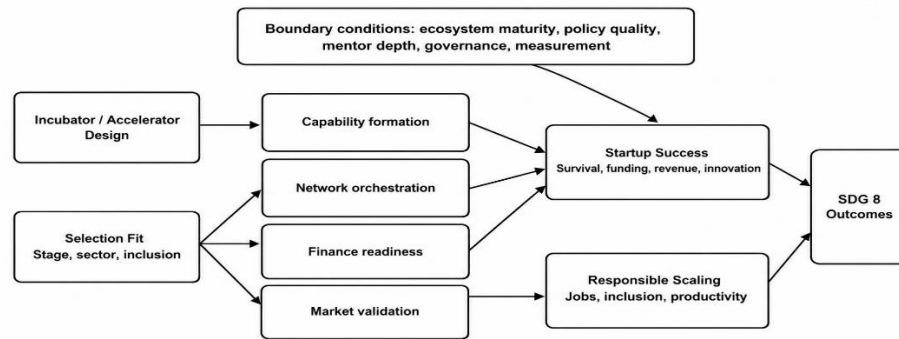


Fig. 1 Conceptual framework linking incubator and accelerator design to startup success and SDG 8 outcomes.

Table 1. Incubator and accelerator mechanisms connecting programme design to startup success and SDG 8 outcomes

Mechanism	Core support logic	Startup success outcome	SDG 8 relevance	Theory-building proposition
Capability formation	Mentoring; venture-building curricula; coaching; experiment discipline.	Improved business model, operations, decision speed and absorptive capacity.	Moves founders toward productive and durable work.	P1: Stage-fit learning and mentor intensity improve multidimensional success.
Network orchestration	Brokerage with investors, customers, universities, corporates, alumni and agencies.	Expanded opportunity access, legitimacy, knowledge inflow and resource mobilisation.	Broadens inclusive economic participation when networks include underserved founders.	P2: Network brokerage mediates programme participation and startup success.
Finance readiness and signalling	Pitch preparation; investor matching; grant-readiness; due-diligence discipline.	Higher probability of grants, seed capital, venture capital or revenue-based finance.	Directs finance toward ventures with growth and employment potential.	P3: Finance readiness plus investor embeddedness strengthens funding outcomes.
Market validation and scaling	Customer discovery; prototype testing; procurement readiness; pilots; soft landing.	Earlier product-market fit, revenue traction, exports and strategic partnerships.	Shifts ventures from ideation to market-based productivity and decent work creation.	P4: Market-access intensity strengthens revenue and survival effects.
Sustainability and job-quality embedding	ESG literacy; SDG screening; impact measurement; ethical scaling safeguards.	Sustainable value propositions, impact legitimacy and responsible scaling.	Aligns growth with SDG 8 targets on decent work, productivity and inclusion.	P5: Sustainability and job-quality metrics increase long-term ecosystem value.

Proposed framework and propositions

The proposed framework is presented in Figure 1 and Table 1 below. The core proposition is that incubator and accelerator design influences startup performance through mediation of mechanisms and boundary conditions influence the power and quality of such impact. The framework is intentionally multidimensional: it allows for the recognition of survival, funding, innovation, growth, responsible scaling, and decent work as valid performance outcomes. Ecosystem-level value creation of programs is possible even when ventures are not all surviving individually, as failure creates learning opportunities, redeployment of talent, and enhanced future entrepreneurial capability.

Proposition 1: Mentoring and venture building appropriate to stage will have a positive association with multidimensional startup success, with a stronger effect when mentoring is intense, targeted and milestone-oriented.

Proposition 2: Network orchestration will mediate the association between incubator or accelerator participation and startup success, as good networks facilitate access to information, legitimacy, finance, clients, and partners.

Proposition 3: Programmes finance readiness and reputation will enhance the probability of external financing, although the influence will be conditional on programme credibility, investor embeddedness and fit between venture and investor.

Proposition 4: Intensity of market validation will enhance the positive effect of programme attendance on firm growth, as customer contact and procurement access are closer to the concept of product-market fit than general business training.

Proposition 5: The sustainability and quality of job creation will have positive effects on long term value of an ecosystem, especially for sustainable development startups and ventures that operate in industries with social or environmental externalities.

Discussion

The theoretical contribution of the proposed framework consists in seeing incubators and accelerators as conditional ecosystem intermediaries and not unconditional success-generating engines for startups. The contribution is especially important due to the current state of public debate, when many people think about incubators and accelerators as positive by definition, whereas the academic knowledge provides a much more complicated picture of the role of these institutions. There is a tendency for the literature on entrepreneurship ecosystems to be policy relevant. However, researchers have pointed out that the gap between theoretical discourse and policy design continues to widen [3]. Incubators and accelerators are

useful in closing the gap, because they turn theoretical elements of an entrepreneurship ecosystem into tangible actions. The contribution to SDG 8 is equally relevant. Entrepreneurship policy is often seen as the panacea to the problems of unemployment and development [25]. Such an approach fosters a story where new ventures are hailed without questioning the quality of the work created through such ventures, improvements in productivity, reductions in exclusion, and sustainable growth contributions.

For public policymakers, the framework indicates that more funding of incubators and accelerators is not as relevant as choosing the correct configuration. Policymakers have to first diagnose the problem within the ecosystem: What is the problem? Is it the finance gap, talent gap, market access gap, university-industry gap, founder diversity gap, regulatory gap, demand gap, or a trust gap? Once the diagnosis is made, an appropriate programme should be developed based on this bottleneck. In constrained ecosystems, generalist incubators may need to build basic entrepreneurial capabilities and network effects. Specialised accelerators can play a better role in fostering deep technology commercialisation, green businesses, digital enterprises, creative enterprises, or export-oriented enterprises within advanced ecosystems.

In terms of universities, the development of incubators and accelerators can reinforce the third mission of universities in transforming their knowledge into socio-economic benefits. Incubators and accelerators are especially significant for universities in research commercialisation, entrepreneurship among students, women entrepreneurship, youth entrepreneurship, and regional innovation. Still, they should not become places where entrepreneurship is only exhibited rather than being seriously fostered.

Implications of policies for SDG 8 entrepreneurship ecosystems

The entrepreneurship policy should be based on the idea of treating incubators and accelerators as components of a development system. First of all, it means shifting from the number of programs to the quality of programs. Incubators in many cities and universities appear as some kind of symbols of innovation, however, too much supply leads to an ecosystem filled with overlapping services. Ecosystem mapping could help to find out what is lacking in the ecosystem. The second recommendation is that public funding needs to be tied to performance in terms of development goals. Publicly funded initiatives should measure survival rates, income, employment, good jobs, diversity, further funding, sales contracts, globalization, environmental/social impact, and ecosystem cooperation. The recent literature on incubation services provided by universities and private organizations providing entrepreneurs with business services also confirms the need to evaluate both private and public infrastructure initiatives [18, 19, 20]. Thirdly, specialise in pathways. Sustainable development, deep tech, female, creative economy,

rural, or migrant entrepreneur start-ups may require their own approach in terms of the kind of support needed. Start-up prediction, accelerator design, accelerator performance and the birth of the accelerator phenomenon provide further evidence for specialised, evidence-based programme design [21-25].

Fourthly, finance bridges must be built. Incubators and accelerators should not just facilitate introductions to investors. Rather, they should prepare start-up founders for raising finance through building the necessary skills over time. Policy measures to support matching funding, grant preparation, educating investors, blended finance and procurement programmes are some of the options available. In the case of sustainable development start-ups, finance bridges should consider impact investment and development financing agencies as well as revenue-based financing and public procurement alongside venture capital. The fifth implication is that decent work must be incorporated into the entrepreneurship policy. Programmes that educate entrepreneurs about scaling in a responsible way will be helpful in preventing the misalignment between scaling and the quality of employment. This perspective is consistent with the 2030 Agenda for Sustainable Development and the policy guidance on incubators for sustainable development [26, 27]. Research on crisis-period entrepreneurship is yet another reason why follow-up resilience assistance becomes necessary for venture survival in the face of exogenous shocks [28].

Future research agenda

There are a number of areas for future research which have been suggested by the framework. Future research will need to adopt longitudinal methodologies that allow comparison between participants and nonparticipants of the programme for multiple years to discern program effects from selection effects. The latter means that stronger ventures will tend to apply for programs because of their reputation. Second, future research will need to focus on mechanism-level effects rather than final performance effects. Future research will need to operationalize academic knowledge into actionable frameworks without taking a naive perspective on entrepreneurship as a panacea to development problems [29, 30]. Third, comparison studies are necessary among ecosystems at different levels of maturity. Programs in mature ecosystems may operate differently compared to programs in emerging or resource-limited ecosystems. An evidence base for the entire world would need to include Africa, South Asia, Middle East, Latin America and smaller economies, not just North America and Western Europe. Fourth, there is a need for more research on inclusion. What kinds of incubator and accelerator models are most suitable for women entrepreneurs, young entrepreneurs, migrant entrepreneurs, disabled entrepreneurs, poor entrepreneurs and entrepreneurs beyond metropolitan areas? Fifth, future research needs to focus on the outcome of SDG 8. Pre-acceleration and informal entrepreneurship education programs indicate the necessity for this type of

research as well [31, 32]. This requires openness, learning, comparative analysis of different ecosystems, adaptation rather than mere replication of global models. The related studies also need to tie together regional ecosystem theory, local ecosystem indicators, sustainable entrepreneurship support and sustainable business model transformation [33–36].

Conclusion

Incubators and accelerators can make a difference in the success of startups, but their effect is neither automatic nor universal. The value of incubators and accelerators is in their ability to build the capacities of the founders, coordinate networks, prepare ventures for financing, validate markets, and incorporate sustainability and job quality considerations. These instruments link venture-based outcomes with the results at the level of the entrepreneurial ecosystem and SDG 8. Yet, the efficiency of incubators and accelerators depends on stage appropriateness, mentoring, governance, ecosystem development, inclusiveness, and proper evaluation.

The main thesis of the paper is that incubators and accelerators need to be designed and evaluated as intermediary structures in the entrepreneurial ecosystems rather than separate support programs. If well-configured, they will increase the strength of entrepreneurial ecosystems, increase the viability of ventures, foster innovations, expand economic participation, and support sustainable economic development. Otherwise, they become empty shells producing activity but not results. Future Business Journal's special issue provides an appropriate forum for promoting this policy and practice-oriented discussion since the future of entrepreneurial ecosystems will depend on the quality of institutions supporting the development of startups.

Abbreviations

ESG: Environmental, Social and Governance; ESO: Entrepreneurial Support Organisation; SDG: Sustainable Development Goal; SME: Small and Medium-sized Enterprise.

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**A study on restructuring academic curriculum post Covid-19
by analyzing various perspectives and problems faced by students
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Abstract

There is a surge for non-stop creativity and innovation when it comes to deliverance of higher Education and it has become a challenge for both learners and academicians. Usually this situation pushed all the higher educators to online learning options. Online learning platforms have its pros and cons. Specifically in Indian Education sector there is strongly recommended to educate the educators about digital platforms because when educators will be expert then only learners can grasp the way they want to convey. Due to shortcomings of Covid-19 situations face to face communication classes is being avoided by most of institutes, no matter how big the challenges are apart from that faculties need to learn animations, effective presentations etc.

On the top of this, Covid-19 has added fuel to the fire by posing an immense threat to these developments. Some see this as a blessing in disguise as this situation has given many to introduce the maximum use of technology in the current academic delivery. This paper highlights the pre and post Covid-19 system and curriculum at a higher education level and suggestions to emerge as winners from this situation. In addition, there will be discussions on various methodology and techniques implemented by educators to facilitate the online delivery of lectures and sessions. The role of technology, the role of practicality and the role of creativity and innovation will be discussed to restructure the traditional curriculum into more feasible, contemporary and interesting one. The study will also highlight the possible outcomes of the revised curriculum and also discuss the role of government in advocating the same.

Keywords: *Creativity and Innovation, Restructuring, Contemporary, Revised Curriculum*

Introduction

Education is the major factor in India which has and will boost the development of the country. India is famous in history for its superiority in education sector with the presence of Nalanda and Taxashila universities. Indian heritage is also the proud owner of Arthashastra- a great book on management by Chanakya. Here are some famous quotes by legends who based the development of a country on education,

- ✓ Don't limit a child to your own learning, for he was born in another time" – **Rabindranath Tagore**
- ✓ "Learning gives creativity, creativity leads to thinking, thinking provides knowledge and knowledge makes you great" – **Abdul Kalam**
- ✓ Education is the most powerful weapon which you can use to change the world" – **Nelson Mandela**
- ✓ "Intelligence plus character that is the goal of true education" – **Martin Luther King**

▪ Need for restructuring the curriculum

When we say restructuring the education curriculum, it simply means adding variety, changing rigid applications, applying practicality and introducing stress free learning. We have noticed that Indian education system mostly based on a theoretical perspective and exam based evaluation. But the current era demands more and on the top of that uncertainties like Covid-19 has prompted us to bring a change in the current education system. Some of the reasons which asks for a reforms are as under,

- ✓ Lack of practicality and conceptual learning.
- ✓ Rigid examination (entrance, selection, qualification, prelims and periodic) system.
- ✓ Traditional old lecture systems which might be boring at times.
- ✓ Unnecessary assignments and home works.
- ✓ Marks based cut off and qualification system.
- ✓ Unaffordable and hefty fee structure which lacks justification.
- ✓ Limited scope when it comes to the actual syllabus and curriculum.
- ✓ Lack of research and development.
- ✓ Reservations and donations which hold certain percentage of the seats.

1. Post Covid Academic Scenario at glance

As we all know that Public Health and Public Education both are interconnected and must go hand in hand as they show unavoidable necessity of collaboration and collective actions for common goal.

An expanded Right to Education can enhance the liquidity of people to match and cope with changing contexts of contemporary society.

Consider Educators as frontline warriors of the society because the central point of any education process is human relation between educator and learner. In this pandemonium the quarantines and distancing have greatly separated the educators and learners, so in Post Covid education curriculum the formers have to cure the mental health of the learners, only the way to think and act together can reconnect the student and teacher creatively. Apart from safety and precaution guidelines of this pandemic, students must be able to come out from the ideas of unintended consequences.

Educators need to reform the timetable of physical classroom activities in a way that student can return to home soon as possible, teachers should give home learning activities and assignment or experiments in which students actively take interest and respond with results they arrive at. So this case study base learning activities are the realistic approach need to undertake in education sector.

Governments must arrange free and open source of technologies for educators and learners. In India the Public Education is rely on private network companies which needs to be avoided. Any stream of the education whether it is commerce, science or art it must include the common understanding to save mother earth and how to live good life with natural infrastructure provided by nature, such kind of moral principles needs to be included in academic curriculum for maintaining level of common humanity to common planet.

GDP and GNP are the keen parameters that every country has to measure the economic health but governments and citizens should strongly opt for contributing same percentage of GDP in Public Health and Public Education to provide the humanistic vision in governance framework of the country.

➤ **1(a) Reforms in Universities due to Covid-19 Catalyst:**

1. Increase in Digital Divide:

After the huge impact of pandemic Indian universities and learners are adopting digital platforms to learn and students and teachers are also being used to with this. Virtual coordinated efforts by faculties, accessing of E-Library turning very progressive.

2. Design Innovative FDP with certain changes:

Universities should design faculty development programs to train the trainers or to educate the educators about web based lecture providing methods. Such kind of FDP programs can help a lot to educators to feel enable to convey more significant lecture.

3. Use of Artificial Intelligence in a customized way:

Educators must try to step in shoes of learners; they should not go with “one size fit for all” approach. They must be capable to give different examples, presentations; videos in a way enlarging capacity of customize learning.

4. Integrated learning & administering experience:

Administration will try to establish enough interpersonal engagement between student and teacher so that challenges, feedback and progress of both can be channelized in proper way.

5. Not only curriculum but mental well being of students is also possess keen importance:

Educational institutes have to look after emotional health of students too. To check whether he/she is okay with prevailing studies among pandemic, Is he/she facing any personal obstacles, could college or school contribute to solve issue faced by him/her.

So these are some reforms that Indian Universities adopted.

➤ 1(b)Covid 19 as a Curse for Students and Educators:

1. Decreasing Mobility:

Due to Covid-19 outbreak students and educators are avoiding to go abroad for research, studies and job opportunities for sake of having safety of themselves at home.

Australia, UK, New Zealand, Canada are some countries which already suffered with financial pressure their universities will be in financial risk for time span of next five years.

2. Submissive Learning by students:

Sudden transformation from offline classes to online classes particularly in countries like India where backbone for digital learning was not ready and curriculum was not designed for such format has generated the risks for students becoming passive learners they seem to be losing interest due to low levels of concentration span.

3. Lack of prepared academicians for online education:

Only few academicians were ready for zoom or Google meet sessions because online lecturing is a special kind of methodology not all faculties seem to be good at it.

4. Changing Layout of student recruitment:

Admission cells of top B schools are facing so many hardships in recruitment of students because of huge gap between academic and industry. Sometimes syllabus prepared by universities may not match the required talents by corporate world.

5. Total avoidance of social Interaction:

Digital learning has created comfort ability and convenience for students but very strong pillar of education which is social interaction is totally vanished due to this pandemonium. Online classes are only alternative for uninterrupted studies but students are becoming selective listeners, offline classes were possessing ability for enriching students mind with crux of any subject which students like or unlike.

➤ 1(c) Resolution of challenges faced by students and academicians

As we all know online classes are comfortably and conveniently providing students opportunities to learn at any time they wish to learn but while interacting in classes academicians don't perceive ideas about are they interested in this way of interacting or not?, faculties can't observe what students are doing in another tab along with attending online lecture. So here are some resolutions discussed as below.

1. Interesting Assignment:

Faculties of a particular subject should design an assignment for students in which they take interest as much as possible. For example, assignment to make memes related to particular topic, 1 minute video of definition or dialogue of topic related understanding, task to prepare reels video and out of all best videos to be published on Instagram page of institute. So such kind of activities can catch interest of students and they may feel that their efforts are being recognized by institute.

2. Case Study Base Learning:

As IIMs and Top B schools are exercising case study base learning for nurturing analytical skills, critical thinking and problem solving skills in student minds.

3. Invite Industrialists and real life professionals for guest sessions:

Universities have to make compulsion on management carnival of at least one week in which the state level or local level industrialist, people from field of corporate law & justice, CA & CS professionals, IAS

& IPS, corporate etc are to be invited for guest lecture. Such kind of management carnivals gives snapshots of current market rapport.

4. Empower Students (Emphasize engagement):

Faculties should try to be the mentor for students. Mentor can improve the performance of students rather than a rigid faculty. Easiest strategies to be designed that student can voice and choice and demonstrate learning.

5. Avoid monotonous format:

Use integration of numerous way to transfer knowledge using multiple mediums. A course only designed based on text-based formats. Slides sounds monotonous which actually fails to engage students to desired level. Comprehensive walk through, learning analytics and animation, mass communication, pre-equipped knowledge of upcoming topics, cross responsiveness such kind of activities can mingle the student minds for critical thinking skills.

6. Always make students clear with “WHY” type of questions:

The faculties should try to elaborate the answers like why this subject is in their syllabus?

Why they need to learn particular subject? and try to well equip the student mind with thin line differences between the things.

2.Literature Review

(i) Pravat Kumar Jena(2020) Impact of Pandemic COVID-19 on Education in India

The impact of pandemic COVID-19 is observed in every sector around the world. The education sectors of India as well as world are badly affected by this. It has enforced the world wide lock down creating very bad effect on the students' life Even if the COVID-19 crisis stretches longer, there is an urgent need to take efforts on maximum utilisation of online platforms so that students not only complete their degree in this academic year but also to get ready for the future digital oriented environment. This paper highlights some measures taken by Govt. of India to provide seamless education in the country. Both the positive and negative impacts of COVID-19 are discussed and some fruitful suggestions are pointed to carry out educational activities during the pandemic situation.

Link : <file:///C:/Users/WINDOWS/Downloads/ImpactCovid-19onEdnIJCRJuly2020.pdf>

(ii) Sumitra Pokhrel (2021) Impact of Covid-19 Pandemic on Teaching and Learning

The COVID-19 pandemic has created the largest disruption of education systems in human history, affecting nearly 1.6 billion learners in more than 200 countries. Closures of schools, institutions and other learning spaces have impacted more than 94% of the world's student population. Social distancing and restrictive movement policies have significantly disturbed traditional educational practices. The need of the hour is to innovate and implement alternative educational system and assessment strategies. The COVID-19 pandemic has provided us with an opportunity to pave the way for introducing digital learning. This article aims to provide a comprehensive report on the impact of the COVID-19 pandemic on online teaching and learning of various papers and indicate the way forward.

Link: <https://bit.ly/3xyuvSJ>

(iii) Sreeramana Aithal (2020) Impact of COVID-19 on Redefining the Services of Educational Institutions using Ubiquitous Technology

The COVID-19 affected each and every industry sector around the world. Most of the educational institutions of India as well as the world got affected very badly. It has forced worldwide lockdown and created an atrocious effect on student life. It has given a challenge and an opportunity to all the educational institutions to find a solution by determining suitable platforms and techniques for effective implementation of quality educational services, which has not been used before. Accordingly, the education sector has been fighting to continue its existence with a different approach by digitizing the challenges to wash the threat of the sickness. The major discussion is to know whether an institution can continue online education for students in future days or not.

Link: <https://bit.ly/3xASlaQ>

(iv) Bhushan Bhamaterajput (2020) Impact of COVID-19 on Indian Education system -Present status and Future perspectives

Indian teachers-students have adopted the digital medium as an alternative traditional method. It is not like that Indian teachers and students were unaware and distanced from the digital education medium but frequency of using digital methods was low. At present Indian education system has adopted new ways of teaching-learning and will survive and bring major changes in the future. The focus of digitalization

should be vertical means primary education to higher then global. Every student should get education without compromising on any scale. This paper throws light on views related to “Indian education system is badly hampered by COVID-19; it was not ready for such tremendous and unplanned change.”

Link: <https://bit.ly/3voAKXo>

(v) Bhushan Bhamaterajput (2020) Impact of COVID-19 on Indian Education system -Present status and Future perspectives

Indian teachers-students have adopted the digital medium as an alternative traditional method. It is not like that Indian teachers and students were unaware and distanced from the digital education medium but frequency of using digital methods was low. At present Indian education system has adopted new ways of teaching-learning and will survive and bring major changes in the future. The focus of digitalization should be vertical means primary education to higher then global. Every student should get education without compromising on any scale. This paper throws light on views related to “Indian education system is badly hampered by COVID-19; it was not ready for such tremendous and unplanned change.”

Link: <https://bit.ly/3nMck7L>

 2(a)Research Methodology:

❖ **Primary objective:**

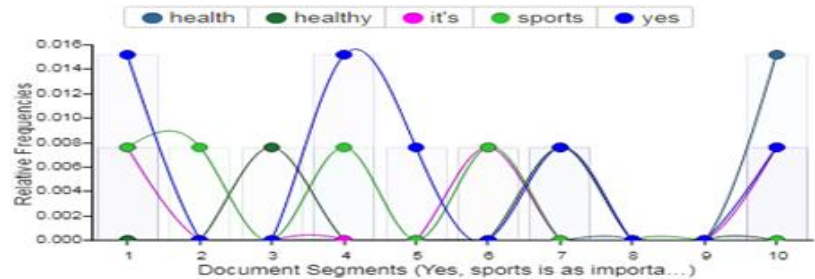
- To study the need for restructuring the education curriculum post Covid-19.

❖ **Secondary objective:**

- To study the opportunities and challenges faced by learners and educators with respect to the impact of the pandemic.
- To study the viewpoint/perception of students and academicians around improved education system post pandemic.

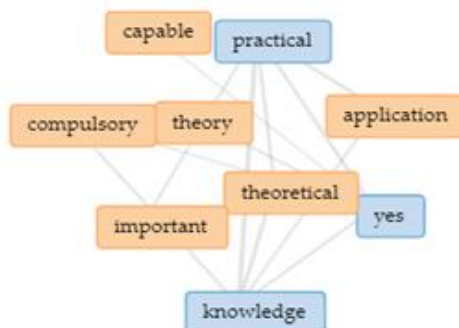
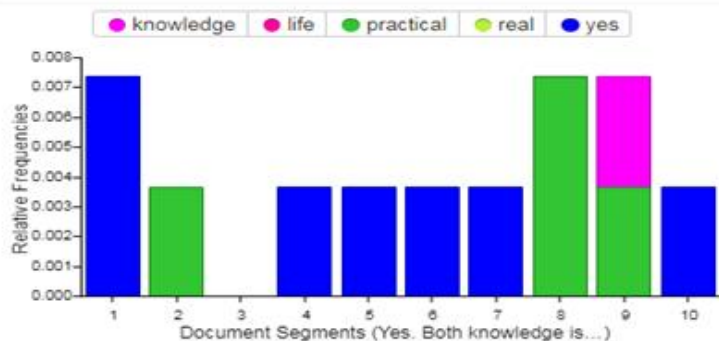
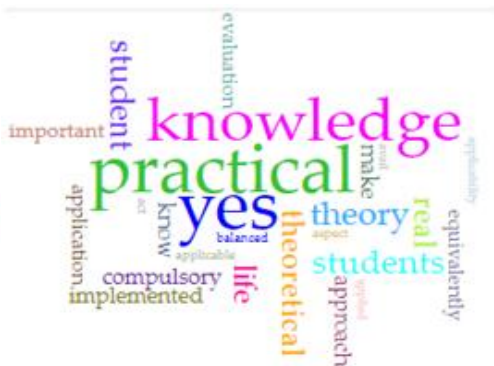
2(b) Survey Results:

Que-1. Do you Agree that sports should be introduced as a compulsory activity at university level at least once a week? Why? Q.2 Should the assessment or evaluation be done on 50-50 percent of

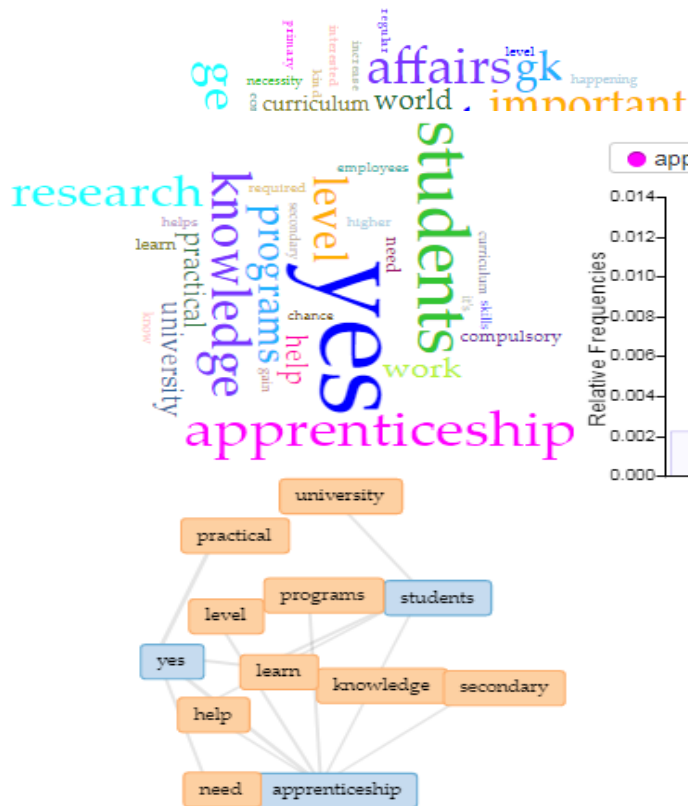


practical and theoretical applications? Why?

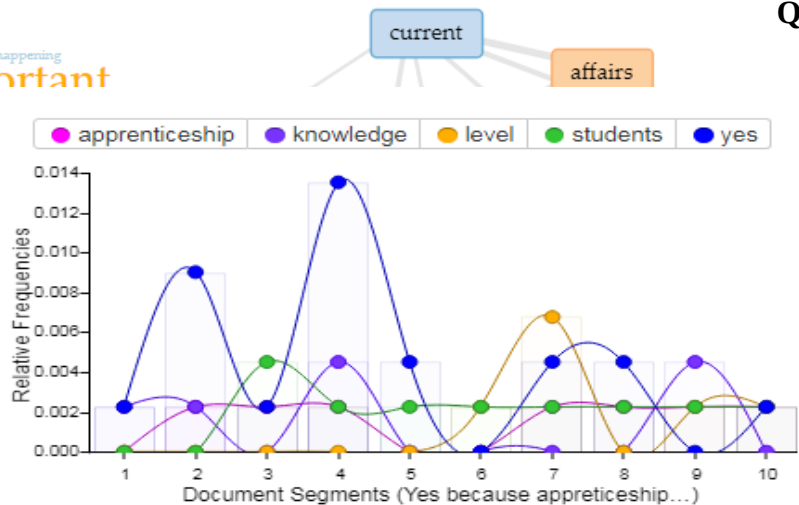
Q.3 Is online method of delivering lectures more effective than the offline method? Please elaborate your answer.



Q.4 Is there a necessity to introduce subjects like current affairs and general knowledge in regular curriculum? Why?



**Q-5.
Is**

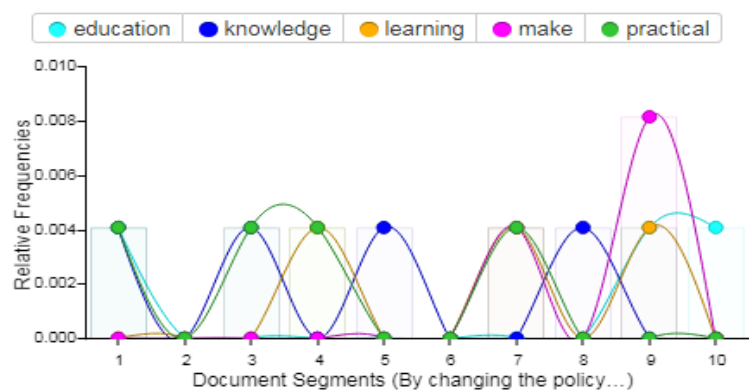


there a need to introduce compulsory Apprenticeship program at university level for all students? Why?

Que.6 How can we restructure the curriculum or syllabus to make the current education system more effective?

2(c) Result and Findings:

- ✓ Majority of respondents agree that introduction of sports as compulsory activity might boost an overall development among students.
- ✓ There is a concern about the effectiveness of online education, however restructuring of curriculum might enhance the success ratio of both online and offline mode of delivery.
- ✓ 50% of the respondents think that restructuring the current examination system can help improve the overall quality of individual growth among students.
- ✓ Almost 90% of respondents think that subjects around current affairs and GK might improve the quality of curriculum.
- ✓ The word cloud in all the six questions shows a strong positivity around the issues needed to restructure the curriculum.



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ડૉ. ભૂપેન્દ્ર એન ગુંસાઈ
(એમ.એ. એમ.ફિલ. પી.એચ.ડી)

❖ સારાંશ :-

કચ્છ જિલ્લો ગુજરાત રાજ્યનો વિસ્તારની દૃષ્ટિએ સૌથી મોટો જિલ્લો છે. અને મુખ્યત્વે ખેતી તથા પશુપાલન આધારિત અર્થવ્યવસ્થા ધરાવે છે. જિલ્લાના મોટા ભાગના લોકોનો મુખ્ય વ્યવસાય ખેતી અને પશુપાલન હોવાથી આ બંને ક્ષેત્રો જિલ્લાના સામાજિક અને આર્થિક વિકાસમાં મહત્વપૂર્ણ યોગદાન આપે છે. કચ્છ જિલ્લો ઉત્તર અને પૂર્વ તરફ વિશાળ ખારા રણથી ઘેરાયેલો છે તેમજ સમુદ્ર સપાટીથી પ્રમાણમાં ઊંચાઈ પર આવેલો છે. સમગ્ર પ્રદેશ ઉજ્જડ, ખડકાળ અને ઓછી વરસાદી પરિસ્થિતિ ધરાવતો હોવા છતાં તેની ભૌગોલિક રચનામાં નોંધપાત્ર વિવિધતા જોવા મળે છે. ટેકરીઓની હારમાળાઓ, છૂટાછવાયા ડુંગરો, ઊંડી અને અસમાન પટ ધરાવતી નદીઓ, તેમની ખીણો તેમજ કેટલીક જગ્યાએ આવેલી ફળદ્રુપ જમીન જિલ્લાના કુદરતી વૈવિધ્યને પ્રતિબિંબિત કરે છે.

જિલ્લામાં ભૌગોલિક અને આબોહવાની વિવિધતાને કારણે ખેતીની પદ્ધતિઓ, પાકોની પસંદગી અને ખેતીક્ષેત્રનું પ્રમાણ તાલુકાવાર બદલાતું જોવા મળે છે. કચ્છનો વિશાળ વિસ્તાર અને કુદરતી પરિસ્થિતિઓની વિષમતાને કારણે વિવિધ વિસ્તારોમાં કૃષિ વિકાસનું સ્તર પણ અલગ-અલગ છે. જોવા મળે છે.આ સંદર્ભમાં નખત્રાણા તાલુકો વિશેષ મહત્વ ધરાવે છે. કચ્છ જિલ્લાના મહત્વના તાલુકાઓમાં નખત્રાણા તાલુકો ઐતિહાસિક, સામાજિક અને કૃષિ વિકાસની દૃષ્ટિએ વિશિષ્ટ સ્થાન ધરાવે છે. ખેડૂતોના સંગઠન અને કૃષિ ક્ષેત્રે થયેલા યોગદાનને કારણે નખત્રાણા તાલુકો "કચ્છનો બારડોલી" તરીકે પ્રસિદ્ધિ પામ્યો છે. ઉપરાંત, આ વિસ્તાર સ્થાનિક સ્તરે "માકપટ વિસ્તાર" તરીકે પણ ઓળખાય છે.(જ્યાં ધુમ્મસનું પ્રમાણ વધારે તેવો વિસ્તાર) અનુકૂળ કુદરતી પરિબળો, કૃષિ ક્ષેત્રે થયેલા સંશોધનો, આધુનિક ખેતી પદ્ધતિઓનો સ્વીકાર અને સિંચાઈની ઉપલબ્ધતામાં થયેલા સુધારાના પરિણામે આ તાલુકામાં કૃષિ વિકાસને નવી દિશા મળી છે. જેના કારણે કૃષિ ઉત્પાદન અને ઉત્પાદકતામાં નોંધપાત્ર વધારો થયો છે. પરિણામે નખત્રાણા તાલુકો કચ્છ જિલ્લાના કૃષિ વિકાસમાં મહત્વપૂર્ણ યોગદાન આપતો તાલુકો તરીકે વિકસ્યો છે.

❖ પ્રસ્તાવના :-

કોઈપણ દેશના સર્વાંગી આર્થિક વિકાસમાં કૃષિક્ષેત્રને પાયાના ક્ષેત્ર તરીકે માન્યતા આપવામાં આવે છે. ભારત જેવા કૃષિપ્રધાન દેશમાં કૃષિ માત્ર આજીવિકાનું સાધન નથી, પરંતુ રોજગાર, ખાદ્ય સુરક્ષા, ઔદ્યોગિક વિકાસ અને ગ્રામીણ અર્થતંત્રનો મુખ્ય આધારસ્તંભ પણ છે. કચ્છ જિલ્લાના આર્થિક વિકાસમાં પણ કૃષિક્ષેત્રનું વિશેષ મહત્વ રહેલું છે. પરંપરાગત રીતે કચ્છ પ્રદેશની ઓળખ સૂકા, અર્ધશુષ્ક, રણપ્રદેશ અને ઓછી વરસાદી પરિસ્થિતિ ધરાવતા વિસ્તાર તરીકે કરવામાં આવતી હતી. જોકે, છેલ્લા કેટલાક દાયકાઓમાં કુદરતી પરિબલોમાં આવેલા પરિવર્તનો, આધુનિક કૃષિ ટેકનોલોજીનો સ્વીકાર, સિંચાઈની સુવિધાઓનો વિસ્તાર તથા વર્ષ 2001ના વિનાશકારી ભૂકંપ પછી થયેલા પુનર્નિર્માણ અને વિકાસલક્ષી પ્રયાસોના પરિણામે કચ્છના કૃષિક્ષેત્રમાં નોંધપાત્ર પરિવર્તન જોવા મળ્યું છે.

આજે કચ્છ જિલ્લો કૃષિ અને બાગાયતી પાકોના ઉત્પાદનમાં આગવું સ્થાન પ્રાપ્ત કરી રહ્યો છે. ખાસ કરીને ખારેક, કેશર કેરી, જીરું, એરંડા તેમજ અન્ય બાગાયતી અને રોકડિયા પાકોના ઉત્પાદનમાં થયેલા વધારાને કારણે કચ્છના ખેડૂતોને સ્થાનિક તેમજ રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય બજારોમાં નવી તકો પ્રાપ્ત થઈ છે. કચ્છના કૃષિ ઉત્પાદનોની નિકાસમાં પણ નોંધપાત્ર વધારો થયો છે, જેના પરિણામે જિલ્લાના ખેડૂતોની આવકમાં વૃદ્ધિ થઈ છે અને તેમની આર્થિક સ્થિતિ વધુ મજબૂત બની છે. સાથે સાથે, કૃષિ ક્ષેત્રે સર્જાયેલી રોજગારીની નવી તકોને કારણે ગ્રામ્ય વિસ્તારોમાંથી રોજગાર માટે થતું સ્થળાંતર પણ પ્રમાણમાં ઘટ્યું છે.

છેલ્લાં વર્ષોમાં સિંચાઈની સુવિધાઓના વિસ્તરણ, વરસાદના પ્રમાણમાં થયેલા સુધારા, જળસંચય યોજનાઓ, ચેકડેમ, તળાવો, બોરવેલ અને માછકો સિંચાઈ પદ્ધતિઓના વ્યાપક ઉપયોગને કારણે કચ્છની કૃષિ વ્યવસ્થામાં ગુણાત્મક પરિવર્તન આવ્યું છે. પરિણામે, કચ્છની માત્ર સૂકા અને રણપ્રદેશ તરીકેની પરંપરાગત ઓળખ ધીમે ધીમે બદલાઈ રહી છે અને જિલ્લો આધુનિક તથા વ્યાપારી કૃષિ તરફ આગળ વધી રહ્યો છે.

પ્રસ્તુત સંશોધન અભ્યાસમાં કચ્છ જિલ્લાના નખત્રાણા તાલુકાના કૃષિક્ષેત્રનું વ્યાપક વિહંગાવલોકન કરવામાં આવ્યું છે. અભ્યાસમાં તાલુકાની ખેતીલાયક જમીન, ખેતી સાથે સંકળાયેલી વસ્તીનું પ્રમાણ, પાકવાર વાવેતર વિસ્તાર, સિંચિત વિસ્તાર, મુખ્ય પાકોનું ઉત્પાદન, વરસાદનું પ્રમાણ તેમજ કૃષિક્ષેત્રમાં સમયાંતરે થયેલા પરિવર્તનોનું વિશ્લેષણાત્મક મૂલ્યાંકન કરવામાં આવ્યું છે. આ અભ્યાસ દ્વારા નખત્રાણા તાલુકાના કૃષિ વિકાસની વર્તમાન સ્થિતિ, તેની સમસ્યાઓ, સંભાવનાઓ તથા ભવિષ્યની વિકાસ દિશાઓનું તટસ્થ અને વૈજ્ઞાનિક વિશ્લેષણ રજૂ કરવાનો પ્રયાસ કરવામાં આવ્યો છે.

❖ સમસ્યા કથન :-

કચ્છ જિલ્લામાં છેલ્લા કેટલાક દાયકાઓ દરમિયાન કૃષિક્ષેત્રમાં નોંધપાત્ર પરિવર્તનો જોવા મળ્યા છે. આધુનિક કૃષિ પદ્ધતિઓનો સ્વીકાર, સિંચાઈની સુવિધાઓનો વિસ્તાર, ઉચ્ચ ગુણવત્તાવાળા બિયારણોનો ઉપયોગ, બાગાયતી પાકોના વિકાસ તેમજ સરકારી યોજનાઓના અમલીકરણને કારણે જિલ્લાના અનેક તાલુકાઓમાં કૃષિ વિકાસની નવી દિશા જોવા મળી છે. જોકે, કચ્છ જિલ્લાના વિવિધ તાલુકાઓમાં આ વિકાસનું પ્રમાણ એકસરખું નથી. ભૌગોલિક, આબોહવાકીય, જળસંસાધનો અને સામાજિક-આર્થિક પરિબલોના કારણે તાલુકાવાર કૃષિ વિકાસમાં નોંધપાત્ર તફાવત જોવા મળે છે.

આ સંદર્ભમાં નખત્રાણા તાલુકામાં કૃષિક્ષેત્રે કેટલા પ્રમાણમાં વિકાસ થયો છે, તેમાં સમયાંતરે કેવા પ્રકારના પરિવર્તનો નોંધાયા છે તેમજ વાવેતર વિસ્તાર, સિંચિત વિસ્તાર, પાક પદ્ધતિ, કૃષિ ઉત્પાદન અને ઉત્પાદકતામાં કેટલો ફેરફાર થયો છે તે અંગેનું વૈજ્ઞાનિક અને તુલનાત્મક વિશ્લેષણ જરૂરી બને છે. આ ઉપરાંત, કૃષિ વિકાસને પ્રભાવિત કરતા મુખ્ય પરિબલોની ઓળખ કરી તાલુકાના કૃષિ વિકાસની વર્તમાન સ્થિતિનું મૂલ્યાંકન કરવું પણ આવશ્યક છે.

આથી, નખત્રાણા તાલુકામાં કૃષિક્ષેત્રે થયેલા પરિવર્તનોનું વિશ્લેષણ કરી તેના વિકાસના સ્વરૂપ, વલણો અને પ્રભાવનું મૂલ્યાંકન કરવાના હેતુથી પ્રસ્તુત સંશોધન અભ્યાસ હાથ ધરવામાં આવ્યો છે.

❖ અભ્યાસના હેતુ :-

પ્રસ્તુત સંશોધન અભ્યાસના મુખ્ય હેતુઓ નીચે મુજબ છે:

1. નખત્રાણા તાલુકાના કૃષિક્ષેત્રની વર્તમાન સ્થિતિનો અભ્યાસ કરવો.
2. સિંચિત વિસ્તાર અને સિંચાઈના સાધનોના વિકાસનું મૂલ્યાંકન કરવું.
3. મુખ્ય કૃષિ પાકોના ઉત્પાદન અને ઉત્પાદકતામાં થયેલા ફેરફારોનો અભ્યાસ કરવો.

❖ અભ્યાસક્ષેત્ર :-

પ્રસ્તુત સંશોધન અભ્યાસ માટે કચ્છ જિલ્લાના નખત્રાણા તાલુકાની પસંદગી કરવામાં આવી છે. નખત્રાણા તાલુકો કચ્છ જિલ્લાના પશ્ચિમ ભાગમાં આવેલો તાલુકો છે, જે કૃષિ અને પશુપાલન માટે વિશિષ્ટ સ્થાન ધરાવે છે. તાલુકાની ભૌગોલિક, આબોહવાકીય અને કૃષિલક્ષી વિશેષતાઓને ધ્યાનમાં રાખીને તેને અભ્યાસક્ષેત્ર તરીકે પસંદ કરવામાં આવ્યો છે.

અભ્યાસક્ષેત્રની પસંદગી માટે આકસ્મિક નમૂના પદ્ધતિનો ઉપયોગ કરવામાં આવ્યો છે. સંશોધકની ઉપલબ્ધતા, અભ્યાસની સરળતા, માહિતીની પ્રાપ્યતા અને સંશોધનના હેતુઓને ધ્યાનમાં રાખીને નખત્રાણા તાલુકાની પસંદગી કરવામાં આવી છે.

❖ માહિતી વર્ગીકરણ અને માહિતીનું વિશ્લેષણ :-

કોષ્ટક. 1 નખત્રાણા તાલુકાની વસ્તી, વસ્તી ગીચતા, જાતીય દર દાયકાવાર વર્ગીકરણ

ક્રમ	વિસ્તાર ચો.કી. વર્ષ 2011	વસ્તી 2001	વસ્તી 2011	વસ્તી વૃદ્ધિ દર દશકાનો 2001-2011	જાતીય દર	વસ્તી ગીચતા
નખત્રાણા	2135.1	129249	146367	13.2	968	74
કચ્છ	4567400	1583225	2092371	32.2	908	46

સ્ત્રોત: જિલ્લા આંકડાકીય કચેરી, કચ્છ (2011).

