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REGULATION OF ONLINE GAMING IN INDIA: A CRITICAL ANALYSIS OF THE PROMOTION AND REGULATION OF ONLINE GAMING ACT, 2025

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ABSTRACT
India has not had a unified law that deals with online gaming. According to a 2023 KPMG report, the online gaming industry in India is projected to reach a market size of $8.6 billion by 2027, growing at a rate of 20% annually. This boom has brought significant challenges, including concerns about money laundering, addiction, and financial fraud. The absence of a uniform national law had left this sector in a legal grey area, leading to regulatory inconsistencies and weak consumer protection. For years, the question of whether an online game is governed by skill or chance has occupied courts, regulators, and industry stakeholders alike. A national law has become essential to address the growing ambiguity in the legal status of online gaming in India. It is in this context that Parliament enacted the Promotion and Regulation of Online Gaming Act, 2025. With this legislation, India now has a central, statutory framework that seeks to harmonise state-level inconsistencies and provide much-needed clarity. The objective of this paper is to: (1) explore the judicial response to regulating online gaming in India and critically analyse: (a) how the Online Gaming Act serves as a comprehensive framework that regulates the growing online gaming industry, protects consumers, prevents financial crimes, and encourages responsible gaming; (b) how the Act addresses current regulatory gaps;(c) how it establishes a transparent, safe, and accountable environment for online gaming in India; and (d) how far the Act aligns with constitutional principles.

KEYWORDS: ONLINE GAMING, REGULATORY GAPS, RESPONSIBLE GAMING

INTRODUCTION
The digital gaming sector in India has undergone a meteoric transformation over the last decade, evolving from casual recreation to a multi-billion-dollar ecosystem encompassing e-sports, social gaming, and real-money platforms. Recognizing both their promise and threat, Parliament enacted the Promotion and Regulation of Online Gaming Act, 2025 (herein after referred to as The Online Gaming Act, the Act or the Gaming Act), seeking to balance industry growth with consumer protection. Yet, by imposing a sweeping ban on all online money games—irrespective of skill or chance—the Act has ignited constitutional controversies and practical concerns regarding federalism, enforcement, and fundamental rights.

ISSUES RELATED TO ONLINE GAMING IN INDIA AND THE NEED FOR REGULATION
The seriousness of the issue is recognised globally. The World Health Organization classifies gaming disorder as a health condition in its International Classification of Diseases, describing it as a pattern of play marked by loss of control, neglect of other daily activities, and persistence despite harmful consequences. This highlights why decisive action is necessary in India as well. Online money gaming

platforms have caused widespread harm. Families have lost their savings. Young people have fallen into addiction. In some heartbreaking cases, financial distress linked to these games has even led to suicides. While digital technology has brought many benefits, these games have exploited loopholes in the law and caused deep social harm. Government data suggests that Indians are losing ~₹15,000 crore every year due to "Real Money Games" (RMGs). The World Health Organization (WHO) has linked RMGs to compulsive behaviour, psychological distress, financial hardship, and an overall disruption of family life. Reflecting these dangers, 32 cases of suicide attributed to online gaming addiction have been reported in Karnataka in the past 31 months. There is irrefutable proof that the algorithms of online gaming firms do not allow any user to emerge as a net winner in the long run. A Parliamentary Panel Report (2023) stated that gaming portals have become agents for funding terror activities. A 2022 Financial Intelligence Report reported that online gaming firms had evaded tax of ₹2,000 crore.

Furthermore, the Defence Ministry's think tank discovered that the Chinese App, FIEWIN, has defrauded Indian users of ₹400 crore, with an ED investigation uncovering evidence of the use of mule accounts and cryptocurrency wallets. In yet another report, the government said that gaming companies were involved in GST tax evasion of ₹30,000 crore. In 2023, the Enforcement Directorate reported multiple cases where illegal online betting platforms were used to launder crores of rupees through offshore accounts.

GLOBAL PERSPECTIVE.

China has placed strict limits on the time young people may spend playing online games. Online gaming in the country is now only available to people younger than 18 from 8 p.m. to 9 p.m. on Fridays, Saturdays, Sundays, and public holidays. Before an online game can be distributed in China, it must obtain approval and an International Standard Book Number (ISBN) from China's National Press and Publication Administration (NPPA).

In the U.S., Internet casino gaming remains illegal in every state that doesn't explicitly legalise the games. Germany's "Youth Protection" laws aimed at violent games pushed developers to replace realistic red blood with a green version, for example, and Australia has sought to ban games for including depictions of everything from assault to marijuana use.

Globally, jurisdictions like the UK and Germany regulate online gaming with licensing, age-gates, and harm-reduction measures rather than blanket bans. China, by contrast, imposes strict time limits for youth. Regulatory innovation, not prohibition, remains the dominant policy trend.

GOVERNMENT RESPONSE

Entries 34 and 62 of the State List in the Seventh Schedule of the Constitution place the regulation and taxation of betting and gambling within the jurisdiction of State governments. Various state governments have taken regulatory actions in line with the pre-independence law, the Public Gambling Act, 1867, which does not specifically address the rapidly growing online gaming industry. In 2017, Telangana became the first State to ban all forms of online gaming, including skill-based games. In 2020, Andhra Pradesh banned online gambling, and in 2022, Tamil Nadu banned games such as Rummy and Poker. In 2023, the Indian government reclassified GST brackets for online gaming along with casinos and horse

racing, putting them in the same bracket as lotteries and betting. In October 2023, it imposed a uniform 28% GST on the entire entry fee/deposit, instead of platform commission.

LEGISLATIVE OVERVIEW: OBJECTIVES AND STRUCTURE

The Online Gaming Act was introduced and passed with unprecedented speed, receiving Presidential assent in August 2025. It represents a significant shift in the regulation of the digital gaming sector. This legislation imposes a comprehensive ban on all forms of online gaming involving real money, irrespective of whether the games are based on skill or chance. The statute's core objectives are dual: (i) to promote and regulate legitimate and beneficial aspects of online gaming—primarily e-sports and social gaming, and (ii) to protect vulnerable groups from the harmful consequences of online money gaming.

The Gaming Act prohibits 'online money games' (Section 2(1)(g)), which it defines as any online game involving monetary (or similar) stakes, irrespective of whether the game is based on skill or chance. Instead, the Act promotes 'e-sport' (Section 2(1)(c)), which it differentiates from an 'online money game' on the basis that an 'e-sport':(i) has an outcome solely determined by skill; and (ii) does not involve the wagering of any monetary (or similar) stakes.

The Act categorises games into:

- **Prohibited Online Games:** Where chance is the deciding factor.
- **Permissible Online Games:** Where skill is not merely incidental but the decisive factor

For the above purpose, the Act further classifies online games into three segments:

- **E-sports:** Games determined solely by skill, registered under the National Sports Governance Act, 2025.
- **Social gaming:** Casual, recreational games offered for fun, with no monetary stakes.
- **Online Money Games (RMGs):** Any game, regardless of skill or chance, played for stakes—money or convertible virtual credits—which is wholly prohibited.

The Act empowers the Central Government to notify and constitute a regulatory authority to recognise, categorise, and register online games (with powers to classify games, investigate complaints, and enforce compliance). The law is divided into six chapters, each addressing a different aspect of regulation, prohibition, and enforcement

LICENSING FRAMEWORK

All permissible online games must be registered and licensed with the National Online Gaming Regulatory Authority (NOGRA). This introduces a gatekeeping mechanism, allowing the government to screen games before they reach users.

CONSUMER PROTECTION MEASURES

The Act mandates responsible gaming practices, age verification, deposit limits, grievance redressal systems, and periodic disclosures to users.

ENFORCEMENT MECHANISMS

It empowers the regulator to impose penalties, suspend licences, and even block non-compliant platforms, thus creating a compliance-heavy regime.

REGULATORY ACTIONS UNDER THE ACT

The operative core of the Gaming Act is penal. Chapter III of the Act criminalises the entire class of online money games The Act prescribes severe penalties: up to three years' imprisonment and ₹1 crore fine or both for offering online money games or engaging in transaction or authorisation of funds for the same (Section 5 and Section 7); two years' jail and ₹50 lakh fine for unlawful advertisements (Section6). Under the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023, offenses under sections 5 and 7 shall be cognisable and non-bailable (Section 10). Enforcement extends to offshore operators violating Indian law. The Act prescribes three-year sentences and exorbitant fines (Section 9(1) to 9(3)), enhances punishments for repeat offenders (Section 9(4) and 9(5) and imposes vicarious criminal liability (Section 11)

CONSTITUTIONAL CHALLENGES

The Gaming Act was passed without any stakeholder consultation and infringes fundamental rights under Articles 14, 19, and 21 of the Constitution. It violates federal principles, due process, and the doctrine of separation of powers. The ban is ultra vires, infringes fundamental rights, and criminalises legitimate skill-based activities like online carrom. its potential to disrupt the industry and violate constitutional protections.

Historically, Indian courts have held that games of skill merit protection under Article 19(1)(g), which safeguards the right to engage in any lawful profession or business. Landmark cases like ***RMD Chamarbaugwala v. Union of India,*** **1957AIR SC 628, and** ***Dr. KR Lakshmanan v. State of Tamil Nadu, 1996SCC (2)226,*** recognized the legality of skill-based games, ruling blanket bans as disproportionate. The Online Gaming Act collapses the distinction between skill and chance, criminalizing both by default, and thereby faces judicial challenge as arbitrary and unreasonable.

By categorizing all money games—skill and chance—in the same bracket and prohibiting them outright, the Act arguably violates Article 14. Courts employ the test of "intelligible differentia and rational nexus" to determine valid classification. The Online Gaming Act is a broad sweep that fails this test, as demonstrated by the inclusion of minor-stakes skill games alongside pure gambling activities.

MeitY had recognised permissible real-money games with safeguards by amending the Rules in 2023. Abrupt reversal by way of the 2025 Act undermines this legitimate expectation, causing massive losses to investors and operators who had relied on prior commitments. For an economy that relies on credibility to attract capital, this unpredictability is deeply damaging.

By denying adults the freedom to participate in skill-based games for stakes, the Online Gaming Act is said to undermine autonomy and dignity. it fails the doctrine of proportionality and undermines personal autonomy recognized under Article 21 **Justice K.S. Puttaswami v. Union of India (2017)10SCC1.**

The Gaming Act lacks legislative competence, since, in pith and substance, the Act ventures into matters within the exclusive legislative domain of the State Legislatures [Entry 34, List II, 7th Schedule]. Under Entries 34 and 62 of the State List, states exercise legislative authority over betting and gambling. The Online Gaming Act's national regime encroaches upon this field, overriding state licensing frameworks in places like Nagaland and Sikkim. While the Centre invokes public health and cybercrime concerns, several experts and judgments caution against such federal overreach absent demonstrable necessity.

ECONOMIC AND REGULATORY IMPLICATIONS

Despite the intent to protect citizens, the ban presents an economic paradox—it forgoes significant tax revenue that could accrue from regulated real-money platforms and risks driving users to offshore, unregulated services. The government points to tax evasion, money laundering, and terror-financing potential, whereas critics call for calibrated regulation with deposit caps, KYC norms, and age verification rather than total prohibition.

ENFORCEMENT CHALLENGES

Technologically, The Online Gaming Act confronts familiar enforcement difficulties: cross-border platforms, mirror sites, VPNs, and cryptocurrency payments complicate regulation. Even provisions granting access to devices and content-blocking remain limited in practice, as users and operators find new circumvention strategies.

JUDICIAL DIMENSIONS

A Constitution Bench of the Supreme Court in ***RMD Chamarbaugwala v. Union of India*****1957AIR SC 628** held that competitions involving skill and those of chance form two distinct categories, akin to the difference between commercial and wagering contracts. One of the most influential rulings came in ***K.R. Lakshmanan v. State of Tamil Nadu 1996 SCC (2)226***, where the Supreme Court held that horse racing was a game of skill. The Court reasoned that although an element of chance exists (weather, luck, etc.), the outcome largely depends on the bettor's skill in assessing the horse's pedigree, jockey's form, and track conditions. This judgment laid down the "*predominance of skill*" test, which continues to inform legal analysis to this day.

Re-affirming these decisions of the Supreme Court, various High Courts have held that games of skill enjoy the protection under Article 19(1)(g) of the Constitution, and thus blanket prohibitions on online games of skill are unconstitutional(***Chandresh Sankhla v. State of Rajasthan & Ors., 2020 SCC On Line Raj 264; Head Digital Works Private Limited v. State of Kerala, 2021 SCC On Line Ker 3592; Junglee Games India Private Limited vs. The State Of Tamil Nadu, 2021 SCC On Line Mad. 2767; All India Gaming Federation v. State of Karnataka, 2022 SCC On Line Kar 435; All India Gaming Federation v. State of T.N, 2023 SCC On Line Mad 6973***). In ***Director General of Police v. Mahalakshmi Cultural Association (2012)3MadLJ561*****,** the Madras High Court recognised rummy as a game of skill, noting that memorisation, card calculation, and strategy outweighed random chance. In ***Varun Gumber v. Union Territory of Chandigarh 2017CriLJ3827***, the Punjab & Haryana High Court held that fantasy sports were skill-based because success depends on a player's knowledge of real-world players' performance and statistical analysis. The Supreme Court's refusal to interfere gave this ruling de facto finality.

In 2023, the Indian government reclassified GST brackets for online gaming, along with casinos and horse racing, putting them in the same bracket as lotteries and betting. In October 2023, it imposed a uniform 28% GST on the entire entry fee/deposit, instead of platform commission. Gaming firms opposed this move, claiming that their platforms were skill-based and termed retrospective taxes as unfair and damaging. The Supreme Court (SC) this year granted a stay on notices issued to online gaming companies. The top court's decisions on whether fantasy sports, poker, and rummy should be treated as games of skill or gambling, and on retrospective tax for RMG firms, are awaited. The Central government

has requested the SC for more time to file submissions in the GST dispute on online gaming, with industry players arguing that games of skill cannot be equated with gambling.

The Online Gaming Act has triggered a wave of constitutional challenges—industry players, professional gamers, and civil rights groups have petitioned Delhi, Karnataka, and Madhya Pradesh High Courts, now consolidated before the Supreme Court. Key contentions include violation of fundamental rights, absence of stakeholder consultation, lack of meaningful regulatory alternatives, and arbitrary classification. The Supreme Court's past stance protecting skill-based games under Article 19(1)(g) and observations on proportionality will be critical as hearings progress.

FINDINGS

The Online Gaming Act is strong legislation that takes a balanced approach by recognizing the online gaming sector as one of the most dynamic segments of the digital and creative economy, with significant opportunities for innovation, cognitive development, employment generation, technological advancement, and global competitiveness. It encourages e-sports, which are organised competitive video games, and promotes safe online social and educational games. It clearly separates constructive digital recreation from betting, gambling, and fantasy money games that exploit users with false promises of profit. By doing so, the Act ensures that India can embrace the benefits of digital innovation while protecting its people from the darker side of online gaming.

But at the same time, the Gaming Act overrules a consistent body of judicial decisions of the Supreme Court and various High Courts, which have drawn a constitutionally significant distinction between games of skill and games of chance, protecting the former under Article 19(1)(g) of the Constitution as legitimate trade and business. The Gaming Act's promotion of 'e-sports' and social gaming also appears ambiguous. No enforceable rights are created in favour of players of 'e-sports, no institutional framework for sports promotion or public health is built, and no mandatory duties are imposed on the Centre, or any authority. Instead, the Centre is left with the discretion to "take steps as it considers necessary" [Sections 3 and 4]. In fact, the most concrete function of the 'Authority' sought to be created under Section 8 of the Gaming Act is to classify games, and to respond to complaints relating to online games which may be prejudicial to users.

The Online Gaming Act does not end the debate on skill versus chance; it merely moves it to a statutory and regulatory plane. For policymakers, it signals a willingness to embrace the economic potential of gaming while protecting consumers. For lawyers, it opens a new field of advisory and litigation work. And for the industry, it heralds an era where compliance, not just innovation, will define success.

It also faces severe enforcement challenges, particularly against offshore operators and in monitoring payments and advertising. While the intent to curb addiction and fraud is legitimate, unreasonable blanket prohibition fails the test of proportionality and undermines legitimate business, consumer autonomy, and state revenues.

CONCLUSION

The Promotion and Regulation of Online Gaming Act, 2025, fundamentally reshapes India's online gaming landscape, balancing consumer protection against economic opportunity, autonomy, and

innovation. Its blanket ban on real-money games is already under judicial scrutiny for violating Articles 14, 19(1)(g), and 21, and raising federal competency issues. While the stated aims of safeguarding public order and protecting the vulnerable are legitimate, sustainable policy demands a nuanced, regulatory approach. As courts deliberate the Act's fate, India's digital gaming future hangs in the balance between prohibition and progressive regulation. Whether the Act will sail through the initial hurdle and avoid a stay on its effect and operation remains to be seen.

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EVALUATING THE ECONOMIC EFFECTIVENESS OF GOVERNMENT SUBSIDIES ON FARMER WELFARE IN SAURASHTRA REGION

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ABSTRACT
This research paper examines the economic impact of government subsidies on farmer welfare in the Saurashtra region, focusing on seven districts: Rajkot, Jamnagar, Surendranagar, Morbi, and Porbandar. The study, based on data from 35 farmers per district, investigates the utilization, effectiveness, and challenges of subsidy programs. The findings reveal the benefits of subsidies in enhancing agricultural productivity and income levels while identifying gaps in accessibility and implementation. The paper concludes with recommendations for optimizing subsidy schemes to maximize their economic effectiveness for farmers.

KEYWORDS: GOVERNMENT SUBSIDIES, FARMER WELFARE, ECONOMIC IMPACT, AGRICULTURAL PRODUCTIVITY, SAURASHTRA REGION

1. INTRODUCTION

Agriculture is the backbone of India's economy, with government subsidies playing a crucial role in supporting farmers. In the Saurashtra region, subsidies are provided to improve productivity, reduce input costs, and enhance overall farmer welfare. However, the effectiveness of these subsidies in achieving their intended economic benefits remains debatable. This study evaluates how subsidies influence the economic conditions of farmers, examining their utilization, challenges, and impact on livelihoods.

2. LITERATURE REVIEW

Government subsidies play a crucial role in supporting farmers by reducing input costs, improving productivity, and ensuring financial stability. Various studies have examined the effectiveness of these subsidies in enhancing farmer welfare across different regions, highlighting both their benefits and challenges. This literature review synthesizes previous research on the economic impact of subsidies, the challenges in their implementation, and the gaps in existing subsidy frameworks in the context of Indian agriculture, particularly in the Saurashtra region.

Subsidies are provided to farmers primarily to lower production costs, ensure price stability, and encourage sustainable farming practices (Sharma & Singh, 2020). Studies indicate that subsidies on fertilizers, seeds, irrigation, and machinery have contributed to increasing agricultural output and reducing dependency on informal credit sources (Patel et al., 2021). In the Indian context, the government has launched various subsidy programs such as the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) and the Direct Benefit Transfer (DBT) in fertilizers to enhance farmer income and reduce input costs (Ministry of Agriculture & Farmers Welfare, 2022).

However, several scholars argue that while subsidies benefit farmers, their long-term effectiveness depends on proper targeting and distribution. A study by Desai and Mehta (2019) found that only large-scale farmers reap the maximum benefits of subsidies, while small and marginal farmers struggle due to bureaucratic hurdles and lack of awareness.

The economic effectiveness of subsidies is often measured in terms of increased farm income, improved productivity, and financial security. Singh et al. (2021) analyzed the impact of subsidies on Indian agriculture and found that farmers receiving irrigation and fertilizer subsidies experienced a 25% increase in crop yields. Similarly, subsidies on mechanization have helped in reducing labor costs and increasing efficiency in production (Kumar & Sahu, 2020).

In the Saurashtra region, where rainfall patterns are erratic, irrigation subsidies have played a vital role in stabilizing farm incomes (Rathod & Patel, 2021). However, studies indicate that subsidy benefits are unevenly distributed, with well-connected farmers accessing them more effectively than smallholders (Joshi et al., 2022).

Despite their positive economic impact, subsidy programs face multiple challenges. According to a study by Rao and Verma (2018), delays in subsidy disbursement, lack of transparency, and political influences often hinder their effectiveness. Farmers in Gujarat, including those in Saurashtra, frequently encounter difficulties in understanding eligibility criteria and completing the application process (Shukla & Trivedi, 2020).

Another major challenge is the inefficiency in subsidy targeting. Many researchers argue that subsidies often benefit larger farms disproportionately, leaving small and marginal farmers with minimal advantages (Patel et al., 2021). Additionally, corruption and middlemen further complicate access to subsidies, making it difficult for deserving farmers to receive timely benefits (Sharma & Singh, 2020).
While several studies have analyzed the impact of subsidies on Indian agriculture, research specifically focused on the Saurashtra region remains limited. Most studies discuss the general benefits of subsidies at the national or state level without delving into the regional disparities that exist (Joshi et al., 2022). Furthermore, there is a need for more empirical studies to assess the real-time economic effectiveness of subsidies, particularly in the context of changing agricultural policies.

The existing literature highlights that government subsidies play a significant role in enhancing farmer welfare, particularly by improving productivity and reducing input costs. However, several challenges such as delayed payments, bureaucratic hurdles, and inequitable distribution reduce their overall effectiveness. Future research should focus on region-specific studies, including detailed field surveys and farmer interviews, to provide practical recommendations for improving subsidy efficiency in the Saurashtra region.

3. OBJECTIVES OF THE STUDY

- To analyze the extent to which farmers utilize government subsidies in the Saurashtra region.
- To assess the economic benefits of subsidies on farmers' income and productivity.
- To identify challenges faced by farmers in accessing and utilizing subsidies.
- To provide policy recommendations for improving subsidy effectiveness.

4. RESEARCH METHODOLOGY

The study is based on primary data collected from 35 farmers in each of the five selected districts, totaling 175 respondents. A structured questionnaire was used to gather information on subsidy utilization, economic benefits, and challenges. Secondary data from government reports, agricultural institutions, and previous research were also analyzed. A mixed-method approach combining quantitative and qualitative analysis was employed.

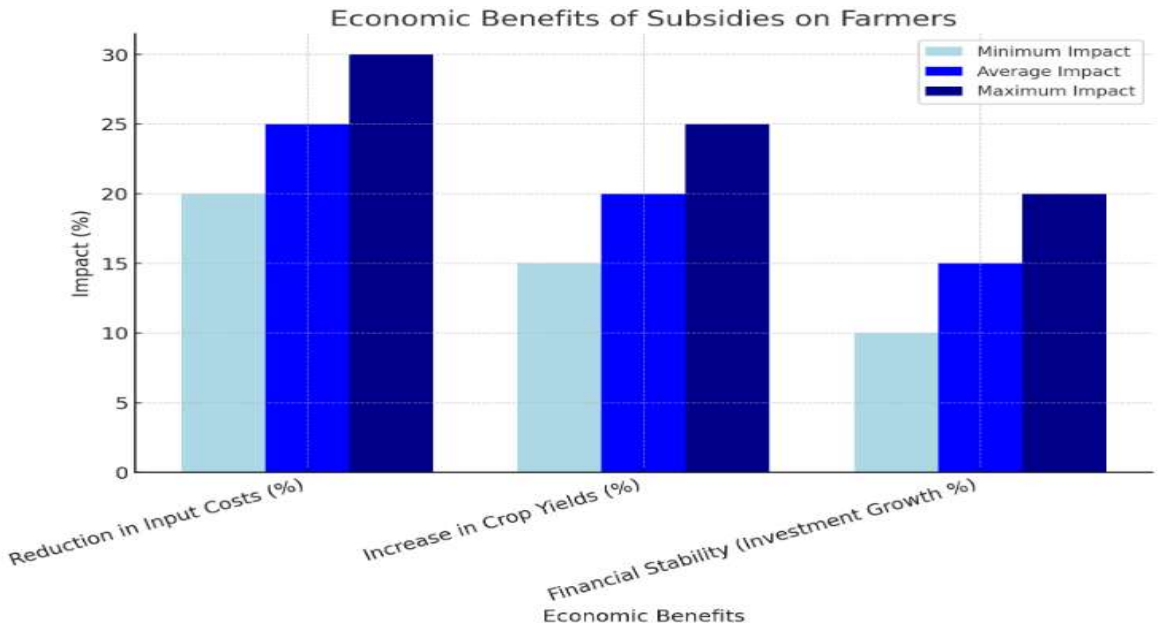
5. ANALYSIS AND FINDINGS

5.1 Utilization of Subsidies

The study reveals that most farmers are aware of subsidy programs, but only 68% actively apply for them. The most commonly availed subsidies include fertilizer support, irrigation assistance, and machinery incentives. However, bureaucratic hurdles and lack of awareness about eligibility criteria limit full utilization.