કોષ્ટક-1 પરથી સ્પષ્ટ થાય છે કે નખત્રાણા તાલુકાનો કુલ વિસ્તાર 2,135.10 ચોરસ કિલોમીટર છે. વર્ષ 2001માં તાલુકાની વસ્તી 1,29,249 હતી, જે વર્ષ 2011માં વધીને 1,46,367 થઈ છે. આમ, દશકાવાર વસ્તી વૃદ્ધિ દર 13.2 ટકા નોંધાયો છે. તાલુકાનો જાતીય ગુણોત્તર 968 છે, જે કચ્છ જિલ્લાના જાતીય ગુણોત્તર (908) કરતાં વધુ અનુકૂળ છે. ઉપરાંત, નખત્રાણા તાલુકાની વસ્તી ગીચતા પ્રતિ ચોરસ કિલોમીટરે 74 વ્યક્તિ છે.

કચ્છ જિલ્લાનો કુલ વિસ્તાર 45,674 ચોરસ કિલોમીટર છે. વર્ષ 2001માં જિલ્લાની વસ્તી 15,83,225 હતી, જે વર્ષ 2011માં વધીને 20,92,371 થઈ છે. આ સમયગાળા દરમિયાન જિલ્લાનો દશકાવાર વસ્તી વૃદ્ધિ દર 32.2 ટકા નોંધાયો છે. જિલ્લાનો જાતીય ગુણોત્તર 908 અને વસ્તી ગીચતા પ્રતિ ચોરસ કિલોમીટરે 46 વ્યક્તિ છે.

આમ, તુલનાત્મક રીતે જોતા નખત્રાણા તાલુકામાં વસ્તી વૃદ્ધિ દર જિલ્લાની સરખામણીએ ઓછો છે, જ્યારે જાતીય ગુણોત્તર અને વસ્તી ગીચતા બંને કચ્છ જિલ્લાના સરેરાશ કરતાં વધુ છે.

કોષ્ટક 2. નખત્રાણા તાલુકાના ગામડાંઓ અને પંચાયતોનું વર્ગીકરણ

ક્રમ	શહેરની સંખ્યા	ગ્રામ પંચાયતો	વસ્તીવાળા	ઉજ્જડ	કુલ
નખત્રાણા	0	76	120	12	132
કચ્છ	14	634	177	47	924

સ્ત્રોત: જિલ્લા આંકડાકીય કચેરી, કચ્છ (2011).

કોષ્ટક-2 પરથી જાણવા મળે છે કે નખત્રાણા તાલુકામાં કોઈ શહેરી વિસ્તાર નથી. તાલુકામાં કુલ 76 ગ્રામ પંચાયતો અને 132 ગામો આવેલા છે, જેમાંથી 120 ગામો વસતિ ધરાવે છે જ્યારે 12 ગામો ઉજ્જડ છે. આમ, નખત્રાણા તાલુકો મુખ્યત્વે ગ્રામ્ય વિસ્તાર હોવાથી અહીં કૃષિ અને પશુપાલન આધારિત જીવનશૈલીનું પ્રાધાન્ય જોવા મળે છે.

કોષ્ટક 3. નખત્રાણા તાલુકામાં જમીન વપરાશની તરફ મુજબ વર્ગીકરણ(વર્ષ 2011 મુજબ)

	વિસ્તાર	જંગલ	ઉજ્જડ	બિન ખેતી વિષય ક	ખેડી શકાય તેવી જમીન	કાયમી ગૌચર	ચાલુ પડતર	એકેદરે વાવેત ર વિસ્તાર	કુલ વાવેતર વિસ્તાર
નખત્રાણા	198732	43487	73115	6656	51410	10961	56753	63877	107470
કચ્છ	1957629	306770	412499	58354	188523	70058	218090	718815	802832

સ્ત્રોત: જિલ્લા આંકડાકીય કચેરી, કચ્છ (2011).

કોષ્ટક-3 પરથી જાણવા મળે છે કે વર્ષ 2011 દરમિયાન નખત્રાણા તાલુકામાં જમીન વપરાશની વિવિધ તરફો જોવા મળે છે. તાલુકામાં કુલ 1,98,732 હેક્ટર જમીન જંગલ હેઠળ છે, જે કુદરતી સંપત્તિના દૃષ્ટિકોણે મહત્વપૂર્ણ ગણાય છે. ઉજ્જડ જમીન 43,487 હેક્ટર છે, જે દર્શાવે છે કે તાલુકામાં અમુક વિસ્તાર હજુ પણ કૃષિ માટે ઉપયોગમાં લેવાતો નથી. બિનખેતી વિષયક જમીન 73,115 હેક્ટર છે, જે રહેણાંક, માર્ગો, સરકારી સંસ્થાઓ તથા અન્ય બિનકૃષિ ઉપયોગ માટે ફાળવવામાં આવેલી છે.

તાલુકામાં ખેડી શકાય તેવી જમીન 6,656 હેક્ટર છે, જ્યારે કાયમી ગૌચર જમીન 51,410 હેક્ટર છે, જે પશુપાલન માટે મહત્વપૂર્ણ આધાર પૂરો પાડે છે. ચાલુ પડતર જમીન 10,961 હેક્ટર નોંધાય છે, જે

આગામી સમયમાં ખેતી માટે ઉપયોગમાં લઈ શકાય તેવી સંભાવના દર્શાવે છે. ઉપરાંત, એકંદરે વાવેતર વિસ્તાર 56,753 હેક્ટર અને કુલ વાવેતર વિસ્તાર 1,07,470 હેક્ટર નોંધાયો છે, જે તાલુકામાં કૃષિ પ્રવૃત્તિનું મહત્વ દર્શાવે છે.

કચ્છ જિલ્લાના આંકડાઓ સાથે તુલના કરતાં નખત્રાણા તાલુકામાં જંગલ, ગૌચર અને વાવેતર વિસ્તારનું પ્રમાણ નોંધપાત્ર છે. આ પરથી સ્પષ્ટ થાય છે કે તાલુકાની જમીનનો ઉપયોગ મુખ્યત્વે કૃષિ, પશુપાલન અને કુદરતી સંસાધનોના સંરક્ષણ માટે થાય છે. તેથી નખત્રાણા તાલુકાનું અર્થતંત્ર મોટા પ્રમાણમાં કૃષિ અને પશુપાલન આધારિત હોવાનું કહી શકાય.

કોષ્ટક 4. નખત્રાણા તાલુકામાં ખેત જમીન ધરાવતી વસ્તીનું વર્ગીકરણ

ક્રમ	જમીન ધારકોની સંખ્યા	ટકાવારી પ્રમાણ	વિસ્તાર (હેક્ટર)	સરેરાશ જમીન પ્રમાણ
નખત્રાણા	25340	11.97	107469	4.24
કચ્છ	211629	100	752194	100

સ્ત્રોત: જિલ્લા આંકડાકીય કચેરી, કચ્છ (2011).

કોષ્ટક-4 પરથી જાણવા મળે છે કે નખત્રાણા તાલુકામાં કુલ 25,340 જમીન ધારકો છે, જે કચ્છ જિલ્લાના કુલ જમીન ધારકોના 11.97 ટકા જેટલા છે. તાલુકામાં કુલ 1,07,469 હેક્ટર ખેતીલાયક જમીન નોંધાય છે. અને પ્રતિ જમીનધારક દીઠ સરેરાશ જમીનનું પ્રમાણ 4.24 હેક્ટર છે.

કચ્છ જિલ્લામાં કુલ 2,11,629 જમીન ધારકો પાસે 7,52,194 હેક્ટર ખેતીની જમીન છે. તેની સરખામણીએ નખત્રાણા તાલુકામાં જમીનધારકોની સંખ્યા ઓછી હોવા છતાં પ્રતિ જમીનધારક સરેરાશ જમીનનું પ્રમાણ પ્રમાણમાં વધુ છે. આ પરથી સ્પષ્ટ થાય છે કે નખત્રાણા તાલુકામાં ખેતી માટે પ્રમાણમાં મોટા કદના ખેતરો જોવા મળે છે, જે વ્યાપારી ખેતી અને આધુનિક કૃષિ પદ્ધતિઓ અપનાવવા માટે અનુકૂળ પરિસ્થિતિ સર્જે છે.

કોષ્ટક 5. નખત્રાણા તાલુકામાં ખેતીની જમીન ધરાવતા ખેડૂતોનું વર્ગીકરણ

સીમાંત ખેડૂત (1 હેક્ટર થી ઓછી)	નાના ખેડૂત (1 થી 2 હેક્ટર સુધી)	મધ્યમ ખેડૂત (2 થી 4 હેક્ટર સુધી)	મોટા ખેડૂત (4 થી 10 હેક્ટર સુધી)	અતિ મોટા ખેડૂત	કુલ

								(10 હેક્ટર થી વધુ)				
	સંખ્યા	વિસ્તાર	સંખ્યા	વિસ્તાર	સંખ્યા	વિસ્તાર	સંખ્યા	વિસ્તાર	સંખ્યા	વિસ્તાર	સંખ્યા	વિસ્તાર
નખત્રાણા	5071	2135	6946	10207	7914	22237	4706	26396	703	46494	25340	107469
કચ્છ	27346	16697	55159	81344	68895	195453	51734	305023	8495	204313	211629	802830

સ્ત્રોત: જિલ્લા આંકડાકીય કચેરી, કચ્છ (2011).

કોષ્ટક-5 પરથી જાણવા મળે છે કે નખત્રાણા તાલુકામાં કુલ 25,340 ખેડૂતો પાસે 1,07,469 હેક્ટર ખેતીની જમીન છે. તેમાં સીમાંત ખેડૂતો (1 હેક્ટરથી ઓછી જમીન ધરાવતા) 5,071 છે, જેમની પાસે કુલ 2,135 હેક્ટર જમીન છે. નાના ખેડૂતો (1 થી 2 હેક્ટર) 6,946 છે અને તેમની પાસે 10,207 હેક્ટર જમીન છે. મધ્યમ ખેડૂતો (2 થી 4 હેક્ટર) 7,914 છે, જેમની પાસે 22,237 હેક્ટર જમીન છે. મોટા ખેડૂતો (4 થી 10 હેક્ટર) 4,706 છે અને તેમની પાસે 26,396 હેક્ટર જમીન છે. જ્યારે અતિ મોટા ખેડૂતો (10 હેક્ટરથી વધુ) માત્ર 703 હોવા છતાં તેમની પાસે 46,494 હેક્ટર જેટલો સૌથી વધુ જમીન વિસ્તાર છે.

કચ્છ જિલ્લાના આંકડાઓ સાથે સરખામણી કરતાં પણ સમાન પ્રવૃત્તિ જોવા મળે છે. જિલ્લામાં સીમાંત અને નાના ખેડૂતોની સંખ્યા વધુ છે, પરંતુ કુલ ખેતીની જમીનનો મોટો હિસ્સો મોટા અને અતિ મોટા ખેડૂતો પાસે કેન્દ્રિત છે. તેથી કહી શકાય કે નખત્રાણા તાલુકામાં ખેડૂતોની સંખ્યાની દૃષ્ટિએ મધ્યમ અને નાના ખેડૂતોનું પ્રાધાન્ય છે, જ્યારે જમીન વિસ્તારની દૃષ્ટિએ મોટા અને અતિ મોટા ખેડૂતોનો હિસ્સો નોંધપાત્ર છે.

કોષ્ટક 6. નખત્રાણા તાલુકામાં વરસાદનું વર્ગીકરણ

		વર્ષો (મી.મી.માં)										
	વર્ષ	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	સરેરાશ
નખત્રાણા	વરસાદ	330	251	649	389	367	70	841	1012	584	836	53.29

કચ્છ		625	355	531	306	4641	1105	746	1162	5113	849	56.64
		1	1	2	6			4	2		3	1

કોષ્ટક-6 પરથી જાણવા મળે છે કે નખત્રાણા તાલુકામાં વર્ષ 2013થી 2022 દરમિયાન વરસાદના પ્રમાણમાં નોંધપાત્ર વધઘટ જોવા મળે છે. વર્ષ 2018માં સૌથી ઓછો 70 મિ.મી. વરસાદ નોંધાયો હતો, જ્યારે વર્ષ 2020માં સૌથી વધુ 1,012 મિ.મી. વરસાદ નોંધાયો હતો. વર્ષ 2015, 2019, 2020 અને 2022 દરમિયાન સરેરાશ કરતાં વધુ વરસાદ નોંધાતા કૃષિ ઉત્પાદનને અનુકૂળ પરિસ્થિતિ સર્જાઈ હતી, જ્યારે વર્ષ 2014, 2016 અને ખાસ કરીને 2018માં ઓછા વરસાદના કારણે ખેતી પર પ્રતિકૂળ અસર થવાની સંભાવના રહી હતી.

કોષ્ટક 7. નખત્રાણા તાલુકામાં મુખ્ય ખેતી પાકો હેક્ટરનો વિસ્તાર અને ઉત્પાદન વર્ગીકરણ

	કપાસ		મગફળી		દિવેલા		ગુવાર	
	વાવેતર	કુલ	વાવેતર	કુલ	વાવેતર	કુલ	વાવેતર	કુલ
	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન
	(હેક્ટર)	(મે.ટનમાં)	(હેક્ટર)	(મે.ટનમાં)	(હેક્ટર)	(મે.ટનમાં)	(હેક્ટર)	(મે.ટનમાં)
નખત્રાણા	8911	24015	8139	9087	29105	52808	3225	1520
કચ્છ	67547	182039	65001	72591	190503	345649	71987	33923

સ્ત્રોત: જિલ્લા આંકડાકીય કચેરી, કચ્છ (2011).

કોષ્ટક-7 પરથી જાણવા મળે છે કે નખત્રાણા તાલુકામાં મુખ્યત્વે કપાસ, મગફળી, દિવેલા અને ગુવારનું વાવેતર કરવામાં આવે છે. તેમાં દિવેલાનો વાવેતર વિસ્તાર સૌથી વધુ 29,105 હેક્ટર છે અને તેનું કુલ ઉત્પાદન 52,808 મેટ્રિક ટન નોંધાયું છે, જે તાલુકાનો મુખ્ય રોકડિયો પાક હોવાનું દર્શાવે છે. ત્યારબાદ કપાસનું વાવેતર 8,911 હેક્ટર વિસ્તારમાં કરવામાં આવે છે અને તેનું ઉત્પાદન 24,015 મેટ્રિક ટન છે. મગફળીનો વાવેતર વિસ્તાર 8,139 હેક્ટર તથા ઉત્પાદન 9,087 મેટ્રિક ટન છે, જ્યારે ગુવારનો વાવેતર વિસ્તાર 3,225 હેક્ટર અને ઉત્પાદન 1,520 મેટ્રિક ટન નોંધાયું છે.

કોષ્ટક 10. નખત્રાણા તાલુકામાં મુખ્ય બાગાયતી પાકો હેક્ટરનો વિસ્તાર

	કેરી		દાડમ		ખજૂર		પપૈયા	
	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન
નખત્રાણા	1736	13888	5057	80153	568	5384	223	18932
કચ્છ	10960	87680	19325	306301	19111	181172	2285	19399
	ચીકુ		મોસંબી		બોર		કેળા	
	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન	વિસ્તાર	ઉત્પાદન
નખત્રાણા	84	974	22	286	29	269	262	14907
કચ્છ	1010	11716	675	8775	565	5254	2615	14879

સ્રોત : જીલ્લાની આંકડાકીય રૂપરેખા -કચ્છ જીલ્લા પંચાયત -વર્ષ 2022/23

કોષ્ટક-10 પરથી જાણવા મળે છે કે નખત્રાણા તાલુકામાં વિવિધ બાગાયતી પાકોની ખેતી કરવામાં આવે છે. તેમાં દાડમનો વિસ્તાર સૌથી વધુ 5,057 હેક્ટર છે અને તેનું ઉત્પાદન 80,153 મેટ્રિક ટન નોંધાયું છે, જે તાલુકાનો મુખ્ય બાગાયતી પાક હોવાનું દર્શાવે છે. ત્યારબાદ કેરીનો વિસ્તાર 1,736 હેક્ટર અને ઉત્પાદન 13,888 મેટ્રિક ટન છે. ખજૂરનો વિસ્તાર 568 હેક્ટર તથા ઉત્પાદન 5,384 મેટ્રિક ટન છે, જ્યારે પપૈયાનો વિસ્તાર માત્ર 223 હેક્ટર હોવા છતાં તેનું ઉત્પાદન 18,932 મેટ્રિક ટન નોંધાયું છે, જે તેની ઊંચી ઉત્પાદકતા દર્શાવે છે.

અન્ય બાગાયતી પાકોમાં કેળાનો વિસ્તાર 262 હેક્ટર અને ઉત્પાદન 14,907 મેટ્રિક ટન, ચીકુનો વિસ્તાર 84 હેક્ટર અને ઉત્પાદન 974 મેટ્રિક ટન, બોરનો વિસ્તાર 29 હેક્ટર અને ઉત્પાદન 269 મેટ્રિક ટન, જ્યારે મોસંબીનો વિસ્તાર 22 હેક્ટર અને ઉત્પાદન 286 મેટ્રિક ટન નોંધાયું છે

કોષ્ટક 11. નખત્રાણા તાલુકામાં સાધનવાર સિંચિત વિસ્તાર

જીલ્લાની મધ્યમ કદની યોજનાઓની તાલુકાવાર વિગત તથા સિંચાઈ ક્ષમતા	
યોજનાઓનું નામ	સિંચાઈ ક્ષમતા (હેક્ટર)
નિરોણા	2430
ભૂખી	1672

મથલ

1320

સ્રોત :જીલ્લાની આંકડાકીય રૂપરેખા -કચ્છ જીલ્લા પંચાયત -વર્ષ 2022/23

કોષ્ટક-11 પરથી જાણવા મળે છે કે નખત્રાણા તાલુકામાં સિંચાઈ માટે ત્રણ મુખ્ય મધ્યમ કદની સિંચાઈ યોજનાઓ કાર્યરત છે. તેમાં નિરોણા યોજના સૌથી મોટી છે, જેની સિંચાઈ ક્ષમતા 2,430 હેક્ટર છે. ત્યારબાદ ભૂખી યોજનાની સિંચાઈ ક્ષમતા 1,672 હેક્ટર અને મથલ યોજનાની સિંચાઈ ક્ષમતા 1,320 હેક્ટર નોંધાય છે.

કોષ્ટક 12. નખત્રાણા તાલુકામાં સૂક્ષ્મ સિંચાઈ હેઠળ આવરેલ વિસ્તાર અને લાભાર્થી વર્ગીકરણ

જીલ્લાની મધ્યમ કદની યોજનાઓની તાલુકાવાર વિગત તથા સિંચાઈ ક્ષમતા	
ખેડૂતો (લાભાર્થી)	વિસ્તાર (હેક્ટર)
5380	12342

સ્રોત :જીલ્લાની આંકડાકીય રૂપરેખા -કચ્છ જીલ્લા પંચાયત -વર્ષ 2022/23

કોષ્ટક-12 પરથી જાણવા મળે છે કે નખત્રાણા તાલુકામાં સૂક્ષ્મ સિંચાઈ યોજનાઓનો લાભ કુલ 5,380 ખેડૂતોને મળ્યો છે અને તેના દ્વારા કુલ 12,342 હેક્ટર વિસ્તાર આવરી લેવામાં આવ્યો છે. સૂક્ષ્મ સિંચાઈ પદ્ધતિના ઉપયોગથી પાણીનો કાર્યક્ષમ ઉપયોગ, સિંચાઈ ખર્ચમાં ઘટાડો તથા પાકની ઉત્પાદકતામાં વધારો થયો છે.

કોષ્ટક 12. નખત્રાણા તાલુકા પશુધનનું પ્રમાણ વર્ગીકરણ

	તાલુકાવાર પશુધનનું પ્રમાણ (૨૦ મી પશુ ગણતરી મુજબ)							
	ગૌધન	ભેંસો	ઘેટા	બકરાં	ઊંટ	ઘોડા	અન્ય	કુલ
નખત્રાણા	38928	41169	48821	51123	1053	105	20634	201833
	6.77	8.82	7.99	11.6	12	3.4	7.47	8.48
કચ્છ	574837	466341	610629	439258	9053	3099	276169	2379386

સ્રોત :જીલ્લાની આંકડાકીય રૂપરેખા -કચ્છ જીલ્લા પંચાયત -વર્ષ 2022/23

કોષ્ટક-12 પરથી જાણવા મળે છે કે 20મી પશુ ગણતરી (2022) મુજબ નખત્રાણા તાલુકામાં કુલ 2,01,833 પશુધન નોંધાયું છે, જે કચ્છ જિલ્લાના કુલ પશુધનના 8.48 ટકા જેટલું છે. તાલુકામાં બકરાંની સંખ્યા સૌથી વધુ 51,123 (11.6%) છે, ત્યારબાદ ઘેટાં 48,821 (7.99%), ભેંસો 41,169 (8.82%) અને ગૌધન 38,928 (6.77%) નોંધાયા છે. ઉપરાંત ઊંટ 1,053 (12%), ઘોડા 105 (3.4%) અને અન્ય પશુધન 20,634 (7.47%) છે.

આ આંકડાઓ પરથી સ્પષ્ટ થાય છે કે નખત્રાણા તાલુકામાં કૃષિની સાથે પશુપાલન પણ મહત્વપૂર્ણ આર્થિક પ્રવૃત્તિ છે. ખાસ કરીને બકરાં, ઘેટાં અને ગૌધનનું પ્રમાણ વધુ હોવાથી તાલુકાની અર્થવ્યવસ્થામાં પશુપાલનનો નોંધપાત્ર ફાળો રહેલો છે અને ખેડૂતોની આવકનો તે મહત્વનો પૂરક વ્યવસાય.

❖ સમગ્ર વિહંગાવલોકનનું તારણ

પ્રસ્તુત સંશોધન અભ્યાસ પરથી સ્પષ્ટ થાય છે કે નખત્રાણા તાલુકો કચ્છ જિલ્લાના મહત્વના કૃષિપ્રધાન તાલુકાઓમાંનો એક છે. તાલુકાની ભૌગોલિક પરિસ્થિતિ, જમીનના વિવિધ પ્રકારો, વરસાદની અનિશ્ચિતતા તથા ઉપલબ્ધ સિંચાઈની સુવિધાઓ કૃષિ વિકાસને સીધી અસર કરે છે. તેમ છતાં છેલ્લા કેટલાક વર્ષોમાં આધુનિક ખેતી પદ્ધતિઓ, સૂક્ષ્મ સિંચાઈ, સરકારી યોજનાઓ તથા ખેડૂતોની જાગૃતિના પરિણામે તાલુકાના કૃષિક્ષેત્રમાં નોંધપાત્ર પરિવર્તન જોવા મળ્યું છે.

અભ્યાસમાં જાણવા મળ્યું છે કે તાલુકામાં ખેતીલાયક જમીનનું પ્રમાણ સાકરું છે અને મોટા તથા મધ્યમ જમીનધારકોનો નોંધપાત્ર હિસ્સો જોવા મળે છે. દિવેલા, કપાસ, મગફળી અને ગુવાર જેવા રોકડિયા પાકોનું વાવેતર વધુ પ્રમાણમાં કરવામાં આવે છે, જ્યારે દાડમ, કેરી, ખજૂર, કેળા અને અન્ય બાગાયતી પાકોના વિસ્તારમાં પણ વધારો થયો છે. આ પરિવર્તન ખેડૂતોની આવકમાં વધારો કરવા તેમજ કૃષિના વૈવિધ્યકરણમાં મહત્વપૂર્ણ સાબિત થયું છે.

નખત્રાણા તાલુકામાં વરસાદનું પ્રમાણ વર્ષવાર બદલાતું હોવાથી કૃષિ હજુ પણ મોટા પ્રમાણમાં કુદરતી વરસાદ પર આધારિત છે. જોકે નિરોણા, ભૂખી અને મથલ જેવી મધ્યમ સિંચાઈ યોજનાઓ તથા સૂક્ષ્મ સિંચાઈ પદ્ધતિઓના અમલીકરણને કારણે સિંચિત વિસ્તારમાં વધારો થયો છે, જેના પરિણામે કૃષિ ઉત્પાદન અને ઉત્પાદકતામાં સુધારો નોંધાયો છે.

અભ્યાસમાં પશુપાલનનું મહત્વ પણ સ્પષ્ટ થાય છે. બકરાં, ઘેટાં, ગૌધન અને ભેંસોનું નોંધપાત્ર પ્રમાણ દર્શાવે છે કે ખેતીની સાથે પશુપાલન ખેડૂતોની આવકનું મહત્વપૂર્ણ પૂરક સાધન છે. તેથી નખત્રાણા તાલુકાની અર્થવ્યવસ્થા કૃષિ અને પશુપાલન બંને પર આધારિત છે.

આમ, નખત્રાણા તાલુકામાં કૃષિક્ષેત્રે છેલ્લા કેટલાક વર્ષોમાં હકારાત્મક પરિવર્તનો નોંધાયા છે. તેમ છતાં વરસાદ પરની નિર્ભરતા ઘટાડવા માટે વધુ સિંચાઈ સુવિધાઓનો વિકાસ, જળસંચય, આધુનિક કૃષિ ટેકનોલોજીનો વ્યાપક ઉપયોગ, ઉચ્ચ મૂલ્યના બાગાયતી પાકોને પ્રોત્સાહન, કૃષિ પ્રક્રિયા ઉદ્યોગોનો વિકાસ અને ખેડૂતોને બજાર તથા મૂલ્યવર્ધન અંગે વધુ સગવડો ઉપલબ્ધ કરાવવાની જરૂરિયાત છે. આ દિશામાં સતત પ્રયાસો કરવામાં આવે તો નખત્રાણા તાલુકાનું કૃષિક્ષેત્ર વધુ સમૃદ્ધ, ટકાઉ અને સ્પર્ધાત્મક બની શકે છે.

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EDUCATION, SKILL DEVELOPMENT AND EMPLOYABILITY: BUILDING HUMAN CAPITAL FOR VIKSIT BHARAT@2047 THROUGH YOUTH, INNOVATION AND SUSTAINABLE DEVELOPMENT

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Abstract

India's vision of **Viksit Bharat@2047** aspires to transform the nation into a developed economy by the centenary of its independence. Achieving this ambitious goal requires a skilled, innovative, and employable youth population capable of driving sustainable economic and social development. Education serves as the primary foundation for developing human capital, while skill development bridges the gap between academic learning and industry requirements. However, despite significant progress in educational access, India continues to face challenges related to employability, skill mismatch, technological disruption, and unequal access to quality education. The National Education Policy (NEP) 2020, Skill India Mission, Digital India, Startup India, and emerging technologies such as Artificial Intelligence (AI), digital learning, and Industry 4.0 offer new opportunities to strengthen the education-employment ecosystem. This paper examines the interrelationship between education, skill development, employability, innovation, and sustainable development in the context of Viksit Bharat@2047. It explores the role of educational reforms, vocational education, entrepreneurship, digital transformation, green skills, and lifelong learning in preparing youth for future employment. The study further discusses existing challenges, including curriculum-industry gaps, digital inequality, and limited practical exposure, while proposing strategic policy recommendations for improving workforce readiness. It concludes that an integrated approach combining quality education, competency-based learning, technological innovation, industry collaboration, and inclusive skill development is essential for realizing the vision of a developed, self-reliant, and sustainable India by 2047.

Keywords: *Viksit Bharat@2047, Education, Skill Development, Employability, Sustainable Development*

1. Introduction

India is home to one of the world's largest youth populations, with over 65% of its population below the age of 35. This demographic advantage presents an unprecedented opportunity to transform India into a developed nation by 2047. The Government of India's vision of **Viksit Bharat@2047** emphasizes

inclusive economic growth, innovation, technological advancement, social justice, environmental sustainability, and global competitiveness.

The realization of this vision depends largely on the country's ability to develop skilled human resources through quality education and continuous skill enhancement. Education has evolved beyond imparting theoretical knowledge to fostering creativity, innovation, critical thinking, digital literacy, entrepreneurship, and lifelong learning. Simultaneously, industries increasingly demand professionals equipped with technical competencies, communication skills, adaptability, problem-solving abilities, and digital expertise.

Despite significant improvements in literacy and higher education enrollment, India faces persistent challenges related to graduate unemployability, skill mismatch, inadequate industry exposure, and unequal educational opportunities. According to various national employment surveys, a considerable proportion of graduates remain unemployed or underemployed due to insufficient practical skills and changing labour market requirements.

Recognizing these challenges, initiatives such as the National Education Policy (NEP) 2020, Skill India Mission, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), Digital India, Startup India, make in India, and Atmanirbhar Bharat seek to create an education system aligned with future workforce demands. The integration of Artificial Intelligence (AI), Industry 4.0 technologies, green technologies, and digital platforms further transforms teaching-learning processes and workforce preparation.

This paper examines how education, skill development, and employability collectively contribute to sustainable development and the realization of Viksit Bharat@2047.

2. Education as the Foundation of Viksit Bharat@2047

Education is the cornerstone of national development because it shapes knowledgeable, skilled, ethical, and responsible citizens. Human capital theory suggests that investment in education directly contributes to productivity, innovation, and economic growth.

Quality education contributes by:

- Developing critical thinking and analytical abilities.
- Promoting scientific temperament and innovation.
- Enhancing social inclusion and equity.
- Encouraging responsible citizenship.
- Supporting sustainable development goals.
- Improving labour productivity.

- Facilitating entrepreneurship.

NEP 2020 marks a transformative shift toward competency-based education by emphasizing multidisciplinary learning, flexibility, vocational integration, digital learning, experiential education, and holistic development.

3. Skill Development for Future Workforce

Skill development is increasingly recognized as a multidimensional process that enhances an individual's ability to perform effectively in a dynamic and knowledge-driven economy. Rather than being limited to vocational training, it encompasses the acquisition of technical, cognitive, digital, entrepreneurial, and socio-emotional competencies that enable individuals to adapt to changing labour market demands. According to the **Human Capital Theory** proposed by Becker (1964), investments in education and skill development improve workers' productivity, increase employability, and contribute to national economic growth. From this perspective, skills are viewed as productive assets that generate returns for both individuals and society through higher earnings, innovation, and economic competitiveness.

The significance of skill development has further expanded with the transition from an industrial economy to a **knowledge-based economy**, where intellectual capabilities, creativity, and technological competencies are valued more than routine manual labour. Drucker (1993) argued that knowledge workers are the primary drivers of economic progress in the twenty-first century, emphasizing that continuous learning and skill enhancement are essential for sustaining innovation and organizational competitiveness. Consequently, modern education systems are expected to prepare learners not merely for employment but also for lifelong learning and continuous professional development.

The **Capability Approach** advanced by Amartya Sen (1999) provides another important theoretical lens for understanding skill development. Sen argues that education and skills should not be viewed solely as instruments for economic productivity but as means of expanding individuals' capabilities and freedoms to achieve lives they value. Skill development, therefore, empowers young people by enhancing their capacity to make informed decisions, participate meaningfully in society, and contribute to inclusive and sustainable development. This perspective aligns closely with the vision of **Viksit Bharat@2047**, which emphasizes not only economic growth but also social equity, human dignity, and inclusive national development.

From the perspective of **Experiential Learning Theory**, Kolb (1984) emphasizes that effective skill acquisition occurs through a continuous cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation. This theoretical framework suggests that practical

experiences such as internships, apprenticeships, fieldwork, laboratory exercises, simulations, and project-based learning significantly enhance learners' competencies by bridging the gap between theoretical knowledge and workplace requirements. Consequently, higher education institutions must integrate experiential learning opportunities into their curricula to improve graduates' employability and professional readiness.

Similarly, **Constructivist Learning Theory**, as developed by Piaget (1972) and Vygotsky (1978), argues that learners actively construct knowledge through interaction with their environment and collaboration with others. This perspective supports competency-based education, collaborative learning, problem-solving activities, and interdisciplinary projects, all of which contribute to the development of higher-order thinking skills required in contemporary workplaces. Rather than relying on rote memorization, constructivist pedagogy encourages learners to develop critical thinking, creativity, innovation, and adaptability.

The rapidly evolving technological landscape associated with the **Fourth Industrial Revolution (Industry 4.0)** has substantially transformed the nature of work and the competencies demanded by employers. Technologies such as Artificial Intelligence (AI), Machine Learning, Robotics, Data Analytics, Cloud Computing, Cybersecurity, and the Internet of Things (IoT) have created new occupational roles while simultaneously reducing the demand for routine and repetitive jobs. The **World Economic Forum's Future of Jobs Report (2025)** highlights that digital literacy, analytical thinking, technological competence, resilience, creativity, and lifelong learning are among the most essential skills required for the future workforce. Consequently, educational institutions must continuously revise curricula to align with emerging technological developments and industry expectations.

Beyond technical competencies, contemporary employability literature emphasizes the growing importance of **soft skills**, including communication, leadership, teamwork, emotional intelligence, adaptability, ethical reasoning, and problem-solving. These competencies facilitate effective collaboration, innovation, and decision-making in increasingly complex organizational environments. The **Social Cognitive Career Theory** (Lent, Brown, & Hackett, 1994) further explains that individuals' career success depends not only on their technical knowledge but also on self-efficacy, outcome expectations, personal aspirations, and environmental support. Therefore, holistic skill development should integrate cognitive, behavioural, and socio-emotional dimensions to prepare graduates for diverse professional contexts.

In recent years, the concept of **green skills** has emerged as an essential component of sustainable development. Green skills refer to the knowledge, values, and competencies required to support

environmentally responsible production, renewable energy, sustainable agriculture, waste management, resource conservation, and the transition towards a circular economy. As countries pursue climate-resilient development, education systems must integrate sustainability-oriented competencies into curricula to prepare youth for emerging green occupations. This approach aligns with the **United Nations Sustainable Development Goals (SDGs)**, particularly SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), and SDG 13 (Climate Action).

Recognizing the strategic importance of skill development, the Government of India has launched several initiatives, including the **Skill India Mission**, **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**, **National Skill Development Corporation (NSDC)**, **National Apprenticeship Promotion Scheme (NAPS)**, and the **Jan Shikshan Sansthan Scheme**. While these initiatives have expanded access to vocational education and training, their long-term success depends on strengthening industry-academia collaboration, promoting competency-based education, integrating digital technologies, and ensuring alignment between educational outcomes and labour market requirements. In the context of **Viksit Bharat@2047**, skill development should therefore be viewed as a lifelong process of human capital formation that enhances employability, stimulates innovation, fosters entrepreneurship, and supports sustainable national development.

4. Education and Employability

Employability has evolved from the traditional notion of securing employment to a broader concept encompassing an individual's capacity to obtain, maintain, and progress in meaningful careers while adapting to the continuously changing demands of the labour market. In the contemporary knowledge economy, employability is determined not merely by academic qualifications but by a combination of knowledge, skills, attitudes, adaptability, and lifelong learning capabilities. Consequently, higher education institutions are increasingly expected to produce graduates who are competent, innovative, ethically responsible, and capable of responding effectively to technological and socio-economic transformations.

The relationship between education and employability is strongly supported by **Human Capital Theory** (Becker, 1964), which posits that education is an investment that enhances individuals' productivity, knowledge, and skills, thereby improving their employment prospects and earning potential. According to this theory, educational institutions contribute to national economic development by producing a skilled workforce capable of increasing innovation, competitiveness, and productivity. Within the framework of

Viksit Bharat@2047, investment in quality education is therefore not merely a social obligation but a strategic necessity for building a globally competitive and knowledge-driven economy.

From the perspective of the **Capability Approach** (Sen, 1999), employability extends beyond acquiring technical competencies to expanding individuals' capabilities and freedoms to pursue careers they value. Education should therefore empower learners to think critically, make informed decisions, adapt to changing circumstances, and participate actively in social and economic development. This perspective emphasizes that successful employability is achieved when education develops intellectual, social, ethical, and emotional capabilities alongside occupational skills. Such holistic development enables graduates to contribute meaningfully to both personal well-being and national progress.

The principles of **Constructivist Learning Theory**, proposed by Piaget (1972) and further developed by Vygotsky (1978), provide an important pedagogical foundation for enhancing employability. Constructivism argues that learners actively construct knowledge through interaction, collaboration, and engagement with authentic learning experiences. Consequently, higher education should move beyond lecture-based instruction and adopt learner-centred pedagogies such as collaborative learning, case studies, simulations, project-based learning, and problem-solving activities. These approaches foster critical thinking, creativity, communication, teamwork, and decision-making skills, all of which are highly valued by contemporary employers.

Similarly, **Experiential Learning Theory** (Kolb, 1984) emphasizes that meaningful learning occurs through a continuous cycle of concrete experience, reflective observation, conceptual understanding, and active experimentation. This theoretical perspective highlights the importance of internships, industrial training, fieldwork, apprenticeships, community engagement, and project-based learning in developing professional competencies. Practical exposure enables students to apply theoretical knowledge to real-world situations, thereby improving their confidence, workplace readiness, and employability.

The changing nature of work in the era of the **Fourth Industrial Revolution (Industry 4.0)** has significantly expanded the range of competencies required for successful employment. The **World Economic Forum (2025)** identifies analytical thinking, digital literacy, creativity, resilience, technological competence, problem-solving, and continuous learning as essential skills for the future workforce. Consequently, employability now requires an integration of disciplinary knowledge with digital competencies, innovation, entrepreneurial thinking, communication skills, leadership, ethical decision-making, and adaptability. These competencies enable graduates to navigate rapidly changing professional environments shaped by Artificial Intelligence, automation, data analytics, and digital transformation.

The **Social Cognitive Career Theory (SCCT)** developed by Lent, Brown, and Hackett (1994) further explains employability by emphasizing the interaction between individual capabilities, self-efficacy beliefs, career aspirations, and environmental opportunities. According to this theory, graduates are more likely to achieve successful career outcomes when they possess confidence in their abilities, receive institutional support, and have access to experiential learning and professional guidance. This highlights the crucial role of educational institutions in creating supportive learning environments that nurture students' confidence, motivation, and career decision-making abilities.

In response to these theoretical perspectives, higher education institutions must transform themselves into centres of competency development rather than mere providers of academic qualifications. Curriculum design should integrate **Outcome-Based Education (OBE)** principles that emphasize measurable learning outcomes aligned with industry expectations. Universities should strengthen collaborations with industries through internships, apprenticeship programmes, live projects, guest lectures, collaborative research, and professional mentoring to ensure that graduates acquire relevant workplace competencies. Career counselling services, entrepreneurship development centres, incubation hubs, and placement support mechanisms should also be institutionalized to facilitate a smooth transition from education to employment.

The implementation of the **National Education Policy (NEP) 2020** further reinforces this transformation by promoting multidisciplinary education, competency-based curricula, experiential learning, vocational integration, digital education, and flexible learning pathways. These reforms seek to bridge the persistent gap between higher education and employment by preparing graduates who possess not only academic excellence but also professional competence, innovation, adaptability, ethical values, and entrepreneurial capabilities. Such an integrated educational approach is essential for harnessing India's demographic dividend and achieving the vision of **Viksit Bharat@2047**.

5. Role of Innovation in Education

Innovation has become central to educational transformation.

Emerging innovations include:

- Artificial Intelligence
- Virtual Reality
- Augmented Reality
- Adaptive Learning Systems
- Learning Analytics

- Blockchain Certification
- Smart Classrooms
- MOOCs
- Simulation-based Learning

AI enables:

- Personalized learning
- Intelligent tutoring
- Automated assessment
- Student performance prediction
- Curriculum improvement

Innovation also promotes entrepreneurship through incubation centres, hackathons, innovation labs, and startup ecosystems.

6. NEP 2020 and Employability

The **National Education Policy (NEP) 2020** represents a transformative shift in India's education system by redefining education as a process of developing competent, innovative, and socially responsible citizens rather than merely producing degree holders. The policy seeks to bridge the long-standing gap between academic learning and labour market requirements by promoting multidisciplinary education, flexibility in curriculum, vocational integration, experiential learning, digital literacy, research, and lifelong learning. In the context of **Viksit Bharat@2047**, NEP 2020 provides a strategic framework for strengthening human capital, enhancing employability, and fostering sustainable economic development. The theoretical foundation of NEP 2020 can be understood through **Human Capital Theory** (Becker, 1964), which argues that investment in education enhances individuals' knowledge, skills, and productivity, thereby contributing to economic growth. From this perspective, the policy's emphasis on competency-based education, multidisciplinary learning, vocational education, and continuous skill development is intended to increase the quality of India's workforce and improve its global competitiveness. By encouraging learners to acquire diverse academic and professional competencies, NEP 2020 aims to maximize the returns on educational investment at both the individual and national levels.

NEP 2020 also reflects the principles of the **Capability Approach** proposed by Amartya Sen (1999), which views education as a means of expanding human capabilities rather than merely preparing individuals for employment. According to Sen, education should empower learners to make informed

choices, participate effectively in society, and lead meaningful lives. Accordingly, the policy promotes holistic development by integrating cognitive, ethical, social, emotional, and vocational dimensions of learning. This broader perspective ensures that employability is understood not only in terms of obtaining employment but also in terms of developing adaptive, innovative, and socially responsible professionals capable of contributing to national development.

The policy is further supported by **Constructivist Learning Theory**, particularly the works of Piaget (1972) and Vygotsky (1978), which emphasize that meaningful learning occurs through active participation, collaboration, and real-life experiences. Reflecting these principles, NEP 2020 advocates learner-centred pedagogy, flexible curricula, multidisciplinary education, project-based learning, and competency-based assessment. Such pedagogical reforms encourage students to develop higher-order thinking skills, creativity, communication, collaboration, and problem-solving abilities, which are increasingly valued in contemporary workplaces.

Similarly, **Experiential Learning Theory** developed by Kolb (1984) provides a strong rationale for the policy's emphasis on internships, fieldwork, vocational education, and practical learning experiences. Kolb argues that knowledge is constructed through a continuous cycle of experience, reflection, conceptualization, and experimentation. By integrating internships, apprenticeship opportunities, and experiential learning into formal education, NEP 2020 seeks to reduce the disconnect between theoretical instruction and workplace expectations. This approach enhances students' practical competencies, professional confidence, and career readiness.

The policy also aligns with the principles of **lifelong learning**, recognizing that rapid technological advancement and changing labour market demands require continuous acquisition of new knowledge and skills. Provisions such as the **Academic Bank of Credits (ABC)**, **multiple entry and exit options**, and flexible learning pathways encourage learners to upgrade their competencies throughout their careers. These reforms promote educational mobility, improve access to higher education, and enable individuals to adapt to evolving employment opportunities in the knowledge economy.

Furthermore, NEP 2020 acknowledges the growing significance of digital transformation in education and employment. Its emphasis on digital learning, online education, educational technology, and research aligns with the emerging demands of **Industry 4.0**, where competencies in Artificial Intelligence, data analytics, digital communication, and technological innovation have become essential for workforce participation. By integrating technology into teaching-learning processes, the policy seeks to prepare graduates for digitally enabled workplaces and innovation-driven industries.

Another distinctive feature of NEP 2020 is the integration of **Indian Knowledge Systems (IKS)** alongside modern scientific and technological education. This reflects the policy's commitment to developing professionals who are not only technologically competent but also ethically grounded, culturally aware, and socially responsible. Such a balanced educational approach contributes to sustainable development by promoting innovation while preserving India's intellectual and cultural heritage.

7. Sustainable Development through Education

Education contributes directly to Sustainable Development Goals by promoting:

- Inclusive education
- Gender equality
- Climate awareness
- Green technologies
- Responsible consumption
- Social justice
- Lifelong learning

Educational institutions should encourage:

- Environmental education
- Green campuses
- Community engagement
- Renewable energy awareness
- Sustainability projects

8. Challenges

Several barriers remain:

- Skill mismatch
- Outdated curriculum
- Limited industry-academia collaboration
- Graduate unemployment
- Rural-urban digital divide
- Inadequate vocational education
- Faculty training gaps
- Limited research and innovation

- Unequal educational access
- Rapid technological change

9. Policy Recommendations

To achieve **Viksit Bharat@2047**, the following measures are recommended:

- Strengthen competency-based education.
- Integrate vocational education across all disciplines.
- Promote AI and digital literacy from school education.
- Increase industry-academia partnerships.
- Expand apprenticeships and internships.
- Encourage entrepreneurship education.
- Improve faculty capacity building.
- Invest in digital infrastructure.
- Develop green skill programmes.
- Strengthen career guidance services.
- Promote lifelong learning through online education.
- Increase public investment in education and research.

Conclusion

The vision of **Viksit Bharat@2047** places education, skill development, and employability at the centre of India's developmental journey. India's demographic dividend can become its greatest strength only when youth possess knowledge, practical competencies, innovative thinking, entrepreneurial capabilities, and ethical values. The implementation of NEP 2020, Skill India Mission, Digital India, Startup India, and emerging technologies offers unprecedented opportunities for transforming the education ecosystem. However, addressing persistent challenges such as skill gaps, curriculum relevance, digital inequality, and employability requires coordinated efforts among government, educational institutions, industries, and civil society. A future-ready education system that emphasizes competency-based learning, lifelong skill development, technological innovation, sustainability, and inclusive growth will not only improve employment outcomes but also contribute significantly to economic prosperity, social justice, and environmental sustainability. Therefore, strengthening education and skill ecosystems remains essential for building a globally competitive, innovative, self-reliant, and developed India by 2047.

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Policy Frameworks, Governance and Institutional Strategies for Teacher Digital Competency Building in AI-Mediated Education

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Abstract

The emergence of digital transformation has necessitated the development of digital competencies among teachers by treating this issue as a strategic imperative. However, many existing efforts to solve this problem often suffer from a lack of coherence, reliance on instrumentalism, and poor management practices. As such, the current paper seeks to provide a governance framework based on five main levers, which will have to be in place to promote the sustainable development of teachers' digital competence in a learning environment that is increasingly dominated by artificial intelligence. Based on the review of various frameworks and literature on the subject (DigCompEdu, TPACK, digital education ecosystem framework of the OECD, guidelines of UNESCO on generative AI, and framework of UNESCO for teacher AI competence), it becomes evident that the development of digital competence must be considered a governance task. Also, this work pays special attention to the crucial role of institutions that must undertake annual review of education policy with supplementary quarterly reviews followed up the amendments before moving to the next quarter, monitoring the implemented changes for enhanced productivity by involve all respective stakeholders in promoting best practices. This process should be supported by the development of practical skills and guidelines on generative AI in compliance with the UNESCO framework for the digital education ecosystem.

Key words: 1. teacher digital competence; 2. education policy; 3. digital governance; 4. institutional strategy; 5. AI in education; 6. professional development; 7. DigCompEdu; 8. data governance

Introduction

Digital education moved from being an emerging area within innovation policies to becoming the core of institutional strategies. Nowadays, all educational institutions find themselves in the world of learning platforms, artificial intelligence, digital assessment platforms, collaborative tools, student information

systems, and data dashboards. As mere instruments of digital transformation, these technologies change the ways how teachers design lessons, communicate with students, assess their work, provide feedback, and analyze their progress. At the same time, digital education generates many challenges related to privacy, fairness, assessment validity, algorithms, agency of humans, and data protection.

Therefore, the digital competence of teachers becomes a key prerequisite for good quality education. However, this competence cannot be built on enthusiasm and workshops alone. Teachers require policy guidance, institutional governance, learning paths, and ethical support.

Firstly, this paper argues that competence development in digital competence is a governance issue. This is not only the matter of the ability of teachers to use various technological solutions, but it is the matter of providing appropriate conditions for them by educational systems and institutions to use technologies in ethical and effective way. It is a matter of alignment of national policy, institutional strategy, professional standards, curriculum design, AI and data protection.

This paper addresses the following research question: how can policy frameworks, governance mechanisms and institutional strategies be helpful to foster sustainable teacher digital competence in AI-mediated education. To answer this question, this paper uses multiple perspectives of competence frameworks, professional learning theories, sociotechnical governance and AI ethics. The Multi-level Governance Architecture and the Institutional Implementation Model are developed.

There are three contributions made by this paper. Firstly, it re-conceptualizes digital competence of teachers from the technical personal skill into the institutionalized capability. Secondly, it provides the governance framework, which connects the macro level standards with the strategic plan of particular schools/universities. Thirdly, it offers practical recommendations for policymakers, education leaders, teacher educators and quality assurance agencies.

Policy Context: Why Governance Is Important

Indeed, education systems all over the world start to understand that digital transformation implies much more than just infrastructure. As noted in the report OECD Digital Education Outlook, successful digital education is rather a comprehensive process which requires developing of the entire ecosystem where teachers and learners can use technologies in accordance with certain governance, data protection and institutional competencies (OECD, 2023). In addition, according to DigCompEdu framework by the European Commission, digital competence of educators means not only some particular set of skills but also capability to use technology for educational purposes (Redecker, 2017; European Commission, 2024).

It becomes especially important in the context of development of AI since the introduction of generative AI provides new possibilities to plan lessons, provide feedback, tutor learners, create content, translate material and make it accessible. At the same time, it also gives rise to new risks including problems with misinformation, plagiarism, surveillance, privacy of learners, inequitable access and automation of professional judgement. Therefore, according to UNESCO guidance on the application of generative AI in education, regulation, human-centered capacity building and institutional policies should be developed to ensure safety of learners, educators and researchers (Miao and Holmes, 2023). According to UNESCO's AI competency framework for teachers, it requires the human-centered approach, AI ethics, AI fundamentals, AI pedagogy and professional learning (UNESCO, 2024). Even though this regulation does not apply to organizations outside Europe, it is quite influential in terms of its logic: any AI application in education should be assessed in regard to its possible harm, fairness, transparency and accountability. The same concerns the UNICEF guidance on AI and children which mentions children's rights, safety, fairness, transparency and privacy as key elements of AI governance (UNICEF, 2025). And all these point to the necessity of digital competence building governance. Schools and universities should have explicit policies about appropriate AI usage, data protection, procurement, accessibility, digital assessments and cybersecurity. And governance is not simply a paper exercise but rather an architecture that promotes innovation while ensuring the protection of teachers and learners.

Literature Review

The key role belongs to digital competence frameworks. According to DigCompEdu, there are six dimensions of educator digital competence: professional engagement, digital resources, teaching and learning, assessment, empowering learners and facilitating learners' digital competence (Redecker, 2017). This framework is important since it ties digital competence with professional activity and not just any ICT competence. TPACK framework offers a pedagogical angle, saying that technology integration should be interaction between technological, pedagogical and content knowledge (Mishra and Koehler, 2006). Both frameworks emphasize that digital competence of teachers is not only the ability to use the tool but the ability to use technology in relation to learners, curriculum, subject matter and assessments. Second, the literature on professional development of teachers is important. In order to develop competence, teachers need ongoing, collaborative and practice-based professional development in line with teachers' needs (Darling-Hammond, Hyler and Gardner, 2017; Desimone and Garet, 2015). Third, the literature on digital governance and institutional ecosystems is helpful. Digital learning takes place in the ecosystem including platforms, data, policies, vendors, leaders, teachers and learners.

Sociotechnical character of digital learning shows that digital competence is shaped by the institutional environment: while teachers may be motivated, incompetence of the system, lack of clear policy and overload of work hinder digital competence development.

Fourth, the literature on AI ethics and human-centered governance is vital. The use of AI in education is far from neutral: while it personalizes learning, gives feedback, saves administrative time, it produces biased and inaccurate data, creates a surveillance regime or distorts assessments. Therefore, UNESCO's Recommendation on the Ethics of Artificial Intelligence emphasizes human rights, proportionality, safety, fairness, privacy, oversight and accountability (UNESCO, 2021).

Figure 1. Multi-level Governance Architecture for Digital Competency Building

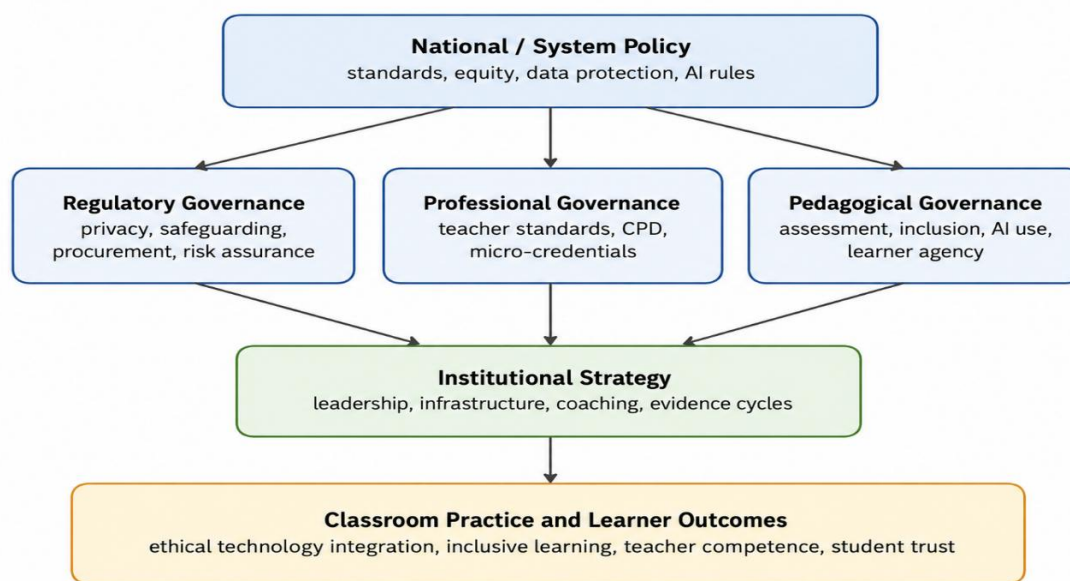


Figure 1. Multi-level Governance Architecture for Digital Competency Building

However, despite rich literature, there are some gaps. Firstly, competence frameworks provide a lot of description and not enough explanation of institutional governance. Secondly, policy discussions regarding the use of AI focus on risks but lack connections between risk governance and professional learning of teachers. Finally, institutional strategies focus on technology procurement but ignore pedagogy, inclusion and evidence. This paper aims at filling these gaps by creating a framework for policy, governance and institutional strategy.

Conceptual Framework: Multi-level Governance Architecture

In this paper, the Multi-level Governance Architecture for digital competence building of teachers is proposed. The architecture is based on the assumption that competence of teachers builds up as a result of

an interaction of four governance levels: regulatory governance, professional governance, pedagogical governance and institutional strategy. These levels interact to determine classroom practice and its results. The regulatory governance is an outermost level. It includes such aspects as data protection, AI risk management, safeguarding, procurement policy, cybersecurity, accessibility and accountability. This level asks the following question: what should the institutions protect? The professional governance is focused on such issues as standards, professional development, certification, quality assurance and career progression. It asks the following question: what should the teachers be enabled to know and do? The pedagogical governance deals with curriculum, assessment, agency of the learners, academic integrity, inclusion and responsible use of technology. It asks the following question: how can digital tools enhance learning? The institutional strategy transforms all these governance priorities into leadership, infrastructure, budgeting, coaching and implementation plan. It asks the following question: how can competence be built and sustained?

This framework helps to avoid two extremes which are popular among institutions. One extreme is a technocratic governance model where institutions care only about compliance, procurement and risk management but not pedagogy.

Levers for Implementation of Policy of Digital Competence Building

There are five policy levers that are essential for sustainable implementation.

The first lever is the competence framework. The institution must introduce or adapt frameworks such as DigCompEdu or the AI competence frameworks that describe the capabilities teachers should possess. They include digital resources, teaching and learning, assessment, empowerment of learners, literacy in AI, data ethics and inclusive design. Developmental levels should be identified for teachers to progress from basic to advanced practice.

The second lever is a pathway for professional learning. Digital education should comprise series of modules, coaching, evidence-based micro-credentials. Teachers have to demonstrate their learning not only by participation in workshops but also by implementing skills in redesigned lessons, artifacts of digital assessment, accessible resources, application of AI and reflective portfolio.

The third lever is policies on AI and data. The institution has to establish its policies regarding acceptable use of AI technology, disclosure of students to AI, assessment design, privacy of the data, tools authorization, supervision and management of risks associated with algorithmic solutions.

The fourth lever is infrastructure that promotes inclusivity. The policies on digital education should cover accessibility, affordability, access to devices and internet, assistive technologies and low bandwidth

options. Otherwise digital competence will benefit the learners who already belong to the privileged class while others will be excluded from this process.

The fifth lever is evidence-based accountability. The institutions need to evaluate the process of digital competence building in terms of evidence about improvements in teaching practices, learners' engagement, quality of assessment, accessibility and teacher's confidence.

Table 1. Policy Lever Matrix for Teacher Digital Competency Building

Policy lever	Purpose	Institutional translation	Evidence of implementation
Competence standards	Define what teachers should know and do	Adopt DigCompEdu/AI competence descriptors and developmental levels	Mapped teacher profiles and CPD plans
Professional learning pathways	Move beyond one-off workshops	Micro-credentials, coaching, peer learning and portfolios	Evidence of classroom application
AI and data governance	Protect rights, privacy and trust	AI-use policy, tool review, human oversight and data protocols	Risk register and approved-tool process
Inclusive infrastructure	Prevent digital exclusion	Accessibility standards, assistive tools and low-bandwidth alternatives	Accessibility audits and learner feedback
Evidence accountability	Evaluate impact rather than attendance	Review teaching quality, engagement, inclusion and assessment integrity	Annual digital learning improvement report

Strategies for Implementation

Only if a policy is implemented via an institutional strategy does it gain its meaning. First of all, schools, universities, and training organizations need to conduct the digital maturity audit. Such an audit can include the following areas – infrastructure, teacher competence, leadership capacity, data governance, AI policy, accessibility, technical support, and student experience. It helps to uncover possible gaps prior to implementing any solutions.

Then institutions should build the digital governance committee, including representatives of academic leadership, teachers, IT specialists, student support professionals, data protection experts, quality assurance experts, and learners. Committee members should not only approve tools but also connect technology decisions to the curriculum, ethics, professional learning, and institutional strategies. Furthermore, it should carry out risk assessment and ensure that institutions regularly monitor and update AI and digital education policy.

The second strategy should be building digital teaching fellows or teacher champions. Teacher champions coach other teachers by conducting demo lessons, reviewing teaching materials, and practicing reflective learning. Peer-to-peer learning is usually more persuasive than centralized professional learning because it develops digital competences in the context of real-life issues. Teacher champions should get the recognition from institutions and some kind of power.

Thirdly, institutions should build micro-credentialed pathways where modules would focus on such topics as digital assessment design, AI-proof assessment, accessible digital content, learning analytics for intervention, AI-powered lesson planning, privacy, and online facilitation. Every module should require practice evidence. Therefore, professional learning should be transformed from mere participation into demonstrated competence.

Fourthly, institutions should prioritize policy-informed procurement. Procurement decisions should not be made according to cost and technological innovations alone. Procurement should take into consideration such aspects as privacy, accessibility, interoperability, pedagogy, data ownership, vendor information, and teacher workload. AI-driven tools should also be assessed regarding bias, explainability, human involvement, and learner protection.

Fifthly, there should be continuous evidence gathering. Institutions should gather both quantitative and qualitative evidence in such areas as teachers' reflections, students' feedback, patterns of tool usage, assessment results, accessibility of materials, and practice cases. Evidence gathering should be used for informing the policy revision process. Digital governance should be iterative because technologies, risks, and pedagogies change rapidly.

Governance Risks and Mitigations

Governance problems may disrupt the development of digital competencies. The first risk is a lack of policy integration. If the AI policy, assessment policy, safeguarding policy, procurement policy, and professional learning policy are designed independently from each other, institutions send conflicting messages to teachers. Therefore, such policies should be aligned in one framework.

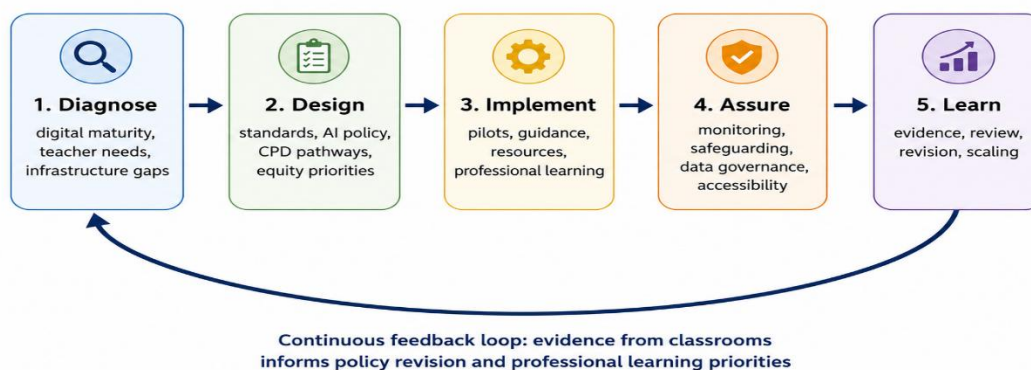
The second risk is compliance without competence. Institutions can develop AI policies or data policies without giving proper training to their staff. It leads to confused, inconsistent, or extremely cautious teachers. In such cases, institutions should ensure that governance and professional learning go hand-in-hand.

The third risk is innovation without governance. Innovation is crucial. It helps teachers to solve problems through using new tools. However, when teachers decide to use some tools independently from their institutions, they may use some tools which can jeopardize learner data privacy, create accessibility barriers, or produce unreliable results. Institutions should promote innovation and provide tool approval lists, risk assessment templates, and quick procedures for approving innovative tools.

The fourth risk is inequity. Some policies might assume that all learners have access to devices, internet, and private places. Therefore, institutions need to build equitable governance approaches.

The fifth risk is the lack of human agency. If AI systems are used to automate feedback, learning analytics, assessments, or interventions without the judgment of teachers, the education system can become very rigid and data-driven.

Figure 2. Policy-to-Practice Learning Cycle



Fig

Table 2. Governance Risks and Institutional Safeguards

Risk	Likely consequence	Recommended safeguard
Fragmented policy	Inconsistent teacher practice and uncertainty	Integrated digital education and AI governance framework

Compliance without capacity	Rules exist but teachers lack confidence	Policy-linked professional learning and coaching
Unregulated tool adoption	Privacy, bias or reliability problems	Approved tools, rapid review and procurement criteria
Digital inequity	Uneven learner participation	Accessibility-by-design and alternative access strategies
Automation of judgement	Reduced teacher agency and trust	Human oversight, assessment redesign and transparent AI use

Figure 3. Institutional Maturity Model for Digital Education Governance

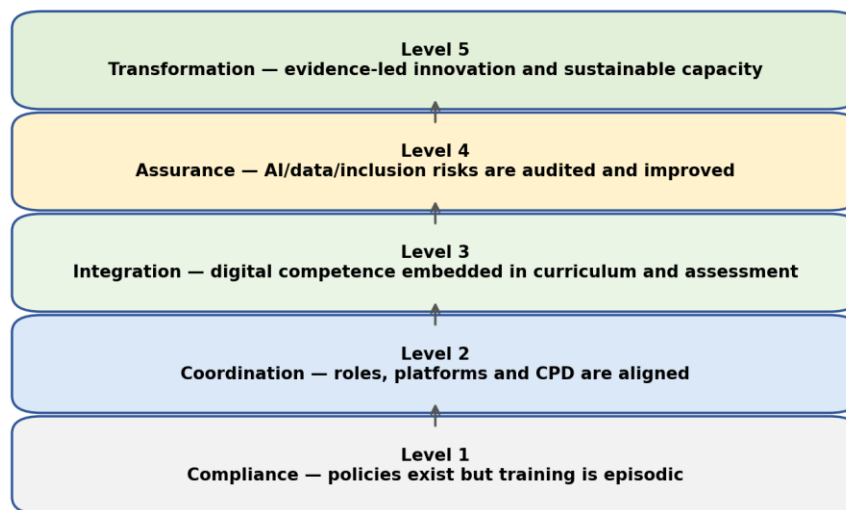


Figure 3. Institutional Maturity Model for Digital Education Governance.

Strategic Propositions for Policy and Institutional Design

The framework leads to a number of propositions that may be useful for further research and institution-level decision making. The proposals should not be regarded as statistical hypotheses only; they may be used as guiding principles of design by policy-makers, leaders and quality assurance professionals.

Proposition 1: Teacher's digital competence improves if the policy framework takes a developmental approach to policy design. A general approach presumes that there are some general expectations about

the need of teachers in technologies. However, a developmental approach is based on a teacher's transition from operational to pedagogical uses of tools and design with AI awareness.

Proposition 2: Institutional digital transformation is more sustainable if the process of teacher professional learning is tied to the process of governance of education. Training usually fails because it is disconnected from policies for assessment, AI, data protection, etc. Professional learning driven by policies is aimed not only at teaching teachers how to use particular tools but also explaining the need for certain standards and safeguards.

Proposition 3: Institutional policies on AI adoption are more effective if permission is combined with boundaries. On the one hand, prohibitive policies may become obsolete or push the usage underground. On the other hand, policies without restrictions may put learners at risk. To address this paradox, institutions should adopt the concept of guided experiment: teachers and students may use AI under the condition of disclosure, verification, protection of privacy, human supervision and educational value.

Proposition 4: Digital equity depends on governance as well as access. Availability of devices and connectivity are the main factors of digital equity. However, digital equity depends on availability of material, inclusive assessment, language support, assistive technology, alternative connectivity and teacher's ability to design universally.

Proposition 5: Evidence-driven accountability strengthens teacher agency if it is used for learning, not for monitoring. Teachers oppose digital monitoring if the data are used punitively and out of context. To facilitate professional growth of teachers, evidence should be used as the tool of understanding engagement patterns, needs and evaluation of design.

Implementation Roadmap for Institutions

Practical roadmap will help institutions to move from ideas to action. The first step in implementation of the institution-wide policy is to align existing policies. Leaders should review the existing policies on assessment, safeguarding, data protection, procurement, accessibility, professional development and academic integrity. It is essential to discover any contradictions or gaps in these policies. For instance, an institution may have data protection policy but lack any rules about uploading of student work to an external AI tool.

The second step is capacity diagnosis. Institutions should diagnose the current state of teachers' competencies using self-assessment, peer review, evidence of digital lessons and learner feedback. The process should be confidential and developmental and should identify priority groups and topics including AI literacy for assessment, digital inclusion, online facilitation and learning analytics.

The third step is pilot implementation of the chosen policies and models of professional learning. Instead of conducting full-scale institution-wide transformation, leaders should conduct pilots in selected departments or programs. Pilot implementation will allow leaders to understand workloads and tool limitations, learner concerns and needs for professional learning of teachers. The results of the pilot implementation should guide the implementation strategy.

The last step is assurance and renewal. Institutions should carry out annual review of the use of AI, digital accessibility, data governance, competence of teachers and learner experience. Based on the results of this review, the institution should adjust policies, professional learning, procurement and support. This roadmap situates digital governance within the process of continuous institutional learning.

Contribution to Policy, Governance and Teacher Development Literature

There are three ways in which this paper contributes to the ongoing discussion of policy, governance and teacher development. First, this paper bridges two separate literature streams - teacher digital competence and education governance. While digital competence frameworks discuss teachers' competences, governance frameworks discuss rules, policies and responsibilities of institutions. This paper reveals the need to bridge these two aspects. Teachers need competence, but competence needs to be developed within the governed environment.

Second, this paper broadens the ongoing discussion of the policy on AI in education by combining the issues of risk governance and teacher capacity. Most of the institutional discussions of AI are focused on the issues of plagiarism, detection and prohibition. Integrity of assessment is important but this narrow focus ignores the issue of preparing teachers to use AI in a critical, creative and ethical way. That is why this framework treats AI literacy as one of the key competences alongside with data governance and pedagogical redesign.

Third, this paper offers the perspective of institutional strategy to the topic of digital transformation of education. It goes beyond the traditional idea of the transformation that takes place through procurement or innovation projects. Digital education is treated as an institutional capability that should be planned, resourced, monitored and renewed. This perspective is important for those institutions that strive to align innovation with accreditation, quality assurance and learner and teacher support. This framework also acknowledges that institutions vary in terms of size, resources and policy environment and governance should be principled enough to guarantee safety and equity and flexible enough to accommodate local specifics.

Discussion

There are three major arguments made in this paper. First, digital competency building should be seen as the policy-governed institutional capability. Teacher enthusiasm is a valuable resource but it cannot replace standards, infrastructure, governance and strategic leadership. Digital transformation is possible only when institutions create conditions for competence development.

Second, this paper argues that the advent of AI changes the nature of teacher digital competence. In addition to digital pedagogy, teachers need to develop their competence in using and assessing AI and data. They should be able to evaluate output of AI systems, protect learners' data, redesign assessment practices and maintain human agency in AI-assisted education. The policy frameworks should incorporate AI literacy in standards of teacher competence.

Third, governance should enable innovation, not stifle it. On the one hand, overly restrictive policies may undermine motivation of teachers to experiment with digital tools. On the other hand, too loose policies may put learners and institutions at risk. Therefore, the best frameworks of governance should be adaptive and offer clear principles, approved procedures, professional learning and feedback mechanism.

Implications

The implication for the policymakers is that the policy on digital education should incorporate standards of teacher competence, AI governance, data protection and professional learning. The national strategies for digital education should avoid infrastructure-focused approaches and include teacher development budgeting, accessibility guidelines and quality assurance mechanisms.

The implication for school and university leaders is that digital transformation of education should be achieved with help of institutional governance of digital education. Institutions should establish digital education governance committee, allocate responsibilities, empower teacher champions and align procurement with pedagogical and ethical goals.

The implication for teacher educators is that digital competence should be integrated into all teacher education programs. Both pre-service and in-service teachers should be provided with knowledge and skills in using AI ethics, digital assessment, inclusive design, data privacy and evidence-informed use of technology.

The implication for quality assurance agencies is that the evaluation of institutions should include policy, professional learning pathway, accessibility standards and evidence of impact. Quality assurance should not only check the appropriateness of tools but also their responsible and efficient use.

Teachers are offered to see professional development of digital competence as a journey. They should not be expected to master all tools. Instead, teachers should be empowered to make informed, ethical and pedagogically sound decisions.

Limitations and Future Research

This paper is conceptual and does not include any primary empirical research. Future research may test the suggested framework using case studies, surveys, design-based research and comparative policy analysis. The research may explore the effect of different models of governance on teacher digital competence, AI adoption, assessment practices and student trust.

Longitudinal research is also needed. Digital competence is a developing phenomenon and institutional strategies may take several years to show the results. Future research may explore the effect of micro-credentialing, teacher champion models and digital governance committees on teachers' long-term practice.

Further research is also needed in low-resource and culturally diverse settings. The majority of global literature assumes stable infrastructure and capability of institutions. Future research may explore the possibilities of adaptation of the digital governance framework in the case of poor connectivity, lack of funding and policy capability.

Finally, further research may explore the relationship between digital competence and learners' outcomes. Teacher digital competence should be evaluated not only with the help of self-report but also with the help of learners' engagement, quality of feedback, integrity of assessment and deep learning evidence.

Conclusion

Teacher digital competence is no longer a marginal professional development issue. It is a governance challenge at the center of educational quality, equity and resilience of institutions. With the rapid development of AI and digital technologies, teacher digital competence is more than just an issue of technical training. Teachers need not only policy clarity but also ethical guidance, professional learning, institutional support and evidence-informed opportunities to redesign their practice.

In this paper, the framework of Multi-Level Governance Architecture of digital education was suggested. Five policy levers were identified: competence standards, professional learning pathways, AI and data governance, inclusive infrastructure and evidence-based accountability. Also, the implementation cycle and maturity model were suggested.

The key argument of this paper is that teacher digital competence improves when governance and pedagogy are aligned. This is especially important in the case of AI-mediated education where the lack of governance quickly turns into risks for privacy, assessment, equitable access and uncritical use of automation systems. Policies should not limit risks and training should not just teach the tools. Policies and training should be linked through the routine, responsibilities and support of institutions. Instead, institutions should create ecosystems where teachers can use digital technologies confidently, with judgment, care and accountability.

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From Campus to the AI-Augmented Workplace Generative Artificial Intelligence in Higher Education and Its Implications for Professional Life: A Systematic Literature Review (2021–2026)

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Abstract

Generative artificial intelligence (GenAI) is the most significant recent phenomenon impacting higher education in that it impacts how knowledge is generated, how learning is assessed and how professional work is done. In this systematic literature review of evidence from January 2021 to July 2026, the implications of GenAI for learning, teaching and professional work are synthesised. The review follows the PRISMA 2020 process to search the relevant databases of peer-reviewed journals and authoritative repositories such as ERIC, ScienceDirect, SpringerLink, Taylor & Francis, Oxford Academic, Frontiers, UNESCO, OECD and ILO. Sixty-four candidate articles are manually identified, and after 31 texts are screened, 29 articles meet the criteria for inclusion. Based on thematic synthesis, six interrelated trends emerge: the mainstreaming of AI-enabled learning; the development of AI literacy as a competency of graduates; the transformation of assessment and academic integrity practices; the ambivalence between efficiency gains and cognitive offloading; the growing relevance of governance, equity and data ethics; and the reconceptualisation of professional competence based on human-AI teamwork. The evidence suggests that well-supported GenAI can be helpful in fostering feedback, self-efficacy, writing, problem-solving skills and efficiency in tasks. But lack of scaffolding can lead to illusion of mastery and less self-regulated learning, making it difficult to establish if performance represents real competency. Therefore, the Human-AI Professional Readiness model that incorporates technical literacy, discipline-specific knowledge, critical validation, ethical responsibility and relational skills is suggested.

Keywords: *Generative artificial intelligence; higher education; AI literacy; employability; professional skills; assessment; academic integrity; future of work; systematic literature review*

Table 1 Research questions and Focus

Research question	Focus
RQ1	Major trends characterising GenAI adoption in higher education, 2021–2026
RQ2	Benefits and risks for learning, assessment and institutional practice
RQ3	Implications for employability, professional skills and workplace performance
RQ4	Curriculum, assessment and governance responses for responsible professional preparation

1. Introduction

Higher education is currently undergoing structural, not technological, disruption. Prior waves of educational technology mostly digitalized existing practices: lectures went online, learning management systems arranged content, and analytics helped universities to measure student participation. Unlike previous technologies, generative AI can engage directly in practices that have been understood as proof of human learning and included writing, coding, summarizing, designing, translating, analysing, and providing feedback. Hence, the significance of the technology lies not only in the efficiency of a new tool but in its potential to shake the relationship between intellectual process, assessable output, and professional competence. The main question is not anymore whether the students will use AI but whether the universities will be able to ensure the development of AI-supported performance into learning and not its disguise.

Research in the field of AI in higher education grew dramatically in 2021 and 2022 until the launch of ChatGPT drew even more interest. The studies revealed that AI applications had been already used for tutoring, prediction, assessment and student support but research was uneven across disciplines and mostly focused on technical functionalities (Crompton and Burke, 2023; Chiu et al., 2023). After 2023, the attention switched to the applications of large language models and GenAI in higher education and there appeared studies that explored student and faculty perceptions, academic integrity, feedback, assessment design, policy making, and AI literacy. There is much enthusiasm about GenAI in the literature but also conceptual confusion. On the one hand, some researchers are emphasizing its personalization and productivity capabilities, on the other hand, others are talking about the potential for hallucinations, bias, surveillance, unequal access, and destruction of critical thinking (Kasneci et al., 2023; Tlili et al., 2023; Zhai, Wibowo and Li, 2024).

The professional significance of these discussions is obvious. The universities are not just certifying knowledge but are forming the intellectual, ethical, and relational competences needed for graduation and joining the professional community. Meanwhile, GenAI is transforming the work environment graduates

join. The experimental studies show that the use of AI assistance can improve speed and quality in professional writing and customer service tasks, usually providing the highest benefits for less experienced workers (Noy and Zhang, 2023; Brynjolfsson, Li and Raymond, 2025).

This review aims at exploring GenAI as the latest trend in higher education and its implications for professional life. Trying to avoid polarized perspectives on the optimistic use of technology and catastrophic decline in academic work, the review will try to pay more attention to the conditions of use and its consequences. Four research questions will be answered in the review: (RQ1) what major trends are characteristic of GenAI adoption in higher education from 2021 to 2026? (RQ2) what benefits and risks are associated with GenAI use for student learning, assessment and institutional practices? (RQ3) how does GenAI reshape graduate employability, professional skills, and workplace performance? (RQ4) what responses in terms of curriculum, assessment, and governance can align higher education with responsible professional practice?

2. Conceptual background

AI literacy is the most useful conceptual framework to explore the topic since it links education and professional life together. Ng et al. (2021) defined AI literacy as four interconnected competences: knowledge and understanding of AI, usage and application, evaluation and creation, engagement with ethics. Such definition is useful but has become out-of-date in the age of GenAI. Current conception of AI literacy incorporates prompt formulation, task decomposition, verification of sources, recognition of model limitations, awareness of data and privacy issues, disclosure of AI assistance, and ability to decide when not to use it. Reicho et al. (2026), reviewing literature across education and business sectors, identified three categories of competences as well – technical, personal-interpersonal, and ethical-critical. The fact that only a minority of literature is empirical is crucial because the institutions implement GenAI faster than evidence on its educational and professional effects accumulates.

Human-AI augmentation perspective will be adopted in the review. GenAI is not a neutral tool nor substitution of professional judgement and decision-making. Effects appear through the interaction of expertise, task characteristics, interface design, institutional rules, and accountability structure. The approach corresponds to the results of workplace studies. The AI can diffuse expertise of professionals and help novices to develop, but benefits are uneven for different workers and tasks. High-performing users can get fewer or even worse results if rely too much on recommendations (Brynjolfsson, Li and Raymond, 2025). In the education context, guided systems, which give hints and require efforts from students, provide better results in learning than unrestricted answer generation (Lee et al., 2024). Thus,

the analysis should focus on orchestration: control of the cognitive process, delegation of tasks, validation and remaining responsibility.

3. Methodology

Systematic literature review was chosen as a method of work since research on GenAI is growing quickly in many domains, namely, education, psychology, labor economics, and public policy. The review followed the principles of PRISMA 2020, which emphasize explicit criteria of eligibility, reproducible search procedures, clarity of study selection and transparent synthesis (Page et al., 2021). The review was PRISMA-informed rather than prospectively registered because it was conducted as a bounded interdisciplinary desk study and did not involve meta-analysis and registration of protocol.

The searches covered publications from 1 January 2021 to 10 July 2026. The period was chosen in order to cover the foundation of AI literacy before ChatGPT, rapid adoption of GenAI in 2022, and the latest evidence on its educational and professional effects. Sources of searching included ERIC, ScienceDirect, SpringerLink, Taylor & Francis Online, Oxford Academic, Frontiers, PubMed, UNESCO, OECD, ILO and World Economic Forum. Search strings incorporated the following terms in any combination: "generative AI" OR "ChatGPT" OR "large language model" and "higher education", "university", "assessment", "academic integrity", "AI literacy", "employability", "graduate skills", "professional work", "productivity", and "future of jobs". Citation chaining was used to find the influential studies repeatedly cited in systematic reviews.

The inclusion criteria were: publication between 2021 and July 2026, English-language availability, direct relevance to higher education, graduate capability, or professional work, peer-reviewed empirical research, systematic/scoping reviews, or reports of recognized international organizations, methodological or analytical transparency. The exclusion criteria were: studies related exclusively to schools, lacking evidential support, marketing materials, news reporting, duplicated versions, inaccessible or unverifiable sources, sources, whose main evidence was before the review window but without recent analysis. 64 candidate records were logged manually in the initial stage of searching and citation chaining. After removing duplicates and obviously irrelevant items, 31 full texts or complete article records were screened and 29 sources were included in synthesis.

The quality of sources was appraised according to four criteria: credibility of sources, methodological clarity, relevance to the research questions, and acknowledgment of limitations. Empirical studies were appraised for design, sample, measures, and analysis transparency, systematic reviews were appraised for the scope of search and selection procedure, reports of institutions were appraised for credibility, data provenance, and methodological disclosure. Due to the heterogeneity of designs and outcomes, the

statistical pooling was inappropriate. Thematic synthesis was performed through iterative coding. The initial codes were personalization, feedback, productivity, cognition, integrity, assessment, policy, equity, privacy, employability, and human skills. They were combined into six themes explaining the transition from education augmented with AI to professional practice augmented with AI.

Table 1. Review selection audit trail

Stage	Records
Candidate records manually logged	64
Duplicates and clearly irrelevant items removed	33
Full texts or complete article records assessed	31
Sources excluded after full assessment	2
Sources included in thematic synthesis	29

4. Results

The literature examined in this review is relatively recent post-2023, mirroring the fast growth of publicly accessible GenAI technology. These include systematic and scoping reviews, mixed-method and survey research, experimental studies, policy and international labour market analysis reports. The higher education literature covered multiple geographical locations in North America, Europe, Asia, Middle East, and Africa, despite a clear overrepresentation of high-income countries and English-speaking ones.

A set of six interconnected themes have emerged: (1) AI-mediated learning becoming normalized; (2) AI literacy being a skill graduates should have; (3) assessment reformulation and reconceptualization of academic integrity; (4) productivity-learning paradox; (5) governance, equity, and institutional accountability; and (6) professional skills redefined.

Table 2. Representative studies and their contribution to the synthesis

Source	Context/design	Sample or scope	Key finding	Theme
Chan (2023)	Mixed-method university policy study	457 students; 180 staff	Effective policy requires pedagogical, governance and operational integration.	Governance
Lee et al. (2024)	Randomised controlled trial	61 undergraduates	Guided ChatGPT use improved self-regulation and higher-order thinking relative to unrestricted use.	Learning design
Fan et al. (2025)	Randomised experimental study	117 university students	Improved essay performance did not translate into equivalent knowledge transfer; dependence risk emerged.	Cognitive risk
Belkina et al. (2025)	Systematic review of cases	21 empirical studies	Benefits depend on pedagogical alignment and implementation design.	Implementation
Portocarrero Ramos et al. (2025)	Graduate employability survey	148 graduates	AI skills were associated with productivity and better professional alignment.	Employability
Noy and Zhang (2023)	Randomised workplace experiment	444 professionals	GenAI improved speed and quality in professional writing tasks.	Productivity
Brynolfsson et al. (2025)	Field study	5,172 support agents	Average productivity rose 15%; novice workers gained most.	Workplace learning
ILO (2025)	Global occupational exposure index	29,753 tasks; 1,640-worker validation survey	Job transformation is more likely than wholesale replacement.	Future of work

4.1 Normalisation of AI-Supported Learning

GenAI has rapidly moved from novelty to learning infrastructure. Research discovered its capacity to produce explanations, examples, feedback, language and instructional materials (Kasneci et al., 2023; Tlili et al., 2023). Students reported mostly positive attitudes to brainstorming, writing support, clarification and research help, but also concerns with accuracy, privacy and career implications (Chan and Hu, 2023). As found by Barrett and Pack (2023), students and teachers did not always agree on which steps of the writing process require AI assistance, thus highlighting the necessity of normative negotiation in addition to technological provision.

It is recently established that the structured integration of AI can improve particular learning processes. Lee et al. (2024) discovered that guidance-based ChatGPT learning aid, making students try to solve problems before getting hints from the AI, resulted in greater self-regulation, higher order thinking and knowledge construction compared to usual ChatGPT usage. Noroozi et al. (2025) found that GenAI can increase the specificity of peer feedback and provide suggestions addressing high-level issues, but students use the technology mainly to correct grammar, comprehensibility and tone.

Empirical literature provides systematic support for conditional rather than universal benefits of AI. Belkina et al. (2025) analysed 21 empirical higher education cases and found that there is a variety in disciplines, participants and implementation models. The synthesis highlights that technological-pedagogical-content alignment is more significant than mere technology adoption. According to the meta-analysis by Liu et al. (2025), the average impact of GenAI was positive in terms of achievement and motivation, yet it varies strongly due to educational level, subject, interface, interaction design and intervention duration.

4.2 AI Literacy as a Core Graduate Capability

The literature clearly demonstrates the transition from digital literacy to AI literacy. Digital competence used to cover information retrieval, communication and software use. However, GenAI requires some additional epistemic and ethical skills since the system generates plausible language without guaranteeing truthfulness. Students must learn to formulate instructions, evaluate outputs, find credible sources, detect biases, protect private data and report assistance properly. Ng et al. (2021) provide the multidimensional model.

Graduates' AI literacy is increasingly becoming associated with employability. In their study of 148 university graduates, Portocarrero Ramos et al. (2025) found that greater AI literacy and its more frequent

use are correlated with employment in the field of graduation and with productivity and professional alignment. Skills demanded by the labour market confirm this interpretation of the issue.

4.3 Assessment Redesign and Academic Integrity

GenAI undermines the effectiveness of the traditional assessment that assumes competent performance from the final product. Essay assignments, take-home exams, coding tasks and generic reports can increasingly be completed or modified by the AI. It is not possible to protect academic integrity from the technology via prohibition, as noted by Cotton, Cotton and Shipway (2024), since it can provide legitimate educational opportunities. However, according to the analysis of 20 top universities done by Luo (2024), institutional policies often define originality mainly as absence of plagiarism or misconduct.

The policy response to GenAI should also be differentiated. As suggested by Chan (2023) on the basis of the data collected from 457 students and 180 staff members, the ecosystem approach should encompass pedagogy, governance and operations. Similar global analysis by Jin et al. (2025) shows that universities develop ethical use guidelines, authentic assessment and training, but continue to lack privacy protection, equal access and full implementation of GenAI in the curriculum. Clearly articulated policies for every course are needed because legitimate use of GenAI varies depending on learning goals.

4.4 The Productivity–Learning Paradox

The key insight of the synthesis is the distinction between increased performance and real learning. GenAI can enable faster and more polished product creation. Noy and Zhang (2023) conducted a randomised experiment with 444 college-educated professionals, discovering that ChatGPT reduced completion time and improved the assessed quality of professional writing tasks. Similarly, Brynjolfsson, Li and Raymond (2025) demonstrated a 15% average productivity improvement for more than 5,000 customer-support agents, with the greatest benefits observed for less experienced and lower skilled workers. This explains the fast acceptance of GenAI by employers and students: the performance gains are indeed achieved.

However, educational results depend on whether the tool supports or substitutes cognitive effort. According to OECD Digital Education Outlook 2026, the task completion with GenAI does not mean learning and that unguided outsourcing can result in metacognitive disengagement. The same conclusion was reached by Zhai, Wibowo and Li (2024): the overuse of dialogue AI systems weakens critical thinking, analytical reasoning and decision-making. Fan et al. (2025), who performed the randomised experiment with university students, found that learners using GenAI achieved higher essay scores but not

equivalent improvements in the knowledge transfer: their interaction patterns indicated the technological dependency and "metacognitive laziness".

The productivity-learning paradox explains the seemingly contradictory research results. GenAI can improve test results in case they evaluate the output quality, but have little impact on the independent competence. On the other hand, guided use can enhance learning since learners have to attempt, compare, criticise and revise something. What really matters in this case is not whether AI improves the results but what kind of results is measured.

4.5 Governance, Equity and Institutional Responsibility

The adoption of GenAI entails a lot more institutional responsibilities than the plagiarism prevention only. The technologies can amplify bias, create fake citations, reveal the confidential information and bring the disparate benefits for the learners depending on their linguistic, economic and technical skills. UNESCO (2023) stresses on the importance of the human-centred approach, which ensures the agency, inclusion, privacy and cultural diversity.

Equity is a complicated question, since GenAI may decrease and amplify the disadvantages of the learners. It can provide them with language help, instant explanations and cheap feedback in cases when they do not have personal tutors. Some of the workplace studies showed that inexperienced workers benefit disproportionately from GenAI-supported access to the codified expertise (Brynjolfsson, Li and Raymond, 2025). However, the distribution of the premium models, connectivity, training and disciplinary knowledge remains uneven. The learners with prior knowledge may use the tool to analyze and develop their ideas, while those with underdeveloped background can rely on confident mistakes and replace practice with the outsourcing to AI. According to Kim et al. (2025), studying 982 students and 76 faculty members, there are the differences between readiness and attitudes toward GenAI depending on the demographics and disciplines.