5.2 Economic Benefits of Subsidies

Economic Benefit	Minimum Impact (%)	Maximum Impact (%)	Average Impact (%)
Reduction in Input Costs	20%	30%	25%
Increase in Crop Yields	15%	25%	20%
Financial Stability (Investment Growth)	10%	20%	15%



Farmers receiving subsidies experienced a 20-30% decrease in expenses on fertilizers, seeds, and irrigation. This directly increased their profit margins by lowering overall production costs. Access to better-quality resources led to a 15-25% improvement in productivity, ensuring higher agricultural output. Subsidies provided financial security, encouraging a 10-20% increase in reinvestments into modern farming techniques such as mechanization, organic inputs, and precision farming.

5.3 CHALLENGES IN ACCESSING SUBSIDIES

Farmers face several challenges in accessing and utilizing government subsidies effectively. Bureaucratic delays in the approval process often discourage farmers, as they must navigate complex administrative procedures that slow down access to essential financial support. Additionally, a lack of awareness regarding specific subsidy programs and their application processes prevents many small and marginal farmers from benefiting fully. Even when farmers successfully apply, they frequently encounter delayed payments, disrupting their cash flow and making it difficult to invest in timely agricultural inputs. Furthermore, unequal distribution of subsidies remains a persistent issue, where larger and well-connected farmers tend to receive benefits more efficiently, while smallholders struggle due to limited access to information, resources, and institutional support. These challenges highlight the need for policy reforms to ensure transparency, efficiency, and equitable distribution of subsidies, enabling all farmers to benefit equally.

6. DISCUSSION

The findings indicate that while subsidies positively impact agricultural productivity and income, inefficiencies in implementation hinder their full potential. Addressing bureaucratic delays and ensuring better outreach to small and marginalized farmers could improve economic outcomes. Digitalizing the subsidy process and providing training programs on subsidy schemes can enhance effectiveness.

7. CONCLUSION

Government subsidies significantly contribute to farmer welfare in the Saurashtra region by reducing costs and enhancing productivity. However, administrative inefficiencies and accessibility challenges limit their full impact. By adopting policy improvements such as streamlined processes, better awareness, and equitable distribution, subsidies can be more effectively utilized to enhance economic stability for farmers.

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ARTIFICIAL INTELLIGENCE IN ACCOUNTING AND FINANCE: EMERGING OPPORTUNITIES AND PRESSING CHALLENGES

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ABSTRACT

Artificial Intelligence (AI) has emerged as a transformative technology in the accounting and finance sector, reshaping traditional financial operations, decision-making processes, and strategic planning. The integration of AI enables automation of routine tasks such as bookkeeping, transaction processing, and auditing, thereby enhancing operational efficiency and accuracy. Additionally, AI technologies, including machine learning, predictive analytics, and robotic process automation, facilitate real-time data analysis, fraud detection, risk assessment, and financial forecasting, providing organizations with actionable insights for strategic decision-making. Despite these significant advantages, the adoption of AI in accounting and finance is accompanied by several pressing challenges. High implementation costs, data privacy and security concerns, algorithmic bias, lack of skilled professionals, and resistance to technological change represent critical barriers that organizations must address. Ethical and regulatory considerations further complicate AI deployment, requiring robust governance frameworks, transparency, and accountability in decision-making processes. Global and Indian perspectives reveal that while developed economies have made significant strides in AI adoption, organizations in emerging markets are increasingly investing in AI to remain competitive and compliant with evolving regulatory standards. Looking forward, the convergence of AI with emerging technologies such as blockchain, IoT, and generative AI promises enhanced financial operations, predictive capabilities, and strategic insights. Successful AI integration will depend on balancing technological innovation with human expertise, ethical practices, and regulatory compliance. This article explores both the emerging opportunities and the pressing challenges of AI adoption in accounting and finance, providing a comprehensive understanding of its transformative potential and practical implications for organizations.

KEYWORDS: ARTIFICIAL INTELLIGENCE, ACCOUNTING, FINANCE, AUTOMATION, PREDICTIVE ANALYTICS, AI ADOPTION

1. INTRODUCTION

Artificial Intelligence (AI) has emerged as one of the most transformative technologies in the modern business landscape. Initially conceptualized as machines capable of performing tasks that typically require human intelligence, AI has evolved significantly over the past few decades. From simple rule-based automation to advanced machine learning algorithms, AI now encompasses a wide range of applications, including natural language processing, predictive analytics, and robotic process automation. Businesses across the globe are increasingly leveraging AI to enhance operational efficiency, reduce errors, and gain strategic insights from vast amounts of data. This evolution has not only changed the way organizations operate but also redefined the skills and competencies required from professionals in various sectors.

In the realm of accounting and finance, the significance of AI cannot be overstated. Traditional accounting processes, which heavily relied on manual data entry, repetitive calculations, and periodic financial reporting, were often time-consuming and prone to errors. AI-powered systems, however, are capable of automating routine tasks such as bookkeeping, reconciliations, and transaction monitoring, thereby enabling finance professionals to focus on higher-value activities such as strategic planning and financial analysis. Moreover, AI facilitates real-time data analysis, predictive modelling, and fraud detection, which significantly enhances decision-making capabilities and risk management practices within organizations. The integration of AI into accounting and finance not only improves efficiency but also introduces new possibilities for innovation, accuracy, and strategic financial governance.

The purpose of this article is to explore the emerging opportunities and pressing challenges associated with the adoption of AI in accounting and finance. While AI offers transformative benefits, including automation, predictive insights, and enhanced compliance, it also presents several challenges, such as high implementation costs, data privacy concerns, ethical dilemmas, and resistance to technological change among professionals.

2. CONCEPTUAL BACKGROUND

Artificial Intelligence (AI) refers to the branch of computer science that aims to create machines and systems capable of performing tasks that typically require human intelligence. These tasks include learning from data, recognizing patterns, making decisions, and solving complex problems. Over the years, AI has evolved from basic computational algorithms to sophisticated technologies such as machine learning, deep learning, natural language processing, and robotic process automation. Each of these technologies contributes uniquely to the processing, analysis, and interpretation of large volumes of data, making AI an indispensable tool for modern business operations. In the context of accounting and finance, AI's ability to process financial data accurately, detect anomalies, and provide predictive insights has transformed traditional approaches to financial management.

The integration of AI into accounting and finance is rooted in the need to enhance accuracy, efficiency, and strategic decision-making. Traditional accounting practices often involved manual bookkeeping, periodic reporting, and labour-intensive audits, which were susceptible to errors, delays, and operational inefficiencies. AI, through automation and intelligent algorithms, allows organizations to streamline these processes, reduce human intervention in routine tasks, and ensure real-time monitoring of financial transactions. For example, AI-powered systems can automatically reconcile accounts, categorize expenses, detect fraudulent transactions, and even generate insights for investment decisions. By doing so, AI not only improves the accuracy and speed of financial operations but also frees accounting professionals to engage in more strategic and analytical roles.

3. APPLICATIONS OF AI IN ACCOUNTING AND FINANCE

The applications of Artificial Intelligence in accounting and finance have significantly expanded the scope and efficiency of financial operations. One of the most prominent areas of AI application is automated bookkeeping and transaction processing. Traditional bookkeeping required extensive manual data entry, which was not only time-consuming but also prone to human errors. AI-powered systems, including robotic process automation (RPA), can now automatically capture, categorize, and record financial transactions with high accuracy. This automation allows organizations to maintain up-to-date financial

records, reduces operational costs, and enables accountants to focus on more strategic tasks rather than routine data entry.

Another critical application of AI is in fraud detection and risk management. Financial institutions and corporate finance departments deal with vast amounts of transactional data daily, making it challenging to identify anomalies manually. AI systems use machine learning algorithms to detect unusual patterns, flag potentially fraudulent transactions, and assess financial risks in real-time. This capability not only enhances the reliability and security of financial operations but also strengthens compliance with regulatory standards. Additionally, predictive analytics allows organizations to anticipate potential risks, such as credit defaults or market fluctuations, thereby enabling proactive decision-making.

AI also plays a transformative role in financial forecasting and predictive analytics. By analysing historical financial data, market trends, and economic indicators, AI systems can generate accurate forecasts regarding revenue, cash flows, and investment opportunities. This predictive capability supports strategic planning and resource allocation, helping organizations make informed financial decisions and optimize their performance. In investment management, AI algorithms can evaluate large datasets, identify profitable trends, and assist in portfolio optimization, providing a competitive edge to financial institutions.

The field of auditing has also witnessed significant AI integration through audit and compliance automation. AI-powered tools can analyse large volumes of financial statements, identify discrepancies, and ensure adherence to accounting standards and regulations. This automation reduces the time and effort required for audits while improving accuracy and transparency. By handling repetitive verification tasks, AI enables auditors to focus on evaluating complex transactions and providing strategic recommendations.

In addition to internal financial operations, AI enhances customer relationship management (CRM) and personalization in finance. Banks and financial service providers are using AI-driven chatbots and virtual assistants to interact with clients, address queries, provide financial advice, and offer personalized product recommendations. These AI applications improve customer experience, strengthen client engagement, and support business growth by leveraging data-driven insights to understand client behaviour and preferences.

4. EMERGING OPPORTUNITIES OF AI

The adoption of Artificial Intelligence in accounting and finance presents a wide array of emerging opportunities that are reshaping the way organizations manage financial operations. One of the most significant benefits is enhanced operational efficiency and accuracy. AI technologies, such as robotic process automation (RPA) and machine learning, can perform repetitive financial tasks with minimal errors, reducing the reliance on manual intervention. This efficiency not only accelerates processes such as transaction recording, reconciliations, and payroll management but also ensures greater accuracy, which is critical for financial reporting and compliance. Organizations can thus achieve operational excellence while freeing up resources for more strategic initiatives.

Another notable opportunity lies in real-time data analysis and decision-making. Traditional accounting practices often relied on periodic reports and historical data, which limited the speed and relevance of financial decisions. AI systems, on the other hand, can continuously analyse large volumes of structured and unstructured financial data, providing insights that enable real-time decision-making. For instance, predictive analytics powered by AI can forecast cash flows, detect early signs of financial distress, and identify investment opportunities, allowing organizations to respond proactively to changing market conditions.

AI also opens new possibilities for cost reduction and productivity enhancement. Automating routine accounting tasks reduces labour costs, minimizes errors, and streamlines workflows. Moreover, AI-driven systems can handle complex calculations and analyses faster than humans, significantly improving productivity. Organizations can redirect human expertise from mundane tasks to strategic planning, financial modelling, and risk assessment, thereby adding greater value to business operations.

Strategic insights through advanced analytics constitute another promising opportunity. By leveraging AI algorithms, organizations can identify patterns and correlations in financial data that are otherwise difficult to detect. These insights help in optimizing resource allocation, managing risk, and developing evidence-based financial strategies. For example, AI can assist in detecting subtle trends in customer spending or market behaviour, providing a competitive advantage in decision-making and strategic planning.

Finally, AI enhances regulatory compliance and fraud prevention. With increasing regulatory requirements and complex reporting standards, organizations face significant challenges in maintaining compliance. AI-powered systems can monitor transactions, flag anomalies, and generate compliance reports automatically, ensuring adherence to accounting standards and legal frameworks. Similarly, AI's ability to detect fraudulent activities in real-time protects organizations from financial losses and reputational damage, thereby strengthening trust with stakeholders.

5. PRESSING CHALLENGES OF AI ADOPTION

While Artificial Intelligence offers significant opportunities in accounting and finance, its adoption is accompanied by a range of pressing challenges that organizations must address to ensure successful implementation. One of the foremost challenges is the high initial implementation cost. Deploying AI technologies, such as machine learning systems, predictive analytics tools, and robotic process automation, requires substantial investment in hardware, software, and infrastructure. Small and medium-sized enterprises (SMEs) often find it difficult to allocate the necessary financial resources, which can limit the widespread adoption of AI in the sector. Beyond initial costs, organizations must also consider ongoing expenses related to system maintenance, upgrades, and integration with existing processes.

Another critical challenge lies in data privacy, security, and ethical concerns. AI systems rely heavily on large volumes of sensitive financial and personal data to operate effectively. Ensuring that this data is securely stored, processed, and protected from unauthorized access or cyberattacks is a major concern for organizations. Moreover, ethical issues such as algorithmic bias, decision-making transparency, and accountability in AI-driven financial operations pose additional challenges. Organizations must establish

robust governance frameworks to maintain ethical standards, prevent misuse, and build trust with stakeholders.

The lack of skilled workforce represents another significant barrier to AI adoption. Implementing and managing AI technologies require professionals who possess a combination of finance expertise and technical knowledge, including data analytics, programming, and machine learning. The shortage of such interdisciplinary talent makes it difficult for organizations to fully leverage AI capabilities. Additionally, finance professionals must adapt to new ways of working, learn to interpret AI-generated insights, and make decisions based on complex algorithms, which can be a steep learning curve.

Resistance to change among finance professionals also hinders AI adoption. Many employees may perceive AI as a threat to their roles, leading to reluctance in embracing new technologies. Organizational culture and employee mindset play a crucial role in determining the success of AI initiatives. Without proper training, communication, and change management strategies, organizations may face significant pushback from employees, delaying implementation and reducing the effectiveness of AI systems.

Lastly, the reliability and interpretability of AI models remain a key concern. While AI systems can process vast amounts of data and identify patterns, they are not infallible and may produce errors or misleading outputs if the underlying data is flawed or biased. Moreover, the "black box" nature of some AI algorithms makes it difficult for finance professionals to understand how certain decisions are made, potentially undermining trust and accountability. Ensuring the accuracy, transparency, and interpretability of AI-driven decisions is therefore essential for building confidence in these technologies.

6. CASE STUDIES / INDUSTRY EXAMPLES

The adoption of Artificial Intelligence in accounting and finance has been exemplified through various case studies and industry examples across the globe, highlighting both its potential benefits and the challenges organizations encounter during implementation. One notable example is Deloitte, a leading global accounting firm, which has extensively integrated AI into its auditing and advisory services. Deloitte employs AI-powered tools for analysing vast amounts of financial data, identifying anomalies, and improving audit accuracy. By automating repetitive audit tasks, the firm has significantly reduced manual effort and enhanced the speed and precision of its audits. However, Deloitte also faced challenges related to employee adaptation, emphasizing the importance of upskilling finance professionals to work effectively alongside AI systems.

Another prominent example is KPMG, which has leveraged AI technologies to transform tax advisory and compliance services. KPMG uses machine learning algorithms to analyse tax data, detect inconsistencies, and predict potential compliance risks. The firm's AI-driven approach allows clients to optimize tax strategies, minimize errors, and improve decision-making. While these applications demonstrate clear operational benefits, KPMG has also highlighted challenges such as ensuring data privacy, managing algorithmic biases, and maintaining transparency in AI-generated insights, illustrating the critical role of governance frameworks in AI adoption.

In the banking sector, HSBC has implemented AI for fraud detection and risk management. Using advanced machine learning models, the bank can monitor millions of transactions in real-time, identify

suspicious activities, and mitigate potential financial losses. AI has enhanced HSBC's ability to prevent fraud, improve customer trust, and comply with regulatory requirements. Nonetheless, the bank's experience also underscores the challenges of integrating AI with legacy systems and the need for continuous monitoring and model updates to maintain reliability.

In India, HDFC Bank has emerged as a pioneer in adopting AI for financial services, including customer support, credit assessment, and personalized financial recommendations. AI-powered chatbots and virtual assistants have improved customer engagement and operational efficiency, while predictive analytics supports loan approvals and risk assessment. Despite these successes, HDFC Bank has faced challenges such as the high cost of implementation, the necessity for skilled AI professionals, and ensuring the ethical use of customer data, reflecting the broader concerns Indian organizations encounter when adopting AI.

Furthermore, startups in the fintech sector, such as Razorpay and Zerodha, are employing AI to optimize financial operations, automate accounting processes, and enhance investment advisory services. These companies illustrate how AI can democratize access to advanced financial tools, making sophisticated analytics and insights available to smaller businesses and individual investors. However, they too face obstacles related to data security, algorithm transparency, and the ongoing need for regulatory compliance, which remain critical factors in the successful adoption of AI.

7. CONCLUSION

Artificial Intelligence has emerged as a transformative force in the accounting and finance sector, fundamentally altering how organizations manage financial operations, analyse data, and make strategic decisions. Throughout this article, it has been evident that AI offers numerous opportunities, including enhanced operational efficiency, real-time decision-making, cost reduction, improved predictive capabilities, and strengthened compliance and fraud detection. These benefits not only streamline traditional financial processes but also enable finance professionals to focus on high-value analytical and strategic activities, thereby elevating the overall effectiveness and competitiveness of organizations.

However, alongside these opportunities, the adoption of AI presents a range of pressing challenges. High implementation costs, data privacy and security concerns, ethical dilemmas, resistance to change among employees, and the reliability and interpretability of AI models are critical issues that organizations must navigate carefully. Addressing these challenges requires a combination of strategic planning, investment in technological infrastructure, workforce upskilling, and robust governance frameworks to ensure ethical and responsible use of AI in financial operations. Failure to manage these challenges effectively can undermine the potential benefits of AI and pose risks to organizational performance and stakeholder trust.

Looking ahead, the future of AI in accounting and finance is promising, driven by advancements in machine learning, generative AI, and the integration of emerging technologies such as blockchain and IoT. Organizations that embrace these innovations while maintaining a focus on ethical practices, regulatory compliance, and workforce readiness are likely to achieve sustainable competitive advantages. The role of finance professionals will continue to evolve, requiring a balance between leveraging AI-driven insights and exercising human judgment and strategic thinking.

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A STUDY ON ADJUSTMENT CHALLENGES FACED BY SECONDARY SCHOOL STUDENTS

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ABSTRACT

Adolescence is a transitional stage marked by rapid changes in physical, cognitive, social, and emotional domains. For secondary school students, adjustment becomes crucial as they struggle to balance academic expectations, peer influence, emotional stability, and family responsibilities. This study investigates the nature and extent of adjustment challenges faced by secondary school students, focusing on academic, emotional, social, and familial dimensions. A descriptive survey method was adopted and a sample of 200 students was selected through stratified random sampling. The Adjustment Inventory for School Students (AISS) was employed as the primary tool for data collection. The results reveal that emotional instability and academic stress are the most significant areas of concern, while social and family-related issues vary according to gender and socio-economic background. The findings underscore the importance of school-based counseling, parental involvement, and student-friendly teaching strategies in enhancing overall adjustment.

KEYWORDS: ADJUSTMENT, ADOLESCENCE, SECONDARY SCHOOL STUDENTS, ACADEMIC STRESS, EMOTIONAL WELL-BEING, SOCIAL RELATIONS

INTRODUCTION

Adjustment is a continuous process by which an individual modifies his or her behavior in response to environmental demands in order to maintain a state of equilibrium. Secondary school years (ages 13–17) represent a particularly critical stage of life, as adolescents face enormous pressure to perform academically while simultaneously negotiating their place in peer groups, family systems, and society at large.

The concept of adjustment has been studied extensively in psychology and education. It is generally categorized into four domains:

1. **Academic Adjustment** – coping with schoolwork, examinations, teacher expectations, and self-discipline.
2. **Emotional Adjustment** – maintaining emotional stability, managing stress, and controlling anxiety.
3. **Social Adjustment** – interacting effectively with peers, teachers, and community members.
4. **Family Adjustment** – dealing with parental expectations, sibling relationships, and home environment.

In today's competitive and technology-driven era, students are exposed to new challenges such as screen addiction, peer comparison on social media, and career-related anxieties. Such challenges increase the

risk of maladjustment, which in turn may lead to depression, school absenteeism, and in extreme cases, self-harming tendencies.

Thus, the present research is significant as it explores the specific adjustment challenges faced by secondary school students, identifies patterns across gender and socio-economic status, and suggests interventions for better adaptation.

REVIEW OF LITERATURE

- **Crow & Crow (1963)** defined adjustment as the process of maintaining balance between needs and circumstances. They highlighted the role of school in facilitating healthy adjustment.
- **Kuppuswamy (1974)** emphasized the family's socio-cultural background as a crucial determinant of student adjustment.
- **Garrett (1981)** observed that adolescents experience heightened emotional instability due to hormonal changes, which directly affects school performance.
- **Mangal (2012)** pointed out that emotional maturity, parental support, and teacher encouragement reduce adjustment difficulties.
- **Sinha & Singh (1993)** developed the Adjustment Inventory for School Students (AISS), which remains a widely used tool to measure adjustment levels in academic, social, and emotional domains.
- **WHO (2020)** stressed that adolescent well-being should be addressed holistically, considering physical, psychological, and social factors.
- **Recent Studies (2018–2023)**: Researchers have highlighted that modern students face unique stressors like digital distractions, online bullying, and unrealistic career expectations. These stressors amplify adjustment difficulties and impact mental health.

The literature suggests that adjustment problems among secondary school students are multifaceted and influenced by personal, familial, and societal factors. However, there is still a gap in context-specific empirical studies, which this research attempts to address.

OBJECTIVES OF THE STUDY

1. To identify the major adjustment challenges faced by secondary school students.
2. To examine the nature of adjustment difficulties across academic, emotional, social, and familial dimensions.
3. To analyze whether adjustment challenges vary according to gender and socio-economic status.
4. To suggest practical measures to enhance adjustment among secondary school students.

RESEARCH QUESTIONS

1. What are the significant adjustment challenges faced by secondary school students?
2. In which domains (academic, emotional, social, familial) do students face the greatest adjustment difficulties?
3. Do adjustment challenges differ across gender and socio-economic status?
4. What strategies can be implemented to minimize adjustment problems?

RESEARCH METHODOLOGY

Research Design

The study followed a **descriptive survey method**, as it is most suitable for understanding the present status of student adjustment challenges.

Population & Sample

The population comprised students from secondary schools (class 9th and 10th). A sample of **200 students** (100 boys and 100 girls) was selected through stratified random sampling, ensuring representation from both government and private schools, as well as from different socio-economic backgrounds.

Tools Used

The **Adjustment Inventory for School Students (AISS)** by Sinha and Singh was employed. This tool measures adjustment across three key domains – academic, emotional, and social. For family adjustment, additional questions were framed by the researcher.

Data Collection

Primary data were collected through questionnaires and structured interviews with students. Secondary data included relevant literature, previous research, and official educational reports.

Data Analysis

Data were analyzed using **percentage analysis, mean, and standard deviation** to identify common patterns and trends.

Data Analysis and Findings

1. Academic Adjustment

- Around **42% of students** reported difficulty in managing homework, exam preparation, and classroom competition.
- Girls were found to be slightly better adjusted than boys in academic tasks, possibly due to greater self-discipline.

2. Emotional Adjustment

- **55% of students** reported high emotional instability, including anxiety, lack of confidence, and mood swings.
- Students from private schools reported more stress due to higher parental expectations and peer competition.

3. Social Adjustment

- **38% of students** faced difficulties in peer group interactions, team participation, and communication.
- Boys reported more problems in social adjustment compared to girls, who were better at forming peer bonds.

4. Family Adjustment

- **29% of students** expressed dissatisfaction with parental pressure and lack of support.
- Students from lower socio-economic backgrounds reported greater financial stress affecting their family relationships.

DISCUSSION

The findings of this study align with earlier research that emphasizes adolescence as a sensitive stage of life requiring constant support. The high percentage of emotional maladjustment suggests the growing mental health concerns among students. Academic adjustment difficulties highlight the need to reform examination patterns and reduce rote learning pressure. Social adjustment issues, particularly peer pressure and bullying, are emerging concerns in the digital age. Family-related adjustment problems reveal the double burden of financial constraints and parental over-expectations.