This point is also reflected in the regional literature. Comparing students of Zayed University from the UAE and King Abdulaziz University from Saudi Arabia, Tbaishat, Amoudi and Elfadel (2025) found out that the expected benefits, self-efficacy, behavioral intention and institutional context affected the satisfaction. According to the results of the study conducted by Alkaabi et al. (2025) at an UAE federal university, there were the time and cost advantages, prompt-engineering needs, misinformation, dependency and the lack of consensus in the policy. These findings are very relevant for the rapid digitization of the higher education in the Gulf region: the investments into the technology have to be

supplemented with the faculty training, bilingual and culturally sensitive mentoring, security and consistency of the standards.

4.6 Reconfiguration of Professional Competence

Labour market studies indicate that GenAI changes professional tasks but does not replace jobs. According to the ILO's 2025 global index, one in four workers performs at the occupation with some GenAI exposure, affecting mostly clerical and highly-digitized professional tasks. The fact that occupations contain activities, which are automated, augmented and performed by humans, makes the transformation of tasks much more probable than the job replacement. This nuance is important for higher education, since the programs have to prepare graduates not for the current job description, but for the transformed composition of the professional tasks. The World Economic Forum (2025) predicts considerable labour market churning until 2030 and estimates that 39 percent of workers' existing skill sets will change or become obsolete. Therefore, while the AI and data skills are developing rapidly, the human-centered skills become differentiated.

GenAI may also transform the process of professionalization of entry-level workers. The traditional path of professionalization of entry-level workers consists in drafting, researching, documenting and interacting with customers. Though AI may automate these tasks for the organizations, resulting in the increased productivity, it removes the developmental pathway, through which the novices gain tacit knowledge. Brynjolfsson, Li and Raymond (2025) offer a more optimistic perspective: AI may encode and diffuse the expertise of specialists, accelerating the learning of novices.

5. Discussion

The review proves that GenAI is not a distinct educational trend, but rather the organizing force connecting curriculum, assessment, institutional governance and professional identity. The educational impact of the technology cannot be evaluated at the level of the tool. The outcome depends on whether the role of AI in the task is transparent, purposeful, scaffolded and aligned with the targeted competence. The same technology can facilitate access to feedback, support the multilingual participation and accelerate professional performance, or cause the dependency, shallow engagement and illusion of learning.

There are three propositions resulting from the synthesis. First, the university should distinguish performance and learning. The polished AI-assisted output is the proof of the successful task orchestration, but not necessarily of the independent comprehension. Both are valuable, but have to be evaluated separately. Second, AI literacy has to be integrated into the domain epistemology. The verification in

medicine, law, engineering, business and humanities require different standards of the evidence, risk management and accountability. The general instructions for prompt construction are insufficient. Third, the professional readiness has to be based on the calibrated dependency: graduates have to know what to delegate to AI, what to retain, how to verify outputs and when to override algorithmic decision. The early program stages have to protect the fundamental skills in reading, writing, quantitative reasoning and domain concepts. The intermediate stages have to include the transparent AI-assisted tasks with verification and reflection. Finally, the advanced stages have to teach managing the complex human-AI workflows, justifying decisions and evaluating ethical and organizational consequences.

5.1 Human-AI Professional Readiness Framework

On the basis of the synthesis, this review constructs the Human-AI Professional Readiness framework consisting of five mutually supporting capabilities. First, it is the foundational domain competence: learners have to possess sufficient knowledge to detect wrong outputs and understand the professional consequences. Second, it is the applied AI fluency: ability to select the tools, construct prompts, decompose the tasks and integrate outputs into the workflow. Third, it is the critical verification: ability to triangulate claims, check sources, test assumptions and detect the uncertainty. Fourth, it is the ethical and accountable judgment: ability to protect privacy, detect the bias, disclose the use of AI, respect the intellectual property and assume responsibility for the consequences. Fifth, it is the relational and adaptive competence: ability to communicate, empathize, collaborate, lead, innovate and continue learning.

The framework takes care about employability as more than the technical proficiency. The latter without domain competence leads to the dependent and confident learning, the former without AI fluency – to the falling productivity, and both without the ethical judgment – to the professional risk, while all three without relational competence – to the inability to work with trust, leadership and human consequences. This is why the framework aligns the higher education with the labour market trend: in addition to the growing AI and big-data skills, the labour market requires the analytical thinking, resilience and social influence.

Table 3. Human–AI Professional Readiness framework

Capability	Graduate evidence	Professional risk if absent
Foundational domain competence	Explains concepts and performs core tasks independently	Inability to detect plausible but unsafe AI output
Applied AI fluency	Selects tools, decomposes tasks, engineers prompts and integrates outputs	Low productivity or indiscriminate tool use
Critical verification	Triangulates claims, tests assumptions and identifies uncertainty	False confidence, misinformation and weak decisions
Ethical and accountable judgement	Protects data, discloses assistance and accepts responsibility	Privacy, bias, copyright and governance failures
Relational and adaptive capability	Communicates, collaborates, leads, creates and learns continuously	Weak trust, poor teamwork and inability to manage change

6. Implications for Higher Education Practice

Learning outcomes related to AI should be set at the programme level and not left to the lecturer's practice. Students should be taught step-by-step how GenAI works, its limitations, influence on disciplinary knowledge and documentation. Each programme should determine core tasks that need to be performed independently, supportive tasks where GenAI may be used under certain conditions and integrative tasks where GenAI application is expected.

Evaluation should involve portfolio assessment. In addition to the final product, prompt, source trail, draft, reflective rationale and live defence should be presented whenever possible. Rubrics should evaluate such aspects as problem formulation, verification, decision-making and ethical disclosure rather than mere fluency. Some amount of AI-free assessment should be involved in order to determine baseline competence, while some amount of AI-assisted evaluation is needed in order to prove readiness for practice. The point is not control, but validity: institutions need to know what kind of capability corresponds to a particular grade.

Faculty development should go beyond introduction of tools. Faculty needs help in redesigning learning tasks, evaluating AI-assisted performance, dealing with privacy and copyright issues and taking into account the specifics of particular disciplines. Workload issues should be considered because there is a potential for increase due to process-oriented and verified assessment. Institutions should provide secure approved tools, data policies, training and communities of practice, but should not leave all the burden to individual faculty members.

Partnerships with industries should be intensified through AI-sensitive internships, briefs, simulations and co-creation of assessment tools. Employers can help universities to monitor changes in task demands and professional standards, while universities can provide the critical and ethical perspective that is typically missing in productivity-driven adoption. Students should understand that GenAI is part of collaborative professional practice, not shortcut to assignment completion.

7. Research Agenda

Further longitudinal and comparative research is needed. First, there is a need for the distinction between immediate task performance and delayed retention, transfer, and capability without aid. Second, graduate outcomes should be followed to discover whether university AI literacy enhances employment quality, adaptability and professional advancement. Third, there is a need to study the effect of GenAI on disappearing or redesigning of entry-level developmental tasks. Fourth, there is a lack of evidence from the Global South, multilingual institutions and professionally regulated fields. Fifth, the research on equity

should consider the effect of AI on widening or narrowing existing disparities due to prior achievement, disability, language, gender, income and access to premium systems. Finally, there is a need for institutional comparison of effectiveness of various AI management policies, not just their description.

8. Limitations

This review has several limitations. It included only the English-language sources and publicly available journal or institutional reports, so it may not reflect the full body of literature in other languages and proprietary databases. The field develops extremely quickly, so conclusions made now may become outdated due to new model capabilities and new institutional policies. At this moment the dominance of perception, intervention and conceptual analysis exists, while empirical evidence is relatively scarce. Two areas of research were represented in the review, education and the labour market, with different units of analysis, which makes any statistical meta-analysis impossible. Finally, the search procedure was conducted PRISMA-inspired, but not registered prospectively. Therefore, the findings should be considered as a rigorous interdisciplinary synthesis, not the precise estimation of effect size.

9. Conclusion

GenAI is the major trend in higher education of the modern times because it changes both the method of learning and the meaning of competent performance. Literature from 2021-2026 demonstrates that GenAI increases feedback, accessibility, motivation, writing skills and productivity. However, these positive effects come under certain conditions. When GenAI substitutes the cognitive effort of students, students produce better outputs, but not gain understanding, transfer or professional judgement. When it is guided pedagogically, used transparently and combined with independent practice, it can serve as learning partner.

Life in professional environment tends to move to collaboration between human beings and AI rather than to competition between them. Future graduates will need AI fluency, but their sustainable value will be determined by analytical thinking, discipline-specific expertise, ethical responsibility, communication, creativity and adaptability. This means that higher education should not adopt the false dichotomy between ban and surrender of AI. Higher education should create learning environments that will allow students to use AI, but not be intellectually substituted by it. The future-ready graduate is not the person who is able to receive the quick answer, but the person who is able to formulate the problem, evaluate the answer, explain the reasoning, understand the consequences and remain responsible for the decision.

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Governance and Institutional Strategies for Digital Education: Building Responsible, Inclusive and AI-Ready Learning Systems

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Abstract

Digital transformations in the education sector have shifted from an issue of technology to one of governance. Digital technologies, including learning platforms, data management, artificial intelligence (AI), generative AI, digital assessment and analytics are increasingly part of the institution's operation, but many schools and universities continue using fragmentary policies and reactive approaches to decision making. In this conceptual paper, I develop a framework for the governance of responsible digital education from a policy and institutional strategies perspective. Building on theories from digital education policy, teacher digital competence, AI governance, data ethics, professional learning and sociotechnical systems, I suggest that the sustainable digital transformation is only possible when there is a coherence between national policy, institutional governance, teacher competence, learner protection, infrastructure and improvement based on evidence. The paper proposes a multi-level governance structure and policy-to-practice learning cycle connecting regulation at system level with implementation at classroom level. By redefining governance as a pedagogical, ethical and institutional competency, rather than an administrative compliance activity, the paper makes a contribution to digital education scholarship. This compelling issue would shed light on embedding digital education not only at the institutional governance level but posit claims on policies that would need to be integrated fostering AI education across curriculums and also facilitating adequate digital competence for teachers while not only ensuring inclusive education being at the core but also making learners future ready.

Keywords: 1. digital education policy; 2. institutional governance; 3. AI in education; 4. teacher digital competence; 5. data governance; 6. digital transformation; 7. inclusive education; 8. professional learning.

Introduction

Education digital transformation is rapidly advancing, while its governance is not necessarily following the same pace. Digital technologies currently underlie communication, learning, assessment, administration, and learning support in schools, universities, and professional development institutions. The advent of artificial intelligence and generative AI technologies has additionally spurred digital transformation by opening up numerous opportunities for personalisation, automatic feedback, content generation, data analytics, and administration. However, those opportunities bring about a whole range of important policy issues, such as privacy, equity, academic integrity, algorithmic bias, teacher autonomy, procurement, cybersecurity, and learner well-being.

The main problem here is that the education systems often see the technologies as an operational rather than governance issue. Platforms get purchased, teachers are trained, acceptable use policies are developed, but there might not be a coherent framework that would connect policy, pedagogy, ethics, and institutional strategy in the matter. It leads to a situation where technologies become available in education without any evidence of learning outcomes; AI technologies get applied without understanding their potential risks; teachers are supposed to innovate without the relevant technological, infrastructural, and policy support.

This paper posits that policy frameworks and strategies for governance and institutional mechanisms are fundamental in determining educational quality. Digital education goes beyond simply ensuring availability of devices, software and training. It calls for a well-designed governance mechanism that will define roles and responsibilities, protect rights, develop teachers' competencies, ensure inclusive access and make innovations relevant to learning. According to UNESCO's Global Education Monitoring Report, technologies in education should be assessed according to their effectiveness in solving problems of access, equity, inclusion and quality, rather than their novelty only (UNESCO, 2023a). Similarly, OECD defines digital education as an issue related to an ecosystem that comprises standards, teacher competencies, infrastructure, evidence and stakeholder support (OECD, 2023).

The research question that informs this conceptual paper is: How could policy frameworks and governance strategies be designed in order to support responsible, inclusive and AI ready digital education? This paper addresses the research question through proposing a framework for multi-level governance and a policy to practice learning cycle. It incorporates policy guidance of UNESCO, OECD, European Commission, EU Artificial Intelligence Act and the World Bank, as well as scholarly literature on teacher professional development, digital literacy, ethics of AI and sociotechnical change.

The paper makes three key contributions. Firstly, it reinterprets digital education governance as an enabling capability for linking policy intention and educational practice. Secondly, it outlines institutional prerequisites for meaningful digital transformation in terms of pedagogy and ethics. Finally, the paper provides practical tools for aligning national policy, institutional strategy, teacher development, AI governance, data protection and evidence-based improvement.

Literature Review and Policy Context

The scope of digital education policy has been moved beyond mere technological support of education towards its holistic transformation. Early models of such policy tended to concentrate on connectivity, hardware and LMS. Current models of digital education policy understand the need for comprehensive ecosystems in terms of infrastructure, content, teacher competence, assessment, governance and evidence. The European Commission's Digital Education Action Plan 2021-2027 offers a vision of quality, inclusive and accessible digital education in terms of digital capacity, digital skills and readiness of the whole system (European Commission, 2020). World Bank similarly calls for the focus on purpose, scale and equity in designing EdTech policies (World Bank, 2025).

The second strand of literature relates to digital competences of teachers. Digital approaches will not succeed where educators are seen as consumers rather than professionals. As part of the DigCompEdu framework, teacher competences are identified in terms of professional engagement, digital resources, teaching and learning, assessment, learner empowerment and enabling the digital competence of learners (Redecker, 2017). Moreover, Caena and Redecker (2019) illustrate how teacher competence frameworks contribute to twenty-first-century education by integrating professional development and institutional requirements. It is supported by evidence on professional learning, which stresses the need for active, sustained, coherent and content-based development rather than stand-alone workshops (Darling-Hammond, Hyler and Gardner, 2017; Desimone and Garet, 2015).

Thirdly, the research covers AI and data governance. AI in education offers potential in terms of tutoring, feedback, analytics and administration. At the same time, there are risks in relation to bias, opacity, surveillance, data use and automation. Zawacki-Richter et al. (2019) reveal that AI applications in higher education have spread out into such spheres as profiling, assessment, tutoring and institutional operations. According to Holmes et al. (2022), AI in education needs a common ethical approach, while Jobin, Ienca and Vayena (2019) identify transparency, justice, non-maleficence, responsibility and privacy as common AI ethics principles.

The European Union's AI Act uses a risk-based approach to regulate AI with high-risk systems obligations and transparency requirements (European Union, 2024). Recent changes in policy regarding generative AI make it crucial for the governance of AI at an institutional level. In the guidelines for generative AI by UNESCO, there is a call for human-centered regulation, building of capacities in institutions, and respect for learners' autonomy (Miao & Holmes, 2023). The framework of AI competency for teachers by UNESCO describes what knowledge, skills, and values educators have to have when engaging with AI responsibly (UNESCO, 2024). According to the OECD's study of emerging governance approaches of generative AI in education, most countries are still working on the approach that will strike a balance between innovation, restriction, and guidance (OECD, 2023). Additionally, empirical studies on institutional AI policies also demonstrate that universities are adopting more cautious but proactive approaches with regards to generative AI policies, which involve academic integrity, improving teaching, equity issues, and defining roles for both faculty and students (Jin et al., 2025).

A considerable gap emerges from the literature review. While education systems have many policy assets, they need integrative models of governance which turn general principles into routine actions, professional training, procurement policies, pedagogical approaches and feedback loops. This research aims to cover that gap through developing a model of relationship between policy architecture and institutional strategies as well as learner achievement.

Theoretical Approach

There are three theories that provide the foundation for this research. Sociotechnical Systems Theory claims that digital transformation is caused by interactions of people, technologies, institutions, rules and values. Therefore, digital education governance needs to deal not only with technology but also with institutional contexts of selection, implementation, monitoring and modification of technology. Selwyn (2016) argues that educational technologies should be critically examined because technologies are influenced by social, political and institutional agendas rather than being neutral means. Secondly, professional learning theory views teachers as knowledge producers who engage in productive activity. The success of digital transformation depends on teachers being able to customize technology based on the curriculum, assessments, and needs of learners. Studies on professional development highlight the importance of coherence, sufficient time, collaboration, and practical learning as the conditions of any real change (Darling-Hammond et al., 2017; Desimone & Garet, 2015). Therefore, policy does not only have to require the use of digital tools but should set out pathways of professional learning, mentoring, motivation, and time for innovation.

Thirdly, human-centered AI governance is an ethical approach. Floridi et al. (2018) promote beneficence, non-maleficence, autonomy, justice, and explicability as the guiding principles of artificial intelligence. The same principles in education imply protection of learners, teachers' supervision, transparency, fairness, privacy, and accountability. Governance in this regard is not just about minimizing harm but promoting goals of education and society as a whole through AI.

Key Principles for Ethical Digital Education Policy

An effective policy will be underpinned by five guiding principles. First, educational purpose: educational technologies should be introduced where they can help resolve an issue related to education, inclusion, or institutional resiliency rather than simply following trends and fashion. Secondly, human agency: teachers and learners should continue having an active role in making decisions, providing feedback, assessing progress and taking other actions that affect educational opportunities in line with human-centric approach to AI governance and teaching traditions which see technology as tool for amplification of teaching expertise rather than a replacement of it (Floridi et al., 2018; Holmes et al., 2022).

Thirdly, competence before scaling: institution should not introduce digital platforms faster than it develops teacher competencies, mentoring for students and other support structures. TPACK framework reminds that technological competencies become relevant in education when combined with pedagogical and subject knowledge (Mishra and Koehler, 2006). Fourthly, equity through design: accessibility, cost, language, disabilities and connectivity issues should be taken into account in advance of implementing the technology. Fifth, accountable learning: success of digital strategies needs to be measured using evidence of learning quality, teacher workload and inclusion rather than just counting usage metrics.

In particular, the above principles have greater relevance in the post-COVID period, where emergency remote learning not only increased reliance on the use of digital tools but also highlighted issues of inequality, vulnerability of institutions, and limits of technology-driven reforms (Williamson, Eynon, and Potter, 2020). Thus, mature policy making requires clear differentiation of digitization, where the current process is transferred to the digital realm, from digital transformation, where educational systems are redesigned on the basis of educational value, expertise, and accountability.

Multi-Level Governance Architecture for Digital Education

The outlined model views digital education governance as a multi-level architecture. On the level of the system, policies outline rights, standards, funding priorities, data protection laws, AI policies, and competencies required at the national level. At the institutional level, leaders transform these policies into strategy development, procurement, professional learning, safeguarding practices, research, and

accountability arrangements. At the classroom level, governance is experienced by educators and learners through assessment, platform use, data practices, accessibility, AI practices, and support of learners.

Regulatory governance includes privacy, data protection, safeguarding, procurement, and risk management. There is a need for clear guidelines for assessing the educational benefit, security, accessibility, and ethics of any digital tool before use. Procurement processes cannot only revolve around cost-effectiveness and the novelty of the tool but will have to take into account pedagogical appropriateness, data minimization, interoperability, accessibility, and vendor liability.

Professional governance covers issues such as standards for teachers, professional development, and professional recognition. Teacher digital competence needs to be explicitly incorporated into induction, appraisal, professional development, and teacher leadership. However, governance cannot revolve around punitive compliance. Teacher digital competence needs to be developed using diagnosis, mentoring, peer cooperation, and micro-credentialing approaches. According to Tondeur et al. (2017), there is a need for systematic support to prepare teachers for technology integration.

The areas covered by educational governance include curriculum alignment, assessment validity, inclusion, and learner autonomy. The policies should clearly specify how technology helps learning and not simply governs behaviors. For example, there should be distinctions made within generative AI policies about what outsourcing is forbidden, what assistance is acceptable, clear acknowledgment of using AI, and the use of AI for pedagogic purposes. Assessment governance should not only involve detection responses but redesign of activities that involve reasoning, evidencing, oral defense, reflection, and application.

Strategy is the link between policy and implementation. Governance is credible when there are adequate resources to do it. A policy with no training, infrastructure, and monitoring is a paper tiger. Strategy without ethical guardrails is dangerous. Innovation without evidence is untenable.

Figure 1. Multi-level Governance Architecture for Digital Education Policy

Strategy: From Compliance to Capability

The strategy of institutions in relation to their digital actions has to move from the dominant strategy of compliance to the development of capability. Compliance will still be very significant, especially in matters of protection, privacy, and risk assessment, but it will not suffice alone. Here, capability is the ability of the institution to develop, adapt, and progress in relation to the digitalization environment. Development of such a capability requires good leadership, evidence, professional development, and standardization.

Firstly, institutions have to define a vision for their digital learning. The question here is: What problem does digitalization solve in terms of education? Without answering this question, there would be no coherence or coordination in the digitalization endeavors of the institution. Strategic thinking has to link digital tools to such issues as learner engagement, feedback, accessibility, teacher workload, assessment, resilience, as well as what is permitted, forbidden, or exceptional in using artificial intelligence. In addition, the adoption of the distributed leadership model by institutions is necessary. In the digital era, the governance of education should include information technology experts and also educators, academics, students, data protection officer, safeguarding officer, accessibility officer, curricula developers, and quality assurance officers. These various stakeholders will help in considering technology-based decisions in educational processes from the perspective of teaching, ethical, and functional perspectives.

In addition, evidence-based approaches need to be employed. According to Kucirkova, Brod, and Gaab (2023), "EdTech evaluation must be informed by the science of learning and not by mere adoption statistics." Thus, digital education programs need to be evaluated based on their efficiency, educator experience, equity of access, accessibility, workload, and trustworthiness of learners.

Policy-to-Practice Learning Cycle

The governance of digital education needs to be seen as an iterative process. Policies outlined in handbooks will become obsolete fast owing to the rapidly evolving AI solutions. Policy-to-practice learning cycle entails five steps, which are diagnose, design, implement, assure, and learn.

The diagnostic phase determines digital maturity, instructor requirements, infrastructural deficiencies, learner access, AI usage, and related risk exposure. Diagnosis needs to be carried out using various means, including surveys, interviews, analysis of the learning platforms, classroom observation, and equality assessment. The design phase involves translating diagnostic insights into standards, AI policies, professional development, procurement standards, and equality aspects. The implementation phase includes piloting technologies, guidance provision, teacher support, and creation of community of practices. The assurance phase covers monitoring of safeguarding, privacy, accessibility, assessment validity, and teaching quality.

There is a need for strong governance in AI and data. Governance should cover data collection, data storage, data consent, platform procurement, algorithm decision making, profiling of students, and human involvement. A risk-based approach is advisable because it provides an approach for categorizing applications based on the level of risk and determining the responsibilities for each category of risks

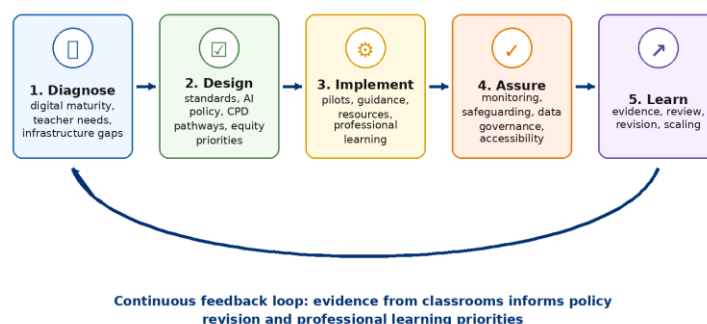
(European Union, 2024). Some examples of high-risk applications of AI in the field of education include admissions, assessment, placement, proctoring, and intervention prediction. In addition, inclusion should be a key goal of strategic planning within educational institutions. As part of their digital strategy, they need to take into account issues related to connectivity, device access, multilingualism, disabilities, assistive technology, low bandwidth, and cultural relevance. In a recently published UNESCO report on the application of technology in education, it is stated that technology can further deepen inequalities among students because of the unequal access to and cost of technology (UNESCO, 2023a).

This cycle requires critical analysis because digital governance may prove to be either too rigid or too flexible. If policies are too strict, they will hinder educational innovation and make students depend on their own devices. However, if policies are too flexible, then there can be problems with privacy violation and poor results. Through this cycle, trust between the institutions can be developed, which will increase the involvement of educators in the digital process because the policy will become developmental instead of being punitive. With clear and coherent expectations and policy alignment with educational goals, students will become more likely to follow rules and policies concerning AI and other platforms. Community, regulatory body, and parents' trust in institutions will grow when digital decision making is evidence-based and transparent.

Strategic Governance Matrix

Effective implementation of the policy requires clear identification of roles, risks, and actions. Table 1 identifies the strategic governance domains in educational institutions. The matrix should help educational institutions implement innovative ideas through governance processes.

As seen from the table, governance includes various aspects such as regulation, pedagogy, professional development, infrastructure, data governance, ethics of using AI, assessment, and evaluation. Each domain has the responsible entity, evidence base, and review cycle. Thus, the digital process in education becomes independent of individuals.

Figure 2. Policy-to-Practice Learning Cycle

Figure 2. Policy-to-Practice Learning Cycle
Table 1. Strategic Governance Matrix for Responsible Digital Education

Governance domain	Core policy question	Institutional strategy	Evidence of effectiveness
Digital infrastructure	Is access reliable, secure and inclusive?	Audit connectivity, devices, platforms and technical support	Access data, usage patterns, downtime and equity indicators
Teacher competence	Are educators prepared to teach digitally?	Use competence frameworks, CPD pathways and coaching	Teacher portfolios, observations and confidence surveys
AI and data governance	Are AI and data uses lawful, transparent and ethical?	Set approval processes, human oversight and risk reviews	AI use records, impact assessments and incident logs
Assessment and integrity	Do digital practices protect valid learning evidence?	Redesign assessment and clarify AI acknowledgement rules	Assessment quality reviews and learner guidance compliance
Inclusion and accessibility	Do tools support diverse learners?	Apply accessibility standards and low-	Participation, accessibility audits and learner feedback

		bandwidth alternatives	
Evidence and review	Are digital initiatives improving learning?	Operate policy-to- practice review cycles	Learning impact, retention, workload and trust measures

Figure 3. Institutional Digital Governance Maturity Model

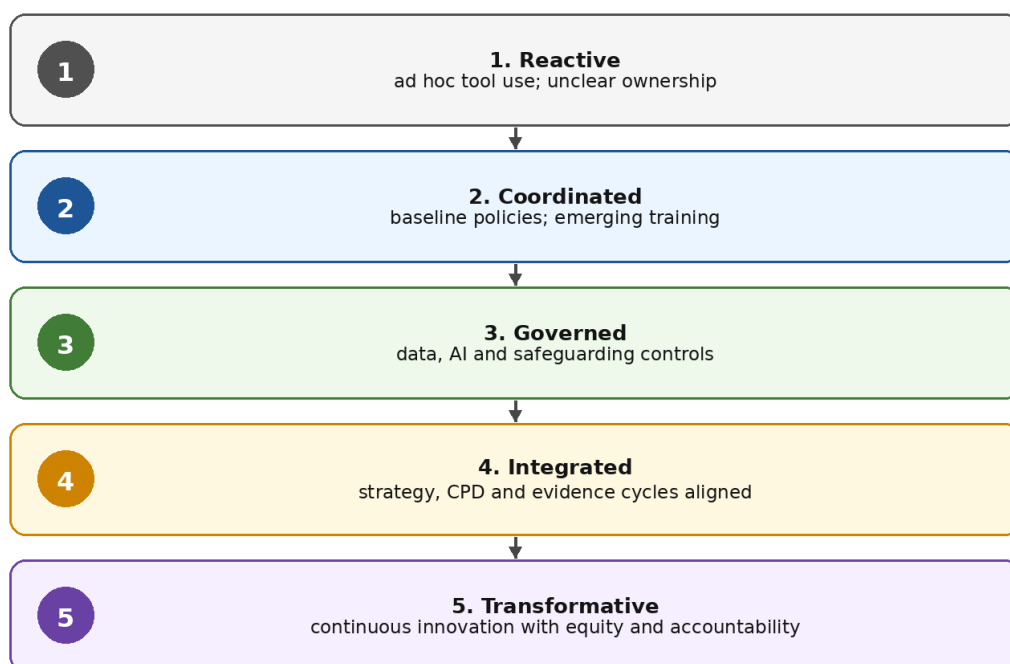


Figure 3. Institutional Digital Governance Maturity Model

Hypotheses for Future Research

A number of hypotheses that can be tested empirically can be formulated using the suggested framework. Hypothesis 1: The institutions whose digital policy architecture is unified will have greater congruence between their digital policies and practices in the classroom than those with fragmented digital policy systems. Hypothesis 2: Professional development of teachers will serve as the mediator between digital policy and pedagogical practice. Hypothesis 3: Greater clarity in governance of artificial intelligence and data will increase teachers' preparedness to use AI in a responsible way. Hypothesis 4: Inclusion by design will act as the mediator between digital transformation and equity of learners. Hypothesis 5: Evidence-based review cycles will contribute to long-term sustainability of digital education.

Such hypotheses can be investigated using the comparative case study methodology, surveys of institutions, policy analysis, interviews with teachers, and longitudinal assessment of digital transformation projects. Comparison of different governance systems in relation to school education, higher education, vocational education, and resource-poor contexts will be especially fruitful.

Discussion

One of the fundamental arguments presented within this research is that digital education policy should evolve from an approach focused on adoption to one centered on governance. While existing educational systems concentrate on hardware, software, and training, any true change requires a proper integration of a variety of interrelated elements. Governance plays an important role as an intermediary between regulation and pedagogy, between competences of educators and protection of learners, between innovation and empirical evidence.

The proposed theory questions three major assumptions. The first one is based on the belief that access to technology is what promotes transformation. Access is seen as a precondition; nonetheless, without appropriate pedagogy and evidence, it does not lead to real changes. Second, this theory challenges the view that AI policy focuses on issues of integrity. While integrity is important, the field of AI governance includes much more aspects such as test design, privacy, bias, inclusion, workload of teachers, and human agency. Finally, the third assumption claims that governance hinders innovation; on the contrary, governance helps innovation. Such a framework has its importance especially when applied to organizations deploying generative AI. With time, the use of AI has become mainstream, from being auxiliary tools for instructional design, assistance in writing assignments for students, provision of feedback and information management. Trying to ban or disregard AI would be counterproductive. Higher institutions of education should establish proper policies, guidelines, AI literacy skills, assessment and evaluation measures. Jin et al. (2025) argue that many universities around the world are now developing their policy frameworks that consider the issue of cautious use of technology, roles and academic integrity. Also, it is important to emphasize the significance of human values. Digital education must assist teachers, show respect towards learners and be accessible to everyone. The process of decision-making of professionals should not be replaced; data collected should be used in order to take action without developing surveillance culture. AI must expand possibilities of learning while not replacing human capabilities. Thus, governance should not only focus on the aspects of compliance, but also those of trust, equity and learning.

Implications for Practice

To policy makers, the paper indicates that digital education policy needs to be viewed from the perspective of ecosystem policy. The strategy must include issues such as the infrastructure, digital competence, governance of artificial intelligence, accessibility, procurement, teacher training, and evaluation. In addition, the policy must provide a flexible framework that can be used in institutions without necessitating each school and university to have their individual AI and data policies.

Institutions will use the framework to move from ad hoc approaches to strategic thinking. This involves the establishment of multidisciplinary digital governance committees, digital maturity audits of the institution, implementation of AI and data policies, teacher training, and evaluation. Procurement of technology needs to consider educational worthiness in addition to functionality. From the educational point of view, the framework emphasizes that digital literacy is a professional issue rather than a purely personal one. Teachers need time, mentoring, peers, models, and policies. It is necessary for teacher education programs to prepare teachers for critical evaluation of technologies, AI critical engagement, creation of inclusive learning designs, and learner autonomy protection. With respect to quality assurance, the framework recommends that digital governance should be included into the institutional review. The review must evaluate if the institution has in place a consistent digital policy framework, AI ethics policies, data protection practices, documentation on faculty development, learning designs accessibility, and comprehensive student guidance.

Limitations and Future Research

The current study is purely conceptual and does not involve empirical data. The significance of the paper is the combination of relevant policy and scientific literature in the governance approach aimed at supporting organizational policy making. The future research should prove this governance framework in various settings of education. In addition, comparative research should evaluate the link between the degree of maturity of the governance, teacher performance, students' trust level and achievement results. Interventions would include the analysis of the effects of feedback between policy and practice for the implementation of new technologies.

Moreover, there is a need for further research in low- and middle-income countries, where the policy frameworks used in this paper imply some technological and human resources. Thus, the next studies should analyze the adaptation of the governance framework in the setting of poor connectivity, lack of devices and technical help, and insufficient professional development opportunities. Finally, the future

research should address the question of the position of the learner in the digital governance framework as a participant of policy.

Conclusion

The concept of governance becomes a distinctive feature of digital education. Unlike before when attention was paid to the need for the integration of technologies into educational settings, now discussions emphasize good governance that should be regulated. AI technologies and digital platforms offer many possibilities; however, they are risky at the same time. Policy making should go further than regulation and become a tool that would balance between regulation, institutional policy, preparation of teachers, privacy issues, classroom management and performance enhancement.

In this study, it is proposed to consider the model of multi-level governance supplemented with learning loop that operates both at the level of policy making and implementation at the stage of digital education. It has been found out that good governance is consistent with regulatory, professional and educational aspects. Moreover, the study proves that the strategy of institutions acts as an intermediate link between policy making and learning processes. Success does not depend on the ability of an institution to use various digital technologies, but on the right way of their application. The future of education in the age of digitalization will depend on the quality of judgement of institutions. In case there is good governance, technology can help facilitate deeper learning, improve teacher capacity, foster inclusivity, and encourage responsibility in innovating. On the other hand, poor governance can result in the use of these technologies in a way that creates inequities, facilitates surveillance, causes overload, and destroys trust. As such, the development of a complex policy regime calls for giving priority to these issues during the transition into the digital age.

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Network Marketing: A Comprehensive Overview (2011–2026)

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Abstract

The present research study attempts to provide a general understanding of network marketing, its historical background, current status, business activities related to network marketing, average exports made by network marketing companies from India during the period 2011 to 2026*, the percentage share of major products exported by these companies, and the income position of leading network marketing companies in India. This study highlights the status and distinctive features of network marketing companies operating in India.

Keywords: *Network, Business, Employment, Marketing, Association, Company, Exports, Period, Products, Provider*

Introduction

Network marketing, also known as multi-level marketing (MLM), is considered a modern business model in which individuals earn income through the direct sale of products or services. In addition, they can generate income by engaging other people in the business according to their skills, abilities, and work performance. Individuals associated with this system build their own network or group and carry out various business activities.

Since their earnings are generally determined by the volume of sales, they receive continuous motivation to promote and sell products effectively. Thus, people associated with network marketing can also earn commissions based on their performance and contribution to the network. The present research study makes a humble attempt to cover these and several other important aspects related to network marketing.

Objectives

- To study the important aspects of network marketing.
- To analyse the export and sales activities of network marketing companies in India.
- To identify the percentage share of major products exported and sold by network marketing companies from India.

- To examine the trends in the income of major network marketing companies in India during the years 2022 and 2026.
- An overview of Network Marketing in the year 2026

Research Methodology

The present study is descriptive in nature and is based on secondary data collected from various published sources.

Review of Literature

CFI (2015) Multilevel Marketing

According to CFI, multilevel marketing involves a business entity that operates through a sales force spread across different countries, states, regions, and local areas. Individuals work within the system through cooperation, mutual expectations, and coordinated activities, thereby obtaining employment and income according to their skills and abilities. Such a system also supports individuals in managing their economic and social activities.

Achrol & Kotler (2024) Networks in Marketing

Achrol and Kotler explain that network marketing creates a structured relationship between an organisation and individual responsibility in such a way that all associated members receive direct or indirect benefits. The ultimate objective is to provide goods and services according to the needs of consumers while operating a business unit, company, or institution. Mutual benefit and the unique identity of the organisation remain central to this system.

Adam Hayes (2024) What Is Network Marketing?

Adam Hayes defines network marketing as a business system in which independent individuals undertake the sale of products and related services. Network marketing is associated with several forms such as multilevel marketing (MLM), cellular marketing, affiliate marketing, consumer marketing, direct marketing, referral marketing, and home-based business marketing.

Suomi.fi Editorial Team (2025) Direct Selling and Network Marketing

The Suomi.fi editorial team states that network marketing can be operated by a small group of individuals functioning as a company or organisation and conducting direct selling activities. As the organisation

expands, employment opportunities are generated for people according to their abilities and skills. Income is generally linked to the performance of individuals, which can contribute to maintaining and improving their standard of living.

Payal R. Gojiya (2025) Network Marketing

This research paper provides a general overview of Network Marketing, also known as Multi-Level Marketing. It covers the historical background, current status, and business activities of network marketing in India. The study shows that network marketing started in India in 1996 with Modicare and gained legal support after IDSA's efforts between 2003 and 2015. According to government data, the direct selling industry reached 15 billion USD in 2015 and achieved the global target of 645 billion USD by September 2024. The paper highlights that between 2011 and 2021, the average exports from Indian network marketing companies were approximately ₹1,671 lakh. Major export categories include Wellness products at 59%, Cosmetics and Personal Care at 22%, and other categories like household goods and food products. The study also discusses how people earn through direct sales and by building a team, with income linked to performance.

Network Marketing and Its Important Aspects

Network marketing is a business entity in which individuals independently work together for their mutual benefit and earn income according to their personal skills, abilities, and responsibilities. Important economic factors involved in network marketing include investment, production, income, expenditure, price, consumer attitudes, economic conditions, and business activities.

Network Marketing in India

Network marketing in India was first introduced in the year 1996. Modicare is considered the first network marketing company in India, and it is believed that the company initiated direct selling industrial activities in the country. However, during the subsequent period, Modicare experienced a significant financial setback. One of the major reasons for this adverse phase was the prevalence of tax evasion and fraudulent business entities in economic activities at that time, which caused substantial losses.

As such activities increased, network marketing came to be associated with the term grey marketing. This negative perception further aggravated the difficult situation of the company, and its impact was deeply felt in the network marketing sector.

Despite the prevailing market conditions, direct selling industrial activities through network marketing continued to operate and survive in the market, which is considered a significant achievement. Among the important companies in the field of network marketing, The Shoe'd Be Look and IDSA (Indian Direct Selling Association) played an important role during the period from 2003 to 2015. Through appropriate representations and agreements with the Government, IDSA obtained approval for direct selling industrial activities in accordance with legal provisions and regulations. This development proved to be a major support for all kinds of network marketing activities and created opportunities for the growth and expansion of the sector.

In 2015, the Government stated that businesses engaged in direct selling industrial activities had already generated business worth 15 billion US dollars, which reflected the unique potential and growth of the industry.

Network marketing companies had set a target of 645 billion US dollars by the year 2025, and this target was reportedly achieved by September 2024. This achievement highlights the distinctive nature of network marketing and its important position in commercial and business activities.

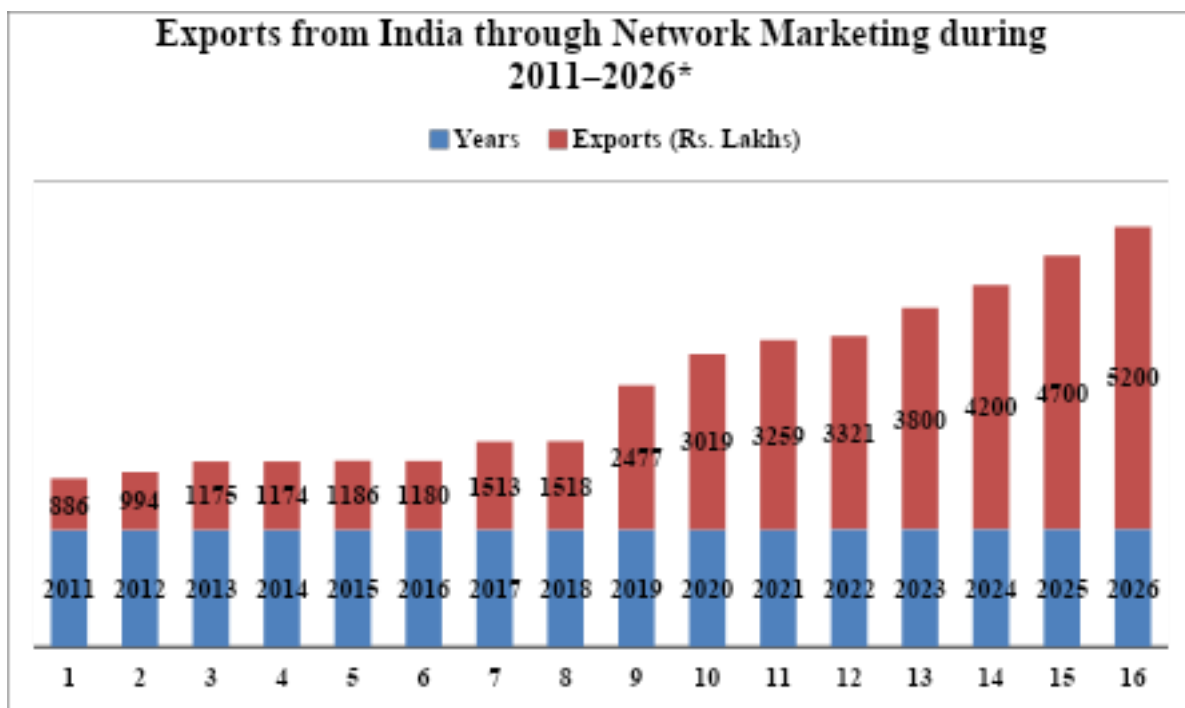
Government laws and regulations provided momentum to network marketing activities, and this contribution should not be overlooked. Therefore, network marketing has performed remarkably well under the present circumstances and has contributed significantly to economic aspects such as production, income, expenditure, price, sales, employment, and demand. It can be said that network marketing has provided the country with a new direction for economic activity.

Exports from India through Network Marketing during 2011–2026

Years	Exports (Rs. Lakhs)
2011	886
2012	994
2013	1175
2014	1174
2015	1186
2016	1180
2017	1513
2018	1518
2019	2477
2020	3019

2021	3259
2022	3321
2023	3800
2024	4200
2025	4700
2026*	5200
Average	2475.12

Source: infinite MLM software, 2021-22, researcher's projection for 2026 based on market trend analysis



Interpretation

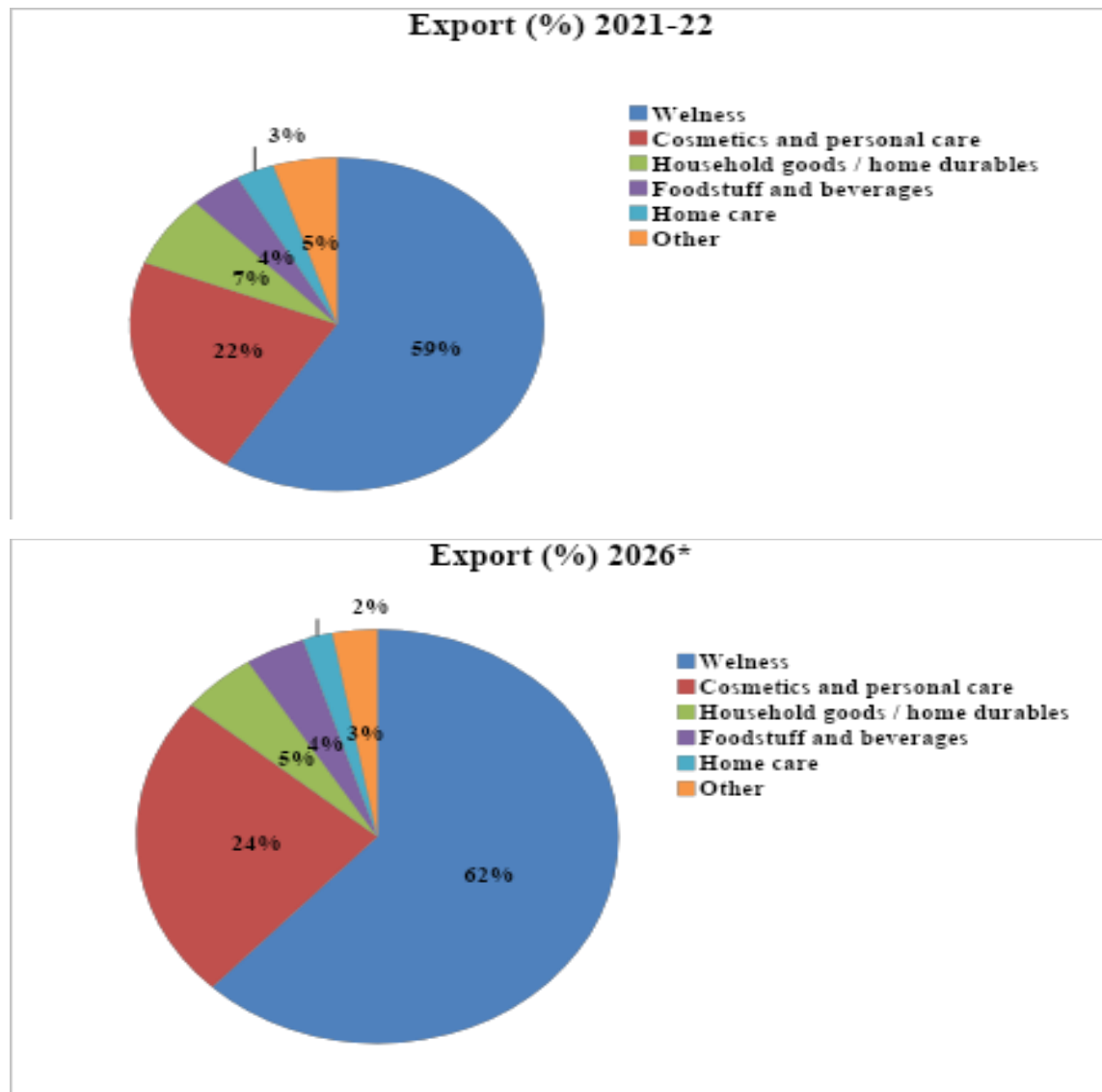
According to the above table, the global exports made by network marketing companies from India during the period from 2011 to 2026* are presented. It can be observed that the average value of exports during the period 2011-2026 was approximately **Rs. 2475.12** lakh.

Sale of Major Products through Network Marketing in India

Product	Export (%) 2021-22	Export (%) 2026*
Welness	59%	62%
Cosmetics and personal care	22%	24%

Household goods / home durables	7%	5%
Foodstuff and beverages	4%	4%
Home care	3%	2%
Other	5%	3%
Total	100%	100%

Source : IndiadirectsellingExpo, 2021-26



Interpretation

The above table presents the different categories of exports made by network marketing companies from India along with their respective percentage shares. It can be observed that Wellness products account for 62%, Cosmetics and Personal Care products for 24%, Household Goods/Home Durables for 5%,

Foodstuffs and Beverages for 4%, Home Care products for 2%, and Other products for 3% of the total exports.

Network Marketing in 2026

Health & Wellness Products

Companies : Herbalife, Vestige

Products : Protein shake, vitamins, weight loss plan

How it works :

- You start by using the 30-day shake yourself + post before/after photos or reels.
- Share them on your WhatsApp Status and Instagram. People who want to lose weight will DM you.
- 1 box costs ₹3,000. If you sell 10 boxes, you earn ₹3,000 commission.
- Then you bring in 2 friends to the business. When they also sell, you keep earning 5-8% from their sales.

2026 Advantage : The company gives you an AI chatbot that answers customer questions for you. So your work becomes much easier.

Digital Education / Skill Courses

Companies : UpSkill, Digistore

Products : Online course on "How to earn money from Instagram Reels" for ₹999

How it works :

- You buy the course, learn, and show your results.
- If you sell the course to 20 people in your college group: $₹999 \times 20 = ₹19,980$
- You get 40% = ₹7,992
- If 5 people join your team and they also sell courses, you earn 10% from their sales too.

Benefit : The product is digital. No stock needed. Everything runs from your mobile.

Daily Use Products - FMCG

Companies : Amway & Modicare

Products : Toothpaste, soap, dishwash liquid

How it works :

- You and your family buy ₹2,000 worth of products from the company every month.

- Your neighbors also like it and buy through your ID.
- If you connect 10 households and each buys ₹2,000 per month, that is ₹20,000 in group sales.
- You earn ₹1,000 to ₹2,000 commission every month.

What changed in Network Marketing in 2026?

AI Tools : Companies now give ready-made Whatsapp messages and Reel scripts.

UPI Payments : Customers pay directly through a link. Your commission hits your bank account within 24 hours.

Social Media : Your Instagram is no longer just promotion. It is your own shop.

Findings

The study provided an understanding of the historical background of network marketing and its present status.

Information regarding the general and important aspects of network marketing was obtained.

The commercial activities related to network marketing were studied and understood.

During the period from 2011 to 2026, network marketing companies in India exported goods worth an average of Rs. 2475.12 lakh.

The percentage share of major products marketed through network marketing companies in India was presented.

The study also provided information regarding the income position of leading network marketing companies in India.

The estimated network marketing export for India in 2026 is projected to be Rs. 5,200 Lakhs. Year-wise, the exports are estimated to grow from Rs. 3,800 Lakhs in 2023 to Rs. 5,200 Lakhs in 2026. The steady double-digit growth indicates expanding distributor networks, higher consumer acceptance, and overall market development in the network marketing industry.

Overall, the data suggests that health and beauty-related products will continue to drive the majority of growth in the network marketing sector by 2026.

Conclusion

Thus, the present research study provided an understanding of the major network marketing companies, the basic concept of network marketing, its important features, the status of network marketing companies in India, and their export-related business activities.

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A COMPARATIVE ANALYSIS OF LIQUIDITY POSITION OF SELECTED CEMENT COMPANIES OF INDIA

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ABSTRACT

This paper aim is to analysis of the liquidity position of selected Cement companies of India. In this research study four major companies selected UltraTech Cement Ltd, Ambuja Cement Ltd, ACC Ltd and Shree Cement Ltd help of non probability sampling. Time period of this study was five years 2019-20, 2020-21, 2021-22, 2022-23 and 2023-24. In this research paper for the analysis purpose researcher used ANOVA test and analyzed selected cement companies' liquidity position. In the testing hypothesis for current ratio; there is a significant difference between in Current Ratio of selected companies during the period of study, for quick ratio; there is a significant difference between in Quick Ratio of selected companies during the period of study and for inventory turnover ratio; there is a no significant difference between in Inventory Turnover Ratio of selected companies during the period of study. It was revealed that Ambuja Cement liquidity position better than other selected companies.

Keyword: liquidity, UltraTech Cement Ltd, Ambuja Cement Ltd, ACC Ltd, Shree Cement Ltd

1. INTRODUCTION

India the second-largest cement producer globally has significant potential for infrastructure and construction development. The cement sector is expected to benefit from rising rural housing demand and the recovery of the industrial sector. Recent initiatives like 98 smart cities are expected to boost the sector, ensuring long-term demand growth.

The minimal effort or speed of which a security or asset can be converted into immediate funds without damaging its value on the market is termed as liquidity. Cash only is the most liquid asset. Thus, the main element affecting a market's ability to move efficiently is the availability of cash for performing such transactions. The more simple and efficient it is converting an asset back into cash, the more liquid it is. Lower liquid assets might be more costly and require slower to process.

2. REVIEW OF LITERATURE

(CA (Dr.) Yukti Baljit Chandok, 2023) This paper focuses at the liquidity of Indian companies in the paper, sugar, and textile industries over a ten-year period. The study of four companies from each industry showed that the paper and textile business sectors outperformed the sugar industry. However, the sugar industry suffered financial difficulty. Vardhman Ltd from the textile industry was ranked highest among all companies.

(Prajapati, 2018) The pharmaceuticals sector in India that makes up 2.4% of the global market will continue to expand at a compound annual growth rate (CAGR) of 15.92% to reach \$55 billion by 2020. Generic medicines keep a 71% market share, and by 2018, India will come in at third globally in terms of generic active pharmaceutical ingredients. This study analyzes the liquidity performance of top pharmaceutical companies throughout a ten-year period.

(Dr. C Dhanalakshmi, 2017) The purpose of the study is to analyze the affect of Merger and Acquisition on the Liquidity condition of selected pharmaceutical companies. Eight pharmaceutical companies that have been listed on the Bombay Stock Exchange (BSE) and involved in merger and acquisition (M&A) activities in India after the recession, or after 2007, had been selected for this research. The study focuses on comparing different liquidity ratios before and after the event occurred. In this research, further statistical techniques such as the mean, standard deviation, coefficient of variation, and paired "t" test were applied.

(Marimuthu, 2013) The paper analyzes the relationship between 18 Tamil Nadu textile companies' profitability and liquidity management utilizing data from the CMIE database. Regression analysis and multiple correlations are applied to analyze liquidity management and profitability measures from 2001 to 2012. There is reason to believe all of those variables have a low degree of correlation. Based on descriptive statistics, there is relatively efficient liquidity management and a very ideal liquidity and solvency position. A lower correlation between liquidity management and profitability has been established by multiple regression analysis.

(Dharmendra Kumara, 2012) This paper compares the liquidity position of Indian Electrical Equipment Industry companies listed in Nifty 50. Results show positive growth rates in current assets, liquid assets, current liabilities, net working capital, and quick net working capital for BHEL and Suzlon Energy Ltd., except for ABB Ltd. and Siemens Ltd., which have negative growth rates. Siemens Ltd liquidity position appears sound according to Motaal's Ultimate Rank Test.

3. OBJECTIVES OF THE STUDY

- To determine and Comparison of liquidity position of the selected cement companies of India

4. RESEARCH METHODOLOGY

4.1 Sample of the study

All the samples are selected with the help of non probability method of judgemental sampling. For the selection of the company is based on 2025 net profit.

Company	Net profit (IN CR)
UltraTech Cement Ltd	3236.9
Ambuja Cement Ltd	2620.1
ACC Ltd	1091.8
Shree Cement Ltd	799.8

4.2 Period of the study

The study time duration 5 years i.e. 2019-20 to 2023-24

4.3 Hypothesis of the study

- H₀:** There is **no** significant difference in the **Current** ratio between the selected companies during study period.
- H₀:** There is **no** significant difference in the **Quick** ratio between the selected companies during study period.
- H₀:** There is **no** significant difference in the **Inventory Turnover** ratio between the selected companies during study period.

4.4 Method of data analysis

Data classifying and tabulation are the techniques applied to analysis of data. Ratio analysis is the base of our study. In this study Current Ratio, Quick Ratio and Inventory Turnover Ratio is used. ANOVA is utilized, when testing a hypothesis at the 0.05 level of significance and 95% confidence level.

5. DATA ANALYSIS AND INTERPRETATION

1. Current Ratio

(in X (times))

Years	UltraTech Cement	Ambuja Cement	ACC Ltd	Shree Cement
2019-20	1.03	0.98	1.58	1.79
2020-21	1.17	1.26	1.74	2.05

2021-22	0.99	2.00	1.71	1.69
2022-23	0.98	1.75	1.44	1.23
2023-24	0.84	2.32	1.57	1.87
Average	1.002	1.662	1.608	1.726

(Source: www.moneycontrol.com)

Analysis:

Current Ratio is defined as the relationship between current assets and current liabilities. As a conventional rule, current ratio of 2:1 is considered satisfactory.

UltraTech Cement Ltd was operating at 1.03 times in 2019-20 with reference to current ratio. This was increase in next year 2020-21 at 0.14 times. Then it is decrease in 2021-22 and reaches the 0.99 times. After next year 2022-23 decrease 0.1 times. And year 2023-24 this ratio at 0.84 times and decreases 0.14 times.

Ambuja Cement Ltd was having the current ratio at 0.98 times in 2019-20, which was increase to 1.26 times in following year 2020-21. In the next year 2021-22 this ratio is increase 0.74 times after following year 2022-23 that was decrease 0.25 times and reach the 1.75 times. Last year 2023-24 current ratios also increase at 2.32 times.

ACC Ltd was at 1.58 times in terms of current ratio in 2019-20. This was increase in 2020-21 at 1.26 times. In following year 2021-22 ratio is decrease 0.3 times. Year 2022-23 it reached 1.44 times and 2023-24 this ratio also increases by 0.13 times and reached the 1.57.

Shree Cement Ltd, it started with 1.79 times in 2019-20. This is increase 2.05 times in 2020-21. Next year 2021-22 this ratio decrease and reached at 1.69 times. The following year 2022-23 that was also decrease 0.46 times. In the last year 2023-24 current ratio is increase and stable at 1.87 times.

2. Quick Ratio

(in X (times))

Years	UltraTech Cement	Ambuja Cement	ACC Ltd	Shree Cement
2019-20	0.77	0.81	1.34	1.42
2020-21	0.98	0.99	1.55	1.63
2021-22	0.72	1.71	1.50	1.21
2022-23	0.71	1.50	1.16	0.87
2023-24	0.52	2.08	1.27	1.34
Average	0.74	1.418	1.364	1.294

(Source: www.moneycontrol.com)

Analysis:

Quick Ratio establishes the connection between liquid assets and current liabilities. Liquid assets are those that can be converted into cash quickly, without loss of value. Liquid ratio of 1:1 is, usually considered satisfactory.

UltraTech Cement Ltd was at 0.77 times in 2019-20. This was increased to 0.98 times in 2020-21 and decreased 0.72 times in 2021-22. And next year 2022-23 this was also decreased 0.1 times. Last year 2023-24 this ratio is decrease at 0.52 times.

Ambuja Cement Ltd was at 0.81 times in 2019-20. This is increase to 0.99 times in 2020-21 and 1.71 times in 2021-22. Year 2022-23 this ratio was decreased at 0.21 times. Last year 2023-24 this ratio almost highest in compare to other year at 2.08 times.

ACC Ltd performed 1.34 times in 2019-20. This ratio was increased to 1.55 times in 2020-21 and 1.50 times in 2021-22. This ratio was decreased at 1.16 times in 2022-23. Year 2023-24 increased this ratio at 0.58 times and reached at 1.27 times.

Shree Cement Ltd was at 1.42 times in 2019-20. This was increased to 1.63 times in 2020-21 and decreased 1.21 times in 2021-22. Next year 2022-23 this ratio was also decreased 0.34 times. Last year 2023-24 this ratio is increase and reaches to 1.34 times.

3. Inventory Turnover Ratio

(in X (times))

Years	UltraTech Cement	Ambuja Cement	ACC Ltd	Shree Cement
2019-20	10.60	3.68	13.72	8.34
2020-21	11.60	4.12	4.16	8.52
2021-22	1.45	0.85	5.04	2.29
2022-23	1.51	4.95	6.27	2.99
2023-24	1.35	3.42	4.14	2.56
Average	5.302	3.404	6.666	4.94

(Source: www.moneycontrol.com)

Analysis:

Inventory Turnover Ratio shows the velocity of stocks. A higher ratio is an indication that the firm is moving the stocks better so profitability.

UltraTech Cement Ltd is operating at 10.60 times in 2019-20. Then it increased to its highest of 11.60 times in 2020-21. Then in 2021-22, it decreased to 1.45 times and then increased to 1.51 times in 2022-23. Finally it ended with 1.35 times in 2023-24.

Ambuja Cement Ltd was at 3.68 times in 2019-20. After it increased 4.12 times in 2020-21 and decreased 0.85 times in 2021-22. Next year 2022-23 this ratio is highest at 4.95 times. In the last year 2023-24 this ratio lowest at 3.42 and decreased in compare to previous year.

ACC Ltd performed 13.72 times (its Highest) of this ratio in 2019-20. Then it decreased 4.16 times in 2020-21 and increased 5.04 times in 2021-22. Next year 2022-23 this ratio is increase at 6.27 times. This ratio ended with 4.14 times in 2023-24.

Shree Cement Ltd was at 8.34 times in 2019-20 and 8.52 times (its highest) of this ratio in 2020-21. In the next year 2021-22 this was decreased at 2.29 times and increased 2.99 times in 2022-23. Finally it ended with 2.56 times in the year 2023-24.

6. APPLICATION OF ANOVA TEST

I. ANOVA Test for Current Ratio

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.684935	3	0.561645	5.371509	0.009451	3.238872
Within Groups	1.67296	16	0.10456			
Total	3.357895	19				

II. ANOVA Test for Quick Ratio

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.47396	3	0.49132	4.873239	0.013565	3.238872
Within Groups	1.61312	16	0.10082			
Total	3.08708	19				

III. ANOVA Test for Inventory Turnover Ratio

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	26.9662	3	8.988733	0.630353	0.605983	3.238872
Within Groups	228.1573	16	14.25983			
Total	255.1235	19				

7. RESULT OF THE STUDY

No.	Ratio	Calculated value	Table value	Result
1	Current Ratio	5.371	3.239	H₀ IS REJECTED
2	Quick Ratio	4.873	3.239	H₀ FAILED TO ACCEPT
3	Inventory Turnover Ratio	0.630	3.239	H₀ IS ACCEPTED

Analysis:

It is conclude from the above table that table value for the **Current Ratio** is 3.239 and calculated value is 5.371 at 5% level of significance and 19 of degree of freedom. Here, calculated is higher than the table value and hence null hypothesis is rejected. So, it can be finding that **there is a significant difference between in Current Ratio of selected companies during the period of study.**

For the **Quick Ratio**, table value 3.239 is lower than the calculated value 4.873 and 19 of degree of freedom at 5% level of significance. So, it can be said that **there is a significant difference between in Quick Ratio of selected companies during the period of study.**

For the data of **Inventory Turnover Ratio**, the calculated value 0.630 and table value is 3.239 at 5% level of significance. It is show that calculated value is lower than the table value and here null hypothesis accepted and alternative hypothesis is rejected. So, it can be finding that **there is a no significant difference between in Inventory Turnover Ratio of selected companies during the period of study.**

8. FINDINGS

- In the Current Ratio and Quick Ratio, Ambuja Cement Ltd was performed better compare to other selected sample.
- ACC Ltd was outperforming the other entire sample in respect of Inventory Turnover Ratio during the study period.

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ગુજરાતમાં સ્થાનિક સ્વરાજ્યની સંસ્થાઓનો ઇતિહાસ: બ્રિટિશ કાળથી વર્તમાન નગરપાલિકાઓ સુધીનો વિકાસ

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સારાંશ

આપણા શહેરો અને ગામડાંઓમાં રોજીંદી સગવડો જેવી કે પીવાનું પાણી, રસ્તા અને સાફ-સફાઈ પૂરી પાડવામાં નગરપાલિકાઓની ભૂમિકા ખૂબ મહત્વની રહી છે. જોકે આ વ્યવસ્થા રાતોરાત નથી બની, પણ તેનો એક લાંબો ઇતિહાસ છે. પ્રાચીન મૌર્ય અને ગુપ્ત કાળમાં પણ નગર વ્યવસ્થા માટે ખાસ અધિકારીઓ હતા, પરંતુ આજે આપણે જે કાયદાકીય નગરપાલિકાઓ જોઈએ છીએ તેની સાચી શરૂઆત અંગ્રેજોના સમયમાં થઈ હતી.

૧૮૮૨માં લોર્ડ રિપને સ્થાનિક સ્વરાજ્ય અંગેનો મહત્વનો ઠરાવ લાવ્યા પછી ગુજરાતના અમદાવાદ, સુરત, ભરૂચ અને નડિયાદ જેવા શહેરોમાં મ્યુનિસિપાલિટીઓ સ્થપાવા લાગી. આઝાદીની લડાઈ વખતે સરદાર વલ્લભભાઈ પટેલે અમદાવાદ મ્યુનિસિપાલિટીનું નેતૃત્વ સંભાળીને બ્રિટિશ શાસન સામે ઝૂક્યા વગર ભૂગર્ભ ગટર, પીવાનું પાણી અને શિક્ષણ જેવા અનેક જનહિતના કામો કરીને સ્થાનિક વહીવટનું એક ઉત્તમ ઉદાહરણ પૂરું પાડ્યું હતું.

આઝાદી પછી ગુજરાત સરકાર દ્વારા 'ગુજરાત મ્યુનિસિપાલિટીઝ એક્ટ, ૧૯૬૩' બનાવવામાં આવ્યો, જેનાથી વહીવટમાં સમાનતા આવી. ત્યારબાદ ૧૯૯૨ના ૭૪મા બંધારણીય સુધારાએ નગરપાલિકાઓને બંધારણીય દરજ્જો આપ્યો, દર ૫ વર્ષે ચૂંટણી ફરજિયાત કરી અને મહિલાઓ તથા પછાત વર્ગોને અનામત આપીને સત્તામાં ભાગીદારી આપી.

આજે 'ઈ-નગર' જેવા માધ્યમોથી મોટાભાગના કામો ઓનલાઈન થઈ રહ્યા છે અને વસ્તીના આધારે 'અ' થી 'ડ' વર્ગમાં વિભાજન થયું છે. જો આ સંસ્થાઓને નાણાકીય રીતે વધુ મજબૂત અને સ્વતંત્ર બનાવવામાં આવે, તો તે શહેરોના વિકાસ માટે આશીર્વાદરૂપ સાબિત થઈ શકે છે.

ચાવીરૂપ શબ્દો, ગુજરાતમાં સ્થાનિક સ્વરાજ્યની સંસ્થાઓનો ઇતિહાસ, બ્રિટિશ કાળ, વર્તમાન નગરપાલિકાઓ

પ્રસ્તાવના

ભારત દેશ એ ગામડાઓના સમૂહથી બનેલો દેશ છે. ભારત દેશમાં ગામડાઓને નાના-નાના એકમોમાં વહીવટ કરવામાં આવતો હતો. જેમાં પંચાયત એ ગ્રામવ્યવસ્થા માટે બનેલી છે. 'પંચાયત' શબ્દ એ માનવીના માનસ અને સંસ્કૃતિ સાથે જોડાયેલો છે. પ્રાચીન સમયથી પંચાયત શબ્દ એ આપણી સાથે વ્યવહારમાં ઉપયોગ કરવામાં આવે છે. ગામડાનો નાનામાં નાનો વહીવટ પંચાયત દ્વારા કરવામાં આવતો હતો. પંચાયત શબ્દનો અર્થ પાંચ વ્યક્તિના સમૂહ દ્વારા અસ્તિત્વમાં આવ્યો હતો.

ભારત દેશમાં લોકશાહી શાસનવ્યવસ્થા હોવાથી સરકાર એ માત્ર સ્થાનિક સ્તરની સંસ્થા નથી પરંતુ લોકશાહીનો પાયો વિસ્તૃત અને મજબૂત બનાવનારી સંસ્થા છે. લોકશાહીના કારણે સ્વતંત્રતા, સમાનતા અને જનકલ્યાણના મુલ્યો સાકાર કરવામાં સક્ષમ બની છે. સ્થાનિક નાગરિકો સ્વતંત્ર રીતે રહી શકે એ માટે સરકારે પોતાની સત્તાને ત્રણ વિભાગમાં વિભાજીત કરી છે. જેનાથી સરકાર દ્વારા સ્થાનિક નેતા અને નાગરિકને સ્વતંત્રતા દ્વારા તેના પ્રશ્નો ઉકેલી શકે છે. જેમાં નગરપાલિકાઓ, નગરપંચાયતો, ગ્રામપંચાયતો વગેરે સ્થાનિક સ્વશાસનનાં એકમો ગણાવી શકાય છે.

સ્થાનિક સ્વરાજ્યની સંસ્થાઓ એ કોઈપણ લોકશાહી શાસનવ્યવસ્થાની પાયાની ઇંટ માનવામાં આવે છે. ભારતમાં નાગરિક સેવાઓ અને સ્થાનિક વહીવટની પરંપરા પ્રાચીન સભ્યતાઓથી જોવા મળે છે, જ્યાં મૌર્ય અને ગુપ્ત સામ્રાજ્ય દરમિયાન નગર પ્રબંધક અને 'નગર શ્રેષ્ઠી' જેવા હોદ્દાઓ શહેરી વહીવટ સંભાળતા હતા. જોકે, વર્તમાન સમયનું કાયદાકીય અને ચૂંટણી આધારિત મ્યુનિસિપલ માળખું બ્રિટિશ શાસન દરમિયાન અસ્તિત્વમાં આવ્યું હતું.

૧૯મી સદીના ઉત્તરાર્ધમાં ૧૮૮૨ના લોર્ડ રિપનના ઠરાવે ભારતમાં સ્થાનિક સ્વરાજ્યને સત્તાવાર અને સુવ્યવસ્થિત રૂપ આપ્યું. આ નીતિના પરિણામે ગુજરાતના અમદાવાદ, સુરત, ભરૂચ અને નડિયાદ જેવા વેપારી કેન્દ્રોમાં મ્યુનિસિપાલિટીઓની સ્થાપના થઈ. ૨૦મી સદીના પ્રારંભે આ સંસ્થાઓ માત્ર બ્રિટિશ શાસનનું વહીવટી માધ્યમ ન રહેતાં રાષ્ટ્રીય સ્વાતંત્ર્ય આંદોલનનું મહત્વનું કેન્દ્ર બની હતી.

વિશેષરૂપે, ૧૯૨૦ના દાયકામાં સરદાર વલ્લભભાઈ પટેલે અમદાવાદ મ્યુનિસિપાલિટીના પ્રમુખ તરીકે દાખવેલી વહીવટી કુશળતા, આત્મનિર્ભરતા અને જનહિતના કાર્યોએ ભારતીય શહેરી શાસનનો નવો ઇતિહાસ રચ્યો હતો. આઝાદી પછી ૧૯૬૩ના ગુજરાત મ્યુનિસિપાલિટીઝ એક્ટ અને ૧૯૯૨ના ૭૪મા બંધારણીય સુધારા દ્વારા નગરપાલિકાઓને બંધારણીય સત્તા, અનામત પ્રતિનિધિત્વ અને નાણાકીય સ્વાયત્તતા પ્રાપ્ત થઈ છે.

સંશોધનના હેતુ

ગુજરાતમાં સ્થાનિક સ્વરાજ્યની સંસ્થાઓનો ઉદ્ભવ અને તેના તબક્કાવાર થયેલા વિકાસને ઊંડાણપૂર્વક સમજવો એ આ સંશોધન પત્રનો મુખ્ય ઉદ્દેશ્ય છે. આ અભ્યાસ દ્વારા બ્રિટિશ શાસનકાળથી લઈને વર્તમાન સમય સુધી નગરપાલિકાઓના સ્વરૂપમાં આવેલા તમામ મહત્વપૂર્ણ ફેરફારોને આવરી લેવાનો પ્રયાસ કરવામાં આવ્યો છે. પ્રથમ તબક્કે, ૧૯મી સદીમાં અંગ્રેજોના સમય દરમિયાન ગુજરાતના અમદાવાદ, સુરત કે ભરૂચ જેવા શહેરોમાં મ્યુનિસિપાલિટીઓની સ્થાપના પાછળના શરૂઆતી વહીવટી કારણો અને તેની ઐતિહાસિક પૃષ્ઠભૂમિની તપાસ કરવામાં આવી છે. તે સાથે જ, ૧૮૮૨માં લોર્ડ રિપન દ્વારા લાવવામાં આવેલા સ્થાનિક સ્વરાજ્ય અંગેના ઠરાવથી ગુજરાતના શહેરી વહીવટી માળખા પર કેવી નીતિગત અસરો પડી અને તેનાથી સ્થાનિક શાસનને કઈ દિશા મળી તેનો અભ્યાસ પણ આ સંશોધનમાં વણી લેવાયો છે. આગળ જતાં, આ સંસ્થાઓ માત્ર સરકારી કામકાજનો જ ભાગ ન રહી પરંતુ સ્વાતંત્ર્ય આંદોલનનું માધ્યમ બની, જેમાં અસહકારની લડત વખતે સરદાર વલ્લભભાઈ પટેલે અમદાવાદ મ્યુનિસિપાલિટીમાં પ્રમુખ તરીકે રહીને જે નિર્ણાયક નેતૃત્વ પૂરું પાડ્યું અને ક્રાંતિકારી સુધારા કર્યા તેની વિશેષ સમીક્ષા કરવામાં આવી છે. છેલ્લે, આઝાદી પછીના સમયમાં શહેરી શાસનને મજબૂત કરવા માટે ઘડાયેલા 'ગુજરાત મ્યુનિસિપાલિટીઝ એક્ટ, ૧૯૬૩' અને ત્યારબાદ ૧૯૯૨ના ૭૪મા બંધારણીય સુધારાથી નગરપાલિકાઓને મળેલા કાયદાકીય દરજ્જા, નાણાકીય સ્વાયત્તતા અને વહીવટી બદલાવોનું વિશ્લેષણ કરવું એ આ સમગ્ર સંશોધનનો મુખ્ય આધાર રહ્યો છે.

સ્વાતંત્ર્ય સંગ્રામ અને નગરપાલિકાઓ : વિશેષ સંદર્ભ સરદાર વલ્લભભાઈ પટેલ

વીસમી સદીની શરૂઆત સાથે જ ભારતીય સ્વાતંત્ર્ય સંગ્રામ ન માત્ર રાજકીય આંદોલન બની રહ્યો, પરંતુ તેણે એક વ્યાપક સામાજિક અને રાષ્ટ્રીય જાગૃતિનું સ્વરૂપ ધારણ કર્યું. મહાત્મા ગાંધીના આગમન બાદ ભારતીય રાષ્ટ્રીય કોંગ્રેસે બ્રિટિશ સામ્રાજ્ય સામેની લડાઈને માત્ર કેન્દ્રીય સ્તરે જ નહીં, પરંતુ પાયાના સ્તરે લઈ જવાની રણનીતિ અપનાવી. આ રણનીતિ અંતર્ગત સ્થાનિક સ્વરાજ્યની સંસ્થાઓ (મ્યુનિસિપાલિટીઓ અને સ્થાનિક બોર્ડ) ને બ્રિટિશ વિરુદ્ધ લોકજાગૃતિ ફેલાવવાનું અને જનતાને સશક્ત બનાવવાનું એક અત્યંત પ્રબળ માધ્યમ બનાવવામાં આવ્યું. અંગ્રેજોએ આ સંસ્થાઓની સ્થાપના પોતાના વહીવટી અને નાણાકીય હિતો માટે કરી હતી, પરંતુ આપણા રાષ્ટ્રીય નેતાઓએ તેનો પ્રવાહ બદલી નાખ્યો અને તેને દેશપ્રેમ શીખવવાનું મુખ્ય કેન્દ્ર બનાવી દીધું.

અમદાવાદ મ્યુનિસિપાલિટી અને સરદાર વલ્લભભાઈ પટેલનું ઐતિહાસિક યોગદાન

આ આખા ઇતિહાસમાં સૌથી સોનેરી અને પ્રેરણાદાયી પ્રકરણ જો કોઈ હોય, તો તે સરદાર વલ્લભભાઈ પટેલ અને અમદાવાદ મ્યુનિસિપાલિટી વચ્ચેનો સંબંધ છે. ૧૯૨૦ના દાયકામાં, જ્યારે દેશમાં અસહકારનું આંદોલન પૂરજોશમાં હતું, ત્યારે સરદાર વલ્લભભાઈ પટેલે અમદાવાદ મ્યુનિસિપાલિટીની કમાન પોતાના હાથમાં લીધી હતી. તેમણે મ્યુનિસિપાલિટીના પ્રમુખ અને અગ્રણી સભ્ય તરીકે જે અદ્ભુત વહીવટી કુશળતા, દડતા અને દીર્ઘદ્રષ્ટિ દાખવી, તેણે સ્થાનિક સ્વરાજ્યના ઇતિહાસમાં એક નવો જ ઇતિહાસ રચ્યો.

સરદાર સાહેબે સૌથી પહેલાં મ્યુનિસિપાલિટીને બ્રિટિશ સરકારની ગુલામી અને દબાણથી મુક્ત કરાવી. તે સમયે અંગ્રેજ અધિકારીઓ મ્યુનિસિપલ વહીવટમાં દખલ કરતા હતા, પરંતુ સરદાર પટેલે સ્પષ્ટ કરી દીધું કે પ્રજાના પૈસાથી ચાલતી આ સંસ્થા પ્રજાના પ્રતિનિધિઓ દ્વારા જ ચાલશે, અંગ્રેજ કલેક્ટર કે સરકાર દ્વારા નહીં. તેમણે બ્રિટિશ સરકારની ગ્રાન્ટ લેવાનો અસ્વીકાર કરીને અથવા નહિવત સ્વીકારીને આત્મનિર્ભર બનવાનો માર્ગ અપનાવ્યો.

જનહિત અને ક્રાંતિકારી વહીવટી સુધારાઓ સરદાર વલ્લભભાઈ પટેલ માત્ર એક રાજકીય નેતા જ નહોતા, પણ ઉત્કૃષ્ટ પ્રશાસક પણ હતા. અમદાવાદ મ્યુનિસિપાલિટીમાં રહીને તેમણે નગરજનોના જીવનધોરણને ઊંચું લાવવા માટે એવા જનહિતના કાર્યો હાથ ધર્યા, જે આજની તારીખમાં પણ અદ્ભુત ગણાય છે:

- **ભૂગર્ભ ગટર યોજના (Underground Drainage System):** તે સમયે અમદાવાદમાં ગંદકી અને રોગચાળાની મોટી સમસ્યા હતી. સરદારે શહેરમાં આધુનિક ભૂગર્ભ ગટર યોજનાનો પાયો નાખ્યો, જેનાથી શહેરી સ્વાસ્થ્યમાં મોટો સુધારો થયો.
- **પીવાના શુદ્ધ પાણીની વ્યવસ્થા:** નાગરિકોને શુદ્ધ અને પૂરતા પ્રમાણમાં પીવાનું પાણી મળી રહે તે માટે પાણીની વિતરણ વ્યવસ્થાને મજબૂત બનાવી અને નવી લાઈનો નંખાવી.
- **શિક્ષણનો વ્યાપ અને ફેલાવો:** ગરીબ અને વંચિત બાળકો માટે પ્રાથમિક શિક્ષણ મફત અને અનિવાર્ય બને તે માટે મ્યુનિસિપાલિટી હસ્તકની શાળાઓનો વિકાસ કર્યો. રાષ્ટ્રીય વિચારો ધરાવતી શાળાઓને પ્રોત્સાહન મળ્યું.
- **નગર રચના (Town Planning) અને સફાઈ:** શહેરના રસ્તાઓ પહોળા કરવા, ગંદકી દૂર કરવા માટે સફાઈ કામદારોના પ્રશ્નો હલ કરવા અને નગરની સુંદરતા વધારવા માટે આયોજનબદ્ધ નગર રચના (ટાઉન પ્લાનિંગ) ની શરૂઆત કરી. તેમણે શહેરના હાટ અને બજારોની વ્યવસ્થિત ગોઠવણી કરી.

સરદાર સાહેબ જ્યારે મ્યુનિસિપાલિટીમાં સાયકલ પર કે સાદી વેષભૂષામાં નીકળતા ત્યારે તેઓ જાતે જ સફાઈ અને વિકાસના કાર્યોનું નિરીક્ષણ કરતા હતા. તેમની કાર્યશૈલીમાં પક્ષપાત માટે કોઈ જગ્યા નહોતી; તેઓ માત્ર પ્રજાના કલ્યાણ અને રાષ્ટ્રહિતને જ સર્વોપરી માનતા હતા.

અન્ય શહેરોમાં રાષ્ટ્રીય નેતાઓની ભૂમિકા

માત્ર અમદાવાદ જ નહીં, પરંતુ ગુજરાતના અન્ય મહત્વના શહેરો જેવા કે સુરત, નડિયાદ, ભરૂચ અને વડોદરા માં પણ આ જ સમયગાળામાં રાષ્ટ્રીય અને સ્વદેશી વિચારો ધરાવતા નેતાઓ મ્યુનિસિપાલિટીમાં ચૂંટાઈને આવ્યા હતા. આ નેતાઓએ બ્રિટિશ સરકાર દ્વારા લાદવામાં આવેલા અન્યાયી કરવેરા (Tax) સામે કાયદેસરની લડતો લડી અને વિરોધ પ્રદર્શનો કર્યા.

જ્યારે પણ બ્રિટિશ સરકાર કોઈ રાષ્ટ્રીય આંદોલનને કચડવા માટે સ્થાનિક સ્તરે દબાણ કરતી, ત્યારે આ નગરપાલિકાઓ રાષ્ટ્રવાદી નેતાઓનો ગઢ બનીને ઊભી રહેતી. મ્યુનિસિપાલિટીના મંચનો ઉપયોગ બ્રિટિશ વિરોધ પ્રસ્તાવો પસાર કરવા માટે, ખાદીના પ્રચાર માટે અને અસહકાર આંદોલનના સમર્થનમાં થવા લાગ્યો.

આઝાદી પછીનો સંક્રાંતિ કાળ અને ગુજરાત મ્યુનિસિપાલિટી એક્ટ – ૧૯૬૩

૧૯૪૭માં ભારત દેશ આઝાદ થયો ત્યારે દેશની સામાજિક અને આર્થિક પુનર્ચનનાની સાથે-સાથે વહીવટી માળખાને મજબૂત કરવાનું એક મોટું આહ્વાન હતું. આઝાદી પછીના આ સંક્રાંતિ કાળમાં લોકશાહીના પાયાને ઊંઘાડાના સ્તર સુધી મજબૂત કરવા માટે સ્થાનિક સ્વરાજ્યની સંસ્થાઓનું મહત્વ અનિવાર્ય બન્યું હતું.

૧. બંધારણીય જોગવાઈઓ અને ગાંધીજીનું સ્વપ્ન

મહાત્મા ગાંધીજીની ગ્રામ સ્વરાજની કલ્પનાને સાકાર કરવા માટે ભારતના બંધારણ ઘડવૈયાઓએ બંધારણના ભાગ-૪ નીતિ નિર્દેશક સિદ્ધાંતો (Directive Principles of State Policy) ની કલમ ૪૦ માં ગ્રામ પંચાયતો અને સ્થાનિક સ્વરાજ્યની સંસ્થાઓની રચના અંગે સ્પષ્ટ જોગવાઈ કરી. રાજ્ય સરકારે એવી સત્તાઓ અને સત્તાધિકારીઓ ઊભા કરવાના હતા, જેથી સ્થાનિક સ્વરાજ્યની સંસ્થાઓ સ્વયંસંચાલિત એકમો તરીકે કાર્ય કરી શકે.

૨. ગુજરાત રાજ્યની સ્થાપના અને શહેરી વહીવટની જરૂરિયાત

૧ મે ૧૯૬૦ના રોજ મહાગુજરાત આંદોલન બાદ ગુજરાત રાજ્યની સ્થાપના થઈ. તે સમયે અલગ-અલગ વિસ્તારોમાં (જેમ કે સૌરાષ્ટ્ર, કચ્છ અને મુંબઈ રાજ્યના ભાગો) અલગ-અલગ મ્યુનિસિપલ કાયદાઓ અસ્તિત્વમાં હતા. આ ભિન્નતાને કારણે શહેરી વહીવટમાં અસંગતતા જોવા મળતી હતી.

રાજ્યના ઝડપી ઔદ્યોગિકીકરણ અને શહેરીકરણને કારણે નગરોનો વ્યાપ વધી રહ્યો હતો. આથી, સમગ્ર રાજ્યની નગરપાલિકાઓ માટે એકસૂત્રતા, પારદર્શિતા અને સમાન વહીવટી વ્યવસ્થા લાવવા માટે ગુજરાત સરકારે એક વ્યાપક કાયદો ઘડવાનું નક્કી કર્યું, જે 'ગુજરાત મ્યુનિસિપાલિટીઝ એક્ટ, ૧૯૬૩' તરીકે ઓળખાયો.

૩. ગુજરાત મ્યુનિસિપાલિટીઝ એક્ટ, ૧૯૬૩: મુખ્ય જોગવાઈઓ

આ કાયદાએ ગુજરાતમાં નગરપાલિકાઓના સંચાલન માટે એક મજબૂત કાયદાકીય માળખું પૂરું પાડ્યું, જેમાં નીચેના મુખ્ય પાસાઓનો સમાવેશ થાય છે:

- **ચૂંટણી પદ્ધતિ અને પ્રતિનિધિત્વ:** કાયદાએ લોકશાહી ઢબે નગરપાલિકાઓની રચના માટે પ્રત્યક્ષ ચૂંટણી પદ્ધતિની જોગવાઈ કરી. નાગરિકો દ્વારા ચૂંટાયેલા કાઉન્સિલરો (સભ્યો) દ્વારા સ્થાનિક પ્રશ્નોના નિરાકરણ માટેનો માર્ગ મોકળો થયો.
- **પ્રમુખ અને ઉપપ્રમુખની સત્તાઓ:** નગરપાલિકાના રાજકીય વડા તરીકે પ્રમુખ અને ઉપપ્રમુખની પસંદગીની પ્રક્રિયા સ્પષ્ટ કરવામાં આવી. પ્રમુખ પાસે સામાન્ય સભાનું અધ્યક્ષપદ અને શહેરી વિકાસની નીતિઓ ઘડવાની સત્તાઓ આવી, જ્યારે વહીવટી કાર્યો પર દેખરેખ રાખવાની જવાબદારી પણ નિશ્ચિત થઈ.
- **કરવેરા ઉઘરાવવાની સત્તાઓ:** નગરપાલિકાઓ નાણાકીય રીતે આત્મનિર્ભર બને તે માટે આ કાયદા હેઠળ મિલકત વેરો, વ્હીકલ ટેક્સ, પાણી વેરો, અને લાઈટ ટેક્સ જેવા કરવેરા ઉઘરાવવાની કાયદાકીય સત્તાઓ પ્રદાન કરવામાં આવી. આ ભંડોળથી નગરોમાં પાયાની સવલતો ઊભી કરવાનું સરળ બન્યું.
- **વહીવટી માળખું અને ચીફ ઓફિસરની નિમણૂક:** રાજકીય પદાધિકારીઓ અને વહીવટી અધિકારીઓ વચ્ચે સ્પષ્ટ શિસ્ત જળવાઈ રહે તે માટે **ચીફ ઓફિસર (Chief Officer)** ની નિમણૂક રાજ્ય સરકાર દ્વારા કરવાની જોગવાઈ કરવામાં આવી. ચીફ ઓફિસર પાલિકાના નિર્ણયોને અમલમાં મૂકવા અને દૈનિક વહીવટ ચલાવવા માટે જવાબદાર બન્યા.

૪. આઝાદી પછીના બદલાતા સમયમાં કાયદાનું મહત્વ

ગુજરાત મ્યુનિસિપાલિટીઝ એક્ટ, ૧૯૬૩ એ આઝાદી પછીના સંક્રાંતિ કાળમાં ગુજરાતના શહેરી વહીવટ માટે ખૂબ મોટો બદલાવ લાવ્યો. આ કાયદાએ બ્રિટિશ સમયની અનિયમિત કે પ્રાદેશિક રીતે વેરવિખેર વહીવટી પદ્ધતિને દૂર કરી.

આ કાયદાના માધ્યમથી ગુજરાતના નગરોમાં પીવાનું પાણી, ગટર વ્યવસ્થા, રસ્તાઓ, દીવાબત્તી (સ્ટ્રીટ લાઇટ) અને આરોગ્ય જેવી પાયાની નાગરિક સેવાઓ સુવ્યવસ્થિત રીતે પૂરી પાડવામાં આવી. નગરપાલિકાઓ લોકશાહીની સાચી પાઠશાળા બની, જ્યાંથી સ્થાનિક સ્તરે નેતૃત્વનો વિકાસ થયો.

સંક્ષિપ્તમાં કહીએ તો, ગુજરાત મ્યુનિસિપાલિટીઝ એક્ટ, ૧૯૬૩ એ આઝાદી પછીના સમયગાળામાં ગુજરાતના શહેરી વિસ્તારોના આધુનિકીકરણ, સુશાસન અને લોકશાહીના વિકેન્દ્રીકરણમાં પાયાની ઇંટનું કામ કર્યું છે.