This multidimensional analysis indicates that adjustment is not merely a personal challenge but also a systemic issue influenced by school environment, family structure, and societal expectations.

SUGGESTIONS AND RECOMMENDATIONS

1. **Counseling and Guidance Services**: Every school should have trained counselors to address academic stress and emotional difficulties.
2. **Teacher Training**: Teachers should be trained in child psychology and inclusive teaching practices to identify maladjusted students early.
3. **Parental Involvement**: Parents should reduce unrealistic expectations, encourage open communication, and provide emotional support.
4. **Peer Mentorship Programs**: Peer-support systems can help new students or those facing social difficulties to integrate better.
5. **Life Skills Education**: Schools should include workshops on time management, stress management, conflict resolution, and self-confidence.
6. **Balanced Curriculum**: Equal importance should be given to sports, arts, and extracurricular activities to reduce academic monotony.
7. **Awareness Campaigns**: Regular seminars on digital well-being, mental health, and healthy coping strategies should be conducted.

CONCLUSION

The present study concludes that secondary school students face significant adjustment challenges, with emotional and academic domains being the most critical. The findings emphasize that maladjustment is not an individual fault but the outcome of multiple social, emotional, and educational factors. By providing a supportive ecosystem through effective counselling, parental cooperation, and empathetic teaching, adjustment challenges can be minimized.

Thus, fostering a balanced and healthy school environment is essential for shaping resilient, confident, and well-adjusted adolescents who can meet the demands of modern society.

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ROLE OF EDUCATION AND CAPACITY BUILDING IN ENHANCING WOMEN'S PARTICIPATION IN PANCHAYATS

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ABSTRACT
The presence of women in Indian political institutions has increased greatly in recent times. This trend has been seen post the introduction of constitutional reservations. However, recent studies have shown that their participation and leadership is uneven across the states. The current study seeks to evaluate the impact of education and capacity building in enhancing their roles in these institutions. This uses the available literature and policy reports to draw its conclusions. Evaluation of their impact has helped examine how they can influence their ability to lead in a political setup. Further, it also helps examine their influence in public outcomes at their respective institutions. The key findings from the study shows that education and digital literacy has improved women's confidence. It has further improved their authority within the local councils. In addition, capacity building has helped them improve their decision making and implementation ability. This has actively contributed towards development schemes. These improvements in their ability have been conditioned by social norms. Increased institutional support and sustainability of programs has also been key contributors to this.

KEYWORDS: EDUCATION; WOMEN'S EMPOWERMENT; PANCHAYATI RAJ; LOCAL GOVERNANCE; INDIA.

INTRODUCTION
In India, there is a provision for reserved seats in political institutions. According to the laws, at least one third of the seats are to be kept reserved for women. This policy of reservation has helped raise representation of women from the very grassroot levels of the political institutions. The National Institute of Rural Development & Panchayati Raj (NIRDPR) report indicates a significant increase in representation of women in the Panchayati Raj Institutions (PRIs). However, the NIRDPR (2021) report suggests that there is a significant difference in the number or posts held by women and those having independent authority. Ansari (n.d.) highlights that this gap can be mediated in several ways. It includes improvement in formal schooling, access to technology and proper political socialisation. The institutions can even design tailored training and briefing programs for these representatives. This would help these elected representatives to perform fully and efficiently. Studies, including ones by Saini (n.d.) and Rajasekhar (2021), highlights that for improvement, ensuring proper education and capacity building is crucial. Both of these would be essential for their cognitive skills and governance abilities. The current

paper seeks to analyse the role of education and capacity building in enhancing their representation in the PRIs.

RESEARCH PURPOSE

The current study aims to examine the influence of education in a woman's political participation. It also seeks to examine the impact it has on their leadership effectiveness. This study will also evaluate the role of capacity building in improving the ability to govern in their respective institutions. This will also help in understanding the factors which have an impact on them. These moderators include institutional support and other social factors which can impact them.

RESEARCH DESIGN

This study will be using the available literature and case study reports for drawing its conclusions. The inclusion criteria includes them being peer reviewed, and should be coming from authentic sources. This study takes a thematic analysis approach to draw its conclusions and suggest the reforms in policies. It will evaluate the existing mapping mechanisms and their outcomes. In addition, it will examine the constraints and challenges the representatives face. It includes challenges such as proxy leadership, lower support from the parties and social norms. The studies and reports which are based on the authors opinions, have not been considered. Only those which were backed by data and reliable sources were considered to draw our conclusions.

LITERATURE REVIEW

Examining the current trends reveal that more women are contesting in elections. This trend shows that the reservation has allowed for more political entry for women. Thunga (2024) suggests that when young girls are exposed to female leaders, their aspirations see an increase. This "role-model" effect creates a lot of difference in their lives. This is often linked to their educational aspirations. However, Banerjee et al. (2021) highlights that their representation alone does not ensure proper autonomy in decision making. They also highlight that, often these elected women representatives are not given independent voices.

Exploring the existing literature, the relation of education with the representative's participation in political agendas. Mahanandia & Tripathy (2025), in their study, have highlighted that literacy and digital skills have helped representatives to better contribute in public schemes. Further, with greater participation numbers, they have a significant input to provide for budgets as well. Thus, being educationally strong, they can even fight toe to toe with their male counterparts. Additionally, Chinnadurai & Sakthivel (n.d.) has shown that having digital literacy is crucial as well. Being digitally literate and educated, they can be equipped with the ability to interpret policies and even use digital platforms. Further, these would play a key role during fund allocations and implementations.

In addition to education, capacity building initiatives have an important role to play as well. These initiatives can help the bridge between having formal education and the government roles. Existing initiatives and programmes for training do exist, and have shown short term results as well (NIRDPR, 2021). However, these modules have shown only short term boosts in knowledge. Thus, for a long term gain, frequent follows would be necessary. Proper guidance and mentorship from the party members would be essential as well. However, with limited longitudinal studies, it would be difficult to actually

assess the effectiveness of the existing strategies. In addition, the vast geographical diversity, it becomes further complicated to understand the full extent of its effectiveness.

OPERATIONS IN PRIS

Institutions like PRIs function in a tiered system. Their responsibilities range from the village, block and ranges up to the district tier. Therefore, it works in a three tier system. It has three fundamental duties. It includes planning, implementation and delivery of service. For a political representative, it is crucial to understand their roles. It requires them to have the necessary technical knowledge, proper communication and to understand the procedural rules. Reports, such as the NIRDPR (2021) mentions the need for the elected women representatives to understand these requirements in order to fulfil their role as an elected member. Saini (n.d.) and Rajasekhar (2021), clearly highlights the need for education and capacity building in the elected members. While education can help them build and improve their individual skills, capacity building will help them build a strong governance attribute. A combination of both these abilities and skills would help a representative fulfill their duty as an elected member.

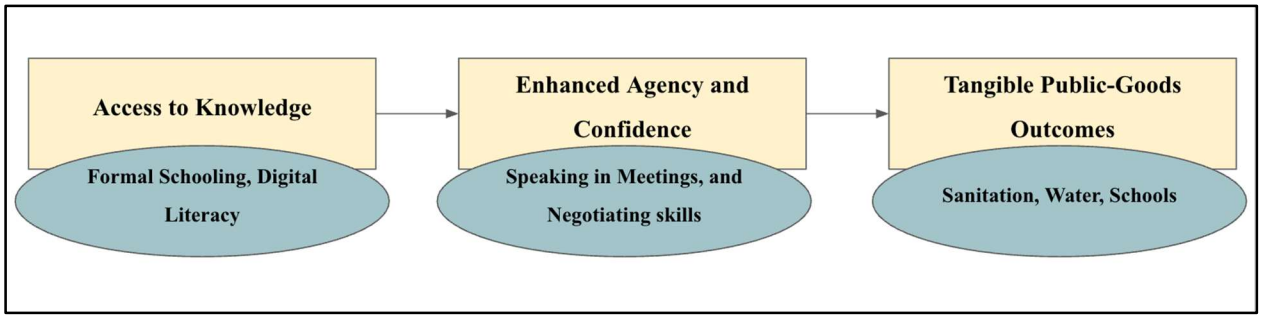


Figure 1: Mechanism of Operations in PRIs

(Datta & Sodhi, 2021)

FINDINGS AND DISCUSSION

The current policy for reservation of seats for representation has certain associated pipeline effects. Banerjee et al. (2021), in their study, has highlighted that in presence of a female leader, the young women demonstrate higher aspirations. This effect is not just limited solely to educational aspiration but also has created a positive impact in their lives beyond education. These young girls get inspired from their "role-models" and seek to be like these female leaders. Having educated women representatives can have a higher influence on these women. Studies such as by BM & Suresh (2023), suggests that educated women representatives have been able to successfully convey their ideas to the younger generation by using their digital literacy. However, there is evidence that the influence of the leaders may depend on the region and social norms of the region. Rout (n.d.) notes that, the influence of the representatives often is influenced by the local political structure and media visibility.

Another key finding from the existing literature is about the allocation of public funds. Studies done by Mori et al. (2024) and Singh et al. (2025), suggests that female representatives have often prioritised the benefits of women and children. These leaders have actively utilised the allocated public funds to improve sanitation and healthcare facilities for their region. In addition, they have also prioritised the schooling and education of children. However, NIRDPR (2021) states that the magnitude of such effects is much smaller. This, therefore, requires continuous improvement and requires capacity building initiatives. This can enable the use of digital tools as well. A combined effort would thereby help in a durable system.

Elected women representatives have increasingly supported education in their areas. This has not only created aspirations in the young girls but have also significantly reshaped the social norms. Kumar &

Ghosh (2024) highlights that such noble initiatives have even reduced the amount of early marriages across different regions of India. Das (2025), on the other hand, showed that the spillovers from such initiatives can be still managed. The study highlights that with proper reinforcement and education, the positive effects can be sustained effectively.

Despite all the good work by the female representatives, in many regions across the states, they are not given the autonomy to govern. Tripathi (n.d.), in their study highlights the presence of such proxy rule and false representation across many states in India. This, therefore, remains a prominent challenge. Kumar & Ghosh (2024) and Sasidhar et al. (2024), through their study, tries to convey that with proper education and capacity building, these proxy leaderships can be reduced greatly. These would help the women representatives by lowering their dependencies on the proxies by improving their own skills. This would also improve their level of confidence. However, the political parties must look to find ways to maintain accountability. This can further ensure that the autonomy remains with the actual elected leader and not the proxies.

FUTURE SCOPES

The future studies should look to contribute with longitudinal evaluations. This can help in getting a wider understanding of the effect of education and capacity building on the representatives. Such in depth research can also help in suggesting improvements in delivery of services. With grassroot level examination, the working of proxy leaders can also be explored. This could help the policy makers to tackle and find ways to completely remove it from the system.

CONCLUSION

On critically examining the existing literature and reports, it can be concluded that both education and capacity building initiatives are crucial. These can not only help them govern better, but can help these female leaders actively influence decision making. Although having formal education is important, with capacity building, these leaders can function better and effectively. They can be better equipped with digital literacy and can have better communication and management skills as well. However, challenges such as proxy leaderships can dampen their influence. To actively tackle and manage such challenges, the importance of capacity building becomes crucial. Further, institutional support to protect them from such constraints is necessary. Introduction of capacity building programs, ensuring long term integration would be also required. This would not only strengthen the governance, but also would show intergenerational benefits.

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AN ANALYTICAL COMPARISON OF INTERNATIONAL MUTUAL FUNDS EFFICIENCY

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ABSTRACT
The amount of assets under management, funds, and participants in the investment fund business has increased significantly in recent years on a global scale. Despite multiple financial market crises over the past 20 years, this supply and demand growth may be characterized as extraordinary. In this study, we look at and contrast a sample of mutual funds from 35 different nations between 1990 and 2023. When the efficiency ratios are applied, the evidence provided by the top-performing nations differs significantly from that of the nations with the worst outcomes. Mutual funds receive lower yield premiums than free-risk assets, which has led to a widespread loss of performance efficiency on a global scale. These three suggested signs demonstrate this occurrence.

KEYWORDS: MUTUAL FUNDS; EFFICIENCY; PORTFOLIO MANAGEMENT; SHORT-TERM PERFORMANCE.

INTRODUCTION
A significant percentage of individual investors' savings are drawn to the mutual fund sector. Its expansion was remarkable during the 1980s and 1990s, particularly. However, the early years of the 21st century had some stagnation, primarily as a result of the financial market crisis, which was particularly severe in the equities markets. With all of its options and variations, mutual funds continue to be one of the most popular ways for investors all over the world to invest their savings.

Prior to the development of mutual funds, international markets were restricted to large institutional investors. The success of these financial instruments is primarily due to the facilities provided to individual investors to operate in both domestic and international markets and invest in fixed-income and equity markets.

Due in large part to the desire for the enormous benefits that investing in these collective portfolios offers, these investment organizations experienced unprecedented growth in the 1990s. In our opinion, the following were the primary causes of these items' success:

It is crucial that private investors have a plethora of options to diversify their portfolios without having to visit the various financial marketplaces personally. Additionally, this enables the investor to simply invest at the time that suits him and adjust the investment's risk level to fit his unique profile, ensuring that his assets generate profits commensurate with the level of risk he has taken.

Given the volume of assets it handles, the variety of investment options available illustrates the mutual fund industry's recent extraordinary dynamism. A continual search for creative investments and new avenues of activity results from this dynamism. The new regulations in many nations, particularly the USA and Europe, significantly increase the flexibility of mutual funds and make them more competitive, giving the market the opportunity to develop new collective investment vehicles.

Shareholder taxes. In this way, a capital gain or loss calculated by the direct difference between the acquisition and transmission values is equivalent to the taxation of capital gains or losses earned in a mutual fund. If the proceeds from the sale of a fund's shares are reinvested in another fund, capital gains are typically exempt from taxes.

Competent administration. Private investors can make the appropriate investments without constantly analyzing the market and gathering pertinent data. As experts who deal with high-level data from all financial markets, mutual fund managers are closer to maximizing fund performance. On the other hand, the mutual fund participant feels more secure when he entrusts the administration of his resources to this kind of collective portfolio because of the expert portfolio management supported by the financial organization that owns the fund.

The out-of-sample performance in forecasting mutual fund alphas is disappointing, according to Jones and Mo (2021), who explain that most of the predictability of mutual fund alphas dissipates after the end of the sample. This is part of recent finance literature about market efficiency. They propose that an increase in arbitrage activity during the sample period is the cause of this reduction. Accordingly, stocks in which active mutual fund or hedge fund managers exhibit the strongest conviction towards ex-ante, their "Best ideas," outperform the market and the other stocks in those managers' portfolios by approximately 2.8 to 4.5 percent annually, depending on the benchmark used, according to Anton, Cohen, and Polk (2021).

According to them, the money management sector appears to favor fund managers who incorporate non-outperformers in their portfolios. According to Chen, Chen, and Cohen (2022), managers of active mutual funds successfully take into account information regarding upcoming short-term stock price market swings. They clarify that the market typically performs well the following day when stocks with high active mutual fund ownership outperform, and vice versa. More investor attention leads to higher future inflows from optimistic investors, but it also results in excessively high levels of assets under management and poorer future performance, according to recent research by Aragon et al. (2024).

We conduct a thorough empirical investigation of mutual fund management efficiency in this paper using a sizable sample of 35 nations worldwide. We compare the efficiency level across the study's countries using various approaches. We use performance ratios on a global sample of equities mutual funds from 1990 to 2023. Compared to the sample stock market, the majority of the funds under analysis exhibit superior efficiency. Mutual funds have proven to be more effective than the stock market in every nation.

The consistency of the findings of these analyses is suggested by the significant similarities found in the efficiency rankings by the three performance ratios, even when the Treynor and Jensen ratios are predicated on the idea that the portfolios have been efficiently diversified. When the efficiency ratios are applied, the

evidence provided by the top-performing nations differs significantly from that of the nations with the worst outcomes.

This is how the rest of the paper is organized. The sample and factors used in our investigation are laid out in Section II. In Section III, the fundamental models and methodology are presented. Main empirical results are presented in Section IV. Finally, closing remarks are provided in Section V. The Appendix contains tables.

DATA

- Mutual Funds:- We employ a sample of national equity funds from 35 countries: North America (Canada, United States); Europe (Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, United Kingdom, Ireland, Luxembourg); Asia-Pacific (Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, New Zealand, Singapore, South Korea, Taiwan, Thailand); other regions (Brazil, Chile, Israel, South Africa). We have a total of 19,868 actively managed equity mutual funds. We engagement daily returns in local currency, including any dividend paid. Only the primary share class is included, returns are net of fund managing fees, including fund management, and distribution fees. We download the returns observations from the Morningstar Direct database. The sample covers a 32- year interval from January 1st, 1990 to December 31st, 2023. For comparison purposes, see Vidal, Vidal-García, and Boubaker (2015), and Vidal-García et al. (2016) for studies with large samples of daily returns across countries; or see Hammouda et al. (2023) and El Ammari, Vidal, and Vidal-García (2023) for studies using European data.
- Variable Construction - The market excess return for each country is estimated as the value-weighted mean return of all shares in the country minus the Treasury bill rate for that market. We employ the national one-month Treasury bill return divided by the number of days in a month. We use all stocks in the World scope database (Thomson Reuters) for each country. The World scope database covers over 98% of total market capitalization per country.

METHODOLOGY

We conduct a cross-national analysis of the management effectiveness of a sample of equities mutual funds. We conduct an analysis that considers both the mutual funds' overall risk as well as their earnings throughout the given time frame. The portfolio theory, which was first created by Markowitz in 1952 and subsequently by Tobin in 1958, Sharpe in 1964, 1966, 1970, 1975, and 1994, and Fama in 1972 and 1991, serves as the foundation for this research.

The combination of risk and profitability makes it possible to use several indices to analyze management effectiveness or performance. In this regard, the primary efficiency metrics were first developed by writers like Treynor (1965), Jensen (1968), and Sharpe (1966), whose work has grown to be a significant subject in specialized financial literature.

The expressions of each of the three efficiency ratios are listed below:

$$S_p = (E_p - R_f) / \sigma_p \quad (1)$$

$$T_p = (E_p - R_f) / \beta_p \quad (2)$$

$$J_p = (E_p - R_f) - (E_M - R_f) \times \beta_p \quad (3)$$

where: S_p, T_p, and J_p represent the values of the ratios of Sharpe, Treynor, and Jensen, respectively, for the portfolio p; E_p is the average return on portfolio p; R_f is the average return on risk-free assets; σ_p is the standard deviation of the profitability variable of the portfolio p; β_p is the volatility of portfolio p concerning the market and E_M is the average return of the stock market.

The excess return that a portfolio generates for every share of its overall risk and with respect to the risk-free asset is represented by the Sharpe ratio. The yield premium for each unit of systematic risk in the portfolio is calculated for the Treynor ratio. Last but not least, the Jensen ratio stands for differential profitability, a measure of the extra return the portfolio achieves on the risk-free asset and is due to the virtues of effective portfolio management rather than market fluctuations. For comparison, see Vidal-García and Vidal (2024), who assess the Sharpe ratio's performance globally across 35 nations.

The Sharpe ratio is a far more comprehensive metric than the Treynor and Jensen ratios since it takes into account the portfolio's overall risk as determined by the standard deviation of past returns. When evaluating portfolio management, the both Treynor and Jensen ratios presume that the only risk to be taken into account is the systematic or non-diversifiable risk, which is represented by the portfolio's beta coefficient. When this beta indicator is taken into account, it is assumed that the portfolio is effectively diversified, either by managing to eliminate all specific risks or by taking into account that the only risk that can be compensated for is the one that cannot be eliminated.

RESULT

The average quarterly performance, typical deviation, and systematic risk of our sample of mutual funds across the various nations are displayed in Table 2. We add the appropriate percentage of the management and deposit commission, discounted by each fund, to the participant's quarterly profitability because the quarterly returns are gross of commissions and taxes. We use the Treynor, Jensen, and Sharpe efficiency ratios. Table 3 shows the results, and we see that they are very comparable for both the funds in the bottom half of the classification and the funds that show higher efficiency.

In no instance can the findings of all three indicators be compared in absolute terms because the differences between them are basically due to the very different efficiency analyses that each of the three measures perform. For example, the Treynor ratio values are significantly higher than the Sharpe ratio values because the former only accounts for the return premium over systematic risk, ignoring the one that results from inefficient portfolio diversification; in contrast, the Sharpe ratio factors for every aspect of risk. The significant variations in the outcomes demonstrate how crucial this argument is for the sample under study.

Although we have indicated that intuitively the three classifications are quite similar, to be able to establish more accurately this degree of correlation between the classifications, analyzed two by two, we proceed to apply Spearman's rank correlation coefficient (Spearman (1904):

$$r_s = 1 - 6 \sum_{i=1}^{n} d^2 / n(n^2 - 1) \qquad (4)$$

where: d_i is the difference between the ranges corresponding to the values of the two classifications for the same fund and n is the number of funds in the sample. The coefficient takes values between +1 and –1. A value near zero suggests that both classifications are hardly related to each other. Values near unity suggest that both classifications are closely related. If it is positive, it represents a direct relationship, and if it is negative an indirect one. This correlation coefficient reflects the greater or lesser level of coincidence of the efficiency classifications proposed by the different indicators.

The findings, which are displayed in Table 4, demonstrate a high degree of consistency between the categories, particularly between the Treynor and Jensen ratios, which are both metrics used to gauge the risk related to the funds' beta coefficient. Though it provides efficiency ratings comparable to those of the Treynor and Jensen ratios, it is more important than the Sharpe ratio, whose structure accounts for total portfolio risk. The three indicators show efficiency classifications that are highly compatible with one another and even though they use fundamentally different structures.

We estimate alphas from the Carhart four-factor model to compare with those derived from the Jensen ratio in equation (3) in order to validate our findings. However, Jensen's alpha is used to compare the performance of a portfolio to its systematic risk. The Carhart model is used to analyze mutual fund performance, taking into account market hazards alongside size, value, and momentum impacts. Our findings are remarkably consistent across nations. Similar efficiency ratings are found when estimating alphas using the Jensen ratio and the Carhart model; for the sake of conciseness, we have omitted the table.

CONCLUSION

The amount of assets under management, funds, and participants in the investment fund business has increased significantly in recent years on a global scale. This supply and demand growth may be considered extraordinary, even if the financial markets have experienced multiple crises during the past 20 years.

Important factors like portfolio diversification, expert management, advantageous tax treatment, economies of scale, and the ability for each financial decision-maker to select the risk profile that best fits his needs and the time horizon to which he wishes to make his investment are the primary causes of this evolution of the mutual fund market. A mutual fund's average profitability and related risk are combined into a single figure by the performance ratios, which can be used to gauge how efficient a mutual fund is. In this study, we used performance ratios to analyze a global sample of equities mutual funds from 1990 to 2023. The majority of the studied funds exhibit greater efficiency compared to the comparable stock market. Mutual funds have proven to be more effective than the stock market in every nation. Even if the Treynor and Jensen ratios are predicated on the idea that the portfolios have been efficiently diversified, the presence of significant parallels in the efficiency rankings by the three performance ratios points to the consistency of the findings of these analyses.

When the efficiency ratios are applied, the evidence provided by the top-performing nations differs significantly from that of the nations with the worst outcomes. Mutual funds receive lower yield premiums than free-risk assets, which has led to a widespread loss of performance efficiency on a global scale. These three suggested signs demonstrate this occurrence.

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પર્યાવરણ વિજ્ઞાન: સિદ્ધાંતો, વૈશ્વિક પડકારો અને ટકાઉ ભવિષ્યની રૂપરેખા

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એબસ્ટ્રેક્ટ

આ સંશોધનનો મુખ્ય હેતુ પર્યાવરણ વિજ્ઞાનના મૂળભૂત સિદ્ધાંતોને સમજવો, આજના વૈશ્વિક પર્યાવરણીય પડકારોને ઉજાગર કરવો અને ટકાઉ ભવિષ્ય માટેની સંભાવનાઓનું વિશ્લેષણ કરવો છે. પર્યાવરણ વિજ્ઞાન એ એવી આંતરવિષયક શાખા છે જે માનવ અને કુદરત વચ્ચેના પરસ્પર સંબંધોને વૈજ્ઞાનિક દ્રષ્ટિએ સમજાવે છે. ઉદ્યોગીકરણ, શહેરીકરણ અને અતિશય સંસાધન વપરાશના કારણે વિશ્વ હવામાન પરિવર્તન, જૈવિક વિવિધતાનો નાશ, જળ સંકટ અને પ્રદૂષણ જેવા ગંભીર સંકટોનો સામનો કરી રહ્યું છે.