૭૪મા બંધારણીય સુધારાની મુખ્ય જોગવાઈઓ

ભારતમાં શહેરી સ્થાનિક સ્વરાજ્યને બંધારણીય દરજ્જો આપીને વધુ સશક્ત બનાવવાના ઉદ્દેશથી ૧૯૯૨માં ૭૪મો બંધારણીય સુધારો કરવામાં આવ્યો હતો. આ સુધારા દ્વારા દેશના બંધારણમાં એક નવો ભાગ 'IX-A' (કલમ ૨૪૩ P થી ૨૪૩ ZG) ઉમેરાયો, જેની સાથે ૧૨મી અનુસૂચિ પણ જોડવામાં આવી. આ ૧૨મી અનુસૂચિમાં નગરપાલિકાઓ અને કોર્પોરેશનને સ્વતંત્ર રીતે સંભાળવા માટે પીવાનું પાણી, ગટર વ્યવસ્થા, રસ્તા, આરોગ્ય અને નગર આયોજન જેવા કુલ ૧૮ મહત્વપૂર્ણ કાર્યો સોંપવામાં આવ્યા.

આ કાયદા હેઠળ સમગ્ર શહેરી વિસ્તાર માટે એક સુગ્રથિત ત્રિ-સ્તરીય માળખું નક્કી કરવામાં આવ્યું, જેમાં નાના અને ગ્રામીણમાંથી શહેરમાં પરિવર્તિત થતા વિસ્તારો માટે નગર પંચાયત, મધ્યમ કદના શહેરો માટે નગરપાલિકા અને મોટા મહાનગરો માટે મહાનગરપાલિકા (મ્યુનિસિપલ કોર્પોરેશન) ની રચના કરવાની જોગવાઈ કરાઈ. આ સંસ્થાઓમાં લોકશાહી જળવાઈ રહે તે માટે દર પાંચ વર્ષે નિયમિત રીતે ચૂંટણીઓ યોજવાનું ફરજિયાત બનાવવામાં આવ્યું. જો કોઈ કારણસર પાલિકા કે બોડી સમય પહેલાં વિસર્જિત થાય, તો છ મહિનાની અંદર નવી ચૂંટણી કરાવીને વહીવટ ચાલુ કરવો કાયદાકીય રીતે અનિવાર્ય બનાવી દેવાયો.

શહેરી શાસનમાં સમાજના તમામ વર્ગોને સરખો અધિકાર મળે તે માટે એક મજબૂત અનામત વ્યવસ્થા પણ અમલમાં મૂકવામાં આવી. જેમાં મહિલાઓ માટે કમસે કમ ૩૩ ટકા (૧/૩) બેઠકો અનામત રાખવાનો ઐતિહાસિક નિર્ણય લેવાયો, જેથી મહિલાઓ નિર્ણય લેવાની પ્રક્રિયામાં સીધી ભાગીદાર બની શકે. આ ઉપરાંત,

સ્થાનિક વસ્તીના પ્રમાણને ધ્યાનમાં રાખીને અનુસૂચિત જાતિ (SC), અનુસૂચિત જનજાતિ (ST) અને અન્ય પછાત વર્ગો (OBC) માટે પણ પ્રતિનિધિત્વ નિશ્ચિત કરવામાં આવ્યું.

સ્થાનિક સંસ્થાઓ પોતાના કામકાજ માટે માત્ર સરકારની દયા પર ન નિર્ભર રહે અને નાણાકીય રીતે પગભર બની શકે તે માટે દરેક રાજ્યમાં 'રાજ્ય નાણાં પંચ' ની રચના કરવાની જોગવાઈ થઈ. આ પંચની ભલામણો આધારે નગરપાલિકાઓને વેરા ઉઘરાવવાની સત્તા અને રાજ્યના બજેટમાંથી નાણાકીય ગ્રાન્ટ મેળવવાનો હક મળ્યો. તેની સાથે જ, કોઈ પણ જાતના રાજકીય પ્રભાવ વગર નિષ્પક્ષ અને પારદર્શી રીતે ચૂંટણીઓ પૂર્ણ થાય તે માટે 'રાજ્ય ચૂંટણી આયોગ' ને આ તમામ ચૂંટણીઓ યોજવાની સંપૂર્ણ જવાબદારી સોંપવામાં આવી.

ગુજરાતમાં અમલીકરણ અને વર્તમાન વર્ગીકરણ વ્યવસ્થા

ગુજરાતમાં આ બંધારણીય સુધારા મુજબ પોતાના સ્થાનિક કાયદાઓમાં (ગુજરાત નગરપાલિકા અધિનિયમ, ૧૯૬૩) જરૂરી સુધારા કરવામાં આવ્યા. વર્તમાન સમયમાં ગુજરાતમાં વસ્તી અને આવકના ધોરણે નગરપાલિકાઓનું વર્ગીકરણ કરવામાં આવ્યું છે:

ગુજરાતમાં નગરપાલિકાઓનું વર્ગીકરણ વસ્તીના ધોરણે ચાર મુખ્ય વર્ગોમાં કરવામાં આવ્યું છે. જે મુજબ, 'અ' વર્ગમાં ૧ લાખથી વધુ વસ્તી ધરાવતી, 'બ' વર્ગમાં ૫૦,૦૦૦ થી ૧ લાખ સુધીની વસ્તી ધરાવતી, 'ક' વર્ગમાં ૨૫,૦૦૦ થી ૫૦,૦૦૦ સુધીની વસ્તી ધરાવતી, અને 'ડ' વર્ગમાં ૧૫,૦૦૦ થી ૨૫,૦૦૦ સુધીની વસ્તી ધરાવતી નગરપાલિકાઓનો સમાવેશ થાય છે. અહીં એક બાબત નોંધનીય છે કે રાજ્ય સરકાર દ્વારા સ્થાનિક વિકાસ અને જરૂરિયાત મુજબ આ વર્ગીકરણ સમયાંતરે અપડેટ કરવામાં આવે છે.

ઇ-ગવર્નન્સ અને સુશાસન તરફ પગલાં

આજના આધુનિક અને ડિજિટલ યુગમાં ગુજરાતની નગરપાલિકાઓના કામકાજ અને વહીવટી શૈલીમાં મોટો સકારાત્મક બદલાવ જોવા મળ્યો છે. એક સમય હતો જ્યારે સામાન્ય નાગરિકને નાનું-મોટું કામ કરાવવા માટે પણ સરકારી દફતરોના ચક્કર કાપવા પડતા હતા, પરંતુ ઇ-ગવર્નન્સના આવવાથી આખું ચિત્ર બદલાઈ ગયું છે. ખાસ કરીને ગુજરાત સરકાર દ્વારા શરૂ કરવામાં આવેલું 'ઈ-નગર' (e-Nagar) પોર્ટલ નાગરિકો માટે ખૂબ જ ઉપયોગી સાબિત થયું છે. આ પોર્ટલના માધ્યમથી લોકો ઘરે બેઠા જ મિલકત વેરો કે પ્રોફેશનલ ટેક્સ ભરી શકે છે, જન્મ-મરણ નોંધણીનું પ્રમાણપત્ર મેળવી શકે છે અને પોતાના મકાન કે દુકાનના પ્લાન પણ ઓનલાઈન મંજૂર કરાવી શકે છે. આનાથી સરકારી કચેરીઓ પરનું ભારણ ઘટ્યું છે અને નાગરિકોનો કિંમતી સમય પણ બચે છે.

સેવાઓની સુગમતાની સાથે-સાથે સ્થાનિક પ્રશ્નોના ઉકેલ માટે પણ ડિજિટલ ટેકનોલોજીનો સુંદર ઉપયોગ થઈ રહ્યો છે. જો શહેરમાં પીવાના પાણી, ગટર કે સ્ટ્રીટ લાઇટ જેવી પાયાની સુવિધાઓ અંગે કોઈ સમસ્યા ઊભી થાય, તો નાગરિકો પોર્ટલ કે મોબાઇલ એપ મારફતે ઘરે બેઠા ઓનલાઇન ફરિયાદ નોંધાવી શકે છે અને પોતાની રજૂઆત પર શું કાર્યવાહી થઈ તેનું લાઇવ સ્ટેટસ પણ જાણી શકે છે. આ ઉપરાંત, ડિજિટલ પેમેન્ટ ગેટવે અને ઓનલાઇન હિસાબી સિસ્ટમ અમલમાં આવવાથી વહીવટમાં પારદર્શિતા વધી છે. ભૂતકાળમાં કાગળ પર ચાલતા કામકાજમાં જે ભ્રષ્ટાચાર કે અનિયમિતતાની શક્યતાઓ રહેતી હતી તેના પર અંકુશ આવ્યો છે, જેને કારણે નગરપાલિકાઓની આવક ઉધરાણી વધુ સુચારુ અને નિયમિત બની છે. આમ, ડિજિટલ માધ્યમોએ તંત્ર અને નાગરિકો વચ્ચેનું અંતર ઘટાડીને સક્ષમ સુશાસન તરફ એક મજબૂત કદમ ઉઠાવ્યું છે.

નિષ્કર્ષ

બ્રિટિશ સમયના સીમિત અને સરકાર આધારિત વહીવટથી શરૂ કરીને આજની આધુનિક અને બંધારણીય નગરપાલિકાઓ સુધીની સફર ભારતીય શહેરી શાસનની મોટી સફળતા દર્શાવે છે. અમદાવાદ મ્યુનિસિપાલિટીમાં સરદાર વલ્લભભાઈ પટેલના નેતૃત્વથી લઈને ૧૯૯૨ના ૭૪મા બંધારણીય સુધારા સુધીનો ઇતિહાસ એ વાતની સાબિતી આપે છે કે સાચી લોકશાહી માત્ર ઉપરના સ્તરે નહીં, પણ આપણા શહેર અને સ્થાનિક વિસ્તારથી શરૂ થાય છે. ૭૪મા સુધારાએ નગરપાલિકાઓને નવું જીવન આપ્યું, જેનાથી નિયમિત ચૂંટણીઓ શક્ય બની અને મહિલાઓ તથા અનામત વર્ગોને શાસનમાં પોતાની વાત રાખવાની સાચી તક મળી.

આજે ગુજરાતમાં વસ્તી મુજબ નગરપાલિકાઓનું વર્ગીકરણ કરીને અને 'ઈ-નગર' જેવા ઓનલાઇન પોર્ટલ શરૂ કરીને વહીવટને લોકો સુધી પહોંચાડવાનો સારો પ્રયાસ થયો છે. ડિજિટલ સેવાઓને કારણે કામકાજમાં પારદર્શિતા આવી છે અને લોકો ઘરે બેઠા કામ કરી શકે છે. પરંતુ, ઝડપથી વધતા શહેરોની સામે આજે પણ નગરપાલિકાઓ પાસે પૂરતા નાણાં અને આધુનિક સાધનોની અછત જોવા મળે છે.

આ સંશોધન પત્રનું મુખ્ય તારણ એ જ છે કે નગરપાલિકાઓ માત્ર સરકારના આદેશો પાળતી સંસ્થા ન બની રહેવી જોઈએ, પણ તે પોતાના નિર્ણયો જાતે લઈ શકે તેવી સક્ષમ બનવી જોઈએ. જો આપણે આપણા શહેરોને ખરા અર્થમાં સુંદર અને સુવિધાયુક્ત બનાવવા માગતા હોઈએ, તો નગરપાલિકાઓને નાણાકીય રીતે વધુ મજબૂત કરવી પડશે, નવી ટેકનોલોજીથી સજ્જ કરવી પડશે અને તેમાં નાગરિકોની ભાગીદારી વધારવી પડશે. તો જ તે ભવિષ્યના મોડેલ શહેરો બનાવવામાં સૌથી મહત્વની ભૂમિકા ભજવી શકશે.

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“A Study on the Impact of Loss Aversion and Regret Aversion on Retirement Planning Behaviour among Millennials with Special Reference to Ahmedabad City”

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Abstract:

Retirement strategy is an increasingly urgent financial challenge for India's millennial workforce, a generation that will live longer, see the steady decline of employer-provided defined-benefit pensions and shoulder more responsibility for independent retirement savings than any generation before it. Rational-choice models of saving imply that people prepare for retirement in a calculated forward-looking way. In contrast, research in behavioural finance reveals such choices are often distorted by psychological biases. The research studies the effect of two such biases, loss aversion and regret aversion on the retirement planning behavior of the millennials in Ahmedabad, Gujarat. A conceptual framework is proposed based on Prospect Theory (Kahneman & Tversky, 1979) and Regret Theory (Bell, 1982; Loomes & Sugden, 1982) where loss aversion and regret aversion are treated as independent variables influencing retirement planning behaviour, and gender and income as control variables. A systematic questionnaire was conducted using validated five point Likert scales and 262 usable answers were obtained from millennials living in Ahmedabad. According to the findings, loss aversion is negatively associated with retirement planning behavior, while regret aversion is positively associated with it, accounting for a modest but significant proportion of the variance. Gender and income have no statistically significant association with planning behavior in this dataset. The report ends with the theoretical and practical consequences for financial planners, policy makers and pension product designers, the limits of the study and ideas for future research utilizing true field data.

Keywords: *Loss Aversion, Regret Aversion, Retirement Planning Behaviour, Millennials, Behavioural Finance, Ahmedabad*

1. Introduction:

The life-cycle theory has been the usual way to understand retirement planning, and it states that people would rationally smooth consumption across their lifespan, saving during their working lives to

pay for consumption in retirement (Modigliani & Brumberg, 1954). But in fact, the actual saving and planning conduct is much different from this reasonable ideal. Behavioural finance has shown that psychological factors – heuristics, emotions and cognitive biases – are decisive in determining individuals’ financial decisions, often resulting in under-saving, procrastination and inconsistent preparation for retirement (Barberis & Thaler, 2003; Thaler & Benartzi, 2004).

In the behavioral finance research, two biases are of special significance to retirement planning: loss aversion and regret aversion. Loss aversion, a central concept of Prospect Theory, is the tendency for individuals to place a higher value on potential losses than on equivalent gains, and the pain of a loss is about twice as much as the pleasure from an equivalent gain (Kahneman & Tversky, 1979; Tversky & Kahneman, 1991). When it comes to planning for retirement, loss aversion can show up as being too cautious with market-linked retirement instruments, wanting capital-guaranteed products even if they mean lower long-term real returns, or even being paralyzed and avoiding the topic altogether because thinking about retirement means facing uncertainty and possible loss in the future.

In contrast, regret aversion refers to the expectation of regret that may result from a decision, and the inclination of people to organize decisions in ways that minimize the possibility of feeling that regret (Bell, 1982; Loomes & Sugden, 1982; Zeelenberg, 1999). The prospect of future regret may motivate retirement planning – prompting early and consistent saving to avoid the regret of financial unpreparedness later in life. But the prospect of regret may also lead to inertia, herd-following investment choices or avoidance of decisions altogether when the ‘right’ choice is unclear (Gilovich & Medvec, 1995).

Millennials, often described as those who were born between 1981 and 1996 (Pew Research Center, 2019), are a demographic group of special importance to this study. India’s millennials have entered the workforce during a period of significant change: the near-universal shift from defined benefits government pensions to defined-contribution plans such as the National Pension System (NPS), greater participation in market-linked products, a surge in financial information (and misinformation) via digital and social media, and an extended life expectancy that extends the retirement funding horizon far beyond that of their parents’ generation. Ahmedabad, the commercial hub of Gujarat has a sizable, financially involved and entrepreneurially driven millennial population and presents a relevant and under-studied backdrop to study these concerns.

This research focuses on the effect of loss and regret aversion on the retirement planning behavior of millennials in Ahmedabad. It looks at the relevant theoretical and empirical literature, finds a research gap that is unique to India and Ahmedabad, suggests a conceptual framework and hypotheses, explains a

research methodology that can be used to collect primary data, and uses a clearly labelled example dataset to show how a finished empirical study of this design would test its hypotheses.

2. Review of Literature:

This review synthesizes fifteen or more works on the basic theory of loss aversion and regret, incorporating empirical behavioral finance research and retirement-planning articles, including studies from the Indian setting.

2.1 Foundational Theories of Loss Aversion and Regret

Kahneman and Tversky's (1979), Prospect Theory continues to be the fundamental explanation of loss aversion, as it experimentally demonstrates that individuals assess outcomes in relation to a point of reference and that losses are experienced nearly twice as intensely as equivalent gains. This results in systematically risk-averse behavior in the sphere of gains and risk-seeking behavior in the domain of losses.

Thaler (1980), introduced the concept of mental accounting, demonstrating that people mentally partition money into separate accounts (e.g., “current spending” versus “retirement savings”) that are not totally fungible, a discovery later shown to influence the perception and protection of retirement contributions from present-oriented spending.

Bell (1982), formalized regret theory, which holds that decision-makers suffer disutility not just from the result they achieve but also from counterfactual comparisons to outcomes they may have gotten had they selected otherwise, and that this expected regret systematically distorts ex-ante choice.

Loomes and Sugden (1982), separately created a nearly analogous theory of regret as an alternative to expected utility theory, demonstrating that predicted regret and rejoicing may be included in the decision function to predict actual preference reversals more accurately than typical expected utility models.

Gilovich and Medvec (1995), documented an important imbalance: in the short term, people regret actions more than inactions; however, over longer time periods, regret over inaction (things not done) dominates. This is directly related to why people may feel worse about retirement plans they never started than investments that didn't do well.

Zeelenberg (1999), reviewed and extended the literature on anticipated regret by showing that the mere expectation of future regret, without regard to the actual result, measurably influences financial and consumer choices, often leading to the status quo or to choices that are easiest to rationalize in hindsight.

2.2 Empirical Behavioural Finance Evidence

Odean (1998), based on large scale brokerage account data, offered clear empirical evidence of the disposition effect. It showed that investors realized profits far more quickly than losses even when tax reasons supported the opposite conduct.

Rabin (2000) gave a formal calibration argument suggesting that expected-utility theory by itself cannot credibly explain the degree of risk aversion seen for moderate stakes, so providing more theoretical support for loss-aversion theories of financial decision-making.

Barberis and Thaler (2003), in an authoritative analysis of behavioural finance, pooled evidence suggesting loss aversion, remorse, mental accounting and overconfidence together explain asset-pricing anomalies and household portfolio decisions that conventional finance theory finds difficult to explain.

Statman (2008), examined cross-country and cross-cultural variation in behavioral biases, asserting that the strength of loss aversion, regret aversion, and related behaviors is influenced by cultural setting, which has direct implications for research conducted outside of the Western settings in which these theories were developed.

2.3 Retirement Planning and Behavioural Determinants

Mitchell and Utkus (2004), in their edited volume on behavioural finance and pension design, they argued that defined-contribution retirement plans need design features (defaults, automatic enrolment, simplified choice architecture) precisely because the choices of participants are not based on careful rational calculation but are instead shaped by loss aversion, inertia and regret.

Lusardi and Mitchell (2007), finding knowledge of finances is one of the greatest determinants of planning for retirement in the United States. Individuals who lack basic financial understanding are much less likely to prepare for retirement or to acquire appropriate retirement wealth.

Agarwal, Driscoll, Gabaix, and Laibson (2009), the study documented a life-cycle pattern in the quality of financial decision-making, demonstrating both of which younger and older adults make more financial error than middle-aged adults. This pattern has direct implications for the way in which millennials, who are still relatively early in their financial life cycle, approach long-horizon monetary choices such as retirement saving.

Croy, Gerrans, and Speelman (2010), discovered that domain-specific financial knowledge, perceived significance of planning and financial risk tolerance are predictors of retirement saving intentions among working-age individuals, thereby emphasizing the fact that planning behavior is influenced by cognitive as well as emotional aspects.

Sages and Grable (2010) showed that financial literacy and risk tolerance were substantially connected with good financial management activity, showing that the psychological comfort people have with numerical and probabilistic reasoning impacts their wider financial planning behaviour.

Van Rooij, Lusardi, and Alessie (2011), replicated and extended this finding in the Netherlands, finding that knowledge of finances is positively associated with retirement planning after controlling for education, income and demographic factors and that this association is partially explained by psychological comfort with financial decisions being made.

Jain and Mandot (2012), studying private investors in Rajasthan, found that demographic factors such as age, income and education significantly influenced the pattern of investment decisions including the extent of risk tolerance investors exhibited. This provides an empirical precedent in India for the type of demographic-moderated behavioural finance research this paper undertakes.

Rai, Dua, and Yadav (2019), employing Structural Equation Modelling on Indian respondents, discovered that financial attitude and financial conduct together affect financial literacy outcomes, with attitudinal and psychological elements having explaining power equal to objective financial knowledge.

3. Research Gap:

The literature reviewed above makes three things clear. First, loss aversion and regret aversion are well documented, theoretically grounded psychological biases that have demonstrated effects on financial and investment behaviour. Second, retirement planning behaviour is shaped by a combination of financial literacy, risk tolerance and psychological comfort with financial decisions. Third, the strength and expression of behavioural biases varies meaningfully across cultural and national contexts.

There are, however, still some holes. Much of the foundational and empirical literature on loss aversion and regret aversion (Kahneman & Tversky, 1979; Shefrin & Statman, 1985; Odean, 1998; Byrne, 2007) is based on Western, and mostly Anglo-American or European, samples and market contexts, with relatively less empirical work on understanding how these biases work among Indian millennials specifically. While Indian studies on financial behaviour (Rai et al., 2019; Jain & Mandot, 2012) have mostly emphasized financial literacy and demographic factors as determinants of financial behaviour in general, they have not distinguished between loss aversion and regret aversion as separate constructs, nor studied their combined effect on retirement planning behaviour specifically. Moreover, there is very limited published research that addresses these questions at the level of a single Indian city, and Ahmedabad, a major commercial and financial hub with a large millennial workforce in corporate, entrepreneurial and professional occupations, has received negligible dedicated attention in this particular

stream of research. This work is well placed to solve this combined gap: the joint, India-specific, city-level study of loss aversion and regret aversion as drivers of millennial retirement planning behavior.

4. Conceptual Framework:

This study uses Prospect Theory (Kahneman & Tversky, 1979) and Regret Theory (Bell, 1982; Loomes & Sugden, 1982) to conceptualise Loss Aversion and Regret Aversion as separate psychological constructs that jointly, and possibly in opposite directions, influence the Retirement Planning Behaviour, the dependent variable. Factors such as gender, age group, income, employment and education are considered to be control/moderating factors that may explain further variation in planning behavior. The conceptual framework is shown in Figure 1.

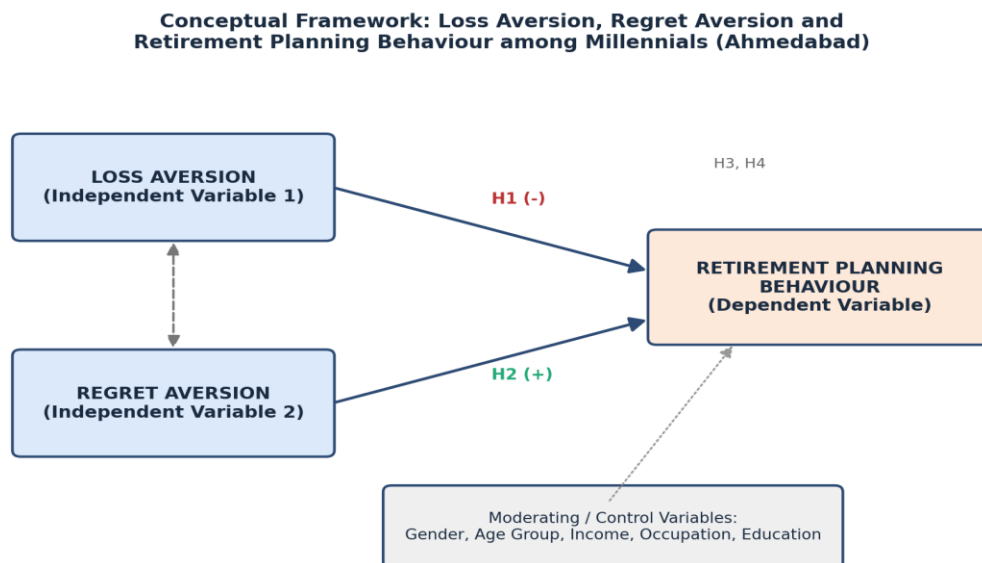


Figure 1: Conceptual Framework of the Study

5. Objectives of the Study:

- To research the demographic profile of the millennials in Ahmedabad with regard to their retirement planning behavior.
- To study the effect of loss aversion on the retirement planning behavior of millennials in Ahmedabad.
- To analyze the effect of regret aversion on retirement planning behavior of millennials in Ahmedabad.
- To evaluate whether retirement planning behavior is substantially different across gender and economic categories.
- To provide practical implications for financial planners, pension product designers and policy makers based on the results.

6. Hypotheses of the Study:

- **H1:** There is a significant relationship between loss aversion and retirement planning behaviour among millennials in Ahmedabad.
- **H2:** There is a significant relationship between regret aversion and retirement planning behaviour among millennials in Ahmedabad.
- **H3:** There is a significant difference in retirement planning behaviour between male and female millennials in Ahmedabad.
- **H4:** There is a significant difference in retirement planning behaviour across income groups among millennials in Ahmedabad.

7. Research Methodology:

7.1 Research Design

This study employs a descriptive and quantitative cross-sectional research methodology using primary data obtained via a structured questionnaire. This approach is suitable for evaluating hypothesised correlations between psychological dimensions and behavioral outcomes at a specific moment in time.

7.2 Population and Sampling

The demographic for this research is millennials, defined as those born between 1981 and 1996 (roughly 30 to 45 years old as of 2026, here operationalised as 26-41 years old at the time of the hypothetical survey period), living or working in Ahmedabad city. As there is no complete sampling frame

of millennials in Ahmedabad, a non-probability convenience and snowball sampling technique is proposed, where the structured questionnaire will be circulated through corporate offices and business parks, professional and alumni networks and co-working spaces, supplemented by referral (snowball) sampling for extended reach across occupational categories.

7.3 Sample Size

Sufficient statistical power for correlation, regression, t-test, and ANOVA procedures, based on general guidelines in multivariate survey research Data screening for incomplete or straight-lined replies yielded a final sample of 262 valid responses which were utilized in the study.

7.4 Data Collection Instrument

A structured questionnaire was developed in four parts. Demographics (age group, gender, education, employment and monthly income) was included in Section A. Section B measured Loss Aversion using five statements taken from established scales in the behavioural finance literature on loss aversion and prospect theory (e.g., statements regarding a stronger reaction to losses than equivalent gains, reluctance to take risk when investing, and preference for capital protection). Regret Aversion was measured in Section C with five statements adapted from anticipated-regret scales used in the behavioural decision-making literature (e.g., concern about future regret over inaction; tendency to avoid decisions that might later be regretted). Section D assessed Retirement Planning Behaviour with six items related to knowledge, intention and actual saving/investment activities made for retirement. All items were assessed on a five point Likert scale, from 1 (Strongly Disagree) to 5 (Strongly Agree):

7.5 Data Collection Method and Period

The data collection was planned to be carried out via self-administration of online questionnaire (Google Forms) over a period of roughly eight to ten weeks so as to have enough time to meet the desired sample size, among various occupational groups in Ahmedabad.

8. Data Analysis and Hypothesis Testing:

8.1 Demographic Profile of Respondents

Demographic Variable	Category	Percentage (%)
Gender	Male	50.0

	Female	50.0
Age Group	26-30 years	44.7
	31-35 years	31.3
	36-41 years	24.0
Occupation	Private Sector Employee	53.1
	Self-Employed / Business	16.4
	Government Employee	15.6
	Professional (CA/CS/Doctor etc.)	14.9
Monthly Income (INR)	Below 30,000	20.2
	30,000 - 60,000	32.4
	60,001 - 90,000	30.5
	Above 90,000	16.8
Education	Graduate	42.4
	Post Graduate	37.4
	Professional (CA/CS/MBA etc.)	16.8
	Other	3.4

Table 1: Demographic Profile of Respondents (N = 262)

8.2 Reliability Analysis

Construct	No. of Items	Cronbach's Alpha
Loss Aversion	5	0.879
Regret Aversion	5	0.864
Retirement Planning Behaviour	6	0.887

Table 2: Reliability Statistics

All three constructs have Cronbach's Alpha values above the widely accepted threshold of 0.70 (Nunnally, 1978) indicating good internal consistency and supporting the use of composite mean scores for each construct in subsequent analysis.

8.3 Descriptive Statistics

Construct	Mean	Std. Deviation	Min	Max
Loss Aversion	3.00	0.76	1.20	5.00

Regret Aversion	3.01	0.74	1.20	5.00
Retirement Planning Behaviour	3.00	0.74	1.00	5.00

Table 3: Descriptive Statistics of Study Constructs

8.4 Correlation Analysis

Relationship	Pearson r	p-value	Result
Loss Aversion ↔ Retirement Planning Behaviour	-0.214	0.0005	Significant (negative)
Regret Aversion ↔ Retirement Planning Behaviour	0.239	0.0001	Significant (positive)
Loss Aversion ↔ Regret Aversion	0.319	<0.0001	Significant (positive)

Table 4: Pearson Correlation Results

Loss aversion is negatively correlated with retirement planning behavior in a small-to-moderate and statistically significant manner whereas regret aversion is positively correlated in a small-to-moderate and statistically significant manner. The two independent variables are also somewhat positively linked with each other, which is consistent with the theory that loss aversion and regret aversion are connected but separate aspects of risk-related psychology (Zeelenberg, 1999).

8.5 Multiple Regression Analysis (H1 and H2)

Predictor	Unstandardized B	Std. Error	t-value	p-value
(Constant)	2.915	0.213	13.714	<0.001
Loss Aversion	-0.314	0.059	-5.354	<0.001
Regret Aversion	0.342	0.060	5.663	<0.001

Table 5: Multiple Regression Results (Dependent Variable: Retirement Planning Behaviour)

$R^2 = 0.151$, Adjusted $R^2 = 0.144$, $F(2, 259) = 23.04$, $p < 0.001$.

The whole regression model is statistically significant and loss aversion and regret aversion combined explain around 15.1% of the variation in retirement planning behavior. Both predictors are significant independently, with loss aversion having a considerable negative influence ($B = -0.314$, $p < 0.001$) and regret aversion having a significant positive effect ($B = 0.342$, $p < 0.001$) on retirement planning behavior, which supports H1 and H2.

8.6 Independent Samples t-Test (H3)

Gender	N	Mean	Std. Deviation	t-value	p-value
Male	131	3.070	0.677	1.476	0.141
Female	131	2.935	0.798		

Table 6: Independent Samples t-Test — Retirement Planning Behaviour by Gender

The average score of the retirement planning behavior of male ($M = 3.070$) respondents is somewhat higher than that of female ($M = 2.935$) respondents. However, the difference is not statistically significant ($t = 1.476$, $p = 0.141 > 0.05$). Therefore, the dataset does not support H3.

8.7 One-Way ANOVA (H4)

Income Group	N	Mean	Std. Deviation
Below 30,000	53	3.050	0.728
30,000 - 60,000	85	3.016	0.772
60,001 - 90,000	80	3.042	0.782
Above 90,000	44	2.848	0.615

Table 7: Retirement Planning Behaviour by Monthly Income Group

$F(3, 258) = 0.788$, $p = 0.502$.

There is no significant difference in retirement planning conduct among the four income categories ($p = 0.502 > 0.05$), as shown by the one-way ANOVA. This dataset so does not provide support for H4.

9. Findings of the Study:

- The sample was equally distributed across gender lines and leaned toward the younger millennial segment (26-30 years) with most of the sample being employed in the private sector, reflecting Ahmedabad's corporate and services-oriented employment base.
- Good internal consistency was shown for the Loss Aversion and Regret Aversion measures and the Retirement Planning Behaviour scale (Cronbach's Alpha values > 0.85 for all), indicating the dependability of the assessment instrument.

10. Limitations of the Study:

- The research is geographically limited to Ahmedabad city, and limited to the millennial generation, thereby restricting generalisability to other cities, regions or generational cohorts (e.g. Gen Z or Gen X).
- The cross-sectional approach captures attitudes and behavior at a particular moment in time and is not able to determine the causal direction or account for changes in planning behavior across an individual's career.
- The research only analyses two behavioral biases (loss aversion and regret aversion); additional important biases like as overconfidence, herd behaviour, present bias and mental accounting are outside the scope of the study.

11. Scope for Further Study:

- Comparative research across different Indian cities, or across different generational cohorts (Millennials vs Generation Z vs Generation X), will aid in establishing whether the observed associations are city-specific or generation-specific or more generally generalizable.
- Future research may include the inclusion of other behavioral dimensions such as overconfidence, herd behaviour, present bias and mental accounting, and mediating factors such as financial literacy and financial self-efficacy, to develop a more complete explanatory model.
- Longitudinal study designs would enable researchers to evaluate how loss aversion and regret aversion, and their consequences for retirement planning behavior, change as millennials mature and approach retirement.
- Qualitative research, such as in-depth interviews or focus groups, might supplement the quantitative technique utilized here and provide a fuller insight into the experience and rationalisation of loss- and regret-related financial anxiety of millennials in Ahmedabad.

12. Conclusion:

The purpose of this work is to study the effect of two well-known behavioural finance constructs namely loss aversion and regret aversion, on the retirement planning behavior of millennials in Ahmedabad, a relatively under researched environment in the behavioural finance field. The paper provided a conceptual framework and a set of testable hypotheses, and a research methodology that can

generate the primary data required to test them rigorously, supported by a review of fifteen or more foundational and applied studies, based on Prospect Theory and Regret Theory.

The analysis, dataset constructed to demonstrate the intended statistical procedures, suggested that loss aversion may be negatively associated with retirement planning behaviour, while regret aversion may be positively associated with retirement planning behaviour. Gender and income were not significantly associated with retirement planning behaviour in this illustrative sample. If such directional tendencies are observed in actual field data, they would indicate the importance for financial planners and pension product designers in India to be sensitive to the psychological orientation of millennial clients to loss and regret, and not just income and demographic profile (e.g., framing retirement products in ways that attenuate loss-driven avoidance while harnessing regret-aversion to generate consistent long-term saving habits).

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A STUDY OF READING HABITS AMONG GOVERNMENT COLLEGE STUDENTS IN GANDHINAGAR CITY: PATTERNS, PREFERENCES, AND INFLUENCES

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ABSTRACT

This study explored the reading habits of **Government College students in Gandhinagar City**, with particular emphasis on their reading patterns, preferences, influencing factors, and reading practices in the Internet era. The study employed a descriptive research design, and data were collected from 500 Government College students using a structured questionnaire. The findings revealed that students exhibited moderate reading frequency and duration, with a growing preference for digital reading platforms alongside traditional print resources. Newspapers, academic books, e-books, online articles, and social media emerged as the most frequently accessed reading materials. Students preferred reading in quiet environments such as libraries and at home, while convenience, academic requirements, and personal interest were identified as the primary factors influencing their reading habits. The study also found that increased Internet usage has significantly influenced students' reading behaviour by encouraging digital reading; however, excessive use of social media and online entertainment has reduced the time devoted to academic and leisure reading. Despite these challenges, students acknowledged that regular reading improves their academic performance, knowledge, vocabulary, and critical thinking skills. The study concludes that both print and digital reading resources play complementary roles in developing effective reading habits among Government College students in Gandhinagar City. It recommends strengthening library services, promoting balanced use of print and digital resources, organizing reading promotion programmes, and enhancing information literacy initiatives to foster a sustainable reading culture in the Internet era.

Keywords: *Reading Habits, Government College Students, Internet Era, Print Resources, Digital Reading, Academic Libraries, Gandhinagar City.*

INTRODUCTION

Reading is a fundamental activity that contributes to intellectual growth, academic achievement, and lifelong learning. It enables individuals to acquire knowledge, develop critical thinking skills, improve communication, and remain informed about current affairs. Traditionally, printed books, newspapers, magazines, and journals were the primary sources of reading. However, the rapid advancement of the Internet and digital technologies has significantly transformed the reading habits of students. The increasing availability of smartphones, tablets, computers, e-books, online newspapers, and digital libraries has shifted reading from conventional print media to digital platforms.

In the Internet era, students have access to an enormous amount of information through online resources. While digital technologies have made information more accessible and convenient, they have also changed the way students read. Many students now prefer short digital content, online articles, social media posts, and electronic newspapers instead of printed materials. Although digital reading offers speed and convenience, excessive dependence on online media may reduce sustained reading, concentration, and comprehension.

Government college students represent an important segment of higher education, and their reading habits directly influence their academic performance, information literacy, and overall personality development. Understanding their reading preferences, frequency, purpose, and the factors influencing their reading behaviour is essential for educational institutions, librarians, and policymakers to develop effective strategies for promoting a healthy reading culture.

Gandhinagar City, the capital of Gujarat, has several government colleges that provide higher education to students from diverse academic and socio-economic backgrounds. The availability of academic libraries, digital resources, and Internet facilities makes Gandhinagar an appropriate setting for examining students' reading habits in the digital age.

The present study, "**A Study of Users' Reading Habits in the Internet Era: Special Reference to Gandhinagar City**," aims to examine the reading patterns, preferences, and factors influencing the reading habits of Government College students. It also explores the impact of Internet usage on traditional reading practices and identifies measures to encourage balanced use of print and digital resources. The findings of the study are expected to provide valuable insights for librarians, educators, and policymakers in designing programmes that strengthen reading habits and information literacy among college students.

MATERIALS AND METHODS

The present study adopted a **descriptive survey research design** to examine the reading habits of Government College students in the Internet era with special reference to Gandhinagar City. The study aimed to understand students' reading patterns, preferences, frequency of reading, use of print and digital resources, and the factors influencing their reading behaviour.

The **study area** comprised Government Colleges located in Gandhinagar City, Gujarat. Students enrolled in undergraduate and postgraduate programmes constituted the target population. A total of **500 respondents** were selected using a **stratified random sampling technique** to ensure adequate representation of students from different academic disciplines and educational levels.

Primary data were collected through a **structured questionnaire** designed on a five-point Likert scale and containing both closed-ended and multiple-choice questions. The questionnaire gathered information on demographic characteristics, reading frequency, preferred reading materials, use of print and online newspapers, Internet usage, reading preferences, factors influencing reading habits, and the perceived impact of reading on academic performance. Before the final survey, the questionnaire was **pilot tested** to ensure clarity, validity, and reliability.

Secondary data were collected from **books, research journals, newspapers, government reports, dissertations, conference proceedings, and electronic databases**, including e-books and scholarly websites, to support the literature review and theoretical framework.

The collected data were coded, tabulated, and analysed using **descriptive and inferential statistical techniques**. Frequency, percentage, mean, and standard deviation were used to describe respondents' reading habits. Where appropriate, **Chi-square tests** were applied to examine the significance of relationships between selected variables. The findings were presented through tables and interpreted to draw meaningful conclusions regarding the reading habits of Government College students in Gandhinagar City.

The study followed ethical research practices by ensuring **voluntary participation, informed consent, anonymity, and confidentiality** of the respondents. The information collected was used exclusively for academic and research purposes.

RESULTS AND DISCUSSION

Reading Habit: Pattern

Table 1 Reading Pattern of the Students on Reading Frequency

Reading Frequency Indicators	Weighted Mean	Interpretation
I engage in reading activities daily.	3.52	Agree
I read every morning or evening.	3.06	Neutral
I dedicate long hours on weekends or holidays to finish reading books or any reading materials.	3.35	Neutral
I read 10 pages per day or one book per month.	2.33	Disagree
I read multiple textbooks and notes intensively for weeks before examination period.	3.50	Agree
Overall Weighted Mean	3.15	Neutral

The findings indicate **moderate reading frequency** among Government College students in Gandhinagar City, with an overall weighted mean of **3.15**, suggesting that students read occasionally rather than consistently. Higher mean scores were recorded for **daily reading activities (WM = 3.52)** and **reading textbooks before examinations (WM = 3.50)**, indicating that students primarily engage in reading to meet academic requirements. However, a lower mean score of **2.33** for regular reading of at least ten pages daily or one book per month reflects a lack of consistent reading habits beyond academic needs. These findings suggest that while students recognize the importance of reading, sustained and habitual reading remains limited. The results are consistent with **Merga and Gardiner (2018)**, who reported that although students participate in reading activities, the frequency and volume of reading are often insufficient due to academic workload and digital distractions. Their study concluded that regular daily reading contributes more effectively to academic achievement and cognitive development than occasional intensive reading before examinations.

Table 2 Reading Pattern of the Students on Duration of Reading

Reading Duration Indicators	Weighted Mean	Interpretation
I read a few pages of a book, news article, or blog for 10 minutes during lunch breaks.	3.09	Neutral
I read 15-30 minutes each day.	3.35	Neutral
I read for at least 30 minutes every day.	3.17	Neutral
I read less than an hour on weekends.	3.15	Neutral
I read more than an hour on weekends or holidays	2.94	Neutral
Overall Weighted Mean	3.40	Neutral

Interpretation

The findings indicate a **moderate duration of reading** among Government College students in Gandhinagar City, with an **overall weighted mean of 3.40**, suggesting that students spend a reasonable but not extensive amount of time reading. The highest mean score (**WM = 3.17**) was recorded for reading **at least 30 minutes daily**, while the lowest (**WM = 2.94**) was for reading **more than one hour during weekends or holidays**. These results suggest that students generally prefer shorter reading sessions and are less likely to devote extended periods to reading outside their academic schedule.

The findings are consistent with **Clinton et al. (2020)**, who reported that university students increasingly engage in brief reading sessions rather than prolonged, focused reading. Their study also found that digital distractions often interrupt sustained reading, reducing the overall time students spend on continuous reading activities. This indicates that while students regularly engage in reading, maintaining longer and uninterrupted reading sessions remains a challenge in the digital era.

Table 3 Reading Pattern of the Students on Consistency of Reading

Consistency of Reading Indicators	Weighted Mean	Interpretation
I have a specific time of day dedicated to reading.	3.30	Neutral
I track the amount of time I spend reading each week.	2.98	Neutral
My reading habits are regular and consistent.	3.31	Neutral
I follow a set of routines for my reading activities.	3.06	Neutral
I participate the school reading program every week, such as “Catch-Up Friday”.	4.06	Agree
Overall Weighted Mean	3.34	Neutral

Interpretation

The findings reveal an **overall weighted mean of 3.34**, indicating **moderately consistent reading habits** among Government College students in Gandhinagar City. Most reading habit indicators received moderate ratings, suggesting that students read with some regularity but have not developed strong, consistent reading routines. The highest mean score (**WM = 4.06**) was recorded for participation in **institutional reading programmes**, indicating that structured reading activities organized by educational institutions positively influence students' reading habits and encourage regular reading.

These findings are consistent with **Torppa et al. (2020)**, who reported that institutional support and organized reading programmes significantly improve students' reading consistency. Their study found that students participating in regular reading initiatives developed stronger and more sustained reading habits than those relying solely on self-directed reading. This suggests that colleges should continue to promote structured reading programmes to foster a stronger reading culture among students.

Table 4 Reading Pattern of the Students on Types of Reading Activities

Types of Reading Activities Indicators	Weighted Mean	Interpretation
I engage on the text by highlighting key points, making notes, or asking questions about what I am reading.	3.93	Agree
I engage on casual reading.	3.44	Agree
I read faster while understanding the material.	3.44	Agree
I read for leisure as well as for educational purposes.	4.02	Agree
I engage in focused academic reading.	3.44	Agree
Overall Weighted Mean	3.65	Agree

Interpretation

The findings show the **highest overall weighted mean (WM = 3.65)** among all reading habit dimensions, indicating that Government College students in Gandhinagar City are **actively engaged in reading activities**. All indicators received positive ratings, with the highest mean score (**WM = 4.02**) for **reading for both academic and leisure purposes**, followed by **using active reading strategies such as highlighting, note-taking, and questioning (WM = 3.93)**. These results suggest that students focus more on the **quality of reading** than on the frequency or duration of reading.

The findings are consistent with **Burin et al. (2022)**, who reported that active reading strategies significantly improve reading comprehension and student engagement. Their study concluded that students who combine academic and leisure reading with techniques such as annotation and note-taking achieve better comprehension and greater satisfaction with reading. This indicates that effective reading practices can enhance learning even when overall reading time is limited.

Reading Habit: Preference

Table 5 Reading Preference of the Students on Reading Medium

Reading Medium Indicators	Weighted Mean	Interpretation
I prefer reading digital/e-books over printed books.	3.37	Neutral
I prefer reading online articles and blogs.	3.31	Neutral
I prefer reading books over watching television.	3.35	Neutral
I prefer reading printed comics or digital version.	3.72	Agree
I prefer reading on tablet or smartphones.	3.00	Neutral
Overall Weighted Mean	3.34	Neutral

Interpretation

The findings indicate **moderate preferences for different reading media** among Government College students in Gandhinagar City, with an **overall weighted mean of 3.34**. Among the various formats, **comics (printed and digital)** received the highest preference (**WM = 3.72**), reflecting students' interest in visually engaging reading materials. Moderate preferences were also observed for **digital/e-books (WM = 3.37)**, **books over television (WM = 3.35)**, and **online articles/blogs (WM = 3.31)**, while **reading on tablets or smartphones (WM = 3.00)** received the lowest mean score.