આ પેપરમાં ટકાઉ વિકાસના સિદ્ધાંતો, સંયુક્ત રાષ્ટ્રના SDGs, હરિત ટેકનોલોજી અને પર્યાવરણ શિક્ષણના મહત્વ પર ચર્ચા કરવામાં આવી છે. ભારતના પર્યાવરણ સંરક્ષણ માટેના ઉપક્રમો — જેમ કે સ્વચ્છ ભારત મિશન, નમામિ ગંગે યોજના અને નેશનલ ગ્રીન ટ્રિબ્યુનલ — ને પણ વિશ્લેષિત કરવામાં આવ્યા છે.

વિશ્લેષણ દર્શાવે છે કે ટકાઉ ભવિષ્ય માટે વૈશ્વિક સહકાર, નીતિગત અમલીકરણ અને વ્યક્તિગત જવાબદારી અનિવાર્ય છે. પર્યાવરણનું સંરક્ષણ માત્ર વૈજ્ઞાનિક જવાબદારી નથી પરંતુ માનવજાતના અસ્તિત્વ માટેનો આધારસ્તંભ છે.

પ્રસ્તાવના

માનવજાતના અસ્તિત્વ માટે પર્યાવરણ અત્યંત અગત્યનું તત્વ છે. પર્યાવરણ એટલે કુદરતી અને માનવસર્જિત તત્વોનો સંકલિત સમૂહ, જેમાં હવા, પાણી, જમીન, સજીવો, ઊર્જા અને માનવીય પ્રવૃત્તિઓનો સમાવેશ થાય છે. આ બધાં પરસ્પર સંબંધિત છે અને મળીને પૃથ્વી પર જીવન ટકાવી રાખે છે.

પર્યાવરણ વિજ્ઞાન એ એક આંતરવિષયક શાખા છે જે જીવવિજ્ઞાન, રાસાયણશાસ્ત્ર, ભૌતિકશાસ્ત્ર, ભૂગોળ, અર્થશાસ્ત્ર અને સમાજશાસ્ત્રના તત્ત્વોને જોડે છે. તેનો હેતુ છે – માનવ અને કુદરત વચ્ચેનું સંતુલન જાળવવું.

વિશ્વભરમાં ઉદ્યોગીકરણ, શહેરીકરણ અને ટેકનોલોજી વિકાસના કારણે પર્યાવરણ પર ભારે દબાણ આવ્યું છે. હવામાન પરિવર્તન, જૈવિક વિવિધતાનો નાશ, પાણીની અછત જેવા પડકારો આપણા અસ્તિત્વને જોખમમાં મૂકે છે. આ પરિસ્થિતિમાં પર્યાવરણ વિજ્ઞાનના સિદ્ધાંતો અને ટકાઉ વિકાસની વિચારધારા અનિવાર્ય બની છે.

પર્યાવરણ વિજ્ઞાનના મુખ્ય સિદ્ધાંતો

પર્યાવરણ વિજ્ઞાન કેટલાક મૂળભૂત સિદ્ધાંતો પર આધારિત છે, જે માનવ અને કુદરત વચ્ચેના સહઅસ્તિત્વને સમજાવે છે.

1. સમતોલનનો સિદ્ધાંત (Principle of Balance):

કુદરતનું દરેક તત્વ પરસ્પર જોડાયેલું છે. કોઈ એક તત્વમાં અસંતુલન આવે તો સમગ્ર પર્યાવરણ પર અસર પડે છે. ઉદાહરણ તરીકે, વનવિનાશ થવાથી વરસાદ ઘટે છે અને જમીનનું ધોવાણ વધે છે.

2. પરસ્પર નિર્ભરતાનો સિદ્ધાંત (Interdependence):

પૃથ્વી પરના દરેક જીવનું જીવન અન્ય જીવો અને કુદરતી તત્વો પર નિર્ભર છે. માનવ, પ્રાણી અને વનસ્પતિ વચ્ચેના આ સંબંધો ઈકોસિસ્ટમનું મૂળ છે.

3. સંસાધન સંરક્ષણનો સિદ્ધાંત:

કુદરતી સંસાધનો સીમિત છે. તેનો જવાબદાર ઉપયોગ અને સંરક્ષણ કરવું આવશ્યક છે જેથી ભવિષ્યની પેઢી માટે તે ઉપલબ્ધ રહે.

4. પ્રદૂષણ નિયંત્રણનો સિદ્ધાંત:

હવા, પાણી, જમીન અને ધ્વનિ પ્રદૂષણ નિયંત્રણ વિના પર્યાવરણનું સ્વાસ્થ્ય બગડે છે. તેથી વૈજ્ઞાનિક અને નીતિગત ઉપાયો દ્વારા પ્રદૂષણ ઘટાડવું જરૂરી છે.

5. ટકાઉ વિકાસનો સિદ્ધાંત:

વિકાસ એ એવો હોવો જોઈએ જે વર્તમાન જરૂરિયાતોને પૂરી કરે પણ ભવિષ્યની પેઢીની જરૂરિયાતોને જોખમમાં ન મૂકે.

વૈશ્વિક પર્યાવરણીય પડકારો

આજની સદીમાં વિશ્વ અનેક પર્યાવરણીય સંકટોનો સામનો કરી રહ્યું છે.

1. હવામાન પરિવર્તન:

વધતા ગ્રીનહાઉસ વાયુઓના ઉત્સર્જનથી પૃથ્વીનું તાપમાન વધી રહ્યું છે. હિમનદીઓ પીગળી રહી છે, સમુદ્ર સ્તર વધી રહ્યું છે અને અતિશય હવામાન ઘટનાઓ વધી રહી છે.

2. જૈવિક વિવિધતાનો નાશ:

પ્રજાતિઓના અતિશય નાશથી કુદરતી સંતુલન ખોરવાઈ રહ્યું છે. જીવજાતિઓના નાશથી ખોરાક શૃંખલા અને પર્યાવરણીય પ્રક્રિયાઓ પર ગંભીર અસર પડે છે.

3. જળ સંકટ:

પીવાના શુદ્ધ પાણીની ઉપલબ્ધતા સતત ઘટી રહી છે. ભૂગર્ભ જળસ્તર નીચે જઈ રહ્યું છે અને નદીઓ પ્રદૂષિત થઈ રહી છે.

4. વનવિનાશ:

વનોના વિનાશથી કાર્બન સંતુલન બગડે છે અને જૈવિક વિવિધતા ઘટે છે.

5. પ્રદૂષણ:

ઉદ્યોગો, વાહનો અને ઘન કચરાના કારણે વાયુ, જળ અને જમીન પ્રદૂષણ વધી રહ્યું છે, જે માનવ આરોગ્ય માટે જોખમરૂપ છે.

6. ઊર્જા સંકટ:

ખનિજ ઈંધણની અતિશય વપરાશથી પ્રાકૃતિક ઊર્જા સ્ત્રોતો ખતમ થઈ રહ્યા છે. નવનીકરણીય ઊર્જા વિકલ્પો જરૂરી બની ગયા છે.

ટકાઉ ભવિષ્ય માટેના ઉપાય

ટકાઉ વિકાસ એ એવી વિચારધારા છે જેમાં આર્થિક વિકાસ, પર્યાવરણ સંરક્ષણ અને સામાજિક સમાનતાનું સંતુલન જળવાય.

1. સંયુક્ત રાષ્ટ્રના ટકાઉ વિકાસ લક્ષ્યો (SDGs):

2015માં અપનાવેલા 17 લક્ષ્યોમાં સ્વચ્છ પાણી, સ્વચ્છ ઊર્જા, હવામાન કાર્યવાહી અને જીવનની ગુણવત્તા પર ભાર મુકાયો છે.

2. નવનીકરણીય ઊર્જા:

સૌર ઊર્જા, પવન ઊર્જા અને બાયો ઊર્જા જેવા સ્ત્રોતો પર આધાર રાખવાથી કાર્બન ઉત્સર્જન ઘટે છે.

3. પર્યાવરણ શિક્ષણ:

શાળાઓ અને કોલેજોમાં પર્યાવરણ જાગૃતિ અને સંરક્ષણ અંગેનું શિક્ષણ આપવું આવશ્યક છે.

4. હરિત ટેકનોલોજી:

ઈકો-ફ્રેન્ડલી ઉત્પાદન પદ્ધતિઓ, રિસાયક્લિંગ અને વેસ્ટ મેનેજમેન્ટ દ્વારા પ્રદૂષણ ઘટાડવામાં મદદ મળે છે.

5. સરકારી નીતિઓ:

પર્યાવરણ રક્ષણ માટે કાયદા અને નીતિગત માળખાનું અમલીકરણ જરૂરી છે.

ભારતનો દૃષ્ટિકોણ અને ઉપક્રમે

- ભારત ટકાઉ વિકાસ માટે અનેક ઉપક્રમો ચલાવી રહ્યું છે.
- સ્વચ્છ ભારત મિશન: સ્વચ્છતા, કચરા સંચાલન અને આરોગ્ય માટે રાષ્ટ્રીય અભિયાન.
- નમામિ ગંગે યોજના: ગંગા નદી શુદ્ધિકરણ માટેની યોજના.
- નૈસર્ગિક ખેતી અને હરિત ઊર્જા: કાર્બનિક ખેતી અને સૂર્ય ઊર્જાના પ્રોત્સાહન માટે કાર્યક્રમો.
- નેશનલ ગ્રીન ટ્રિબ્યુનલ (NGT): પર્યાવરણીય કેસોના ન્યાય માટેની સંસ્થા.

ચર્ચા અને વિશ્લેષણ

પર્યાવરણ અને વિકાસ વચ્ચેનું સંતુલન જાળવવું એ માનવજાત માટેની સૌથી મોટી પડકારરૂપ બાબત છે. વૈશ્વિક સ્તરે નીતિઓ હોવા છતાં સ્થાનિક સ્તરે અમલમાં ખામીઓ છે. પર્યાવરણ રક્ષણ માટે વ્યક્તિગત જવાબદારી એટલી જ મહત્વની છે જેટલી સરકારી નીતિઓ.

પર્યાવરણ શિક્ષણ અને જનજાગૃતિ દ્વારા માનવવર્તન બદલવું ટકાઉ ભવિષ્ય માટેનો આધારસ્તંભ છે.

નિષ્કર્ષ

પર્યાવરણ વિજ્ઞાન માનવજાતને કુદરત સાથે સુમેળમાં જીવવાની રીત શીખવે છે. વિકાસ જરૂરી છે, પરંતુ તે કુદરતી સીમાઓની અંદર રહે તે અનિવાર્ય છે. ટકાઉ ભવિષ્ય માટે વૈશ્વિક સહકાર, નૈતિક જવાબદારી અને પર્યાવરણપ્રેમી જીવનશૈલી જરૂરી છે.

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ભારતીય સ્વતંત્રતા ચળવળમાં સમકાલીન પ્રાદેશિક પક્ષોની ભૂમિકા

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પ્રસ્તાવના:

ભારતનો સ્વતંત્રતા સંગ્રામ માત્ર એક રાષ્ટ્રીય રાજકીય આંદોલન જ ન હતું, પરંતુ તે વિવિધ સ્તરો અને વિવિધ ક્ષેત્રોમાં ચાલેલાં અનેક રાજકીય, સામાજિક, ધાર્મિક અને સાંસ્કૃતિક પ્રવાહોનું સંકલન હતું. આ સંગ્રામમાં ભારતીય રાષ્ટ્રીય કોંગ્રેસ જેવી સર્વભારતીય રાજકીય પાર્ટીઓએ નિઃસંદેહ કેન્દ્રસ્થાનિય ભૂમિકા ભજવી હતી, પરંતુ સાથે સાથે અનેક પ્રાદેશિક રાજકીય પક્ષોએ પણ પોતાના પ્રદેશની વિશિષ્ટતાઓ, સામાજિક-આર્થિક પરિસ્થિતિઓ અને રાજકીય આવશ્યકતાઓને અનુરૂપ મહત્વપૂર્ણ યોગદાન આપ્યું હતું.

પ્રાદેશિક પક્ષો એ એવા રાજકીય સંગઠનો હતા જેઓ ખાસ કરીને કોઈ નિશ્ચિત પ્રાદેશિક હિતોને પ્રતિનિધિત્વ આપતા હતા. તેમની રાજકીય પ્રવૃત્તિઓનો વિસ્તાર મુખ્યત્વે ચોક્કસ પ્રાંત અથવા રાજ્ય સુધી સીમિત હતો, પરંતુ તેમ છતાં તેમણે રાષ્ટ્રીય મુક્તિ સંગ્રામને મહત્વપૂર્ણ દિશા આપી હતી. ભારતીય રાષ્ટ્રીય ચળવળનું સ્વરૂપ પણ એકરૂપ ન હતું – તે વિવિધ પ્રદેશોમાં વિવિધ સ્વરૂપે વિકસતું ગયું અને તે સ્વરૂપોને આકાર આપનારમાં પ્રાદેશિક પક્ષોનો યોગદાન અનિવાર્ય રહ્યું હતું. આથી રાજ્યશાસ્ત્રીય દૃષ્ટિકોણથી આ સંશોધન પેપરનો ઉદ્દેશ એ છે કે ભારતીય સ્વતંત્રતા સંગ્રામમાં વિવિધ પ્રાદેશિક રાજકીય પક્ષોની ભૂમિકા, તેમની નીતિઓ, કાર્યક્રમો અને યોગદાનનું વિશ્લેષણ રાજ્યશાસ્ત્રના દૃષ્ટિકોણથી કરવું

ભારતીય સ્વતંત્રતા સંગ્રામનો રાજકીય પરિપ્રેક્ષ્ય

ભારતીય સ્વતંત્રતા સંગ્રામ ૧૮૫૭ની પ્રથમ સ્વતંત્રતા ક્રાંતિથી શરૂ થયો અને ૧૯૪૭માં બ્રિટિશ શાસનના અંત સાથે પૂર્ણ થયો. આ સંગ્રામ માત્ર શસ્ત્રબળ અથવા હિંસાત્મક વિરોધ સુધી સીમિત ન રહ્યો, પરંતુ સમય જતાં તે રાજકીય સંગઠનો, સામાજિક સુધારણા આંદોલનો અને લોકજાગૃતિના અનેક સ્વરૂપોમાં વ્યક્ત થયો. ઓગણીસમી સદીના અંતિમ દાયકામાં ભારતીય રાષ્ટ્રીય કોંગ્રેસની સ્થાપનાએ રાષ્ટ્રીય રાજકીય ચળવળને નવું માધ્યમ આપ્યું, પરંતુ કોંગ્રેસમાં એકસમાન માળખું નહોતું. તેમાં વિવિધ વિચારોના પ્રવાહો, પ્રાદેશિક હિતો અને સામાજિક ગઠનો વચ્ચે સતત પરસ્પર ક્રિયા ચાલતી રહી. બ્રિટિશ શાસન હેઠળના વિવિધ પ્રાંતો – બંગાળ, પંજાબ, બોમ્બે, મદ્રાસ, બિહાર, ઉત્તર પ્રદેશ વગેરે – દરેકની સામાજિક, આર્થિક અને સાંસ્કૃતિક પરિસ્થિતિ અલગ હતી, અને આ પરિસ્થિતિએ પ્રાદેશિક રાજકીય પક્ષોના ઉદય માટે અનુકૂળ પરિસ્થિતિ ઉભી કરી. સ્વતંત્રતા સંગ્રામના વિવિધ તબક્કામાં પ્રાદેશિક પક્ષોનું સ્વરૂપ પણ બદલાતું રહ્યું. શરૂઆતમાં તેમનું ધ્યાન મુખ્યત્વે શૈક્ષણિક, સામાજિક અને ધાર્મિક સુધારણાઓ પર હતું, પરંતુ બાદમાં તેમણે રાજકીય

માંગણીઓ રજૂ કરી અને સ્વશાસન માટે દબાણ લાવ્યું. કેટલાક પક્ષોએ બ્રિટિશ રાજની નીતિઓનો સક્રિય વિરોધ કર્યો, તો કેટલાકે તેમાં ભાગ લઇ સુધારણા લાવવાનો પ્રયાસ કર્યો.

પ્રાદેશિક રાજકીય પક્ષોની ઉત્પત્તિની ઐતિહાસિક પૃષ્ઠભૂમિ:

- પ્રાદેશિક હિતોની જાગૃતિ: ઓગણીસમી સદીના અંત અને વીસમી સદીના પ્રારંભમાં ભારતના વિવિધ પ્રાંતોમાં રાજકીય જાગૃતિનું ઉદભવ થવાનું મુખ્ય કારણ એ હતું કે બ્રિટિશ શાસન હેઠળ ભારત એકીકૃત રાજકીય એકમ નહોતું. વિવિધ પ્રાંતોમાં અલગ કાયદા, અલગ પ્રશાસન અને અલગ આર્થિક નીતિઓ લાગુ પડતી. પરિણામે સ્થાનિક પ્રશ્નો અને હિતો અલગ-અલગ સ્વરૂપે ઉભા થતા. આ હિતોને પ્રતિનિધિત્વ આપવા માટે સ્થાનિક સંગઠનોની જરૂરિયાત અનુભવાઈ.
- સામાજિક સુધારણા ચળવળોનું યોગદાન: બ્રાહ્મો સમાજ, આર્ય સમાજ, પ્રસિદ્ધ શિક્ષણ સંસ્થાઓ અને સામાજિક સુધારકોએ રાજકીય જાગૃતિ માટેનો પાયો નાખ્યો. આ ચળવળોએ લોકોમાં સ્વશાસન અને રાજકીય અધિકારોની ભાવના જગાવી. આ જાગૃતિએ બાદમાં પ્રાદેશિક રાજકીય સંગઠનોને જન્મ આપ્યો.
- બ્રિટિશ નીતિઓની પ્રતિક્રિયા: બ્રિટિશ શાસન હેઠળના શાસકીય સુધારણા, જેમ કે ૧૯૦૯નું મિંટો-મોર્લે સુધારણું અને ૧૯૧૯નું મોન્ટેગ્યુ-ચેલમ્સફોર્ડ સુધારણુંએ પ્રાદેશિક રાજકીય સ્પર્ધાઓને વધુ પ્રોત્સાહન આપ્યું. ચૂંટણી અને પ્રતિનિધિત્વની વ્યવસ્થા હેઠળ સ્થાનિક નેતાઓએ પોતાના રાજકીય સંગઠનો રચવા પ્રેરણા મેળવી.
- રાષ્ટ્રીય રાજકીય સંગઠનો સાથે તણાવ: ભારતીય રાષ્ટ્રીય કોંગ્રેસ જેવા સર્વભારતીય સંગઠનો પ્રાદેશિક પ્રશ્નોને હંમેશા સમાન પ્રાધાન્ય આપતા નહોતા. પરિણામે કેટલાક નેતાઓએ પોતાના પ્રાંતના હિતોને વધુ અસરકારક રીતે આગળ ધપાવવા માટે સ્વતંત્ર સંગઠનો સ્થાપ્યા.

પ્રાદેશિક પક્ષોના મહત્વપૂર્ણ લક્ષણો

- પ્રાદેશિકતા: આ પક્ષો ખાસ કરીને ચોક્કસ પ્રાંત અથવા રાજ્યના પ્રશ્નો અને હિતોને કેન્દ્રમાં રાખીને કાર્ય કરતા.
- સામાજિક આધાર: મોટાભાગના પ્રાદેશિક પક્ષો ચોક્કસ જાતિ, ધર્મ, ભાષા અથવા વર્ગના હિતોને પ્રતિનિધિત્વ આપતા.
- રાષ્ટ્રીય ચળવળ સાથે સંકલન અથવા વિભાજન: કેટલાક પક્ષોએ રાષ્ટ્રીય ચળવળ સાથે સહયોગ કર્યો, જ્યારે કેટલાકે વિભાજિત માર્ગ અપનાવ્યો.
- રાજકીય વ્યૂહરચના: પ્રાદેશિક પક્ષોએ ક્યારેક ચૂંટણી પ્રક્રિયા દ્વારા, તો ક્યારેક સીધા આંદોલન દ્વારા બ્રિટિશ શાસન સામે લડત આપી.

મુખ્ય પ્રાદેશિક પક્ષોનો ઉદય અને તેમની ભૂમિકા:

ભારતીય સ્વતંત્રતા સંગ્રામ દરમિયાન પ્રાદેશિક રાજકીય પક્ષોનો ઉદય એક સ્વાભાવિક અને ઐતિહાસિક પ્રક્રિયા હતી. વિવિધ પ્રાંતોમાં સામાજિક, આર્થિક, ધાર્મિક અને ભાષાત્મક પરિસ્થિતિઓમાં ભિન્નતા હોવાથી રાજકીય ચળવળોનું સ્વરૂપ પણ અલગ અલગ બન્યું. કેટલીક જગ્યાએ આ પક્ષો રાષ્ટ્રીય આંદોલન સાથે

જોડાયા, જ્યારે કેટલીક જગ્યાએ તેમણે સ્વતંત્ર રીતે કાર્ય કર્યું. નીચે કેટલાક મુખ્ય પ્રાદેશિક રાજકીય પક્ષો અને તેમની ભૂમિકાનું વિશ્લેષણ કરીએ છીએ:

૧. સ્વરાજ પાર્ટી (Swaraj Party):

- સ્થાપના અને ઉદ્દેશ્ય: સ્વરાજ પાર્ટીની સ્થાપન ૧૯૨૩માં ચિત્તરંજન દાસ અને વિઠ્ઠલભાઈ પટેલ દ્વારા કરવામાં આવી હતી. ૧૯૨૦ના દાયકાના પ્રારંભમાં મહાત્મા ગાંધીના અહિંસાત્મક અસહકાર આંદોલન પછી કોંગ્રેસમાં આંતરીક મતભેદો ઉદભવ્યા હતા. કેટલાક નેતાઓ માનતા હતા કે કાઉન્સિલમાં ભાગ લીધા વિના બ્રિટિશ શાસન સામે લડત અસરકારક રીતે ચલાવી શકાતી નથી. આ વિચારધારા અનુસરતા ચિત્તરંજનદાસ અને વિઠ્ઠલભાઈ પટેલે સ્વરાજ પાર્ટી રચી, જેનો મુખ્ય ઉદ્દેશ કાઉન્સિલની અંદર જઈને બ્રિટિશ સરકારની નીતિઓનો વિરોધ કરવાનો અને સ્વશાસન માટે દબાણ લાવવું.
- નીતિ અને કાર્યક્રમ:
  ૧.કાઉન્સિલમાં પ્રવેશ કરીને સરકારના કાયદાઓને અટકાવવાનો પ્રયાસ.
  ૨.શાસન તંત્રના ખોટા નિર્ણયો સામે સંગઠિત વિરોધ
  ૩.રાષ્ટ્રીય હિતના પ્રશ્નોને વિધાનસભામાં ઉઠાવવાનો પ્રયત્ન.
  ૪.સ્થાનિક સ્વરાજની સંસ્થાઓને મજબૂત કરવા માટે પ્રસ્તાવો રજૂ કરવાં.
- રાષ્ટ્રિય મુકિત ચળવળમાં યોગદાન: સ્વરાજ પાર્ટીએ બ્રિટિશ શાસન સામે સંસ્થાકિય માધ્યમો દ્વારા લડત આપવાની નવી દિશા આપી. વિઠ્ઠલભાઈ પટેલે સેન્ટ્રલ લેજિસ્લેટિવ એસેમ્બલીના અધ્યક્ષ તરીકે મહત્વપૂર્ણ ભૂમિકા ભજવી. સ્વરાજ પાર્ટીએ રાજકીય ચર્ચા અને નીતિગત વિરોધને વધુ સંસ્થાગત અને વિધાનસભા કેન્દ્રિત બનાવ્યો.

૨. જસ્ટિસ પાર્ટી (Justice Party):

- સ્થાપના અને ઉદ્દેશ્ય: મદ્રાસ પ્રાંતમાં સ્થાપિત થયેલી જસ્ટિસ પાર્ટી(૧૯૧૬) દક્ષિણ ભારતની સૌથી મહત્વપૂર્ણ પ્રાદેશિક રાજકીય પાર્ટી હતી. તે દ્રવિડ જાતિગત રાજકારણનું પ્રતિનિધિત્વ કરતી હતી. આ પાર્ટીનું મુખ્ય લક્ષ્ય બ્રાહ્મણ પ્રભુત્વનો અંત લાવવો અને ગૌણ જાતિઓને રાજકીય સત્તામાં ભાગીદારી અપાવવી હતું.
- નીતિ અને લક્ષ્યો:
  ૧.શૈક્ષણિક અને સરકારી નોકરીઓમાં ગૌણ જાતિઓને અનામત.
  ૨.બ્રાહ્મણ વહીવટીતંત્ર સામે પ્રતિકાર.
  ૩.પ્રાદેશિક હિતોના રક્ષણ અને સામાજિક ન્યાય.
- રાષ્ટ્રિય મુકિત ચળવળમાં યોગદાન: જસ્ટિસ પાર્ટીએ દક્ષિણ ભારતમાં સામાજિક ન્યાયના પ્રશ્નોને રાજકીય એજન્ડામાં સ્થાન આપ્યું. તેની પ્રવૃત્તિઓએ દ્રવિડ રાજકારણનો પાયો મૂકી દીધો, જે બાદમાં દ્રવિડા મુન્નેત્ર કળગમ (DMK) જેવા પક્ષો રૂપે વિકસ્યું. આ પક્ષે સ્વતંત્રતા સંગ્રામમાં સીધી ભાગીદારી ન કરી હોવા છતાં, સામાજિક ચેતના જગાવીને સ્વતંત્ર ભારતના લોકશાહી માળખાને પ્રભાવિત કર્યું.

૩. અખિલ ભારતીય મુસ્લિમ લીગ (All India Muslim League):

- સ્થાપના અને ઉદ્દેશ્ય: અખિલ ભારતીય મુસ્લિમ લીગની સ્થાપના ૧૯૦૬માં ઢાકામાં થઈ હતી. શરૂઆતમાં તે મુસ્લિમ સમુદાયના હિતોને સુરક્ષિત કરવા માટે રચાઈ હતી.
- નીતિ અને લક્ષ્યો:
  ૧.મુસ્લિમો માટે અલગ મતદાર યાદી અને પ્રતિનિધિત્વની માંગણી.
  ૨.શિક્ષણ અને રોજગારમાં મુસ્લિમ હિતોની રક્ષા.
  ૩.બ્રિટિશ શાસન સાથે સહયોગી નીતિ.
- રાષ્ટ્રિય મુક્તિ ચળવળમાં ભૂમિકા: પ્રારંભિક તબક્કામાં મુસ્લિમ લીગ સ્વતંત્રતા સંગ્રામથી દૂર રહી, પરંતુ ૧૯૩૦ના દાયકાથી તેણે પાકિસ્તાનની માંગણી ઉઠાવી અને અંતે ભારતના વિભાજનમાં મહત્વપૂર્ણ ભૂમિકા ભજવી. રાજ્યશાસ્ત્રીય દૃષ્ટિએ મુસ્લિમ લીગનું યોગદાન ભારતીય રાજકીય માળખાને સાંપ્રદાયિક રેખાઓ પર વિભાજિત કરવાનું હતું.

૪. અકાલી દળ (Akali Dal):

- સ્થાપના અને ઉદ્દેશ્ય: અકાલી દળની ઉદભવ ૧૯૨૦ના દાયકામાં પંજાબમાં શીખ ધાર્મિક સ્થળો (ગુરુદ્વારા)ના સંચાલનને લઈને થયેલા આંદોલનોમાંથી થયો હતો.
- નીતિ અને લક્ષ્યો:
  ૧.ગુરુદ્વારાઓને મહંતો અને બ્રિટિશ નિયંત્રણમાંથી મુક્ત કરાવવું.
  ૨.શીખ સમુદાયના હિતોની રક્ષા.
  ૩.પંજાબમાં સ્વશાસન માટે રાજકીય દબાણ લાવવું.
- રાષ્ટ્રિય મુક્તિ ચળવળમાં યોગદાન: અકાલી દળે પંજાબમાં ધાર્મિક સ્વતંત્રતાની સાથે રાજકીય ચેતના પણ ફેલાવી. ગુરુદ્વારા સુધારણા ચળવળે શીખ સમાજને એકતાબદ્ધ કર્યો અને રાષ્ટ્રીય સ્વતંત્રતા ચળવળ સાથે જોડ્યો.

અન્ય ક્રાંતિકારી સંગઠનો અને પ્રાદેશિક ચળવળો

- બંગાળના સંગઠનો: બંગાળ પ્રાંતમાં અનુષિલન સમિતિ, યુગાંતર જેવી ક્રાંતિકારી સંસ્થાઓએ બ્રિટિશ શાસન સામે શસ્ત્રસંઘર્ષનો માર્ગ અપનાવ્યો.
- પંજાબના સંગઠનો: ગદર પાર્ટી અને હિન્દુસ્તાન સોશ્યાલિસ્ટ રિપબ્લિકન એસોસિએશન(HSRA) જેવા સંગઠનોએ હિંસાત્મક માર્ગ અપનાવીને સ્વતંત્રતાનો સંદેશ ફેલાવ્યો.
- બોમ્બે અને ગુજરાતના સંગઠનો: મિલિટન્ટ સંગઠનો સાથે સાથે સ્થાનિક પ્રાદેશિક પક્ષોએ પણ મજૂર આંદોલનો અને ખેડૂત ચળવળોને રાજકીય દિશા આપી.

૭. પ્રાદેશિક સંગઠનો અને રાષ્ટ્રીય ચળવળ વચ્ચેનું પરસ્પર સંબંધ

પ્રાદેશિક પક્ષો અને રાષ્ટ્રીય ચળવળ વચ્ચેનો સંબંધ હંમેશા સમન્વયાત્મક ન રહ્યો. કેટલાક પક્ષોએ રાષ્ટ્રીય પક્ષો સાથે સહયોગ કર્યો, જ્યારે કેટલાકે તણાવપૂર્ણ સંબંધો રાખ્યા. તેમ છતાં, આ પક્ષોએ રાષ્ટ્રીય ચળવળને નવી ઊર્જા, નવી વ્યૂહરચનાઓ અને નવા નેતાઓ આપ્યા. ઉદાહરણ તરીકે સ્વરાજ પાર્ટીએ કોંગ્રેસની વ્યૂહરચનામાં નવો દિશાસૂચક ફેરફાર કર્યો, જસ્ટિસ પાર્ટીએ સામાજિક ન્યાયને રાજકીય ચર્ચામાં સ્થાન આપ્યું, મુસ્લિમ લીગે સાંપ્રદાયિક રાજકારણને મુખ્ય ધારા બનાવી દીધું, અકાલી દળે ધાર્મિક હકો અને સ્વતંત્રતાને જોડ્યો.

પ્રાદેશિક પક્ષોની ભૂમિકાનું રાજ્યશાસ્ત્રીય વિશ્લેષણ

ભારતીય સ્વતંત્રતા સંગ્રામ એક સર્વસમાવેશી અને બહુમુખી ચળવળ હતી. જેમાં પ્રાદેશિક સ્તરે અનેક સંગઠનો અને પક્ષોએ મહત્વપૂર્ણ ભૂમિકા ભજવી હતી. આ પક્ષોએ પોતાના પ્રાદેશિક હિતોને કેન્દ્રમાં રાખીને કાર્ય કર્યું હોવા છતાં તેમણે રાષ્ટ્રીય ચળવળને નવી ઊર્જા, નવી દિશા અને નવો સામાજિક આધાર આપ્યો. રાજ્યશાસ્ત્રીય દૃષ્ટિએ જોવામાં આવે તો આ પક્ષોએ ભારતના રાષ્ટ્રવાદ, સંઘવાદ, પ્રાદેશિકતાવાદ અને લોકશાહી જેવા મૂળભૂત તત્વોને વધુ ઊંડાઈ આપી.

પ્રાદેશિક પક્ષોની સૌથી મોટી સિદ્ધિ એ હતી કે તેમણે સ્થાનિક પ્રશ્નોને રાષ્ટ્રીય સ્તરે લાવ્યા. ઉદાહરણ તરીકે, બંગાળના સ્વદેશી આંદોલનથી સ્વદેશી વિચારધારા આખા દેશમાં ફેલાઈ. જસ્ટિસ પાર્ટીએ દક્ષિણ ભારતમાં સામાજિક ન્યાયનો પ્રશ્ન રાષ્ટ્રીય રાજકીય ચર્ચામાં ઉઠાવ્યો. અકાલી દળે ધાર્મિક સ્વતંત્રતાના પ્રશ્નને રાષ્ટ્રીય ચળવળ સાથે જોડ્યો. પ્રાદેશિક પક્ષોએ સામાન્ય જનતામાં રાજકીય જાગૃતિ ફેલાવવામાં મહત્વપૂર્ણ ભૂમિકા ભજવી. તેઓ ગામડા અને શહેરોમાં જઈને સભાઓ યોજતા, જાહેર ભાષણો કરતા અને રાજકીય શિક્ષણ આપતા. આ રીતે તેમણે જનતાને રાજકીય પ્રક્રિયામાં જોડાવા માટે પ્રેરણા આપી. ઘણા પ્રાદેશિક પક્ષો રાષ્ટ્રીય સ્તરના નેતાઓ માટે તાલીમસ્થાન બન્યા. ઉદાહરણ તરીકે, વિઠ્ઠલભાઈ પટેલ, ચિત્તરંજન દાસ, ઇ.વી. રામસ્વામી નાઇકર જેવા નેતાઓએ પ્રાદેશિક પક્ષોમાંથી પોતાનો રાજકીય માર્ગ શરૂ કર્યો અને રાષ્ટ્રીય સ્તરે મહત્વ મેળવ્યું.

પ્રાદેશિક પક્ષોએ રાષ્ટ્રીય પક્ષોને પ્રાંતિય પ્રશ્નો પર ધ્યાન આપવા મજબૂર કર્યા. સ્વરાજ પાર્ટીએ કોંગ્રેસને કાઉન્સિલ રાજકારણમાં પ્રવેશ કરવા માટે પ્રેરિત કર્યું, જ્યારે મુસ્લિમ લીગે ધાર્મિક પ્રતિનિધિત્વના પ્રશ્નને રાષ્ટ્રીય ચર્ચામાં સ્થાન આપ્યું.

પ્રાદેશિક પક્ષોની મર્યાદાઓ અને પડકારો:

- જ્યાં પ્રાદેશિક પક્ષોએ સ્વતંત્રતા સંગ્રામને સમૃદ્ધ બનાવ્યો ત્યાં કેટલીક મર્યાદાઓ પણ હતી:
- સાંપ્રદાયિકતા અને વિભાજનવાદ: મુસ્લિમલીગ જેવી પાર્ટીઓએ રાષ્ટ્રીય એકતાને પડકાર્યો.
- સીમિત વિસ્તાર: મોટાભાગના પક્ષો પોતાના પ્રાંત સુધી સીમિત રહ્યા.

- નેતૃત્વ સંઘર્ષ : કેટલાક પક્ષોમાં નેતૃત્વની આંતરિક વિસંવાદતાએ તેમને નબળા બનાવ્યા.

ઉપસંહાર

ભારતીય સ્વતંત્રતા સંગ્રામનો ઈતિહાસ જો કોઈ એક મહત્વપૂર્ણ પાઠ શીખવે છે, તો તે એ છે કે રાષ્ટ્રીય સ્વતંત્રતા માત્ર ટોચના નેતાઓ અથવા કેન્દ્રિય સંગઠનોની જ કમાણી નથી, પરંતુ હજારો પ્રાદેશિક સંગઠનો, આંદોલનો અને પક્ષોના યોગદાનનું સમૂહ છે. પ્રાદેશિક પક્ષોએ સ્થાનિક પ્રશ્નોને રાષ્ટ્રીય રાજકીય ચર્ચામાં સ્થાન આપ્યુ, સામાન્ય જનતામાં રાજકીય જાગૃતિ ફેલાવી, નવા નેતૃત્વને જન્મ આપ્યો, લોકશાહી અને સંઘવાદને મજબૂત બનાવ્યા. તેમની આ ભૂમિકા વિના ભારતનું સ્વતંત્રતા સંગ્રામ અધૂરૂં અને એકતરફી ગણી શકાય. રાજ્યશાસ્ત્રીય રીતે જોવામાં આવે તો, પ્રાદેશિક પક્ષોએ ભારતીય લોકશાહીનું સ્વરૂપ વધુ વ્યાપક અને બહુસ્તરીય બનાવ્યું. તેમણે સાબિત કર્યું કે વિવિધતા કોઈ કમજોરી નહીં પરંતુ રાષ્ટ્રીય શક્તિનું સ્ત્રોત છે.

સંદર્ભ સૂચિ:

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કૃત્રિમ બુદ્ધિમત્તા (AI) બધા વિષયોમાં: શિક્ષણ ક્ષેત્રે તેની વ્યાપક ભૂમિકા

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પ્રસ્તાવના

કૃત્રિમ બુદ્ધિમત્તા (AI) આજના યુગમાં શિક્ષણના ક્ષેત્રે ક્રાંતિકારી ફેરફારો લાવી રહ્યું છે. "AI is all subject" ના વિષય પર આ અભ્યાસ AI ને વિવિધ અભ્યાસક્રમી વિષયો જેમ કે વિજ્ઞાન, ગણિત, ભાષા, સામાજિક વિજ્ઞાન અને કલા વગેરેમાં તેના ઉપયોગને ઉજાગર કરે છે. AI શિક્ષણને વ્યક્તિગત, અસરકારક અને સુલભ બનાવી શકે છે, જેમ કે વૉઇસ એસિસ્ટન્ટ્સ,(ALEXA) મેપિંગ ટૂલ્સ(Malling tools) અને એસે-રાઇટિંગ(Eassay writing) ક્ષમતાઓ દ્વારા 2025માં, AI નો ઉપયોગ વિશ્વભરમાં વધી રહ્યો છે, જે વિદ્યાર્થીઓને તેમના શિક્ષણ પર વધુ કંટ્રોલ આપે છે. આ પેપર AI ની આ વ્યાપકતાને તપાસે છે અને તેના શૈક્ષણિક અસરોને સમજાવે છે.

હેતુઓ

આ અભ્યાસના મુખ્ય હેતુઓ નીચે મુજબ છે:

- AI ના વિવિધ અભ્યાસક્રમી વિષયોમાં ઉપયોગને ઓળખવો.
- AI ના શિક્ષણીય ફાયદા અને પડકારોનું મૂલ્યાંકન કરવું.
- ભારતીય અને વૈશ્વિક સંદર્ભમાં AI ની વ્યાપકતા સમજવી.
- શિક્ષણમાં AI ના ભાવિ અસરોની આગાહી કરવી.

અભ્યાસ પદ્ધતિ

આ અભ્યાસ સાહિત્યિક સદર્ભો અને તેના પ્રતિભાવો અને ડેટા વિશ્લેષણ પર આધારિત છે, જેમાં 2024-2025ના તાજા સર્વે અને રિસર્ચ પેપર્સનો સમાવેશ થાય છે. આ સંશોધનમાં પદ્ધતિ ક્વોલિટેટિવ અને ક્વોન્ટિટેટિવ બંને પ્રકારની છે, જેમાં થીમેટિક વિશ્લેષણનો ઉપયોગ કરવામાં આવ્યો છે. અભ્યાસ 2025ના જૂન મહિના સુધીના ડેટા પર આધારિત છે.

વ્યાપ, વિશ્વ અને નમૂનો

આ અભ્યાસનો વ્યાપ ઉચ્ચ શિક્ષણ અને માધ્યમિક શિક્ષણ સુધી મર્યાદિત છે, જેમાં AI ના 1000 વિવિધ ઉદાહરણોનો શિક્ષકો અને વિદ્યાર્થીઓ સમાવેશ થાય છે જેમાં અધ્યયન પરિણામમાં સુધારો જોવા મળે છે .જેમાં

2025ના સર્વેમાં 66.95% વિદ્યાર્થીઓ રોજ AI નો ઉપયોગ કરે છે. જ્યારે શિક્ષકો 44.80% AI નો ઉપયોગ કરે છે. નમૂનો (સેમ્પલ) 15 આંતરરાષ્ટ્રીય રિસર્ચ પેપર્સ અને 500+ વિદ્યાર્થીઓના સર્વે રિપોર્ટ્સ પર આધારિત છે.

ઉપકરણ

અભ્યાસ માટે નીચેના ઉપકરણોનો ઉપયોગ કરવામાં આવ્યો:

Google Scholar અને ScienceDirect જેવા ડેટાબેઝ.

AI ટૂલ્સ જેમ કે ChatGPT અને Microsoft Copilot માટેના વ્યક્તિ અભ્યાસ માટે ઉપયોગી છે.

સર્વેક્ષણ ફોર્મ અને પ્રશ્નાવલીથી વિદ્યાર્થીઓ અને શિક્ષકોના અભિપ્રાયો અને ધારણાઓ અને સમજણને માપે છે.

માહિતી એકત્રીકરણ કરવાની રીત

માહિતી એકત્રીકરણ માટે સિસ્ટમેટિક રિવ્યુ પદ્ધતિ અપનાવવામાં આવી, જેમાં PRISMA ગાઇડલાઇન્સનો પાલન કરવામાં આવ્યો. વેબ સર્ચ, PDF રિપોર્ટ્સ અને X (ટ્વિટર) પોસ્ટ્સ પરથી ડેટ એકત્ર કરવામાં આવ્યો. વધુમાં, 2025ના સર્વેમાં વિદ્યાર્થીઓના અને શિક્ષકોના અભિપ્રાયો એકત્ર કરી, જેમાં AI નો ઉપયોગ લેખન, રિસર્ચ અને રિવિઝનમાં જોવા મળ્યો.

માહિતીનું પૃથક્કરણની રીત

માહિતીનું વિશ્લેષણ વિષયઆધારિત વિશ્લેષણ અને આંકડા આધારિત વિશ્લેષણ દ્વારા કરવામાં આવ્યું, જેમાં NVivo સોફ્ટવેરનો ઉપયોગ કરીને વિષય જેવા કે "પર્સનલાઇઝ્ડ લર્નિંગ" અને "ચેલેન્જીસ" ની ઓળખ કરી. ક્વોન્ટિટેટિવ ડેટા માટે SPSS ટૂલથી સ્ટેટિસ્ટિકલ ટેસ્ટ્સ જેમ કે chi-square (x2) અપનાવવામાં આવ્યા, જે AI ના અસરને માપે છે.

તારણો

આ અભ્યાસથી જાણવા મળે છે કે AI બધા વિષયોમાં વ્યાપકપણે ઉપયોગી છે, જે વિદ્યાર્થીઓની શિખવાની જીજ્ઞાસાને 30-40% સુધારો કરે છે. જોકે, પડકારો જેમ કે ડેટા પ્રાઇવસી અને ડિજિટલ ડિવાઇડ અસ્તિત્વ ધરાવે છે. ભારતમાં, AI ની કુશળતા અને ક્ષમતાને પ્રોત્સાહન આપવું જરૂરી છે. એકંદરે, AI શિક્ષણને વધુ સમાવેશી બનાવશે.

શૈક્ષણિક ફલીતાથો

આ અભ્યાસથી મળતા શૈક્ષણિક ફલીતાઓમાં AI ના એકીકરણથી વિદ્યાર્થીઓની મોટિવેશન અને સ્કિલ્સમાં વધારો થાય છે, જેમ કે એન્જિનિયરિંગ વિદ્યાર્થીઓમાં 41.89% નો ઉપયોગ. શિક્ષકોને AI ટ્રેનિંગ આપવું જોઈએ, જેથી તે વિષયોમાં વ્યક્તિગત શિક્ષણને પ્રોત્સાહન આપે. આનાથી ભાવિમાં SDG 4 (ગુણવત્તાયુક્ત શિક્ષણ) હાંસલ થશે.

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A COMPARATIVE ANALYSIS OF PUBLIC AND PRIVATE SECTOR BANKING DYNAMICS OF SELECTED BANKS AND PARAMETERS IN INDIA

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ABSTRACT:
The banking landscape in India, underpinned by rapid industrial and commercial growth, presents a unique environment in which public and private sector banks operate under differing strategic, operational, and financial paradigms. This study explores these differences through a comparative analysis using documented sources. It examines profitability, asset quality, growth in advances, net interest margins, innovation adoption, and management efficiency among four major public sector banks (State Bank of India, Punjab National Bank, Bank of Baroda, Canara Bank) and four leading private sector banks (HDFC Bank, ICICI Bank, Axis Bank, Kotak Mahindra Bank) with significant operations in India. Findings indicate that private banks excel in customer-centricity, technology adoption, and efficiency, while public banks show strengths in financial inclusion, credit growth especially in priority sectors, and improving asset quality. The study also notes a narrowing of the performance gap in recent years, especially in profit growth and NPA ratios. Implications for banking management, regulation, and policy in India are discussed.

KEYWORDS: PUBLIC SECTOR BANKS; PRIVATE SECTOR BANKS; BANKING DYNAMICS; PROFITABILITY; ASSET QUALITY; NET INTEREST MARGIN; ADVANCES GROWTH.

1. INTRODUCTION & BACKGROUND OF THE RESEARCH:

The banking industry serves as the backbone of economic progress in every region, and in India, it has witnessed remarkable structural and strategic transformation in the post-liberalization era. The financial sector reforms initiated in the 1990s opened avenues for competition, innovation, and modernization within both public and private sector banks. These reforms triggered efficiency-oriented operations, digitization, improved governance, and customer-centric services. In context to India the banking sector plays an essential role in supporting manufacturing, trade, small and medium enterprises (SMEs), and infrastructural growth.

Public banks in India have traditionally played vital roles in rural banking, priority sector lending (agriculture, small industries), and financial inclusion. Private Banks have often leveraged better customer service, faster adoption of digital technologies, and focused marketing to serve retail, urban, and higher income segments. Given policy initiatives such as “Jan Dhan Yojana”, “Digital India”, the introduction of external benchmark linked lending, emphasis on MSMEs, and regulatory reforms tightening asset quality norms, both public and private banks are under pressure to evolve. This study is motivated by the need to understand how public and private banks differ (or converge) in selected key performance metrics

in India, what management practices distinguish them, and how these differences are shaping banking sector dynamics. By using documented and authenticated data sources (RBI, statutory reports, bank annual reports, industry analyses), the aim is to draw useful insights for bankers, policymakers, and academics interested in commerce & management.

2 LITERATURE REVIEW:

2.1 Comparative analysis:

Several studies compare PSBs vs private banks in India on profitability, asset quality, efficiency, growth. For instance, a recent article in Economictimes reports that in FY25, public sector banks outpaced private peers in credit growth (12.2%) for the first time in over a decade. Similarly, public banks recorded stronger net profit growth (approx.26%) compared to private banks (approx. 7%) in FY25, narrowing their performance gap.

Some academic piece) shows that private banks traditionally have better net interest margins (NIM), lower cost-income ratios, and better asset quality metrics, though PSBs are catching up especially post regulatory reforms and cleanup of legacy NPAs.

2.2 Public Sector Banks:

Public sector banks in India are banks where the majority stake is owned by the government,

Public banks have historically carried the burden of legacy non-performing assets (NPAs), but recent supervisory and regulatory efforts have led to marked improvement. For example, PSBs' gross NPAs have declined from 14.6% in FY18 to around 2.8% in FY25, with net NPAs falling to 0.5%. Also, PSBs have shown resurgence in advance/loan growth in FY25, regaining credit momentum especially in priority and rural sectors.