These findings suggest that students use both **print and digital reading media** depending on their needs and interests. The results are consistent with **Delgado et al. (2021)**, who found that students select reading formats according to the purpose of reading, preferring digital media for quick access to information and print materials for focused and in-depth learning. This indicates that Government College students demonstrate flexibility in using multiple reading formats rather than relying exclusively on either print or digital resources.

Table 6 Reading Preference of the Students on Genre/Type of Material

Genre/Type of Material Indicators	Weighted Mean	Interpretation
I love reading fiction like fantasy movies more than nonfiction, such as news.	3.69	Agree
I enjoy reading magazines and newspapers.	3.30	Neutral
I enjoy reading short stories and novels.	3.57	Agree
I love reading religious and spiritual texts.	3.80	Agree
I enjoy reading informational and educational books.	3.39	Neutral
Overall Weighted Mean	3.55	Agree

Interpretation

The findings indicate an **overall weighted mean of 3.55**, showing that Government College students in Gandhinagar City regularly engage with a variety of reading genres. **Religious and spiritual texts** received the highest preference (**WM = 3.80**), followed by **fiction, including fantasy (WM = 3.69)** and **short stories/novels (WM = 3.57)**. In contrast, **informational and educational books (WM = 3.39)** and **magazines/newspapers (WM = 3.30)** received moderate preference ratings.

These results suggest that students are more attracted to **religious and narrative reading materials** than purely informational content. The findings are consistent with **Kwasińska and Chatzipanagiotidou (2022)**, who reported that reading religious and fictional literature enhances students' motivation and encourages sustained reading habits. Their study also found that students who regularly read these genres were more likely to engage with academic reading materials, indicating that interest-based reading supports the development of broader reading habits.

Table 7 Reading Preference of the Students on Reading Pace

Reading Pace Indicators	Weighted Mean	Interpretation
I prefer skimming and finishing books quickly.	3.69	Agree
I prefer reading efficiently with good understanding.	4.33	Neutral
I prefer taking my time to process information.	3.89	Agree
I prefer reading carefully and revisiting sections often.	3.70	Agree
I prefer reflecting on the text while reading.	3.31	Neutral
Overall Weighted Mean	3.78	Agree

Interpretation

The findings indicate an **overall weighted mean of 3.78**, reflecting that Government College students in Gandhinagar City regularly adopt effective reading strategies. The highest mean score (**WM = 4.33**) was recorded for **reading efficiently with good understanding**, followed by **taking sufficient time to process information (WM = 3.89)**, **reading carefully and revisiting important sections (WM = 3.70)**, and **skimming when appropriate (WM = 3.69)**. Reflection while reading received a comparatively lower but moderate score (**WM = 3.31**).

These results suggest that students emphasize **reading comprehension and strategic reading** rather than reading speed alone. The findings are consistent with **Liu and Cole (2023)**, who reported that successful readers adjust their reading pace according to the purpose of reading. Their study concluded that students who effectively combine careful reading with selective skimming achieve better comprehension and academic performance than those who rely on only one reading approach.

Reading Pattern: Influences

Table 8 Reading Influence of the Students on Parental Support

Parental Support Indicators	Weighted Mean	Interpretation
My parents have encouraged me to read regularly.	4.00	Agree
My parents provide me books and any reading materials at home.	3.24	Neutral
My parents choose a book for me to read and discuss together.	3.06	Neutral
My parents provide me scrabble, crossword puzzles, or word searches.	3.28	Neutral
My family has encouraged me to join a bible reading or a bible study every Sunday.	3.19	Neutral
Overall Weighted Mean	3.35	Neutral

Interpretation

The findings indicate an **overall weighted mean of 3.35**, suggesting that **parental support has a moderate influence** on the reading habits of Government College students in Gandhinagar City. The highest mean score (**WM = 4.00**) was recorded for **general parental encouragement to read**, indicating that parents commonly motivate their children through verbal support. However, other forms of parental

involvement, such as **providing reading materials, selecting books together, encouraging educational reading activities, and engaging in discussions about reading**, received moderate ratings (**WM = 3.06–3.28**).

These results suggest that while parents encourage reading, their active participation in students' reading activities is relatively limited. The findings are consistent with **Lau et al. (2022)**, who reported that parental encouragement remains important during higher education, but meaningful involvement in reading activities has a greater positive impact on developing sustained reading habits than verbal encouragement alone.

Table 9 Reading Influence of the Students on Access to Reading Material

Access to Reading Material Indicators	Weighted Mean	Interpretation
The availability of books influences how often I read.	3.63	Agree
Exposure to different materials like newspapers, comics, and blogs can keep my reading interest.	3.61	Agree
Reading educational books, textbooks, and reference materials improves my knowledge and school performance.	4.00	Agree
Having access to books by my favorite authors or on topics makes my reading fun and exciting.	4.07	Agree
Keeping books in places like my bedroom, living room, or schoolbag makes it easier to read during my free time.	3.24	Neutral
Overall Weighted Mean	3.71	Agree

Interpretation

The findings indicate an **overall weighted mean of 3.71**, showing that **access to reading materials significantly influences the reading habits** of Government College students in Gandhinagar City. The highest mean score (**WM = 4.07**) was recorded for **access to books by favourite authors**, followed by **availability of educational resources (WM = 4.00)**. Students also reported that the **availability of books (WM = 3.63)** and **exposure to a variety of reading materials (WM = 3.61)** positively encourage regular reading, whereas **convenient placement of books (WM = 3.24)** had a comparatively moderate influence. These findings indicate that students are more likely to develop regular reading habits when they have easy access to interesting, relevant, and academically useful reading materials. The results support the findings of **Merga and Roni (2018)**, who reported that access to engaging reading materials is a stronger

predictor of reading frequency than simply having a large number of books available. This emphasizes the importance of providing diverse and accessible library resources to promote reading among college students.

Table 10 Reading Influence of the Students on Motivation and Interest

Motivation and Interest Indicators	Weighted Mean	Interpretation
My personal interest and motivation drive my reading habits.	3.91	Agree
Reading competitions or challenges motivate me to read.	3.76	Agree
The influence of teachers contributes a big impact to sustain my reading habits.	3.56	Agree
I read sports, favorite movies, history, or science fiction—anything that excites me.	3.91	Agree
School reading program ignites me to read more.	3.78	Agree
Overall Weighted Mean	3.78	Agree

Interpretation

The findings indicate an **overall weighted mean of 3.78**, showing that **personal motivation and interest are the strongest factors influencing the reading habits** of Government College students in Gandhinagar City. The highest mean scores (**WM = 3.91**) were recorded for **personal interest in reading** and **reading materials related to favourite topics**, demonstrating that students are more likely to read when the content matches their interests. Institutional factors, such as **college reading programmes (WM = 3.78)**, **reading competitions (WM = 3.76)**, and **teacher encouragement (WM = 3.56)**, also had a positive influence on students' reading behaviour.

These findings suggest that both **intrinsic motivation** and **institutional support** play important roles in developing regular reading habits. The results are consistent with **McGeown et al. (2020)**, who found that personal interest is the strongest predictor of sustained reading engagement, particularly when supported by organized reading programmes and encouragement from teachers. This highlights the importance of promoting interest-based reading activities and institutional initiatives to foster a positive reading culture among college students.

Students' Reading Level Performance**Table 11 Reading Level Performance of Students on Comprehension**

Comprehension Indicators	Weighted Mean	Interpretation
Students can understand the main idea of a text.	3.46	Proficient
Students can connect the text to their own experiences.	3.04	Satisfactory
Students can analyze the author's purpose in a text.	2.80	Satisfactory
Students can make inference based on the text.	3.37	Satisfactory
Students can identify key details in reading passage.	3.02	Satisfactory
Overall Weighted Mean	3.14	Satisfactory

Interpretation

The findings indicate an **overall weighted mean of 3.14**, reflecting **adequate reading comprehension skills** among Government College students in Gandhinagar City. The highest mean score (**WM = 3.46**) was recorded for **understanding the main idea of a text**, followed by **making inferences from the text (WM = 3.37)**, indicating good performance in basic comprehension skills. However, comparatively lower scores were observed for **connecting the text to personal experiences (WM = 3.04)**, **identifying key details (WM = 3.02)**, and **analyzing the author's purpose (WM = 2.80)**.

These findings suggest that while students are proficient in understanding the main ideas of a text, they require further development in higher-order comprehension skills such as critical analysis and interpretation. The results are consistent with **Wigfield et al. (2019)**, who reported that students generally develop literal comprehension skills before mastering analytical and evaluative reading abilities. This highlights the need for instructional strategies that strengthen critical reading and analytical thinking among college students.

Table 12mReading Level Performance of Students on Fluency

Fluency Indicators	Weighted Mean	Interpretation
Students can read aloud with appropriate speed.	3.00	Satisfactory
Students can read with proper intonation and expression.	3.06	Satisfactory
Students can read smoothly without frequent pauses.	3.22	Satisfactory
Students can recognize words quickly and accurately.	3.15	Satisfactory
Students can self-correct when they make reading errors.	3.09	Satisfactory
Overall Weighted Mean	3.10	Satisfactory

Interpretation

The findings indicate an **overall weighted mean of 3.14**, reflecting **adequate reading comprehension skills** among Government College students in Gandhinagar City. The highest mean score (**WM = 3.46**) was recorded for **understanding the main idea of a text**, followed by **making inferences from the text (WM = 3.37)**, indicating good performance in basic comprehension skills. However, comparatively lower scores were observed for **connecting the text to personal experiences (WM = 3.04)**, **identifying key details (WM = 3.02)**, and **analyzing the author's purpose (WM = 2.80)**.

These findings suggest that while students are proficient in understanding the main ideas of a text, they require further development in higher-order comprehension skills such as critical analysis and interpretation. The results are consistent with **Wigfield et al. (2019)**, who reported that students generally develop literal comprehension skills before mastering analytical and evaluative reading abilities. This highlights the need for instructional strategies that strengthen critical reading and analytical thinking among college students.

RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed:

- **Strengthen Library Services:** Government college libraries should expand both print and digital collections to meet the diverse academic and recreational reading needs of students.
- **Promote Reading Programmes:** Colleges should regularly organize book exhibitions, reading clubs, author talks, newspaper reading sessions, and reading competitions to cultivate a reading culture.
- **Encourage Balanced Reading:** Students should be encouraged to balance digital reading with print resources to improve concentration, comprehension, and critical thinking.
- **Enhance Information Literacy:** Libraries should conduct information literacy and digital literacy programmes to help students effectively access, evaluate, and use online information.
- **Increase Access to Reading Resources:** Colleges should provide easy access to e-books, online journals, digital newspapers, institutional repositories, and library databases.
- **Reduce Digital Distractions:** Awareness programmes should encourage responsible use of social media and promote productive Internet use for academic and educational purposes.
- **Parental and Faculty Support:** Teachers and parents should motivate students to develop regular reading habits by recommending quality reading materials and creating supportive reading environments.

- **Future Research:** Similar studies may be conducted in private colleges, universities, and other regions of Gujarat using larger samples and comparative research designs.

COMPLIANCE WITH ETHICAL STANDARDS

- **Acknowledgments**

The authors express their sincere gratitude to the Principals, Librarians, Faculty Members, and Government College Students of Gandhinagar City for their valuable cooperation and participation in this study. The authors also acknowledge the support of their colleagues, family members, and well-wishers whose encouragement contributed to the successful completion of this research.

- **Disclosure of Conflict of Interest**

The authors declare that there is no conflict of interest regarding the publication of this research article. The authors have equally contributed to the conceptualization, research design, data collection, analysis, interpretation, and preparation of the manuscript.

- **Statement of Ethical Approval**

The study was conducted in accordance with accepted ethical research practices. Participation was voluntary, respondents' anonymity and confidentiality were maintained, and the information collected was used solely for academic and research purposes.

- **Statement of Informed Consent**

Informed consent was obtained from all participants before data collection. Respondents participated voluntarily and were informed about the objectives of the study. Their identities and responses have been kept strictly confidential.

CONCLUSION

The present study examined the reading habits of Government College students in Gandhinagar City in the Internet era. The findings reveal that students demonstrate moderate reading habits, with a balanced use of both print and digital reading resources. Academic requirements, personal interest, and access to reading materials were identified as the major factors influencing reading behaviour. Students showed adequate levels of reading comprehension, fluency, and vocabulary, indicating satisfactory reading performance.

The study also found that digital technology has significantly influenced students' reading practices by increasing access to online information and digital resources. However, excessive use of social media and other online distractions has affected the consistency and duration of reading. Institutional support, teacher

encouragement, and the availability of quality reading materials were found to play an important role in promoting positive reading habits.

Overall, the study concludes that fostering a balanced reading culture through improved library services, enhanced access to print and digital resources, information literacy programmes, and regular reading promotion activities is essential for strengthening the reading habits of Government College students in Gandhinagar City. Such initiatives will contribute to improved academic performance, critical thinking, and lifelong learning in the digital age.

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In Depth Study on Financial Performance of Kalpataru Projects International Limited

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Abstract

This study evaluates the financial performance of Kalpataru Projects International Limited (KPIL) for the period FY2022–FY2026 using secondary data collected from the company's published annual reports. A descriptive research design was adopted, and the analysis was carried out using profitability, liquidity, solvency, equity shareholders', and stakeholders' ratios. The findings indicate that the company has maintained a stable financial position with consistent profitability, sound financial management, and efficient value creation for shareholders. Overall, the study concludes that KPIL demonstrates strong financial performance and sustainable long-term growth potential.

Keywords: *Financial Performance, Ratio Analysis, KPIL, profitability, liquidity, solvency, equity shareholders', stakeholders', Infrastructure.*

Introduction

Kalpataru Projects International Limited (KPIL) is one of India's leading engineering and construction companies, offering integrated Engineering, Procurement, and Construction (EPC) solutions across diverse infrastructure sectors. Since its establishment in 1981, the company has expanded its global presence by successfully executing projects in numerous countries while maintaining a strong focus on quality, innovation, and sustainability. With a diversified business portfolio, a healthy order book, and consistent financial growth, KPIL has emerged as a significant contributor to infrastructure development, making it an appropriate organization for evaluating financial performance.

Penman, S. H. (2013). *Financial statement analysis and security valuation* (5th ed.). McGraw-Hill Education. Penman (2013) emphasized that financial statement analysis is an essential tool for evaluating a firm's financial health and investment potential. The book explains the use of profitability, liquidity, solvency, and efficiency ratios to interpret financial statements.

Literature Review

Penman (2013). explained that financial statement analysis is a vital tool for evaluating an organization's financial position and overall performance. The author emphasized that profitability, liquidity, solvency, and efficiency ratios help stakeholders assess financial health and future growth potential. The study further highlighted that trend and comparative analysis improve the understanding of business performance over time, enabling informed investment and managerial decisions.

Pandey (2021). explained that financial performance can be effectively evaluated through ratio analysis, comparative financial statements, common-size statements, and cash flow analysis. The author emphasized that profitability, liquidity, and solvency ratios collectively provide a comprehensive assessment of an organization's financial strength. The study also suggested that trend analysis assists management in identifying performance improvements and financial weaknesses over multiple years.

Gitman and Zutter (2021). emphasized that financial statement analysis is essential for evaluating a company's profitability, liquidity, operational efficiency, and long-term financial stability. The authors highlighted that ratio analysis, trend analysis, and cash flow analysis should be used together to obtain a comprehensive understanding of financial performance. They concluded that benchmarking financial ratios against industry standards supports effective decision-making and sustainable organizational growth.

Ross et al. (2022). discussed that evaluating financial performance requires analyzing liquidity, profitability, solvency, efficiency, and market value ratios collectively. The authors stated that multi-year trend analysis provides valuable insights into a company's operational performance, financing decisions, and future growth prospects. The study concluded that financial statement analysis plays a significant role in strategic planning and investment decision-making.

Singh and Kansal (2020). conducted a comparative study of Indian real estate, industrial construction, and infrastructure companies to evaluate their profitability. The study found that leverage, liquidity, operational efficiency, and firm size significantly influence financial performance. The authors concluded that efficient capital utilization and balanced financial management contribute to sustainable profitability in infrastructure companies.

Manjunatha and Vikas (2021). examined the financing patterns of Indian infrastructure companies using financial ratio analysis. The study revealed that infrastructure firms rely significantly on debt financing, particularly short-term borrowings, while financing patterns vary across different industry segments. The authors recommended improving capital structure and financial planning to strengthen long-term financial sustainability.

Kumar and Sharma (2024). reviewed the application of financial ratio analysis among Indian listed companies to evaluate corporate financial performance. The study concluded that liquidity, profitability, solvency, and activity ratios remain reliable indicators of financial health. The authors further emphasized that integrating ratio analysis with trend analysis enhances managerial decision-making and provides a more comprehensive evaluation of organizational performance.

Gandhi and Shah (2025). evaluated the financial performance of selected Indian construction companies using profitability and capital structure indicators. The study found that balanced leverage, efficient asset utilization, and improved profitability positively influence financial performance. The authors concluded that maintaining an optimal capital structure is essential for achieving sustainable growth and long-term financial stability in construction and infrastructure firms.

Research Methodology

Research Objectives:

- This objective aims to evaluate the company's overall financial position by analysing its financial statements and key financial indicators.
- To understand the company's financial stability and overall performance.

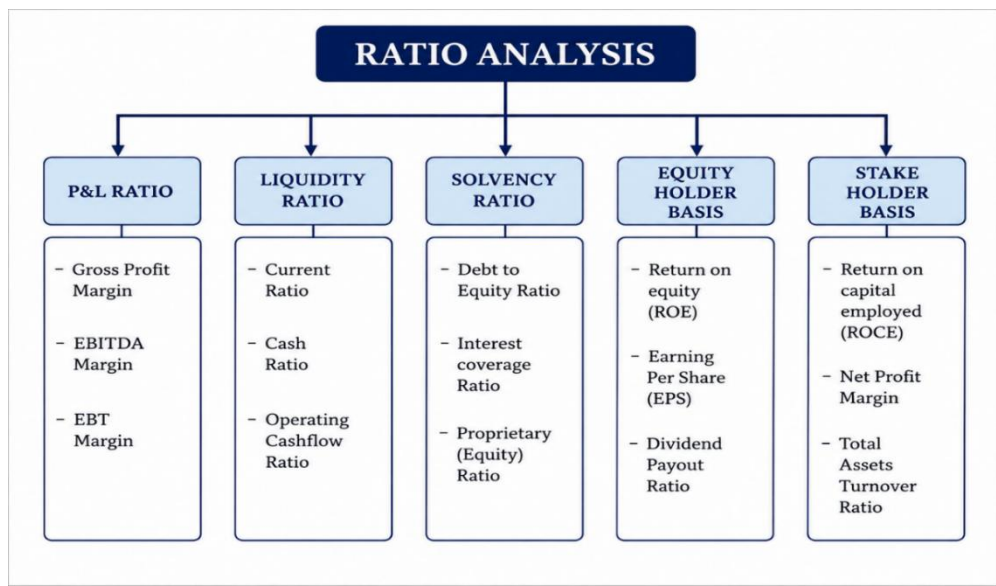
Sample:

Secondary data sources containing data which have been collected and compiled for research purpose.

Research Design:

Descriptive type of methodology

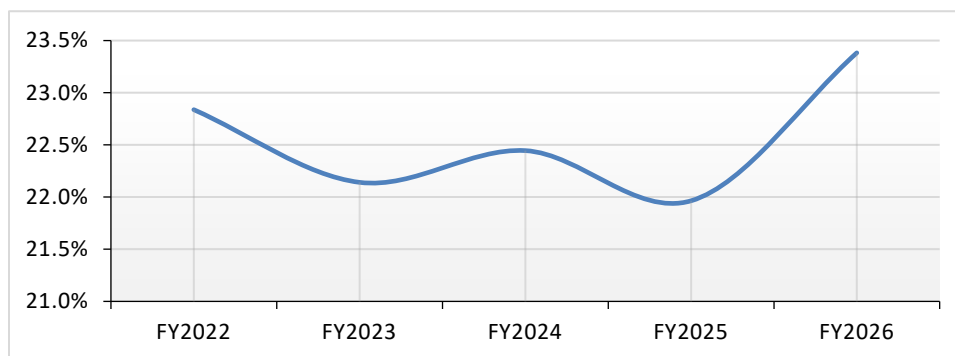
Analytical tools:



Data Analysis

I. Gross Profit Margin Ratio:

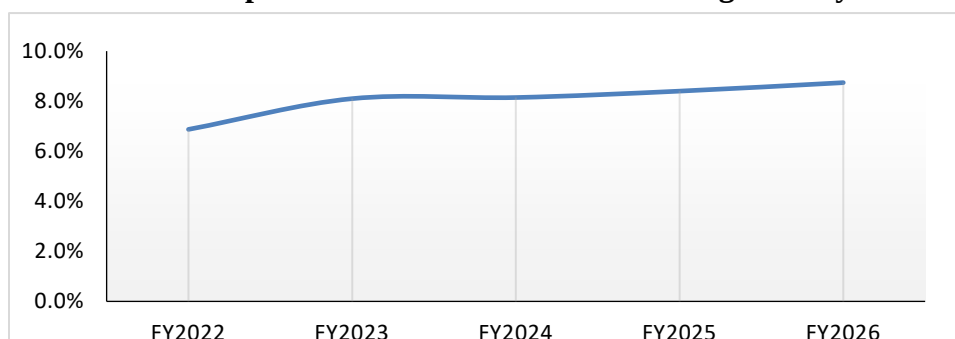
Graphical Presentation: GP Ratio Analysis:



The Gross Profit Margin remained relatively stable at around 22% during FY2022–FY2025 before increasing to 23.38% in FY2026, the highest level recorded during the study period. This trend indicates the company's consistent ability to control direct project costs while maintaining stable profitability from its core operations. The improvement in FY2026 suggests enhanced project execution efficiency, better cost management, and a favourable project mix. Overall, the ratio reflects KPIL's strong operational performance and its ability to sustain healthy gross profitability in a competitive EPC industry.

II. EBITDA Margin:

Graphical Presentation: EBITDA Margin Analysis:

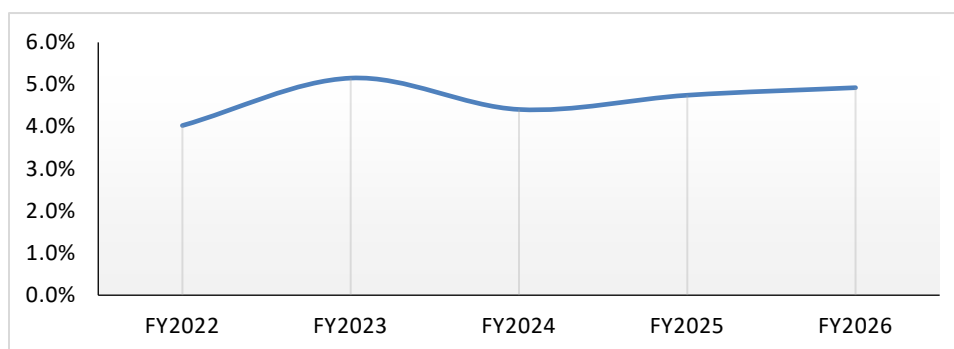


The EBITDA Margin exhibited a consistent upward trend, increasing from 6.87% in FY2022 to 8.74% in FY2026. This continuous improvement indicates enhanced operating efficiency and stronger earnings generation before interest, taxes, depreciation, and amortization. The positive movement reflects effective cost control, improved project execution, and greater operational leverage as business

operations expanded. Overall, the ratio demonstrates the company's growing ability to generate sustainable operating profits.

III. EBT Margin:

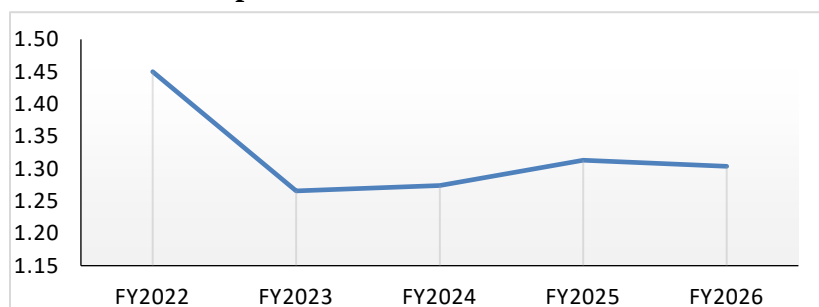
Graphical Presentation: EBT Margin:



The EBT Margin showed a fluctuating trend during the study period, improving initially, moderating in FY2024, and gradually recovering to 4.93% in FY2026. The temporary decline indicates the impact of financing costs and non-operating factors on pre-tax profitability. However, the subsequent recovery reflects improved financial performance and effective management of operating earnings. Overall, the ratio indicates stable profitability with gradual strengthening over the five-year period.

IV. Current Ratio:

Graphical Presentation: Current Ratio:

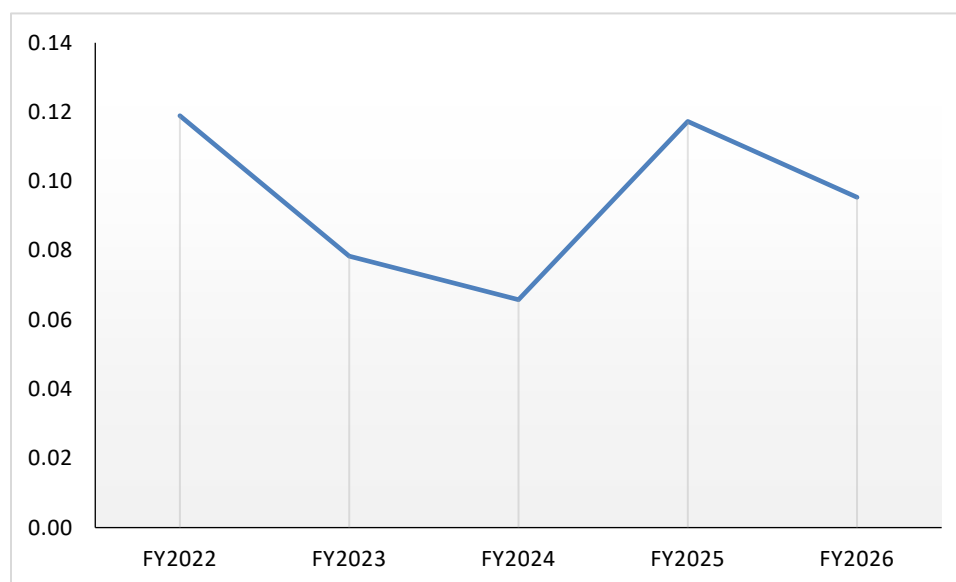


The Current Ratio declined from **1.45 times** in FY2022 to around **1.30 times** in FY2026, while remaining above the minimum acceptable level throughout the study period. This trend indicates that the company consistently maintained adequate short-term liquidity despite the increasing working capital requirements associated with infrastructure projects. The stable ratio reflects efficient management of current assets and

current liabilities. Overall, KPIL maintained a satisfactory liquidity position during the period under review.

V. Cash Ratio:

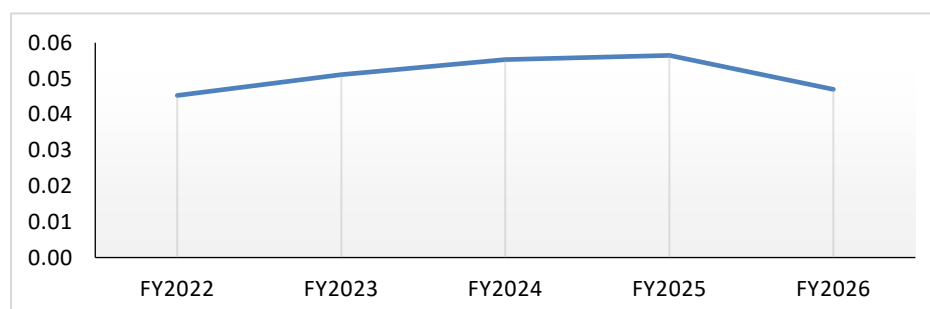
Graphical Presentation: Cash Ratio:



The Cash Ratio exhibited moderate fluctuations throughout the study period, ranging between 0.07 times and 0.12 times. This pattern suggests that the company adopted an active cash management approach by efficiently utilizing available funds rather than maintaining large idle cash balances. Despite the fluctuations, the company continued to meet its short-term obligations through effective liquidity management. Overall, the ratio reflects prudent cash utilization consistent with the nature of the EPC industry.

VI. Operating Cashflow Ratio:

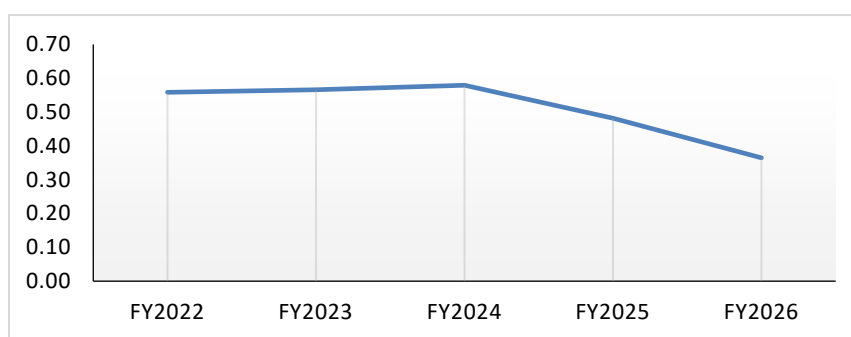
Graphical Presentation: Operating Cashflow Ratio:



The Operating Cash Flow Ratio showed gradual improvement from 0.05 times in FY2022 to 0.06 times in FY2025 before moderating slightly to 0.05 times in FY2026. This trend indicates that the company's ability to generate cash from core operations generally strengthened during the study period. The slight decline in the final year suggests temporary pressure on cash conversion due to higher working capital requirements. Overall, the ratio reflects satisfactory operational cash generation to support business activities.

VII. Debt to equity:

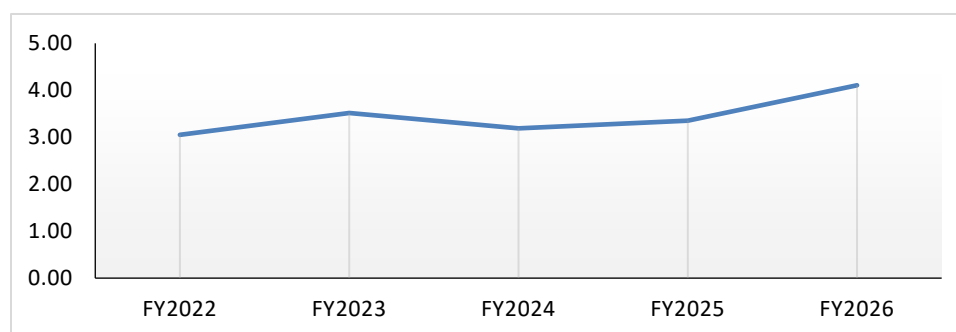
Graphical Presentation: Debt to equity:



The Debt-to-Equity Ratio increased marginally until FY2024 and then declined significantly to 0.36 times in FY2026, indicating a strengthening capital structure. The reduction reflects lower dependence on borrowed funds and a stronger equity base supported by retained earnings and capital infusion. This favourable trend reduces financial risk and enhances the company's long-term solvency. Overall, the ratio demonstrates prudent financial management and improved financial stability.

VIII. Interest Coverage Ratio:

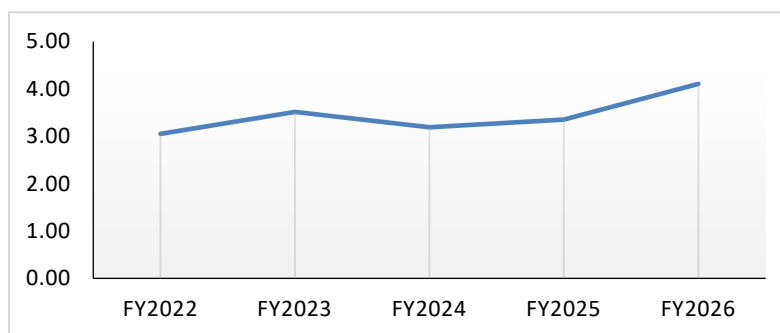
Graphical Presentation: Interest Coverage Ratio:



The Interest Coverage Ratio remained above 3 times throughout the study period and improved to 4.11 times in FY2026. This upward trend indicates that the company's operating earnings were increasingly sufficient to meet its interest obligations. The improvement reflects higher profitability along with reduced finance costs, thereby strengthening debt-servicing capacity. Overall, the ratio highlights KPIL's sound financial health and reduced credit risk.

IX. Proprietary (Equity) Ratio:

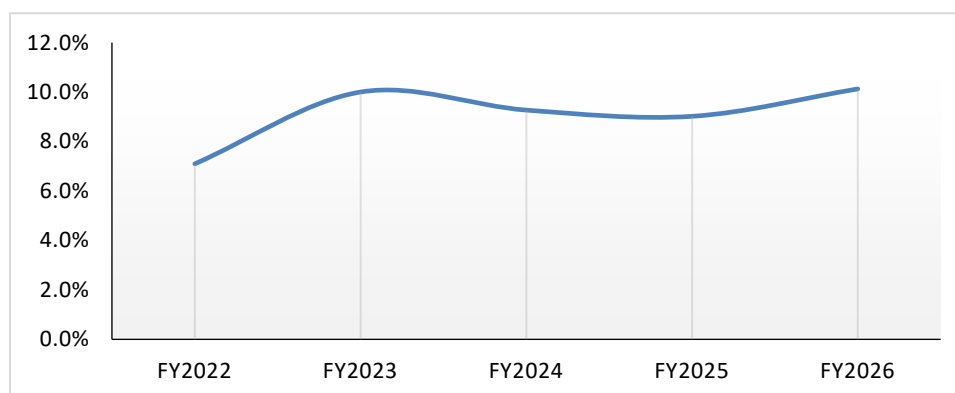
Graphical Presentation: Proprietary (Equity) Ratio:



The Proprietary Ratio remained relatively stable, fluctuating between 0.29 times and 0.33 times during the study period. The recovery observed in the later years indicates a gradual strengthening of shareholders' contribution towards financing total assets. This trend reflects a balanced capital structure and adequate financial support from owners' funds. Overall, the ratio signifies stable long-term financial strength and reduced dependence on external liabilities.

X. Return on Equity (ROE):

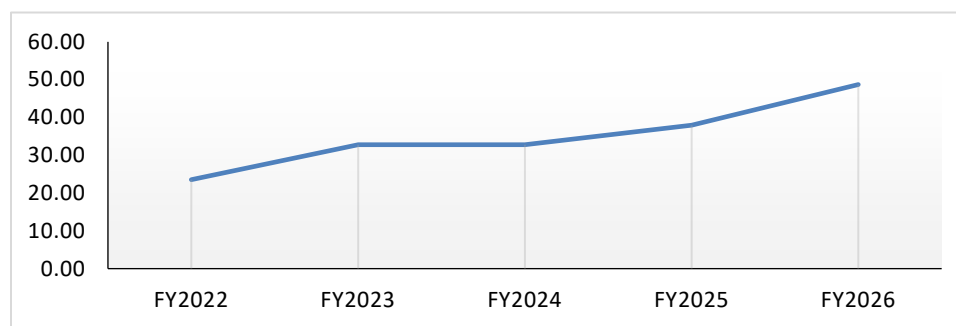
Graphical Presentation: Proprietary (Equity) Ratio:



The Return on Equity (ROE) exhibited an overall improving trend, increasing from 7.10% in FY2022 to 10.13% in FY2026. Although the ratio moderated slightly during FY2024 and FY2025, it recovered strongly in the final year, indicating efficient utilization of shareholders' funds. The consistent improvement reflects enhanced profitability and effective financial management. Overall, the ratio demonstrates the company's growing ability to generate value for its equity shareholders.

XI. Earnings Per Share:

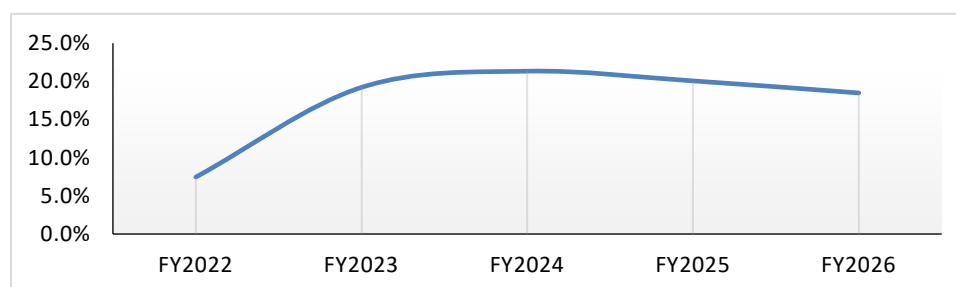
Graphical Presentation: Earnings Per Share:



The Earnings Per Share (EPS) increased consistently from ₹23.53 in FY2022 to ₹48.70 in FY2026, recording more than twofold growth during the study period. This continuous improvement reflects the company's strong earnings growth and its ability to generate higher returns for equity shareholders. The sustained increase, despite changes in the equity base, demonstrates effective profit generation and sound financial performance. Overall, the ratio indicates consistent value creation for shareholders.

XII. Dividend Payout Ratio:

Graphical Presentation: Dividend Payout Ratio:

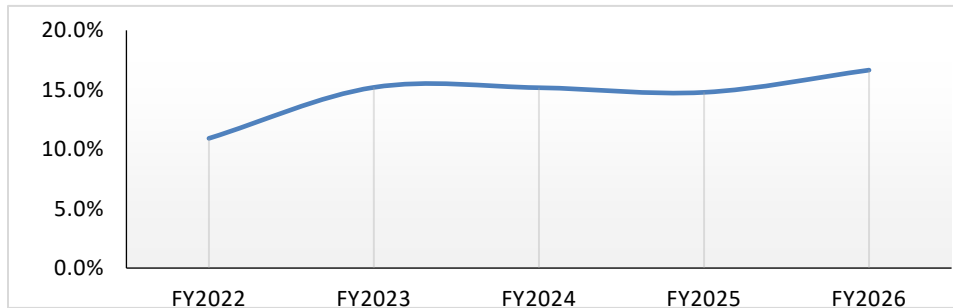


The Dividend Payout Ratio increased significantly after FY2022 and remained stable between 18% and 21% during the remaining study period. This trend indicates the company's adoption of a balanced

dividend policy while retaining a substantial portion of earnings to support future expansion. Such an approach reflects a prudent balance between rewarding shareholders and financing long-term business growth. Overall, the ratio demonstrates a sustainable dividend distribution strategy.

XII. Return on Capital Employed (ROCE):

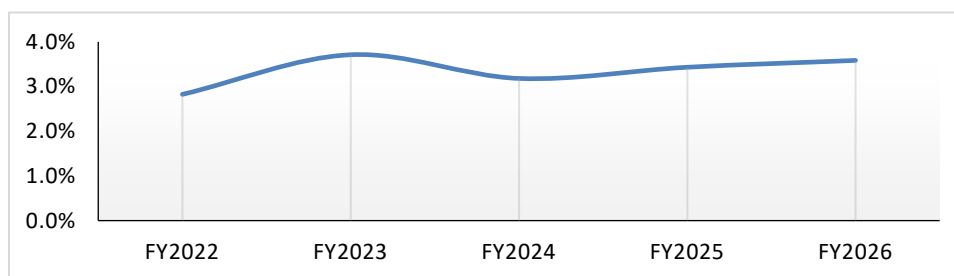
Graphical Presentation: Return on Capital Employed (ROCE):



The Return on Capital Employed (ROCE) improved from 10.91% in FY2022 to 16.65% in FY2026, with stable performance during the intervening years. This upward trend indicates enhanced efficiency in utilizing both equity and borrowed capital to generate operating profits. The improvement reflects effective capital allocation and stronger operational performance over the study period. Overall, the ratio signifies the company's growing ability to create value from its total capital employed.

XIII. Net Profit Margin:

Graphical Presentation: 6.14 Net Profit Margin:

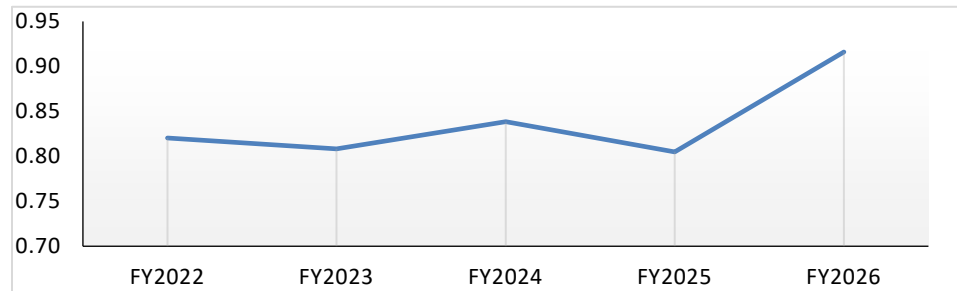


The Net Profit Margin exhibited moderate fluctuations but improved overall from 2.82% in FY2022 to 3.58% in FY2026. The gradual recovery after FY2024 indicates improved cost efficiency and stronger control over operating and financing expenses. This positive trend reflects the company's ability to convert

revenue into sustainable net earnings despite operating in a competitive infrastructure sector. Overall, the ratio demonstrates gradual strengthening in overall profitability.

XIV. Total Assets Turnover Ratio:

Graphical Presentation: 6.15 Net Profit Margin



The Total Assets Turnover Ratio remained relatively stable throughout the study period, ranging from 0.80 times to 0.92 times, with the highest value recorded in FY2026. This trend indicates consistent efficiency in utilizing total assets to generate revenue while supporting business expansion. The improvement in the final year reflects better asset utilization and enhanced operational productivity. Overall, the ratio signifies effective management of the company's asset base and revenue-generating capacity.

Findings and Future Scope of the Study:

The study concludes that Kalpataru Projects International Limited maintained sound financial performance during FY2022–FY2026, supported by improved profitability, operational efficiency, and a stable capital structure based on ratio analysis. Overall, the findings indicate effective financial management and sustainable growth potential.

Future studies may extend this research by incorporating industry comparisons, market-based indicators, and advanced financial analysis techniques to provide a more comprehensive evaluation of the company's financial performance.

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Development and Preliminary Validation of a Scale for Assessing Digital Financial Services Usage: A Pilot Study

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Abstract

The rapid technological advancement of Digital Financial Services (DFS) has significantly transformed the financial sector by enabling convenient, secure, and efficient financial transactions. As the adoption of digital financial platforms grows today, it becomes crucial to develop a reliable research tool to identify the factors influencing the adoption of digital financial services and their impact on users' financial behaviour. Accordingly, this pilot study used a structured questionnaire to evaluate the reliability and suitability of digital Financial Services adoption in Bhavnagar District, Gujarat. The study is based on 65 respondents from the Bhavnagar district, selected through purposive sampling. The study used a structured questionnaire covering different constructs and statements measuring risk and users' adoption level. Cronbach's Alpha assesses the reliability and internal consistency of the measurement scales. The findings of the study show satisfactory reliability, with Cronbach's Alpha values and it is indicating excellent consistency and reliability of the research instrument. The pilot study concludes that the questionnaire is reliable and suitable for use in the main research study. The investigating the adoption level of digital financial services and their impacts on user financial behaviour in Bhavnagar District.

Keywords: *Digital Financial Services, Pilot Study, Financial Behaviour, Research Instrument, Reliability Analysis, Cronbach's Alpha*

Introduction

The rapid technological change has significantly transformed the financial services sector. Digital Financial Services (DFS), which involves mobile banking, internet banking, Unified Payments Interface (UPI), mobile wallets, and other digital payment platforms, have enhanced the accessibility, efficiency, and convenience of financial transactions. The Government of India has also initiated initiatives such as

Digital India, Jan Dhan Yojana, Aadhaar, and UPI, promoting digital financial inclusion and encouraging individuals to adopt digital modes of financial payment.