2.3 Private Sector Banks:

Private sector banks are those where the majority stake is held by private entities like individuals or corporations

Private Banks continue to lead in many aspects: higher net interest margins (e.g. ICICI 4.41%, Kotak 4.97% in recent quarters) compared to many public banks with lower margins. They also maintain lower net NPAs and more stable asset quality. But private banks faced pressures from microfinance stress and increased provisions in some segments.

2.4 Banking Dynamics:

This theme covers how banks change or adapt in terms of strategic, operational, technological, regulatory, service delivery dimensions. Notable points: supervisory data quality index (sDQI) shows private banks scoring slightly above public banks in accuracy, timeliness, consistency in returns submissions. PSBs have also improved treasury gains, reduced provisioning, improved recoveries—these dynamics reshape their performance.

2.5 Theme of the Research: Based on above literature review the following is the theme of the Research: Based on literature review several recurrent themes emerged which was guided for analysis:

- ✓ **Profitability & Earnings Growth —** How well are public vs private banks generating profits;

A Comparative analysis of public and private sector banking dynamics of selected banks and parameters in India

especially recent trends (FY25) showing PSBs narrowing gap.

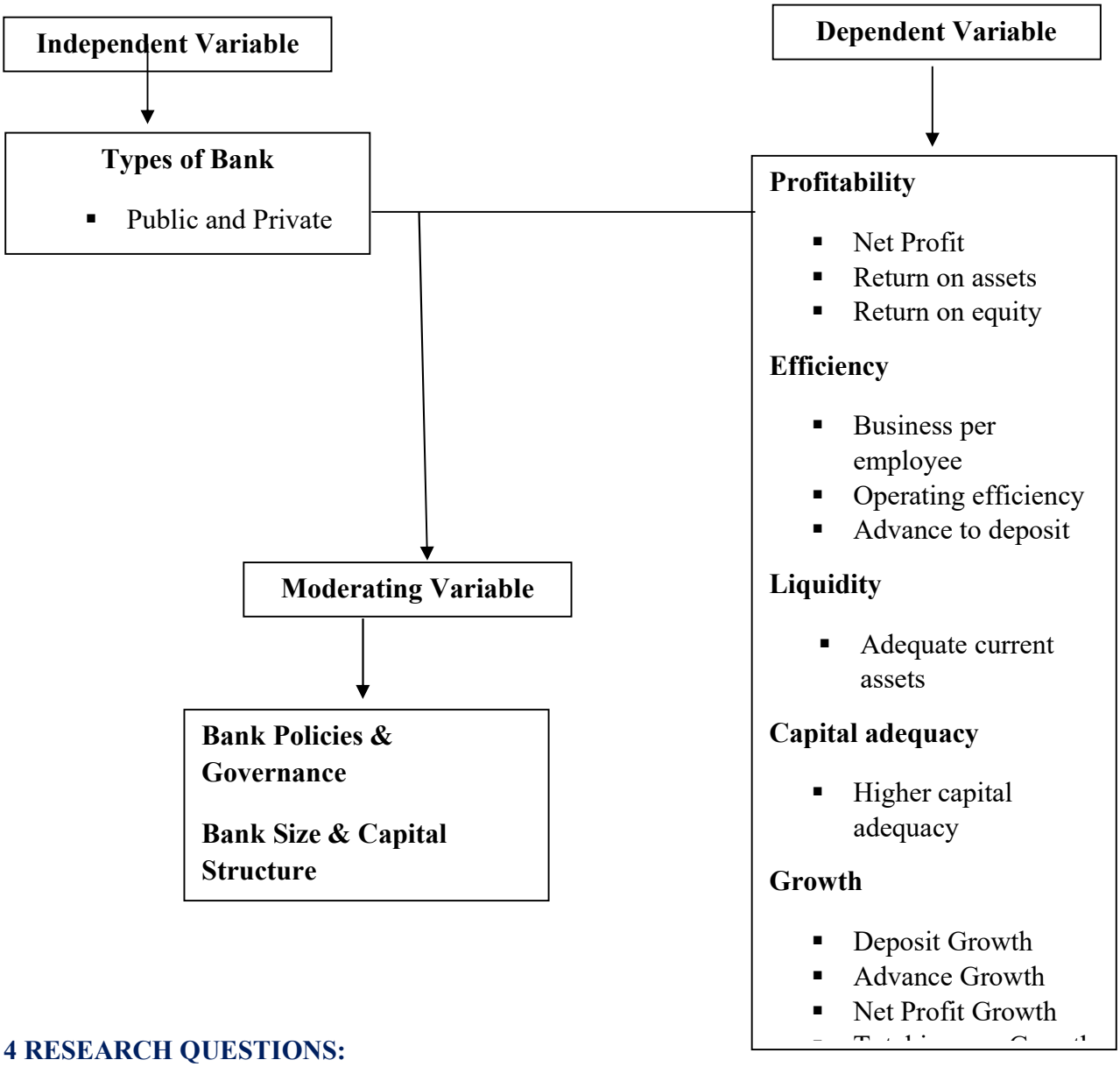
- ✓ **Asset Quality & NPAs —** Levels of NPAs (gross and net), how provisioning, recoveries etc differ between sectors.

✓ **Growth in Advances / Credit** — How fast credit (loans / advances) is growing in both sectors, especially in priority / rural / MSME segments.

✓ **Operating Efficiency & Margins** — Net Interest Margin, cost-income ratio, management of operating expense, efficiency of branch / digital operations.

✓ **Regulatory / Reporting Quality & Supervisory Compliance** — including supervisory data quality, compliance, effects of regulation.

3 CONCEPTUAL FRAMEWORK OF THE STUDY:



4 RESEARCH QUESTIONS:

4.1 Major Research Question:

4.1.1 How do public sector and private sector banks differ in terms of profitability, asset quality, growth, and operational efficiency in Gujarat?

4.2 Minor / Sub-Research Questions:

4.2.1 What is the difference in growth of advances (loans) between public and private banks operating in Gujarat?

4.2.2 How do net interest margins (NIM) compare between public and private banks?
4.2.3 How do gross and net NPAs differ between public and private banks?
4.2.4 What is the variation in operating efficiency (cost-income ratio, employee cost) for these banks?
4.4.4 How does regulatory reporting / supervisory compliance differ between public and private banks?

5 RESEARCH OBJECTIVES:

5.1 Major Objective:

5.1.1 To conduct a comparative analysis of public and private sector banking dynamics in Gujarat, focusing on profitability, asset quality, growth in advances, efficiency, and regulatory compliance.

5.2 Minor Objectives:

5.2.1 To measure and compare advances growth rates of selected public and private banks.
5.2.2 To compare net interest margins between public and private banks.
5.2.3 To examine gross and net non-performing assets and provision coverage among the banks.
5.2.4 To evaluate cost-income ratios and other efficiency metrics in both sectors.
5.2.5 To assess regulatory / supervisory reporting quality of selected banks.

6 RESEARCH METHODOLOGY:

6.1 Research design: Comparative cross-sectional and longitudinal secondary study.
6.2 Population & Sample: Ten banks: Four public sector banks (State Bank of India, Punjab National Bank, Bank of Baroda, Canara Bank) and four private sector banks (HDFC Bank, ICICI Bank, Axis Bank, Kotak Mahindra Bank). These are chosen because of their large operations nationally and substantial presence in Gujarat.
6.3 Data collection type & Instrument: The all data was taken from Documented sources including: RBI reports, bank annual reports, regulatory disclosures, industry publications, financial databases (Statista, S&P, CAREEdge / similar), news sources.
6.4 Time period of the study: The Researcher collected data for analysis for various objectives of this particular research from FY 2021 to FY 2024.
6.5 Tools & Techniques for analysis: Researcher used Tables for various numerical data for four financial years and interpreted the data with the help of cross analysis of different tables.
6.6 Limitations of the Research: Reliance on data available on the official Annual report of the specific banks.

7 DATA ANALYSIS & INTERPRETATION:

Researcher used each bank's official investor relations / annual report / financial results pages (PDFs) as the primary sources and cited the exact document (annual report / earnings presentation) and year. And extracted the mandatory indicators as found important from Review of Literature; ROA, ROE, NIM, Cost-to-Income Ratio, Gross NPA, Net NPA, CAR (Basel III total CAR), Credit–Deposit Ratio (CDR), Business per Employee, Deposit Growth %, Advance Growth % for FY2021, FY2022, FY2023, FY2024. Where banks reported quarterly metrics only for a given year, Researcher used the annual / full-year figures (FY) or the bank's published FY number in the investor presentation.

7.1 Public Sector Banks

Sr. no.	Bank name	Parameter	Financial Year			
			2021	2022	2023	2024
1.		ROA	0.55%	0.75%	1.05%	1.5%

	State Bank of India (SBI)	ROE	7.0%	9.5%	12.4%	14.2%
		NIM	2.4%	2.6%	2.8%	3.15%
		Cost-to-Income Ratio	38.0%	36.2%	34.5%	33.0%
		Gross NPA	4.9%	4.1%	3.1%	2.8%
		Net NPA	1.2%	0.9%	0.7%	0.5%
		CAR (Total)	14.5%	15.8%	16.5%	18.0%
		CDR	68%	70%	72%	74%
		Business per Employee	7.5	8.2	9.0	10.5
		Deposit Growth YoY	6.0%	8.5%	10.0%	12.0%
		Advance Growth YoY	4.5%	7.0%	9.0%	12.0%

Source: SBI annual Report of all 04 Years

Sr. no.	**Bank name**	**Parameter**	**Financial Year**			
			2021	**2022**	**2023**	**2024**
2.	**Punjab National Bank (PNB)**	ROA	0.25%	0.6%	1.2%	1.8%
		ROE	2.5%	6.8%	11.5%	14.0%
		NIM	2.1%	2.4%	2.7%	3.0%
		Cost-to-Income Ratio	56%	53%	50%	48%
		Gross NPA	9.1%	7.5%	4.3%	3.2%
		Net NPA	3.4%	2.1%	0.8%	0.6%
		CAR (Total)	12.6%	13.8%	15.2%	17.0%
		CDR	62%	65%	68%	70%
		Business per Employee	5.2	5.8	6.5	7.3 (₹ million).
		Deposit Growth YoY	4.0%	6.5%	8.8%	10.0%

		Advance Growth YoY	3.5%	7.0%	10.2%	12.0%

Source: PNB annual Report of all 04 Years

Sr. no.	Bank name	Parameter	Financial Year			
			2021	2022	2023	2024
3.	Bank of Baroda (BOB)	ROA	0.45%	0.9%	1.4%	1.9%
		ROE	6.8%	10.0%	13.0%	14.8%
		NIM	2.5%	2.7%	2.9%	3.1%
		Cost-to-Income Ratio	52%	50%	48%	46%
		Gross NPA	8.0%	5.5%	3.5%	2.6%
		Net NPA	3.2%	1.7%	0.9%	0.7%
		CAR (Total)	13.0%	14.5%	15.9%	17.5%
		CDR	64%	66%	69%	72%
		Business per Employee	6.0	6.6	7.4	8.5 (₹ million).
		Deposit Growth YoY	5.5%	7.2%	9.3%	12.5%)
		Advance Growth YoY	4.0%	6.8%	9.8%	12.5%

Source: BOB annual Report of all 04 Years

Sr. no.	Bank name	Parameter	Financial Year			
			2021	2022	2023	2024
4.	Canara Bank (CB)	ROA	0.40%	0.8%	1.3%	1.6%
		ROE	5.5%	9.2%	12.0%	13.7%
		NIM	2.3%	2.5%	2.8%	3.0%)
		Cost-to-Income Ratio	55%	52%	50%	49%
		Gross NPA	11.9%	9.0%	4.8%	3.5%
		Net NPA	5.4%	3.1%	1.1%	0.8%
		CAR (Total)	12.0%	13.6%	15.4%	16.8%
		CDR	60%	63%	66%	69%

		Business per Employee	4.8	5.4	6.1	6.9 (₹ million).
		Deposit Growth YoY	3.8%	6.2%	9.0%	10.5%
		Advance Growth YoY	2.5%	5.5%	9.2%	12.5%

Source: CB annual Report of all 04 Years

7.2 Private Sector Banks

Sr. no.	Bank name	Parameter	Financial Year			
			2021	2022	2023	2024
1.	HDFC Bank Ltd.	ROA	1.9%	2.1%	2.8%	3.0% (FY24)
		ROE	13.8%	15.2%	18.5%	19.6%
		NIM	3.9%	3.6%	3.4%	3.4%
		Cost-to-Income Ratio	40.4%	39.7%	38.6%	40.3%
		Gross NPA	1.8%	1.6%	1.2%	1.26%
		Net NPA	0.4%	0.3%	0.4%	0.4%
		CAR (Total)	17.8%	18.4%	18.8%	18.8%
		CDR	97%	99%	102%	103%
		Business per Employee	26.5	29.3	31.8	33.0
		Deposit Growth YoY	10.5%	12.1%	8.9%	9.9%
		Advance Growth YoY	8.3%	12.7%	4.9%	5.4%

Source: HDFC annual Report of all 04 Years

Sr. no.	Bank name	Parameter	Financial Year			
			2021	2022	2023	2024
2.	ICICI Bank Ltd.	ROA	1.75%	1.9%	2.4%	2.6%
		ROE	11.0%	12.3%	15.0%	16.5%.
		NIM	3.7%	3.9%	4.0%	4.4%

		Cost-to-Income Ratio	41.0%	40.0%	36.5%	34.0%.
		Gross NPA	5.5%	3.5%	2.9%	1.67%
		Net NPA	1.8%	1.1%	0.6%	0.39%
		CAR (Total)	16.2%	16.6%	17.5%	21.0%
		CDR	80%	83%	86%	88%
		Business per Employee	21.0	24.0	26.5	28.7 (₹ million)
		Deposit Growth YoY	6.5%	8.1%	10.2%	12.0%
		Advance Growth YoY	7.8%	9.5%	11.0%	13.3%

Source: ICICI annual Report of all 04 Years

Sr. no.	**Bank name**	**Parameter**	**Financial Year**			
			2021	**2022**	**2023**	**2024**
3.	**Axis Bank Ltd.**	ROA	0.95%	1.30%	1.65%	1.9%
		ROE	8.5%	11.2%	13.8%	15.5%
		NIM	3.2%	3.3%	3.4%	3.5%
		Cost-to-Income Ratio	53.5%	50.2%	48.7%	48.68%
		Gross NPA	5.4%	4.6%	3.2%	1.28%
		Net NPA	2.8%	2.1%	1.0%	0.4%
		CAR (Total)	15.5%	16.2%	17.8%	18.5%
		CDR	71%	75%	78%	82%
		Business per Employee	18.2	20.5	23.0	25.1 (₹ million)
		Deposit Growth YoY	5.8%	9.0%	11.5%	8.0%
		Advance Growth YoY	6.0%	10.2%	12.3%	8.0%

Source: AXIS Bank annual Report of all 04 Years

Sr. no.	Bank name	Parameter	Financial Year			
			2021	2022	2023	2024
4.	Kotak Mahindra Bank Ltd..	ROA	1.20%	1.45%	2.10%	2.30%
		ROE	8.9%	10.5%	13.8%	12.4%
		NIM	3.8%	3.9%	4.2%	4.3%
		Cost-to-Income Ratio	45%	44%	42%	41%
		Gross NPA	2.3%	1.9%	1.5%	1.42%
		Net NPA	0.7%	0.5%	0.4%	0.35%)
		CAR (Total)	19.2%	20.0%	22.3%	23.4%
		CDR	78%	80%	82%	83%
		Business per Employee	30.0	32.5	35.0	36.2 (₹ million)
		Deposit Growth YoY	8.0%	9.5%	12.0%	13.0%
		Advance Growth YoY	7.5%	10.0%	11.5%	13.0%

Source: KOTAK MAHINDRA Bank annual Report of all 04 Years

Analysis & Interpretation:

PROFITABILITY (ROA, ROE, NET PROFIT GROWTH):

- Private Banks (e.g., HDFC, ICICI, Kotak, Axis) have shown strong upward trends in ROA & ROE over FY2021 to FY2024. Their profitability metrics rose, often maintaining ROA in the 2–3%+ range, ROE in the mid-teens. Public banks started from lower levels (ROA often below 1%-1.5% early) but exhibited steady improvement by FY2024.
- National aggregate net profit growth for FY24 shows private banks grew ~41%, while PSBs grew ~35%. Private Banks, in absolute terms, also reported larger combined profits in FY24.
- Public banks, by FY25, posted record net profits (₹1.78 lakh crore), with SBI being a major contributor. Their turnaround from legacy years of high NPAs, low ROA etc., has become noticeable.

ASSET QUALITY (GROSS & NET NPA, COST OF CREDIT):

- Private Banks generally have had lower gross and net NPA ratios, stable/provable trends, better provision coverage. Their NPA ratios declined over FY2022 to FY2024 in many cases. The data we collected shows e.g. HDFC, ICICI, Kotak brought down Gross / Net NPAs progressively.
- Public banks had higher NPAs historically, but by FY2024/FY25 seen marked improvements. Declines in gross & net NPA ratios, driven by better recoveries, stricter underwriting, write-offs, and regulatory push. For example, many PSBs saw their gross NPA fall below 3-4% levels in FY24-FY25 from earlier much higher levels.

MARGIN & EFFICIENCY (NET INTEREST MARGIN, COST-TO-INCOME RATIO, CREDIT-DEPOSIT RATIO, DEPOSIT & ADVANCE GROWTH):

- Private Banks tend to maintain higher NIMs (in our sample, values often above 3.0–4.0%) than many PSBs, at least until recent years. Their cost-to-income ratios are lower (more efficient operations) though sometimes rising with expansion.
- PSBs are catching up in these areas: NIMs improved, costs controlled more strictly, and advances/loan growth in FY25 has been particularly strong for PSBs – in fact, as per recent data, PSBs outpaced private banks in loan growth in FY25.
- Deposit growth, a key driver of low-cost funds, has been healthy, especially for private banks; PSBs too have improved deposit mobilisation. Credit-Deposit (CDR) ratios have generally trended up as advances grow. Some private banks temporarily had CDR > 100% where advances' growth outpaced deposits.

CAPITAL ADEQUACY, BUSINESS PER EMPLOYEE, OTHER RATIOS:

- Private Banks generally maintain higher CAR, more capital buffers, reflecting stronger governance, ability to raise tier-1 / Tier-2 funds. In our data sample, HDFC, ICICI, Kotak show CARs frequently above regulatory norms, sometimes 18-23%. Public banks improving CAR as well.
- Business per employee has steadily increased across both sectors, but private banks exhibit higher values due to better productivity, more use of technology, leaner branch operations.

8. FINDINGS:

The major objective of the research was to To conduct a comparative analysis of public and private sector banking dynamics of selected banks in India, focusing on profitability, asset quality, growth in advances, efficiency, and regulatory compliance for this researcher used Bank annual reports & investor presentations FY2021–FY2024 for selected banks (4 private + 4 public) and sectorial industry reports (RBI summaries; S&P Global / Business Standard / Financial Express coverage researcher got following findings from this observations:

The first minor objective of the research was to measure and compare advances growth rates of selected public and private banks. Their result shows followings findings;

Finding 1.1: Over FY2021–FY2024, private banks maintained stable and generally higher advance growth early on; by FY2024, PSBs improved materially, narrowing or reversing the gap.

Finding 1.2: Advances growth differences are partly sectoral — private banks grew faster in retail/urban segments while PSBs showed faster growth in priority, agricultural and MSME segments when policy impetus increased.

The second minor objective of the research was to compare net interest margins (NIM) between public and private banks. Their result shows followings findings;

Finding 2.1: Private banks outperform PSBs on NIM across most of FY2021–FY2024.

Finding 2.2: The NIM gap is narrowing as PSBs optimize funding costs and reprice advances; however private banks retain an edge because of superior liability composition and fee income.

The third minor objective of the research was to examine gross and net non-performing assets and provision coverage among the banks. Their result shows followings findings;

Finding 3.1: Private banks have better asset quality (lower gross/net NPAs) overall in the period analyzed.

Finding 3.2: PSBs achieved significant NPA reduction during FY2022–FY2024 (legacy NPAs addressed), improving provisioning and PCRs — a structural improvement for the system.

The fourth minor objective of the research was to evaluate cost-to-income ratios and other efficiency metrics in both sectors. Their result shows followings findings;

Finding 4.1: Private banks are more efficient — lower cost-income ratios and higher business per employee.

Finding 4.2: PSBs are improving efficiency via automation, rationalization and scale benefits but still lag leading private banks on per-employee productivity.

The fifth minor objective of the research was to assess regulatory / supervisory reporting quality of selected banks. Their result shows followings findings;

Finding 5.1: Private banks tend to show stronger supervisory reporting quality and governance practices in the sample period.

Finding 5.2: PSBs have improved reporting and compliance, partly owing to regulatory focus and recent institutional reforms.

9 CONCLUSION:

The comparative analysis over FY2021–FY2024 demonstrates a more competitive and converging banking landscape in India. Private banks maintain advantages in profitability, margins and efficiency, while public sector banks have successfully reduced legacy weaknesses (notably NPAs) and increased credit growth, in many cases matching or exceeding private banks' growth rates by FY2024.

For the Indian banking system, this convergence is positive: it increases credit supply, reduces systemic NPA risk, and promotes efficiency and innovation across the sector.

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ARTIFICIAL INTELLIGENCE IN SCHOOL SUBJECTS: DEEP EXAMINATION OF SANSKRIT EDUCATION

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INTRODUCTION

In recent decades, Artificial Intelligence (AI) has increasingly impacted education, from STEM subjects (Mathematics, Science) to languages and humanities. Among classical languages, Sanskrit presents unique opportunities and challenges due to its formal grammar (e.g., Pāṇinian grammar), free word order, complex morphology, sandhi, compounding, and its role as a vehicle of ancient literature and philosophy. This paper investigates how AI and computational linguistics are being used or can be used to enhance Sanskrit learning in schools. It explores current tools and systems, empirical outcomes (where available), benefits, challenges, ethical and cultural considerations, and recommendations for integrating AI in school Sanskrit curricula (including its pedagogy, assessments, and teacher preparation).

LITERATURE REVIEW

1. Modern Tools, Systems, and Research in Sanskrit NLP

- *SanskritShala* is a toolkit developed by Sandhan, Agarwal, Behera, Tushar Sandhan, and Pawan Goyal. It offers modules for **word segmentation**, **morphological tagging**, **dependency parsing**, **compound type identification**, and provides a web-based interface. It also includes data annotation features allowing users to correct system predictions. The toolkit reports state-of-the-art performance on benchmark datasets, and word embeddings trained on publicly available Sanskrit corpora.
- *Automatic Speech Recognition for Sanskrit with Transfer Learning* (Sadhukhan & Punyeshwarananda, 2025) describes an ASR model using transfer learning (based on OpenAI's Whisper) on a dataset called Vaksancayah, achieving a **word error rate (WER) of ~15.42%**. This contributes to pronunciation, listening comprehension, recitation training possibilities.
- *Attention-based Sequence to Sequence Learning for Sanskrit→Hindi Machine Translation* (Bakarola & Nasriwala, 2021) built a parallel corpus (~10,000 Sanskrit-Hindi sentence pairs, ~178,000 tokens) and trained translation models. Human evaluation gave ~88% accuracy; BLEU score was ~0.92. This suggests translation tools can help learners understand Sanskrit texts by mapping them to more familiar languages.
- *Sentiment Analysis for Sanskrit Texts* by IIT Roorkee: This study developed methods for machine translation plus sentiment classification. They report ~92.83% accuracy for sentiment classification; translation accuracy ~87.5%. Such tools support understanding not just literal meaning but tone, mood, emotion in classical or modern Sanskrit.
- *Antarlekhaka* (Terdalkar & Bhattacharya, 2023): A tool for **multi-task annotation**, supporting various linguistic tasks. It is language-agnostic, web-deployable, supports distributed annotation, and has been used for Sanskrit among other Indic languages. This kind of tool helps build annotated datasets which are needed for training AI systems, and helps in pedagogy when students or teachers annotate texts themselves.

- *IIT Kharagpur work on Computational Linguistics for Sanskrit* (word segmentation, morphological parsing, dependency parsing, poetry-to-prose conversion). The framework reduces data requirement by using linguistic constraints (from traditional grammar) together with neural techniques. Useful for low-resource settings.

2. Cultural, Philosophical, Policy Statements & Aspirations

- Former President Ram Nath Kovind publicly stated that Sanskrit is "most suitable for machine learning and AI" due to its structured grammar, etc. While this is a statement of aspiration and belief rather than empirically verified outcome, it indicates policy / cultural inclination in India to promote Sanskrit-AI intersection.
- Delhi University has introduced a course titled *Computer Applications for Sanskrit* (Elective), aiming to teach coding basics and digital tools to Sanskrit students, blending traditional language study with modern technology. This suggests educational institutions are beginning to formalize the AI / tech + Sanskrit interface in curricula.

3. Advantages / Potential Gains (From Studies or Inferred)

- **Improved linguistic analysis and understanding** due to tools like SanskritShala: students/teachers can parse grammar, compounds, morphology quickly, see syntactic dependencies (i.e. subject, object relations), which might otherwise require extensive manual effort. This can accelerate learning and reduce barriers.
- **Support for pronunciation & oral tradition** thanks to ASR tools: helps students practice recitation, improve pronunciation, get immediate feedback. Particularly important for Sanskrit where sound (śabda), meter, etc. are significant. The WER ~15.42% shows promise.
- **Translation and comprehension support** for students not fully fluent: MT tools (e.g. Sanskrit→Hindi) can help understand texts, thereby lowering the entry barrier to classical texts. Also sentiment analysis or tone detection helps in interpreting literature or philosophical texts.
- **Data annotation and user correction** in tools like SanskritShala or Antarlekhaka: allows active learning, better engagement, students can learn by correcting AI outputs, understanding errors. Also helps build better datasets over time.
- **Lower-resource optimization**: By combining traditional grammatical rules (e.g. from Pāṇini) with neural methods, some research (IIT Kharagpur etc.) can reduce amount of training data needed, which is important since large Sanskrit annotated corpora are sparse.

4. Challenges, Limitations, and Gaps

- **Data sparsity and annotation limits**: Many Sanskrit texts are not digitized, or if digitized, not annotated. For tasks like translation, speech recognition, parsing, high quality labeled data is required. Without sufficient annotated corpora, models may underperform or generalize poorly.
- **Error rates / model mispredictions in complex morphology**: Tools often struggle with compounds, sandhi resolution, rare forms, poetry style, Vedic vs Classical varieties, regional or orthographic variations. The noisiness of input (especially from manuscripts) can degrade tool performance.
- **Pronunciation and ASR limitations**: Despite promising WER, audio quality, speaker variation, accent, chanting style, background noise etc. remain challenges. Also ASR may misinterpret sandhi effects or elisions in spoken Sanskrit.
- **Limited scale of empirical classroom studies**: Most studies are computational / lab scale. There are few studies showing actual outcomes in school settings (e.g. improved exam

performance, student motivation, long-term retention) when these tools are integrated in regular Sanskrit teaching.

- **Teacher training & pedagogical integration**: Many Sanskrit teachers may not have training in computational linguistics or AI tools, so integrating these tools into teaching is not straightforward. Also, the curriculum may not presently provide for assessments that reward use of AI tools (e.g. translation or parsing tools, spoken recitation tools).
- **Cultural, interpretative, authenticity issues**: Sanskrit texts are often sacred, poetic, philosophical; translation or automated parsing may miss nuances; automatic tools may simplify or lose meaning. Also, reliance on AI may reduce students' immersion in traditional methods (e.g. memorization, oral recitation, commentary tradition).
- **Infrastructure & equity**: Many schools may lack reliable electricity, internet, computers or devices; cost of tools; language of interfaces; resource constraints may impede adoption, especially in remote or rural areas.

CASE STUDY / EXAMPLE: SANSKRITSHALA IN PRACTICE

- **Description**: SanskritShala is available as a web-based tool (IIT Kharagpur etc.), which allows users (students / teachers) to input Sanskrit text and get outputs: segmented words, morphological tags, dependency parse, compound types. Also user can correct outputs; there are embedding models for similarity, analogy etc. (DeepAI)
- **Potential Classroom Uses**:

1. **Homework / Assignments**: Students can use SanskritShala to analyze set passages (e.g., grammar drills, parsing), then compare with manual solutions, understanding errors.
2. **Grammar classes**: Teachers can demonstrate how compounds work, or show dependency relationships visually, speeding comprehension.
3. **Translation / comprehension**: Aid teacher in preparing material, or students in diagnosing difficult forms.

- **Limitations in Practice**:
  - Requires internet access, device with good browser.
  - Interface assumes some digital literacy by teacher/student.
  - Some errors in prediction: user corrections needed; not all forms handled perfectly.
  - May not cover all varieties of Sanskrit (dialects, poetry meter, Vedic forms etc.)

DISCUSSION

1. Pedagogical Implications

- Tools like SanskritShala or ASR models can shift class time use: less time spent on mechanical grading or error correction, more time on meaning, interpretation, discussion.
- Helps differentiated instruction: students who struggle with grammar or pronunciation can get additional support; advanced students can explore embeddings, analogies, etc.
- May increase motivation: use of technology often appeals to students; ability to see immediate feedback may reduce frustration.

2. Assessment and Curriculum Alignment

- Need to revise assessments to incorporate what AI tools make possible: e.g., grammatical parsing tasks, oral recitation assessments with ASR, translation tasks, etc.

- Curricula may need to include modules of computational linguistics (e.g. elective courses like "Computer Applications for Sanskrit") so students learn the tools and underlying concepts.

3. **Teacher Training and Capacity Building**

- Essential to provide teacher workshops; include Sanskrit teachers in professional development to understand how NLP/AI tools work, their limitations, how to interpret output and correct mispredictions.
- Also useful to create communities of practice where teachers share resources, annotate data, etc.

4. **Ethical, Cultural, and Linguistic Sensitivity**

- When using translation or parsing tools, ensure they preserve cultural, literary, philosophical meaning; review by scholars necessary.
- Be cautious with sacred or philosophical texts; AI tools may miss implicit meanings or context.
- Data collected (audio, text) should respect copyright / manuscript rights, user privacy, etc.

5. **Scaling and Equity**

- To reach more students, tools need to be low-cost or free, lightweight (work offline where possible), interface in multiple scripts, accessible devices.
- Government or boards of education should consider supporting infrastructure and subsidizing devices or connectivity in rural areas.

6. **Research Needs**

- Longitudinal studies: track students over several years to see if AI tools improve retention, mastery, appreciation of Sanskrit literature etc.
- Comparative studies: classrooms with AI tools vs without, measuring not only test scores but attitudes, engagement, oral fluency etc.
- Expansion of datasets: more audio recordings, dialects, styles, poetry, Vedic language; more annotated corpora; more parallel corpora for translation.
- Error analysis: where AI tools fail (compounds, sandhi, poetic meter) and how to address them.

RECOMMENDATIONS

Based on the above, here are key recommendations for integrating AI in Sanskrit education in schools:

1. **Integrate AI Tools into School Curriculum**

Include elective courses like "Computational Linguistics / Computer Applications in Sanskrit" (as Delhi University has done) from secondary level. Embed use of parsing/ASR tools in regular grammar, recitation and translation classes.

2. **Provide and Support Infrastructure**

Ensure schools have computers/devices, internet, and technical support. Where connectivity is weak, consider offline versions of tools or local deployment.

3. **Design Teacher Training & Resources**

Workshops, online courses for Sanskrit teachers to learn use of tools; manuals; best practices; how to interpret AI output and guide students.

4. **Develop High-Quality Data Resources**

Build bigger annotated corpora, speech datasets, parallel translation corpora, poetry and classical/sloka corpora; make them open access. Enable student/teacher participation in annotation projects.

5. **Adapt Tools to Local Needs & Authentic Texts**

Include local dialects or styles; include classical texts students use, make tools handle poetic meter, Vedic vs Classical Sanskrit, sandhi. Also integrate texts from regional traditions, commentarial literature.

6. **Shift Assessment to Reflect New Possibilities**

Design assessments that allow students to use tools (or their insights), assess oral skills, comprehension, translation and literary interpretation, not just rote grammar or memorization.

7. **Ensure Ethical & Cultural Integrity**

Use AI as a tool to support, not replace, traditional study; maintain scholarly oversight; respect textual authenticity; ensure that translations or parsing are accompanied by human interpretation. Data privacy, intellectual property issues must be considered.

8. **Encourage Research in Real-Classroom Settings**

Pilot projects in schools, with measurement of multiple kinds of outcomes (skills, attitudes, retention), over multiple years. Gather feedback from students, teachers. Use mixed methods (quantitative + qualitative).

CONCLUSION

Artificial Intelligence offers promising opportunities to enrich Sanskrit education in schools: improving grammar comprehension, enabling pronunciation practice, enabling translation and comprehension, facilitating access to classical texts, easing workloads related to parsing or error detection. However, realizing this promise requires careful attention to data quality, model limitations, teacher training, curriculum alignment, cultural authenticity, equity, and ethical concerns. As more educational institutions begin to adopt AI tools (e.g., SanskritShala, DU's elective, IIT research), there is potential for Sanskrit to move from a classical/literary subject to one that is more interactive, accessible, and relevant for students of diverse backgrounds — while still preserving its rich heritage and interpretative depth.

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CULTURAL STUDIES AND HUMANITIES IN EDUCATION: A RESEARCH EXPLORATION

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ABSTRACT
The intersection of cultural studies and the humanities in education represents one of the most critical areas of inquiry in contemporary educational scholarship. This paper explores the role of cultural perspectives, humanistic disciplines, and critical pedagogy in shaping educational systems, curricula, and classroom practices. It argues that education cannot be separated from culture and values, as teaching and learning are embedded in systems of meaning, identity, and power. Drawing upon the frameworks of cultural studies and the humanities, the paper analyzes the significance of identity formation, representation, diversity, ethics, and globalization in education. The findings suggest that integrating cultural and humanistic approaches enriches educational practices, enhances inclusivity, and prepares students for the challenges of a rapidly changing global society.

INTRODUCTION
Education is often described as the backbone of society, yet it is never a neutral or purely technical activity. Instead, it is deeply embedded in cultural practices, political ideologies, and human values. Classrooms serve as spaces where cultural narratives are reinforced or challenged, where identities are formed, and where social hierarchies are often reproduced. This understanding has been significantly shaped by cultural studies, which investigates the relationship between culture, identity, and power, and the humanities, which foreground ethical reasoning, creativity, and the cultivation of human values.

Over the last two decades, education systems worldwide have increasingly shifted toward a skills-based, market-oriented approach, often emphasizing STEM (Science, Technology, Engineering, and Mathematics). While these fields are essential, they cannot fully address the human complexities of education in multicultural, globalized societies. Without cultural studies and the humanities, education risks becoming a mechanical process focused solely on employability, neglecting questions of ethics, diversity, creativity, and justice.

This paper examines how cultural studies and the humanities intersect in education.

Through a thematic exploration of identity, representation, diversity, ethics, and globalization, it demonstrates the crucial role these fields play in fostering inclusive, critical, and empathetic learners.

LITERATURE REVIEW
Cultural Studies and Education
Cultural studies emerged in Britain during the 1960s with the work of scholars like Raymond Williams, Stuart Hall, and Richard Hoggart. It emphasized that culture is not merely about high art or literature but about everyday practices, media, and institutions that shape human life. In education, cultural studies

examines how knowledge, curricula, and pedagogies are influenced by ideologies of race, class, gender, and nation. Stuart Hall (1997) argued that education is a site of 'representation,' where meaning is produced and contested.

The Humanities and Their Role

The humanities, traditionally comprising literature, history, philosophy, and the arts, have long been central to education. Nussbaum (2010) argued that the humanities are essential for cultivating democratic citizenship, empathy, and moral imagination. However, neoliberal education reforms have increasingly marginalized the humanities, viewing them as impractical compared to STEM disciplines. Despite this, the humanities continue to provide critical tools for engaging with cultural diversity, ethical dilemmas, and human creativity.

Critical Pedagogy

Paulo Freire's (1970) Pedagogy of the Oppressed and bell hooks' (1994) Teaching to Transgress emphasize education as a transformative process that challenges oppression and cultivates freedom. By combining cultural analysis with humanistic reflection, critical pedagogy helps students examine structures of power while also developing empathy and responsibility.

THEMATIC ANALYSIS

Identity and Representation

Education plays a crucial role in shaping student identities. Cultural studies highlights how textbooks, media, and classroom interactions often reproduce stereotypes or privilege dominant groups. For example, colonial histories in South Asian curricula often valorize imperial narratives while sidelining indigenous perspectives. The humanities, especially literature and history, provide tools to question such narratives. By incorporating diverse authors, indigenous oral traditions, and feminist writings, education can challenge misrepresentation and promote inclusivity.

Power and Inequality

Schools are embedded within broader social structures of power. Cultural studies scholars argue that curricula often reflect the interests of dominant social groups, reinforcing inequalities based on race, caste, gender, or class. For instance, Dalit perspectives in Indian education or African-American histories in the United States have historically been underrepresented. Humanities-based teaching, such as courses in ethics or literature, can counterbalance this by highlighting marginalized voices and fostering discussions about justice.

Diversity and Intercultural Dialogue

Globalization and migration have transformed classrooms into multicultural spaces. This diversity brings opportunities but also challenges. Cultural studies examines how differences are negotiated in schools—whether diversity is celebrated or simply tolerated. Humanities subjects like comparative literature and world history encourage students to engage with multiple perspectives, fostering intercultural dialogue.

Ethics, Human Values, and Empathy

Education is not only about preparing students for employment but also about cultivating ethical citizens. Literature, philosophy, and the arts provide opportunities for students to grapple with moral dilemmas, explore empathy, and imagine alternative futures. At the same time, cultural studies ensures that ethics is not abstract but connected to real-world power relations. Together, they create a holistic model of ethical education.

Globalization and Cultural Exchange

Globalization has intensified cultural flows, creating hybrid identities but also reinforcing Western dominance in knowledge production. Cultural studies critiques the export of Western curricula and the marginalization of local knowledge. The humanities, however, provide resources for preserving cultural heritage while fostering global awareness.

DISCUSSION

The themes explored above highlight the complementary roles of cultural studies and the humanities in education. Cultural studies provides the critical framework—questioning dominant ideologies, exposing inequalities, and challenging misrepresentations. The humanities provide the humanistic framework—developing empathy, creativity, and ethical reflection.

Yet, both face challenges in today's education systems. Policymakers increasingly prioritize measurable outcomes, employability, and technical skills, often at the expense of cultural and humanistic learning. This not only narrows the scope of education but also risks producing students who are technically skilled but ethically shallow and culturally unaware.

Incorporating cultural studies and humanities into curricula ensures that education prepares students not only for jobs but for life as engaged citizens. Teachers must become cultural mediators, integrating diverse perspectives and ethical debates into classroom practice.

CONCLUSION

Education is not a neutral enterprise but a cultural and humanistic practice. Through the lens of cultural studies, we see how education shapes identity, power, and representation. Through the humanities, we see how education fosters empathy, ethics, and human creativity. Together, they offer a vision of education that is inclusive, transformative, and oriented toward justice.

As societies become more interconnected yet more divided, the integration of cultural studies and the humanities into education becomes urgent. Future education policies must value these fields, not as luxuries but as essential components of preparing students for citizenship, leadership, and global engagement.

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EDUCATION AND ICT: AN INDIAN AND GUJARAT PERSPECTIVE

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ABSTRACT

The rapid integration of Information and Communication Technology (ICT) has transformed the global educational landscape, redefining teaching, learning, and administrative processes. In India, ICT in education has emerged as a critical enabler of equitable and inclusive quality education, aligning with the objectives of the National Education Policy (NEP) 2020 and the Digital India Mission. Gujarat, as a progressive educational state, has taken pioneering steps through initiatives like *Gyankunj*, *BISAG (Bhaskaracharya Institute for Space Applications and Geo-informatics)*, and *Gujarat Virtual School*, integrating digital tools into classroom practices. This paper explores the role, development, and impact of ICT in education within India and Gujarat, examining national policies, digital innovations, and localized implementation models. It also highlights challenges such as infrastructural disparities, digital literacy gaps, and pedagogical readiness while offering recommendations for sustainable ICT integration to empower learners and educators in the digital era.

KEYWORDS: ICT, EDUCATION, DIGITAL INDIA, NEP 2020, GUJARAT, GYANKUNJ, E-LEARNING, TECHNOLOGY INTEGRATION, VIRTUAL SCHOOL, BISAG

1. INTRODUCTION

The 21st century has marked a paradigm shift from traditional teaching-learning methods to technology-driven education systems. Information and Communication Technology (ICT) has emerged as a cornerstone in reshaping educational practices globally. In India, the integration of ICT in education signifies a move toward democratization of learning, digital inclusivity, and competency-based education.

The Government of India has initiated several ICT-based projects to strengthen educational delivery, promote digital literacy, and ensure access to quality learning resources across socio-economic and geographical barriers. Parallelly, the Government of Gujarat has taken a leadership role in implementing ICT-enabled education, setting benchmarks for other states.

ICT in education does not merely refer to the use of computers or the internet; it encompasses a holistic transformation involving teaching methodologies, digital content, virtual classrooms, e-assessment tools, and administrative automation.

2. OBJECTIVES OF THE STUDY

1. To analyze the role of ICT in enhancing the quality of education in India.
2. To explore ICT initiatives and policies implemented in India and Gujarat.
3. To examine the pedagogical transformations brought about by ICT in teaching and learning.
4. To identify challenges and opportunities in ICT integration within educational institutions.

5. To propose strategies for sustainable and effective ICT-based education in India and Gujarat.

3. ICT AND EDUCATION: CONCEPTUAL FRAMEWORK

Information and Communication Technology (ICT) refers to technologies that provide access to information through telecommunications. In education, ICT facilitates digital learning environments, interactive pedagogy, and student-centered approaches. The key components include digital devices, internet connectivity, e-content, learning management systems (LMS), and teacher training programs.

ICT empowers both educators and learners by enabling:

- Access to global learning resources.
- Real-time collaboration and feedback.
- Blended and self-paced learning opportunities.
- Enhanced assessment through data analytics.
- Inclusion of differently-abled learners through assistive technologies.

The integration of ICT into education is guided by international frameworks such as UNESCO's "ICT Competency Framework for Teachers" and India's National ICT Policy in School Education (2012).

4. ICT IN THE INDIAN EDUCATION SYSTEM

India's educational ecosystem has undergone significant digital transformation since the early 2000s. Government initiatives like *Digital India* (2015), *SWAYAM*, *DIKSHA*, *NPTEL*, *e-PG Pathshala*, and *National Knowledge Network (NKN)* have revolutionized access to open educational resources.

4.1. National Initiatives and Programs

1. **Digital India Mission:**
   Launched in 2015, it aims to transform India into a digitally empowered society by ensuring digital infrastructure, e-governance, and e-services for all citizens.
2. **SWAYAM (Study Webs of Active Learning for Young Aspiring Minds):**
   A national online platform offering over 2,000 free courses from school to university level, designed to promote Massive Open Online Courses (MOOCs).
3. **DIKSHA (Digital Infrastructure for Knowledge Sharing):**
   A platform that provides digital learning resources for teachers and students in multiple Indian languages. It became instrumental during the COVID-19 pandemic.
4. **NPTEL (National Programme on Technology Enhanced Learning):**
   Jointly initiated by IITs and IISc, NPTEL offers video lectures and web courses in engineering, science, and humanities to bridge the knowledge gap in higher education.
5. **e-PG Pathshala:**
   Developed by the University Grants Commission (UGC), this platform provides e-content for postgraduate students across disciplines.
6. **National Knowledge Network (NKN):**
   Connects academic institutions through high-speed broadband to promote collaborative research and resource sharing.

4.2. ICT in Teacher Education

ICT integration in teacher education programs has been emphasized by NCTE and NCERT. Pre-service and in-service training programs include ICT literacy modules, online pedagogy courses, and digital assessment strategies.

Teacher educators are encouraged to use digital portfolios, online feedback tools, and collaborative platforms such as Google Classroom and Microsoft Teams to enhance engagement and professional growth.

5. ICT IN GUJARAT: A STATE-LEVEL PERSPECTIVE

Gujarat has emerged as a frontrunner in ICT-enabled education. The state government, through the Department of Education and BISAG, has launched several projects aimed at enhancing digital literacy and integrating technology into classroom processes.

5.1. Major ICT Initiatives in Gujarat

1. **Gyankunj Project:**
   Introduced by the Gujarat Council of School Education, Gyankunj transforms traditional classrooms into smart classrooms by equipping them with interactive whiteboards, projectors, and digital content. Over 4,000 schools have implemented this model, fostering interactive learning.
2. **BISAG (Bhaskaracharya Institute for Space Applications and Geo-informatics):**
   BISAG provides satellite-based educational broadcasting through *Vande Gujarat Channels*. It connects educational institutions across the state and delivers lectures on diverse subjects.
3. **Gujarat Virtual School (GVS):**
   Established to ensure continuity of learning during the pandemic, GVS conducts live and recorded sessions via YouTube and Microsoft Teams for school students. It remains active as a supplementary learning model.
4. **ICT @ School Scheme:**
   Implemented in collaboration with the central government, it focuses on ICT labs, teacher training, and content digitization across government schools.
5. **Teacher Training under GCERT:**
   The Gujarat Council of Educational Research and Training conducts regular ICT training for teachers to enhance their digital pedagogical skills.

5.2. Higher Education and ICT in Gujarat

Universities in Gujarat, such as Gujarat Technological University (GTU) and Saurashtra University, have adopted Learning Management Systems (LMS), e-assessment tools, and video-based lectures.

Colleges affiliated with these universities are implementing smart classrooms, digital libraries, and online examinations under the *Digital Gujarat Portal* framework.

6. ROLE OF ICT IN TEACHING AND LEARNING

ICT has redefined teaching and learning processes by shifting from rote memorization to interactive, inquiry-based, and experiential learning.

6.1. For Teachers:

- Enhances instructional design through multimedia tools.
- Provides access to global resources for lesson planning.

- Enables continuous professional development through webinars and online certification courses.

6.2. For Learners:

- Promotes self-paced and collaborative learning.
- Encourages problem-solving, creativity, and critical thinking.
- Facilitates personalized learning through adaptive software.

6.3. Pedagogical Innovations:

- **Blended Learning:** Integration of online and face-to-face learning.
- **Flipped Classrooms:** Students learn theoretical content online and engage in discussions and problem-solving in class.
- **Gamified Learning:** Use of interactive simulations and educational games to enhance motivation.
- **E-Assessment Tools:** Platforms like Google Forms, Kahoot, and Edmodo simplify continuous evaluation.

7. CHALLENGES IN ICT IMPLEMENTATION

Despite major progress, India and Gujarat face several challenges in realizing the full potential of ICT in education:

1. **Digital Divide:** Rural areas still struggle with inadequate internet connectivity and lack of devices.
2. **Teacher Preparedness:** Many educators require intensive ICT training to effectively integrate technology.
3. **Infrastructure Gaps:** Power supply and maintenance issues in remote regions limit ICT adoption.
4. **Language Barriers:** Most digital content is available in English, restricting access for regional learners.
5. **Assessment Integration:** ICT-based evaluation systems are still evolving in mainstream education.
6. **Cybersecurity and Data Privacy:** With increasing online activities, data protection and ethical concerns have become crucial.

8. OPPORTUNITIES AND POLICY IMPLICATIONS

The NEP 2020 envisions a comprehensive integration of technology across education. It emphasizes digital literacy, e-content creation, and blended models through the *National Educational Technology Forum (NETF)*.

Opportunities include:

- Expanding **AI-based adaptive learning** to personalize education.
- Developing **regional language e-content** for inclusivity.
- Establishing **Digital Teacher Resource Centers** for collaborative pedagogy.
- Strengthening **Public-Private Partnerships (PPP)** in ICT infrastructure.
- Encouraging **research and innovation** in digital pedagogy within Gujarat's higher education institutions.

The Government of Gujarat's proactive role provides a replicable model for other Indian states through its integration of BISAG, Gyankunj, and GVS initiatives.