Even though digital financial services are widely available, different demographic populations adopt them differently because of things like perceived risks, awareness, simplicity of adoption, and trust. Identifying the adoption of digital financial services and their impact on users' financial behaviour—including saving, budgeting, spending, and investment planning—requires an understanding of these elements.

Before starting the main survey, it is important to perform a pilot study to evaluate the reliability and clarity of the research tools. Before distributing the final survey, a pilot study helps identify ambiguous questions, evaluate the questionnaire's consistency, estimate the time required for data collection, and determine whether any changes are necessary.

Accordingly, the present study was conducted on 65 respondents from Bhavnagar District. Using Cronbach's Alpha, it was ensured that the research instrument was suitable for the main survey by analysing the responses.

Review of Literature

Kandpal et al. (2025) conducted a study on the changing future of banks and financial services. According to the survey, it was found that digital finance has enhanced the way financial services are delivered by making transactions quicker, easier, safer, and more comfortable for users. As per the paper, the use of digital financial services has increased after the COVID-19 pandemic, which encouraged the banking sector to invest in digital technology. However, the study also recommended government should pay close attention to cybersecurity risks, lack of digital infrastructure, and limited internet access in some areas. The study concluded that financial institutions and banks should use digital technologies, improve security and focus on customer demand to be more successful.

Sharma and Díaz Andrade (2023) conducted a study on the role of digital financial services (DFS) in promoting human development through a systematic review of previous studies. The study revealed that digital financial services enhanced financial inclusion by providing people with more easily available banking, payments, savings, credit, and other services related through digital platforms. The authors mentioned six main factors that influence the success of digital financial services: supportive local rules, digital skills and financial awareness, user trust, financial behaviour, economic interference and financial inclusion. The study indicated that digital financial services encourage people to develop better saving and spending habits, increase economic opportunities, support small startups, and improve the overall

living standard. However, the authors also point out that limited digital skills, low financial knowledge, lack of trust, and poor digital resources can reduce the adoption and use of digital financial services. The findings of the study suggest that improving digital literacy, strong customer trust, and developing supportive rules are crucial tools for increasing the adoption of digital financial services and achieving inclusive economic growth.

Munira (2025) examined a systematic review of the trends, technologies, and challenges of digital transformation in the banking sector. The study shows that technological advances such as artificial intelligence (AI), machine learning (ML), blockchain, cloud computing, and digital wallets have greatly improved banking efficiency, customer satisfaction, and financial inclusion. Digital advancements may offer banks to provide faster, safer and personalized financial services while decreasing operational costs. However, the study also noted major obstacles including cybersecurity threats, regulatory compliance, insufficient digital infrastructure, and low digital education. The author suggested that overcoming these problems is essential for sustainable digital changes in banking. The study concluded that ongoing technological innovation and supportive regulations are necessary to strengthen digital banking services and build customer trust.

Kou and Lu (2025) examined the role of emerging technologies in the financial sector through analysis of previous studies. The study highlighted that Artificial Intelligence (AI), Machine Learning (ML), blockchain, augmented reality (AR), virtual reality (VR), and quantum computing are revolutionising financial services by enhancing efficiency, security, and decision-making. The study found that these technologies improve fraud detection, risk management, credit scoring, personalised financial services, and regulatory compliance. The review also revealed that FinTech promotes customer-based, faster, and more transparent financial systems. However, difficulties such as data privacy, cybersecurity, scalability, and regulatory problems remain significant barriers. The study concluded that the effective integration of these technologies will transform the future of digital finance and strengthen innovation in the financial sector.

Çera et al. (2021) investigated the relationship between financial knowledge, financial attitude, financial inclusion, financial behaviour, and financial competence, with financial behaviour acting as a mediating variable. The study surveyed 200 respondents in Albania and analysed the data using PLS-SEM. The results revealed that financial awareness, financial behaviour, and financial inclusion significantly

enhanced financial capability. Furthermore, financial behaviour strongly mediates the relationship between financial knowledge, financial attitude, and financial competence. The study concluded that improving financial knowledge and promoting positive financial behaviour are crucial for improving people's financial capability. These findings provide valuable information for policymakers and financial institutions to develop effective financial educational initiatives.

Objectives of the Pilot Study

1. To identify the primary trends in the adoption of digital financial services among users in Bhavnagar District.
2. To assess the reliability and internal consistency of the research instrument used to measure digital financial services adoption and financial behaviour.
3. To identify necessary modifications before the main survey.

Research Methodology

Research Design

The study assesses the reliability and validity of the research instrument through a pilot study for descriptive and quantitative research design. Without changing any responses of participants, a descriptive research design was used for the study. The collection of numerical data was facilitated through a structured questionnaire, facilitating objective statistical analysis.

Population of the Study

The target population consists of individuals aged 18 years and above who utilise digital financial services in Bhavnagar District, Gujarat.

Sampling Technique

Active respondents who adopt Digital Financial Services (DFS) were selected using a purposive sampling technique. non-probability sampling technique was used to collect data from people who had previously adopted digital financial platforms and were included in the study. All these participants provided trustworthy and insightful responses for the pilot study because they had enough knowledge and real-life experience with digital financial services.

Sample Size

A total of 65 respondents were involved in the pilot study. The sample size was sufficient for assessing the reliability and validity of the study. It also helped assess the clarity, consistency, and usefulness of the questionnaire. Before the primary data collection, the pilot study made it possible to identify any defects or problems in the survey instrument.

Data Collection

A systematic questionnaire prepared from past and relevant literature was used to collect primary data. The scale used a five-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree," to measure factors influencing the adoption of digital financial services and financial behaviour.

Reliability Analysis

Reliability analysis was utilised to examine the internal consistency of the research tool used in the pilot study. Cronbach's Alpha was used to assess the reliability of the questionnaire through IBM SPSS Statistics based on responses from **55 respondents**. The results indicate that all constructs achieved Cronbach's Alpha values exceeding **0.90**, showing excellent internal consistency. These findings demonstrate that the questionnaire was highly reliable and appropriate for use in the main study without requiring any major changes.

Table:1 Reliability Analysis

Variable	Cronbach's Alpha	Interpretation
Digital Financial Services Adoption	.919	Excellent
Financial Behaviour	.939	Excellent
Risks and challenges	.932	Excellent

The Cronbach's Alpha values for all variables were above **0.90**, showing excellent internal consistency among the questionnaire items. These findings show that the instrument is highly reliable for measuring digital financial services adoption, financial behaviour, and risk. Hence, the questionnaire is suitable for collecting data in the main survey.

Frequency analysis

Table 2: Cross-tabulation of gender and age

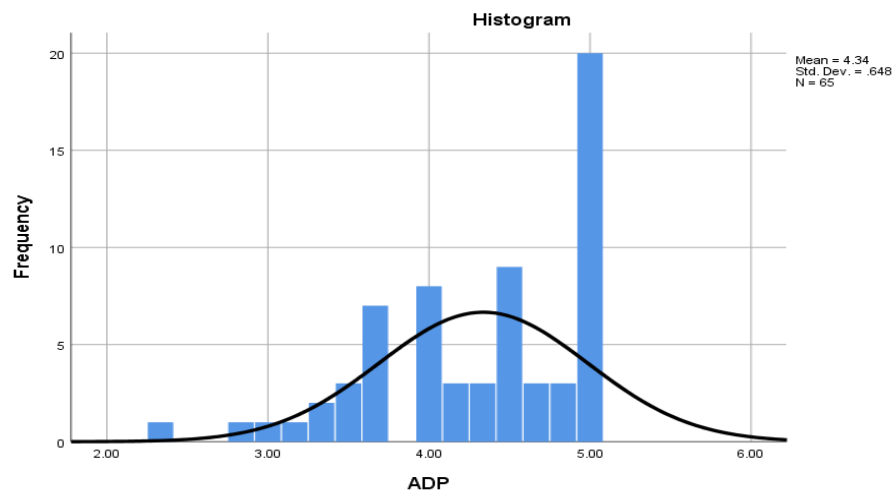
Gender	Age				Total
	18-25 Years	26 - 35 years	36 - 45 years	46- 60 years	
Male	13	15	01	0	29
Female	10	12	10	4	36
Total	23	27	11	4	65

The Gender $\times$ Age crosstabulation shows that out of 65 respondents, 36 (55.4%) were male and 29 (44.6%) were female. The highest number of respondents belonged to the **26–35 years** age group (27 respondents), followed by the **18–25 years** group (23 respondents). Female respondents were mainly concentrated in the younger age groups (18–35 years), while male respondents were represented across all age categories, including the **46–60 years** group. Overall, the sample is dominated by young and middle-aged respondents, providing an appropriate representation for studying digital financial services adoption.

Normality test

Before conducting further statistical analysis, the normality of the data was checked to make sure the assumptions of parametric tests were satisfied. The following histogram charts a normal curve to assess the distribution pattern of the adoption of digital financial services variable.

Normality assessment of histogram:



The histogram shows that the distribution of the ADP construct is approximately normal, with most responses falling between 4 and 5 on the five-point scale. The mean value is 4.34, indicating that respondents generally expressed a high level of agreement with the statements related to ADP. The standard deviation of 0.648 indicates relatively low variability, implying that the responses were fairly consistent among the 65 respondents. Although there is slight skewness due to the concentration of responses at the higher end of the scale, the overall distribution follows the normal curve reasonably well. No significant outliers or extreme deviations are observed in the data. Therefore, the distribution satisfies the assumption of approximate normality and is suitable for further statistical analyses in the study.

Findings

The pilot study was conducted with 55 respondents to examine the reliability and suitability of the research instrument before the main study. The findings show that the questionnaire was understandable and relevant to the study objectives. The Cronbach's Alpha value is above 0.90 for all constructs, demonstrating excellent internal consistency, and the questionnaire is highly reliable. All the respondents were able to understand and complete the questionnaire without any problem, indicating the feasibility of the data collection process. The descriptive analysis also shows preliminary insights into the adoption of digital financial services among users in Bhavnagar District. Based on these findings, the questionnaire was appropriate for the main study, with no major modifications required.

- The questionnaire was easy to understand.
- Respondents completed the questionnaire without major issues.
- The reliability value exceeded the acceptable threshold ($\alpha \geq 0.70$).
- The research instrument was found appropriate for the main survey.

Conclusion

The pilot study proved that the research instrument was reliable, valid, and suitable for identifying the factors influencing the adoption of Digital Financial Services (DFS) and its impact on the financial behaviour of users. The reliability analysis denotes excellent internal consistency, with all constructs achieving Cronbach's Alpha values above the recommended minimum standard. The results showed that the questionnaire items were clear, relevant, and easily understood by the respondents. Additionally, the pilot study confirmed the feasibility of the research design, sampling techniques, and data collection process. The results give confidence in the quality of the measurement instrument and support its use in

the main survey. Hence, the pilot study served as a strong methodological foundation for conducting the large-scale analysis and achieving the objectives of the research.

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Artificial Intelligence in Education: Emerging Trends, Pedagogical Innovations, Ethical challenges, and future Directions

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Abstract

Artificial Intelligence (AI) is fundamentally reshaping education by enabling adaptive intelligent and inclusive learning environment. The research paper explores the relationship between Artificial Intelligence and education, it highlights emerging trends, teaching and learning innovations, critical ethical challenges and future trends. This study investigates how AI helps in personalize learning, automated assessment and addresses ethical concerns. The study further evaluates current policy framework and highlights the urgent need for inclusive equitable and transparent governance mechanisms. This study highlights new emerging trends including AI-driven formative assessment and integration of AI with AR/VR for experiential learning. This learning technologies focus on personalized learning pathways, real-time feedback, automated grading and AI-assisted instructional design which enhance both student outcomes and teacher efficiency. This technology indicates transformative potential to democratize quality education. It highlights the need for responsible AI governance, Ethical implementation, and digital literacy to ensure equitable literacy to ensure equitable and effective use of AI in educational settings. The paper discusses ethical considerations and proposes a framework for responsible AI adoption in education. Despite these opportunities the paper critically examines the ethical and practical challenges associated with AI Integration including data privacy, algorithmic integrity, digital inequality, and the evolving role of educators in AI supported classrooms. Finally, it highlights future directions including human AI collaboration, development of regional language, AI models, and policy governance. This research study concludes that ethical design and pedagogical alignment are essential to realize AI's potential for equitable and quality education.

Keywords: *Artificial Intelligence, Education, Emerging Trends, Personalized Learning, Pedagogical Innovations, AI Ethics, Educational Technology, Future Directions, digital Literacy of Education.*

Introduction

The rapid advancement of Artificial Intelligence (AI) has significantly transformed various sectors of the society with education emerging as one of the most dynamic and promising domains for its application. AI provides to the ability of computer systems to perform tasks that typically require human intelligence, including learning, reasoning, problem-solving, decision-making, language understanding, and pattern recognition. In contemporary time has witnessed a paradigm shift from traditional teacher-center instruction to learner-centered technology-enhanced education. This AI technology provides personalized learning experiences, adaptive instructional systems, intelligent tutoring platforms, automated assessment and virtual assistants. So that this technology provides opportunities to address individual learning differences, improve student engagement enhance academic performance, reduce administrative workload. It redefines the roles of teachers, students, educational institutions, and policymakers while promoting more flexible, accessible, and inclusive learning environment.

The 21st century is witnessed a paradigm shift in education driven by rapid advancements in AI. From personalized tutoring systems to intelligent learning analytics, AI is moving beyond being a supportive tool to becoming a core driver of how teaching and learning are designed delivered, and assessed. There are emergence of generative AI, agentic AI tutors, multimodal models, and large language models which accelerates this transformation. This technology checks personalized learning where content adapts to each student's pace, prior knowledge, and learning style. In the same time, it also fosters pedagogical innovations including automated assessment real-time feed-back, AI-assisted curriculum design, and intelligent learning.

AI has also further expanded the possibilities of educational innovation. AI tools capable of generating text, images, code, quizzes, lesson plans, and interactive learning materials have transformed teaching practices and academic support services. Additionally, AI powered chatbots and virtual learning assistants provide instant academic guidance, answer student queries, and facilitate continuous learning beyond the traditional classrooms.

Despite its transformative potential the widespread adoption of AI in Education presents significant ethical, social, and pedagogical challenges. Regarding data privacy, cybersecurity, academic integrity, intellectual property, and excessive dependence on automated technologies have become central issues in educational discourse. The AI has also raised questions about plagiarism, authenticity of student work, fairness in assessment, and preservation of critical thinking and creativity. As AI technologies continue to evolve, education systems must balance technological innovation with human values. Policymakers, educators, researchers, and technology developers need to collaborate in designing regulatory

frameworks, ethical guidelines, and sustainable strategies that maximizing the educational benefits of AI while minimizing its risks.

Against this background, the paper examines the transformative role of AI in education by exploring its emerging trends, pedagogical innovations, ethical challenges, and future directions. It highlights recent developments in AI-enabled teaching and learning critically analyses the opportunities and risk associated with AI adoption and highlights strategic recommendations for building innovative, inclusive, ethical and sustainable educational environments in the digital age.

Emerging Trends

Artificial intelligence (AI) is transforming education by making learning more personalized, efficient, accessible, and data-driven. AI-powered systems can analyze large amounts of educational data, understand learner's needs, and provide customized support for students, teachers, and institutions.

1. Personalized Learning

AI provides learning materials according to students' abilities, learning pace, and preferences, and also provides personalized lessons, quizzes, and assignments.

2. Intelligent Tutoring Systems (ITS)

It acts as a virtual tutor by providing explanations, hints, and instant feedback. Students can learn independently at their own pace.

3. Generative AI in Education

These AI tools such as ChatGPT and other generative AI models create lesson plans, summaries, quizzes, coding examples, and learning activities. It also helps students in brainstorming, writing, and research.

4. AI-Powered Chatbots and Virtual Assistants.

Chatbots answer students' questions, provide academic guidance, and other administrative support 24/7.

5. Immersive Learning

AI integrated with Virtual Reality (VR) and Augmented Reality (AR) creates interactive simulations and virtual laboratories.

6. Inclusive and Accessible Education

AI provides speech-to-text, text-to-speech language translation, captioning, and personalized support for students with disabilities. These AI tools perform like: It gives personalized learning experiences provides, intelligent tutoring and mentoring, automatic grading and assessment, generates educational content, monitors student progress, predicts academic performance, recommend learning resources enhance student engagement through interactive learning.

7. Multimodal AI Classrooms

AI understands text, voice, image, video, and handwriting. It helps to solve a math problem by taking photo. You can scan a science diagram and it explain and asks questions for you.

8. Multilingual & Regional Language AI

It provides materials on all languages so that it removes language barriers. Rural students can learn in their Mother Tongue with same quality.

9. AI+AR/VR for Experiential Learning

It provides infinite simulations, labs, and practical lab even without physical equipment.

Pedagogical Innovations

These provides following benefits:

- Personalized and student-centered learnings.
- Greater student engagement and motivation.
- Quick feedback and continuous assessment.
- Reduce teacher workload through automatic teaching.
- Identify early learning difficulties.
- It enhances accessibility in education.

Pedagogical innovations help to reshape education by shifting from traditional, one-size-fits-all instruction to intelligent, adaptive, and learner centered approaches. Through AI tools, students can acquire personalized learning, intelligent tutoring, generative AI, immersive technologies, and inclusive practices. It enhances both teaching and learning process. It improves educational quality, accessibility, and student success while preparing learners for the demands of the digital age.

Ethical Challenges

The integration of Artificial Intelligence (AI) into education offers numerous benefits but it also raises significant ethical concerns.

1. Data Privacy and Security

AI systems collect and process large amount of student data, including academic records, and personal information. There is fear of unauthorized access, misuses of information and student's privacy and security.

2. Algorithmic Bias and Fairness

AI trained mostly on English, urban high-resource data can disadvantage rural, regional language, or low-income student.

3. Transparency

Many AI systems operate as “Black Boxes”, making it difficult for teachers and students to understand how decisions are made. Teachers and parents can’t question the system.

4. Academic Integrity and Misuse

It also increases about plagiarism, fabricated information and cheating. Students use AI to do homework so that they lose critical thinking and they just copy-paste. It reduces students’ independent thinking, creativity and problem-solving abilities and decision-making skills.

5. Educational Inequality

Not all students have equal access to AI technologies. It widens the gap between rich and poor schools instead of democratizing education. Elite schools get AI co-pilots, while government schools in rural areas have no poor or connectivity.

6. Teacher Displacement and Changing Roles

We have fear that AI will replace teachers or reduces them to “AI Supervisors”. It leads towards human elements, empathy and moral guidance.

7. Intellectual Property and Copyright

Generative AI often use educational content based on existing materials, raising concern about copyright infringement, ownership of AI-Generated content.

8. Psychological and Social Impact

AI tools may create stress, reduce motivation, affect student’s confidence, and emotional well-being. Excessive screen time and reduced face-to-face interaction may also influence social development.

Future Directions

The influence of AI in education lies in creating more intelligent, inclusive ethical, and learner-centered education ecosystem as AI technologies continue to evolve, they are expected to reshape teaching, learning, assessment process. Advances in AI Technologies will enable hyper-personalized learning experiences that adapt instructional content, teaching strategies, and assessments to individual learners’ needs, abilities and preferences. Rather than replacing educators, AI is expected to function as a collaborative teaching assistants allowing teachers to focus on mentoring, critical thinking, creativity and socio-emotional developments. Future educational systems will also benefit from advanced learning

analytics that predict student performance, identify learning difficulties at an early stage, and also improve academic outcomes. AI becomes more deeply integrated into education greater emphasis will be placed on ethical governance, transparency, fairing data privacy and cybersecurity to ensure responsible implementation.

Overall, the future of AI in education lies in balancing technologies innovation with ethical responsibilities human-centered pedagogy and equitable access, thereby fostering sustainable, adaptive, and future ready education system.

Conclusion

Artificial Intelligence (AI) is reshaping the educational landscape by making learning more personalized, accessible, efficient, and data-driven AI technologies enhance student engagement support diverse learning needs, and empower educators with valuable insights for improving teaching and assessment. It also raises important ethical concerns related to data privacy, algorithmic bias, transparency, academic integrity, digital inequality, and the evolving role of teachers. AI should be more complement than educators by fostering meaningful learning experiences while preserving critical thinking, creativity, empathy, and ethical responsibility. The future of AI in education lies in responsible, ethical, and collaborative adoption that improve educational quality while ensuring fairness, inclusive adoption of AI can help achieve the broader goals of NEP 2020-Quality, access, and equity in education for all learners.

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Impact of Brand Image on Consumer Buying Behaviour: A Study of Selected Apparel Brands in Gujarat Region

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Abstract

This research study examines the impact of brand image on consumer buying behaviour with reference to selected apparel brands in the Gujarat region. In today's highly competitive apparel market, brand image plays a significant role in influencing consumer preferences, purchase decisions, and brand loyalty. Consumers are increasingly attracted toward brands that reflect quality, style, social status, and personal identity. Therefore, understanding the relationship between brand image and consumer buying behaviour has become essential for apparel marketers and retailers.

The main objective of this study is to analyse how brand image influences the buying behaviour of consumers toward selected apparel brands. The study also focuses on identifying the factors affecting purchase decisions and examining the role of advertising, social media, and celebrity endorsements in shaping brand perception. Primary data was collected through a structured questionnaire using Google Forms. A total of 275 respondents from different demographic groups participated in the survey. The collected data was analysed using percentage analysis, frequency distribution, and cross-tabulation methods.

The findings of the study reveal that brand image has a strong positive influence on consumer buying behaviour. Factors such as quality, brand reputation, social media influence, and celebrity endorsements significantly affect consumer purchase decisions. The study also found that consumers prefer brands that reflect their personality and provide confidence in product quality. Among the selected apparel brands, value-fashion brands gained strong consumer preference due to their affordable pricing and trendy image. Additionally, the research highlights that positive brand image leads to higher customer satisfaction and brand loyalty.

The study concludes that brand image is an important strategic factor for apparel companies in attracting and retaining customers in the competitive market. The findings of this research will help marketers and apparel brands develop effective branding and promotional strategies to strengthen consumer relationships and improve market performance.

Keywords: *Brand Image, Consumer Buying Behaviour, Apparel Industry, Brand Loyalty, Consumer Preference, Gujarat, Fashion Marketing*

1. Introduction

The apparel industry is one of the fastest-growing and highly competitive industries in the global market. In recent years, consumer preferences in apparel purchasing have changed significantly due to increasing fashion awareness, changing lifestyles, digital influence, and rising disposable incomes. Consumers no longer purchase apparel products solely for functional purposes; they also consider symbolic and emotional aspects such as social status, personality expression, comfort, and lifestyle compatibility.

Brand image has become a crucial factor influencing consumer buying behaviour in the apparel sector. Brand image refers to the perceptions, beliefs, and associations consumers hold regarding a particular brand. A positive brand image helps organisations create trust, attract new customers, increase customer satisfaction, and build long-term loyalty. Apparel brands invest heavily in advertising, social media marketing, celebrity endorsements, and promotional activities to establish a strong brand image in consumers' minds.

The Gujarat region represents an important apparel market due to its growing urban population, increasing fashion consciousness, and expanding retail infrastructure. Young consumers in Gujarat are highly influenced by branded fashion products and social media trends. Therefore, studying the impact of brand image on consumer buying behaviour becomes essential for apparel companies operating in this region. This research paper focuses on analysing the relationship between brand image and consumer buying behaviour toward selected apparel brands in Gujarat. The study also examines the role of quality, price, advertisements, celebrity endorsements, and social media in shaping consumer perceptions and purchasing decisions.

2. Review of Literature

Brand image is one of the most important concepts in marketing and consumer behaviour studies. According to Keller (1993), brand image refers to the set of perceptions and associations that consumers

hold in their memory regarding a brand. Aaker (1991) stated that brand image is a major component of brand equity and contributes significantly to customer loyalty and purchase intention.

Kotler and Keller (2016) explained that brand image exists in consumers' minds and is shaped through advertising, product quality, customer experiences, and promotional strategies. In the apparel industry, brand image becomes more influential because clothing products are associated with personal identity and social expression.

Belk (1988) proposed the theory of the extended self, explaining that consumers use brands to express their personalities and identities. Similarly, Elliott and Wattanasuwan (1998) found that apparel brands act as symbolic resources for social communication and identity formation.

Dodds, Monroe, and Grewal (1991) identified that brand image significantly influences purchase intention through perceived quality and perceived value. Kim and Chung (2011) concluded that brand image was one of the strongest predictors of online apparel purchase intention.

Research by Rashid and Rokade (2023) found that brand trust acts as a mediating variable between brand image and purchase intention among Indian apparel consumers. Studies also highlight that social media marketing and influencer endorsements strongly affect consumer perceptions and buying behaviour in the fashion industry.

Despite extensive studies on brand image and consumer behaviour, limited research has focused specifically on apparel consumers in the Gujarat region. This study aims to bridge that research gap.

3. Research Gap

Previous studies have analysed the relationship between brand image and consumer buying behaviour in the apparel industry. However, most studies were conducted at national or international levels and focused on general consumer markets. Limited research has been conducted specifically on selected apparel brands in Gujarat.

Consumer behaviour in the apparel sector continuously changes due to evolving fashion trends, social media influence, regional preferences, and lifestyle changes. Therefore, there is a need to analyse how brand image influences consumer buying behaviour among apparel consumers in Gujarat.

This study attempts to fill this research gap by examining consumer perceptions, preferences, and purchase behaviour regarding selected apparel brands in the Gujarat market.

4. Objectives of the Study

The major objectives of this research are:

1. To study the importance of brand image in the apparel industry.
2. To analyse the impact of brand image on consumer buying behaviour.
3. To identify the factors influencing apparel purchase decisions.
4. To examine the role of product quality in building brand image.
5. To study the influence of price on consumer preferences.
6. To analyse the impact of advertisements and social media on consumer perceptions.
7. To examine the effect of celebrity endorsements on consumer buying behaviour.
8. To analyse the relationship between brand image and customer loyalty.
9. To compare buying behaviour among different demographic groups.
- 10.

5. Research Methodology

Research Design

The study adopts a descriptive and quantitative research design. This method is appropriate for analysing consumer perceptions and buying behaviour without manipulating variables.

Data Collection

Primary data was collected using a structured questionnaire distributed through Google Forms during February–March 2026.

Sample Size

A total of 275 valid responses were collected from respondents belonging to different demographic groups.

Sampling Technique

Convenience sampling technique was used for selecting respondents.

Variables of the Study

Independent Variables

- Brand reputation
- Product quality
- Advertising exposure
- Celebrity endorsements
- Social media influence

- Brand personality

Dependent Variables

- Purchase intention
- Brand preference
- Brand loyalty
- Willingness to pay premium prices

Moderating Variables

- Age
- Gender
- Income
- Occupation

Conceptual Framework Diagram



Hypothesis Summary Table

Sr. No.	Hypothesis	Result
H ₀	There is no significant relationship between brand image and apparel purchase decisions.	Rejected
H ₁	There is a significant relationship between brand image and apparel purchase decisions.	Accepted

Findings Summary Table

Factors Influencing Purchase	Importance Level
Product Quality	Very High
Brand Imag	High
Price	High
Fashion Trends	Medium
Social Media Influence	Medium
Celebrity Endorsement	Low



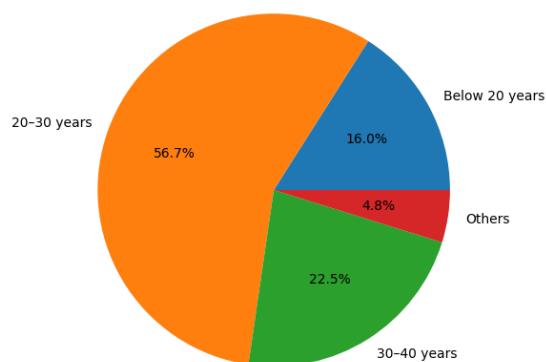
6. Data Analysis and Interpretation

Demographic Profile

Age Distribution

The majority of respondents (56.7%) belonged to the 20–30 years age group, indicating that young consumers are more attracted toward branded apparel and fashion trends. Respondents below 20 years represented 16%, while 22.5% belonged to the 30–40 years category.

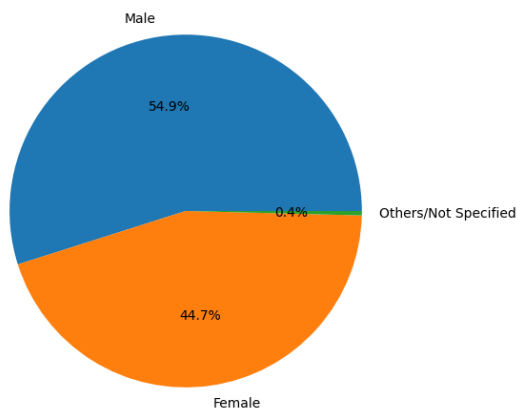
Age-wise Distribution of Respondents



Gender Distribution

Male respondents constituted 54.9% of the sample, while female respondents represented 44.7%. This indicates balanced participation from both genders.

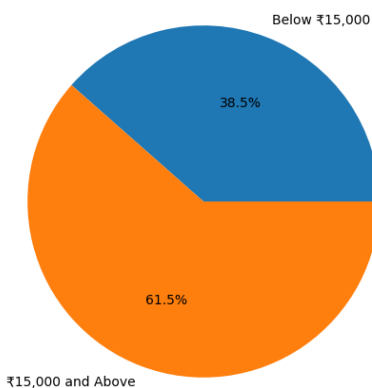
Gender Distribution of Respondents



Monthly Income

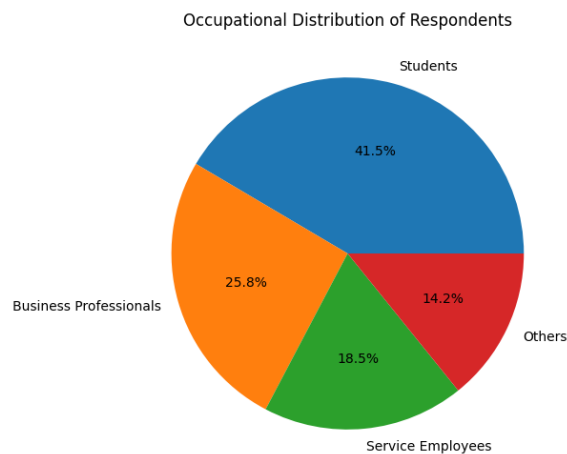
Most respondents belonged to the below ₹15,000 income group (38.5%), indicating high price sensitivity among consumers.

Monthly Income Distribution of Respondents



Occupation

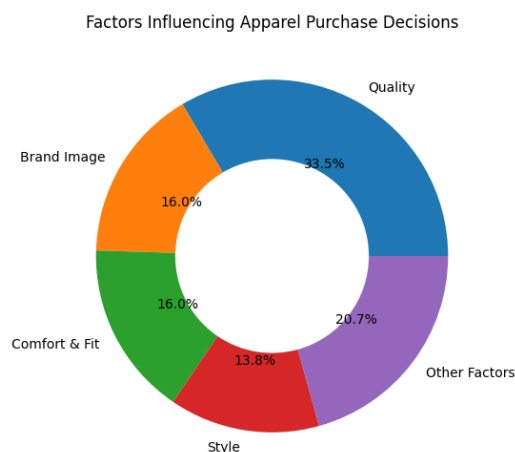
Students represented the largest occupational category (41.5%), followed by business professionals (25.8%) and service employees (18.5%).



Important Factors Influencing Apparel Purchas

The analysis revealed that quality is the most important factor influencing apparel purchases, accounting for 33.5% of responses. Brand image and comfort & fit each contributed 16%, while style contributed 13.8%.

This indicates that consumers prioritise durability, comfort, and brand reputation while purchasing apparel products.



Preferred Apparel Brands

Among the selected brands, Zudio emerged as the most preferred apparel brand with 25.1% preference, followed by H&M (16%), Levis (14.2%), and Zara (11.6%).

Consumers preferred brands offering affordability, trendy fashion, quality products, and strong brand image.



Impact of Brand Image on Consumer Buying Behaviour

The majority of respondents agreed that brand image significantly affects purchase decisions. Consumers preferred reputed brands because they associate them with quality, trust, and social value.

Many respondents also expressed willingness to pay premium prices for brands with a positive image. This confirms that brand image plays an important role in creating customer loyalty and increasing purchase intention.

7. Findings of the Study

The major findings of the study are:

1. Brand image has a strong positive impact on consumer buying behaviour.
2. Product quality is the most important factor influencing apparel purchases.
3. Young consumers are highly influenced by fashion trends and brand reputation.
4. Social media and advertisements significantly affect consumer perceptions.
5. Celebrity endorsements positively influence brand image.
6. Consumers prefer affordable brands with trendy fashion collections.
7. Zudio emerged as the most preferred apparel brand among respondents.
8. Strong brand image increases customer loyalty and willingness to pay premium prices.

8. Conclusion

The study concludes that brand image plays a significant role in influencing consumer buying behaviour in the apparel industry. Consumers are highly influenced by factors such as product quality, brand reputation, social media presence, advertisements, and celebrity endorsements while making apparel purchase decisions.

The findings indicate that consumers prefer brands that provide a combination of quality, affordability, comfort, and fashionable designs. A strong brand image helps apparel companies attract new customers, retain existing customers, and improve customer loyalty.

In the Gujarat apparel market, young consumers represent the dominant customer segment and are strongly influenced by digital marketing and social media trends. Therefore, apparel companies should focus on strengthening their brand image through effective promotional strategies and customer engagement.

9. Recommendations

Based on the findings, the following recommendations are suggested:

1. Apparel brands should focus on improving product quality to build long-term customer trust.
2. Companies should strengthen social media marketing strategies to engage young consumers.
3. Celebrity endorsements should be used strategically to enhance brand perception.
4. Brands should maintain affordable pricing while offering trendy fashion products.
5. Retailers should improve customer experience both online and offline.
6. Companies should develop targeted marketing campaigns based on demographic preferences.

10. Limitations of the Study

1. The study is limited to selected apparel brands in the Gujarat region.
2. Convenience sampling may not fully represent the entire population.
3. The study relies on self-reported responses, which may include bias.
4. Data was collected through online surveys, limiting participation from rural consumers.
5. The study focuses on consumer perceptions rather than actual purchase behaviour.
- 6.

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Could a pop singer conceive a societal vision?

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Abstract

Pop music and pop singers have a World of their own. The music conveys a populist tune associated with an appealing rhythm. The words are trendy symbolizing pressing issues and contemporary concerns. The delivery is urgent, momentous and breathless. All of that adds up to an appealing message that induces attention and calls for alert. The question, however, is could this genre of entertainment convey a societal vision? Could it express an image of a future state of an economy or a nation? Could it project a desired state of individuals, peoples or communities? And what does it take to reach that state and deliver that message?

The article is an attempt at dealing with those issues.

The article starts with a definition of a vision. What it is and what it takes to conceive it. It goes further to analyze “a case” or a selection of pop songs in terms of content, implications and congruence with vision criteria. And it then relates the songs to the premises of vision conception and ways and means of vision delivery, penetration and follower augmentation.

The article ‘s case analysis is based on work by Michael Jakson. It analyses some of his deliveries in terms of message and visionary premises. It concludes by a hypothesis focusing on the relationship between pop culture and country wide inspiratory visions.

Keyword :*Pop Music; Popular Culture; Societal Vision; Visionary Leadership; Social Change; Celebrity Influence; Michael Jackson; Collective Aspirations*

What is vision?

According to El Namaki (1992: 25): “A vision is a mental perception of the kind of environment an individual, or an organization, aspires to create within a broad time horizon and the underlying conditions for the actualization of this perception”. It could also be a “concept for a new and desirable future reality that can be communicated throughout the organization” (ibid: 25). A vision belongs to what we may term

a process of direction setting. Direction setting connotes the identification of a vision and a strategy for getting there (Nutt and Back off, 1997). It requires challenging con-vocational wisdom and analytically looking for patterns that answer basic questions about the business we are involved into (El Namaki, 1992). Individuals perceive their visions and do not ask themselves whether they have one. Having a vision implies involvement, commitment, and total immersion (Collins and Porras, 1996). All efforts stem from it and all forces and structures are seen in terms of their relevance to its existence. Issues as rest and reward become secondary as attention is focused on the prime target, i.e. vision fulfilment.

A vision is also realistic and feasible; simple and clear, far but close and derived from a sense of direction. Visions are driven by a need to control distant organization's destiny.

The premises of a vision

What does it take to create a vision? For an individual to conceive a vision he must possess three traits. The first is a desire to achieve. The second is an eye for opportunities. And the third is a resource profile (El namaki, 1992). A vision statement reflects those driving forces and with that, the aspirations, and the direction of the entity.

- **The desire to achieve:** The first premise i.e. the desire to achieve is a concept rooted in Macclalend's (Macclalend, 1988) achievement motivation concept. Achievement motivation theory is a psychological framework explaining the internal drive that compels people to pursue goals, excel, and overcome challenges. Pioneered by theorists like David McClelland and John Atkinson, it suggests that behaviour is shaped by a person's specific needs for success, power, or affiliation. <https://www.sciencedirect.com/science/article/pii/S1041608024000323>)
- **An eye for opportunity:** A vision-rooted entrepreneurial opportunity is a business concept born from an individual's core values, long-term foresight, and deep personal purpose. Focuses on future shifts. Connects the founder's internal values directly to an environment, an arena, or a scope (<https://medium.com/@sreesravan/vision-of-an-entrepreneur-c3f7377aaf16>).
- **Resource profile:** Vision fulfillment demands resources and vision feasibility is often difficult to address in the abstract. Measures such as funding, technology and capability provide a first-hand test that should be substantiated and supported to provide an integrated visionary context.

The case: Michael Jakson

Michael Jackson is an American pop singer whose roots lie deep in black American culture and whose immediate environment conveyed distinct cultural traits. The eighth of ten children in the Jackson family, he made his public debut at age six as the lead singer of the Jackson 5. The Jackson family was an African American working-class household living in a two-bedroom home. Through his father, Michael

had Native American (Choctaw) ancestry while his mother, Katherine Jackson was a Jehovah's Witness. His father, Joe Jackson, was a former boxer and a crane operator at US Steel.

Performance and vision conception

Michael Jackson shaped the future of music, dance, film and fashion with his genius, talent, and visionary perspective.

Michael Jackson's visions were, in this author's view, translated into specific "images" clad in lyrics and musical rhythm. To this category belong outstanding "deliveries" as the "earth song," "Man in the mirror," and "they do not care about us."

Consider the lyrics of the earth song. The statements project the ultimate earth picture that should represent our visionary ideal and contrast those with today's dark shadows. "...What about sunrise...What about rain... What about all the things

That you said we were to gain..." ... "Did you ever stop to notice

The crying Earth the weeping shores?". He goes on to complete the future image by stating "What about all the peace that you pledge to be your only son...

What about flowering fields..."

Consider the other lyrics where he contrasts a difficult life with the alternative "... they do not care about us...". His lyrics contrast a future vision that shone in the horizon with his bleak today. His lyrics state "Tell me what has become of my life...I have a wife and two children who love me.... (but) I am tired of being the victim of hate.... I look to heaven to fulfill its prophecy... All I want to say is that they do not really care about us" He appeals to heaven to provide him with the fair "deal" that can give him justice and empathy.

And consider the unusual “Man in the mirror”. There he is addressing himself and urging self to change to reach a better outlook. He states, “I’m going to make a change.... For once in my life.... t is going to feel good..... Gona is effective, going to make it right....'m starting with the man in the mirror.....'m asking him to change his ways.... And no message could have been any clearer..... ” And his following statements convey the message: “If you winna make the world a better place Take a look at yourself and then make a change.”..... “You got to get it right, while you got the time Cause when you close your heart..... (You cannot close your, your mind) Then you close your mind.”

These “visionary” messages were recognized on a global scale. Man in the mirror, for example, was nominated for Record of the Year at the 31st Grammy Awards. It reached number 21 on the UK singles chart in 1988 and reached number 2 there following Jackson's death in 2009. An instrumental version was played at Jackson's memorial service.

The roots of visionary zeal

Roots of MICHAEL JAKSON visions could be traced to many origins., some are intrinsic and others are extrinsic.

Desire to achieve.

To the intrinsic belong a letter he wrote to himself where he stated “Michael Jakson will be my new name.... I want a whole new character, a whole new look. I should be a totally different person. People should never think of me as the kid who sang.

‘ABC,’ I Want You Back.’ I should be a new incredible actor, singer, and dancer that will shock the world.” This was stated in this "secret letter" or personal manifesto contained in a 1979 handwritten note. At age 21, on the back of a Destiny Tour itinerary, he wrote this powerful goal-setting document for himself vowing to reinvent his identity, drop his child-star past, and become the world's ultimate entertainer. The letter, dated November 6th, 1979, was written while he completed the ‘Destiny’ tour with his brothers.

Opportunity tracing

Michael Jackson's choice of themes and core rhythm embodied a sense of awareness of urgent pressing societal issues long concealed behind dark curtains as much as thick barriers. These were issues that extended beyond the narrow and immediate into the broad, the touchable and the tangible. Issues that survived within the day-to-day lives of the populous. Take for example, the earth song. This is a song that expressed bitterness at the state of several societal symptoms. The text and the images exposed a crisis of physical earth surroundings from the soil and the air to the remote

dwelling of distant native communities. The other song "gone be starting something" appalled to entrepreneurial initiative, mobility, and self-improvement. Yet another melody "appeal to the man in the mirror" again issues a gentle appeal for societal comradeship and empathy. All these creative melodies formulated a message and conveyed it in subtle, gentle, penetrating, and conducive manner.

Resource base identification

Michael Jackson was not just the King of Pop—he was one of the smartest businessmen in music history. While most artists focused on making hits, MICHAEL JACKSON was thinking about ownership.

Michael listened. And then, in 1985, he made a move no one saw coming.

ATV Music, the company that owned The Beatles' entire song catalog, was up for sale. While other investors hesitated, MICHAEL JACKSON made a bold offer—\$47.5 million—and won. Overnight, he became the owner of over 250 Beatles songs.

Michael Jackson philanthropy is wide in scope and remarkably diverse in coverage. He founded the "Heal the World Foundation" in 1992. The charity brought underprivileged children to Jackson's ranch to use the theme park rides and sent millions of dollars around the world to help children threatened by war, poverty, and disease. That July, Jackson published his second book, "*Dancing the Dream*," a collection of poetry. In support of *Dangerous*, Jackson embarked on his second world tour, the "Dangerous World Tour," to raise money for his Heal the World Foundation.

The overall picture.

Michael Jackson's visionary forays are unique representing a blend of many contexts, variables, and forces. The whole effort seems like a final event. It was seldom seen before and very unlikely to be seen again.

Starting with the context one cannot escape the notion that the spread of several of the issues raised within Michael Jackson's visions were, when revealed, rather constrained. Media publicity was there but not the massive social media that emerged years later. This massive spread of social media allowed for his messages to be significantly amplified and the penetrative dimension to take hold. This spread of his messages through social media reached explosive proportion long after his passing away in 2009 when several of his quoted core issues became central political, economic, and environmental issues. Issues discussed across geographical and political boundaries spreading all the way from the United States to China!

It is also striking that Michael Jackson's visions were supported by his quotes. Those quotes ran parallel to his visions, take for example: "Everyday create your history, every path you take you are leaving your legacy. And "With my music, with what I do, I would like to bring a light into the world." And "A song is a mantra, something you repeat again. And one cannot leave behind "We need peace, we need giving, we need love, we need unity. I want the whole world to sing this song." and "Heal the world, make it a better place."

Summary and conclusions

Pop music and pop singers have a World of their own. The music conveys a populist tune associated with an appealing rhythm. The words are trendy symbolizing pressing issues and contemporary concerns. The delivery is urgent, momentous and breathless. All of that adds up to an appealing message that induces attention and calls for alert. The question, however, is could this genre of entertainment convey a societal vision? Could it express an image of a future state of an economy or a nation? Could it project a desired state of individuals, peoples or communities? And what does it take to reach that state and deliver that message?

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Specific visions were embedded into the lyrics of his songs. Visions that projected a specific state of an issue within an arena. One can identify specific visions especially earth song.

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