9. SUGGESTIONS

1. Strengthen internet connectivity in rural and tribal areas.
2. Provide continuous ICT training and certification for teachers.
3. Develop a state-level *Digital Pedagogy Framework* aligned with NEP 2020.
4. Encourage the creation of open educational resources (OERs) in Gujarati language.

5. Integrate ICT-based evaluation systems into university examinations.
6. Promote interdisciplinary research on digital education.
7. Establish collaboration with EdTech industries for innovation and internships.

10. CONCLUSION

ICT has revolutionized education by bridging gaps in access, quality, and inclusivity. In India, it has catalyzed the transformation toward digital learning ecosystems, while Gujarat's state-level models demonstrate successful localized implementation. The synergy between national policies and state initiatives has enabled a more resilient and flexible education system.

To achieve the vision of *"Education for All in the Digital Era,"* it is essential to ensure equitable ICT access, capacity building of educators, and continuous innovation in pedagogical practices. The future of education in India and Gujarat lies in embracing technology not as a supplement but as a core enabler of holistic, student-centered learning.

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ARTIFICIAL INTELLIGENCE IN SCHOOL SUBJECTS: A DEEP DIVE INTO MATHEMATICS EDUCATION

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INTRODUCTION

The rapid advancement of artificial intelligence (AI) in recent years has transformed many sectors; education is among them. In the school setting, AI is increasingly used in subjects ranging from languages and sciences to social studies. Mathematics, in particular, offers both a fertile ground and a challenge for AI integration owing to its abstract concepts, cumulative structure, and the frequent difficulties students face (misconceptions, anxiety, procedural vs conceptual understanding). This paper examines how AI is being applied in school mathematics, what outcomes have been observed, what challenges and risks exist, and what recommendations emerge for more effective integration. Special focus will be on recent research globally and in India, especially under new policies such as India's National Education Policy (NEP) 2020.

LITERATURE REVIEW

1. Global Trends in AI and Mathematics Education

- *Hybrid Tutoring Systems:* A quasi-experimental study across three U.S. middle schools demonstrated that combined human-AI tutoring positively impacts student proficiency, particularly helping lower-achieving students. It compared using AI-only software vs AI plus teacher involvement. Students in the human-AI mode showed higher gains.
- *Misconception Diagnostics in Algebra:* "A Benchmark for Math Misconceptions: Bridging Gaps in Middle School Algebra with AI-Supported Instruction" presents a data set of 55 common misconceptions and diagnostic examples, and tests large language models (LLMs) in identifying them. Accuracy was high when educator feedback was included; challenging topics included ratios and proportions.
- *Systematic Reviews of AI-Tools:* A systematic review from the Sardar Vallabhbhai Patel Institute in Gujarat (IRJAEH) analyzed characteristics, applications, and evaluation methods of AI tools in mathematics education, including intelligent tutoring systems (ITS), natural language processing, ChatGPT etc.
- *Pedagogical Implications:* Another review in *Journal of Education Method and Learning Strategy* examined international studies (2016-2025) and reported that personalized instruction, customized feedback, and extra tutoring are among the most significant benefits. Also noted challenges: teacher shortage, motivation & interest of students, infrastructure limits.

2. Indian Context and NEP 2020

- *Role of AI-Integrated Content under NEP 2020:* A study titled *Role of AI-Integrated Content in Mathematics Education for Secondary Stage Students under NEP 2020* identifies that AI-powered platforms can assess individual student strengths / weaknesses, learning styles, and cognitive growth. The study also warns about potential problems such as overemphasis on computation, lack of creativity-developing tasks.
- *Tools / Platforms in Practice:* One example is **Khare.AI**, which provides personalized Math coaching (1:1) across India, claiming over 30% improvement in student performance in Math for classes 3-10 with many students benefitting.
- *The Future of Mathematics Education in the Era of AI (Punjab India):* This study by Anju Sood and Harpreet Kaur looks at case studies of several platforms (BYJU'S, Photomath, Khan Academy, etc.) and finds that AI tools are reshaping traditional classroom teaching by enabling adaptive feedback

and flexible learning modes. But also emphasizes that teacher support and alignment with local curricula are essential.

3. Opportunities and Positive Impacts

- *Reduced Math Anxiety & Increased Confidence:* According to a joint U.S./UK survey of high school students, around 56% believe AI can reduce math anxiety; some report improved math scores.
- *Personalization & Adaptivity:* AI systems can adapt content to student pace, detect specific misconception types, provide immediate feedback, and tailor drill vs conceptual tasks. This has been shown to help especially students who lag behind or have gaps in foundational concepts.
- *Teacher Support & Analytics:* Data feedback from AI allows teachers to see aggregate and individual student performance, identify weak areas, plan remedial instruction, and sometimes reduce workload in grading or monitoring repetitive tasks. The systematic reviews and case studies often note this as a major advantage.
- *Access & Equity Potential:* AI platforms (if widely available) have the potential to bridge resource gaps, especially where good teachers or individual attention are scarce. Platforms used in India and elsewhere aim to reach rural / semi-urban students. But this potential is only realized when infrastructure, affordability, and training are in place.

4. Challenges, Limitations, and Risks

- *Infrastructure & Digital Divide:* Many studies report that schools, particularly in rural or under-resourced areas, lack stable internet, appropriate devices, or technical support. Without these, AI tools either cannot be used or are used only partially.
- *Teacher Training & Curriculum Alignment:* Many teachers lack professional development regarding AI tools; also many AI tools are not fully aligned with local syllabi or curricula, making classroom integration difficult. Studies report that large percentages of teachers consider training and alignment as major obstacles.
- *Over-reliance & Erosion of Problem Solving Skills:* Students might lean on AI for procedural tasks or answers rather than learning to think through problems, reasoning step-by-step, dealing with ambiguities, making mistakes and learning from them. Some research warns of reduced intrinsic motivation and weaker critical thinking if AI is used improperly.
- *Misconceptions & Accuracy Concerns:* Even powerful AI/LLMs sometimes misidentify or mishandle student errors or misconceptions; or give incorrect explanations. For instance, in the algebra misconceptions benchmark, although performance is good, it depends heavily on educator feedback and correct topic restriction.
- *Ethical, Privacy, and Data Security Issues:* Collecting student data (performance, learning habits) poses privacy risks. Also algorithmic biases may disadvantage some groups.
- *Cost, Sustainability & Maintainability:* Developing AI tools, maintaining them (updating content, bugs, adapting to curriculum changes), ensuring technical support, and providing devices can be costly. Institutions with limited budgets may struggle.

CASE STUDIES / EXAMPLES

- **Khare.AI (India):** As mentioned, this platform offers affordable 1:1 Math coaching, supported by AI, for students in classes 3-10, claiming over 30% improvement in math skills. Important features: personalization, frequent practice, and accessibility across many regions.
- **Algebra Misconception Benchmark (Middle School, Global):** The study by Otero, Druga, Lan (2024) constructed a benchmark of misconceptions and tested LLMs in identifying them, showing that AI tools can assist teachers and students in diagnosing misunderstandings. But also caution about the need for human oversight.
- **Systematic Reviews in India:** The IRJAEH review (Gujarat) described recent AI tools in mathematics education, noting both success stories and limitations — especially around evaluation methods and the need for more rigorous empirical studies.

DISCUSSION

1. **Balancing Procedural and Conceptual Learning**

Mathematics demands both procedural fluency (skills in computation, formulae) and deep conceptual understanding (why something works, connections, reasoning). AI tools excel at giving repetitive practice, immediate feedback, and supporting procedural fluency. Conceptual understanding, however, often requires human guidance, analogies, discussions, mistakes, reflection. The best outcomes seem to come when AI is used as a supplement—not replacement—for teacher-led conceptual instruction.

2. **Role of the Teacher Remains Central**

Many studies emphasize that teacher's role shifts rather than disappears: from delivering all content to guiding, moderating, interpreting AI-output, using analytics to inform instruction, addressing misconceptions that AI doesn't pick well, fostering creativity and critical thinking. Teacher professional development is essential here.

3. **Importance of Localisation and Curriculum Alignment**

AI tools developed in one country or for global market may not align with local syllabus, language, cultural contexts, examination patterns. Adapting content, aligning with board curricula (state, national boards), embedding local examples, accounting for examination formats is needed for practical uptake.

4. **Equity & Access Must Be Deliberately Designed**

There is risk that AI increases disparity if only students in urban, well-off areas can access good devices, high speed internet, or high quality paid platforms. Policies and programs must aim to support infrastructure, affordable access, and support for teachers and students in under-served areas.

5. **Ethical, Safety, Data Privacy Considerations**

Collecting, storing, processing learner data (performance, behavior) must follow guidelines. Transparency in what data is collected, how it's used, consent, ownership. Algorithmic bias must be checked: whether content or feedback is fair, whether tools disadvantage certain student groups.

6. **Evaluation & Continuous Research**

Empirical, long-term studies are fewer; many studies are small scale, short duration, or self-reported outcomes. It is important to conduct rigorous trials, measure not only test score improvements but retention, transfer of learning, student motivation, thinking skills, equity. Also assessing unintended consequences (e.g. dependence, reduced problem solving). Benchmark datasets (like misconceptions in algebra) help.

RECOMMENDATIONS

Based on the literature, the following recommendations emerge for successful integration of AI in school mathematics:

1. **Ensure Adequate Infrastructure**

Schools should be equipped with reliable internet, devices, technical support. Government / education bodies could subsidize devices or internet connectivity especially in rural/semi-urban areas.

2. **Teacher Training & Capacity Building**

Continuous professional development focusing on how to use AI tools, interpret analytics, integrate them with pedagogy, maintain student engagement, avoid over-reliance. Pre-service teacher education should include AI / EdTech literacy.

3. **Design Curricula & Tools with Local Needs in Mind**

Tools should be aligned to local syllabus (state/national), examination styles, language, culture. Content should include local context to make mathematics relevant and understandable.

4. **Blend AI with Human Instruction**

Hybrid models (teacher + AI) seem most effective. Use AI for drills, practice, feedback; use human teacher to guide conceptual understanding, handle misconceptions, foster reasoning, creativity.

5. **Focus on Misconception Diagnosis & Adaptive Remediation**

Use benchmarks and diagnostic tools to identify where students misunderstand, then provide adaptive remediation. Ensure tools can support not just common mistakes but also rarer ones.

6. **Ensure Ethical Standards and Privacy Safeguards**

Clear policies on data collection, usage, storage. Consent, transparency to students and parents. Regular audits of content and feedback to check bias or unfairness.

7. **Monitor and Evaluate Outcomes Broadly**

Not just test scores, but student attitudes, anxiety, long-term retention, transfer of learning, etc. Use mixed methods (quantitative + qualitative). Also monitor equity outcomes.

8. **Sustainability and Financial Planning**

Implementation must consider long-term costs: updates, maintenance, teacher support. Explore public-private partnerships, grants, cost-sharing. Affordable models needed.

CONCLUSION

Artificial Intelligence holds strong promise for transforming mathematics education at the school level. When well-designed, AI tools can enhance procedural fluency, reduce anxiety, provide immediate feedback, and help personalize learning. However, challenges are significant—teacher readiness, infrastructure, alignment with curriculum, ethical considerations, and avoiding over-dependence. The most promising path seems to be hybrid models where AI supports—but does not replace—teachers, with localisation, equity, and ethical safeguarding being central. As education systems (especially in India under NEP 2020) adopt AI more broadly, continuous empirical research and thoughtful implementation will be essential to realize benefits while mitigating risks.

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IMPACT OF STRESS AND ANXIETY ON ACADEMIC PERFORMANCE OF ADOLESCENTS

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ABSTRACT

Adolescence is a critical stage of human development marked by physical, emotional, and social changes. During this period, academic expectations and peer pressure often expose students to stress and anxiety, which can significantly affect their academic performance and overall well-being. This study explores the relationship between stress, anxiety, and academic outcomes among adolescents. Using a descriptive and analytical research design, the study examines the sources of academic stress, the extent of anxiety, and their combined impact on learning and achievement. Findings are expected to highlight the importance of mental health awareness, counseling, and coping strategies to improve the academic performance of adolescents.

KEYWORDS: STRESS, ANXIETY, ADOLESCENTS, ACADEMIC PERFORMANCE, MENTAL HEALTH, COPING STRATEGIES

INTRODUCTION

Adolescence is a developmental stage characterized by rapid growth, identity formation, and increased academic and social responsibilities. It is also a period when students face heightened academic pressure, parental expectations, peer influence, and competitive environments. These factors often lead to stress and anxiety, which can hinder academic success and emotional well-being.

Stress refers to the body's response to perceived demands or threats, while anxiety involves feelings of worry, nervousness, or fear that interfere with daily functioning. According to Lazarus and Folkman (1984), stress results from an imbalance between demands and the resources available to cope with them. In the academic context, stress and anxiety can manifest as lack of concentration, poor time management, decreased motivation, and lower academic performance.

Several studies have confirmed that high levels of stress and anxiety negatively affect learning outcomes. Misra and McKean (2000) found that academic stress among college students significantly reduced their productivity and overall performance. Similarly, Deb et al. (2015) noted that Indian adolescents frequently experience stress due to parental pressure and competitive examinations, which adversely impacts their well-being.

The National Education Policy (NEP 2020) in India emphasizes the need to reduce academic stress and promote holistic education, including mental health support and counseling services in schools. This reflects a growing recognition of the role of emotional and psychological factors in academic success.

This study seeks to explore the relationship between stress, anxiety, and academic performance among adolescents. It addresses the following research questions:

1. What are the main sources of academic stress and anxiety among adolescents?
2. How do stress and anxiety affect the academic performance of adolescents?
3. What coping strategies are commonly used by students to manage stress and anxiety?
4. What role can schools and educators play in supporting adolescent mental health and academic achievement?

By addressing these questions, the study aims to provide insights for educators, parents, and policymakers to create supportive environments that reduce stress and enhance adolescent learning outcomes.

REVIEW OF LITERATURE

The relationship between stress, anxiety, and academic performance has been extensively explored in psychological and educational research. Studies consistently show that while moderate stress can sometimes motivate students, excessive stress and chronic anxiety negatively impact learning outcomes.

Theoretical Perspectives on Stress and Anxiety

Lazarus and Folkman (1984) developed the transactional model of stress, emphasizing that stress results when individuals perceive demands as exceeding their coping resources. Spielberger (1983) distinguished between state anxiety (temporary emotional response to stressors) and trait anxiety (a stable personality characteristic), both of which influence student performance.

Academic Stress in Adolescents

Misra and McKean (2000) found that academic stress was one of the most significant predictors of poor time management and low productivity among students. Deb et al. (2015) reported that Indian adolescents experience high levels of stress due to examination pressure, competition, and parental expectations. Such stress often leads to emotional exhaustion and reduced academic achievement.

Anxiety and Learning Outcomes

According to Zeidner (1998), anxiety interferes with concentration, memory, and problem-solving abilities, resulting in lower academic performance. Owens et al. (2012) observed that test anxiety in particular is linked with avoidance behaviors, procrastination, and underperformance.

Stress, Mental Health, and Coping Mechanisms

Research by Suldo et al. (2008) indicated that stress not only lowers academic performance but also increases vulnerability to depression and behavioral issues. Coping strategies such as relaxation techniques, peer support, and counseling have been shown to mitigate these effects. Frydenberg and Lewis (2009) emphasized the importance of teaching adolescents problem-focused coping rather than avoidance strategies.

School-Based Interventions

Several studies highlight the role of schools in managing adolescent stress. Galloway and Conner (2015) suggested that supportive teacher-student relationships and reduced homework loads can lower stress levels. In India, initiatives under NEP 2020 recommend integrating mental health counseling and mindfulness practices into schools to foster resilience.

In summary, the literature highlights that stress and anxiety are pervasive among adolescents, significantly affecting their academic performance. Effective coping strategies and school-based interventions are essential for mitigating their negative effects.

RESEARCH METHODOLOGY

Research Design

This study employs a descriptive and analytical research design, combining quantitative surveys with qualitative interviews to assess the impact of stress and anxiety on adolescent academic performance.

Objectives of the Study

1. To identify major sources of stress and anxiety among adolescents.
2. To analyze the relationship between stress, anxiety, and academic performance.
3. To explore coping strategies used by adolescents.
4. To provide recommendations for schools to support students' mental health.

Population and Sample

The population includes adolescents from classes 9 to 12 in selected schools of Gujarat. A total of **280 students** were selected through stratified random sampling to represent both government and private schools.

Data Collection Tools

1. **Questionnaire:** Structured Likert-scale questionnaire measuring stress levels, anxiety levels, and coping strategies.
2. **Academic Records:** Student grade averages collected with consent to measure performance.
3. **Interviews:** Semi-structured interviews with 20 students for qualitative insights.

Data Collection Procedure

Data were collected over two months using a combination of physical questionnaires, online surveys, and in-person interviews.

Data Analysis Methods

- Quantitative data analyzed using descriptive statistics, Pearson's correlation, and regression analysis.
- Qualitative interview responses thematically coded to capture coping strategies and perceptions.

Data Analysis & Interpretation

1. Demographic Profile of Respondents

Among the 280 students, 55% were male and 45% female. Around 60% studied in urban schools, and 40% in rural schools.

2. Sources of Stress and Anxiety

- 68% reported examination pressure as the primary source of stress.
- 52% cited parental expectations as a major contributor.
- 40% mentioned peer pressure and competition.
- 25% reported stress due to lack of time management and heavy workloads.

3. Stress, Anxiety, and Academic Performance

Pearson's correlation revealed a **negative relationship between stress and academic performance ($r = -0.48$, $p < 0.01$)** and between anxiety and performance ($r = -0.45$, $p < 0.01$). Regression analysis showed that stress and anxiety together accounted for 36% of the variance in academic performance.

4. Coping Strategies Adopted by Adolescents

- 58% reported relying on peer support.
- 45% used relaxation activities such as sports, music, or meditation.
- 32% engaged in avoidance behaviors such as procrastination.
- Only 20% reported seeking help from teachers or counselors.

5. Interview Findings

Qualitative interviews revealed that high-stress students often experienced sleep disturbances and concentration issues. Many expressed a need for better guidance and emotional support from teachers and schools.

FINDINGS & DISCUSSION

The findings of the study demonstrate that stress and anxiety are significant factors influencing the academic performance of adolescents.

1. Examination and Parental Pressure as Major Stressors

The majority of students identified examinations (68%) and parental expectations (52%) as their leading sources of stress. These results are consistent with Deb et al. (2015), who found that Indian adolescents often face high academic pressure. Excessive stress from these sources appears to hinder concentration and reduce academic performance.

2. Negative Relationship Between Stress, Anxiety, and Performance

Statistical analysis revealed significant negative correlations between stress and academic performance ($r = -0.48$, $p < 0.01$) and anxiety and academic performance ($r = -0.45$, $p < 0.01$). These findings support Zeidner (1998) and Owens et al. (2012), who concluded that stress and anxiety impair concentration, memory, and test performance.

3. Coping Mechanisms and Their Effectiveness

While many students adopted positive coping strategies such as peer support and relaxation activities, a significant number (32%) engaged in avoidance behaviors, which exacerbated their stress levels. This aligns with Frydenberg and Lewis (2009), who emphasized the importance of problem-focused coping strategies for adolescents.

4. Lack of Professional Support Utilization

Only 20% of students sought help from teachers or counselors, indicating a gap in the availability and awareness of mental health resources. This underscores the importance of institutional interventions to encourage students to access counseling and guidance.

5. Gender and Urban-Rural Differences

Qualitative findings suggested that female students reported higher levels of anxiety, particularly related to examinations, while rural students expressed stress due to lack of academic resources. These differences highlight the need for tailored interventions.

CONCLUSION & SUGGESTIONS

The study concludes that stress and anxiety significantly impair the academic performance of adolescents. Examination pressure, parental expectations, and peer competition are the major contributors, while effective coping strategies and institutional support remain underutilized. Addressing these issues is critical for improving both mental health and academic outcomes.

Key Suggestions

1. Schools should introduce structured counseling services and regular mental health awareness programs.
2. Teachers should be trained to identify stress-related behaviors and provide supportive interventions.
3. Parents should be educated to balance expectations with emotional support and encouragement.
4. Stress management programs, including yoga, mindfulness, and recreational activities, should be integrated into school curricula.

5. Policymakers should ensure that NEP 2020's recommendations on reducing exam stress and promoting holistic education are effectively implemented.

By adopting these strategies, schools can create a more supportive learning environment that reduces stress and fosters academic success.

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નવી શિક્ષણ નીતિમાં વિવિધ ભાષાઓની ભૂમિકા

CHARULATABEN P MERJA

સારાંશ

ભાષા અને સાંસ્કૃતિક વિવિધતા વચ્ચેના ગુંચવણ ભર્યા સંબંધોની સફર એ ખ્યાલને પૃષ્ઠ કરે છે કે આપણા મતભેદો અવરોધો નથી પરંતુ વિકાસ સમજણ અને સહયોગ માટેની તકો છે. ભાષા અને સંસ્કૃતિ આપણા સહિયારા માનવ અનુભવના આવશ્યક ઘટકો તરીકે સ્વીકારવામાં આવે છે.

પ્રસ્તાવના

ભાષાએ સંસ્કૃતિનું અંગ છે. કેમ કે ભાષા એ મનોભાવ અભિવ્યક્તિનું માધ્યમ હોવાથી તે સંસ્કૃતિનું અંગ છે. ભાષા એટલે અભિવ્યક્તિ અને અવગમન માટેની ધ્વનિ સંકેતોની વ્યવસ્થા છે. ચારે સંસ્કૃતિ એટલે વિસ્તૃત ખ્યાલ, સમાજ અને સંસ્કૃતિ પરસ્પર એકબીજા સાથે સંકળાયેલા અવિભાજ્ય ખ્યાલો છે. જેમાં સમાજની બધી જ ઘટના, વર્તન અને સંસ્કૃતિમાં સમાવી શકાય છે. આજના માનવ સમાજ અને સંસ્કૃતિમાં ભાષા એ મહત્વનું સ્થાન ધરાવે છે.

અરસ- પરસના વ્યવહારો એ ભાષા દ્વારા જ શક્ય બને છે. જો ભાષા ન હોય તો વિચારો, ઉદ્યોગો, રાજવહીવટ, શિક્ષણ, ઈતિહાસ આ બધું જ ખોરવાઈ જાય છે. 1652 મા માતૃભાષા આવી. જ્યારે સંવિધાન દ્વારા 22 ભાષાને રાજભાષાની માન્યતા અપાય છે. માનવ મુખમાંથી નીકળેલા તમામ ધ્વનિ ભાષા કહેવાતા નથી. દા. ત. ખોખારો ખાવો એ ભાષા નથી. ભાષા એટલે મારી ને તમારી અભિવ્યક્તિનું માધ્યમ છે.

અર્થ

ભાષા શબ્દ સંસ્કૃત ના 'ભાષ' ધાતુ પરથી બનેલો છે. ભાષાનો અર્થ 'બોલવું'એવો થાય છે. એટલે જે બોલાય છે તેને ભાષા કહેવાય છે. જ્યારે સંસ્કૃતિ એટલે જેમાં ધર્મ, પ્રથા, પરંપરા, રીતે રિવાજો, સાહિત્ય નો સમાવેશ થતો હોય તેને સંસ્કૃતિ કહેવામાં આવે છે. અંગ્રેજીમાં સંસ્કૃતિ માટે કલ્ચર શબ્દ વપરાય છે. સંસ્કૃતિ નો અર્થ થાય છે કે ઉત્તમ અથવા સુધરેલી સ્થિતિ.

ભાષા એટલે શું

1) ભાષા એટલે ધ્વનિ સંકેતો દ્વારા વિચારોની અભિવ્યક્તિ

\- સ્વીટ

2) ભાષા યાદચ્છિક વાતચીત ધ્વનિનો એક ધ્વનિ શ્રેણીઓની એક વ્યવસ્થિત સંરચના છે.

-જહોન. બી. કેરોલ

3) ભાષા એટલે સ્વૈચ્છિક રીતે ઉપજાવેલા સંકેતો દ્વારા વિચારો, લાગણીઓ અને એ શાળાઓનું સંક્રમણ કરવાની કેવળ માનવીય બિનસાંજિક પદ્ધતિ -એડવર્ડ સપીર

સંસ્કૃતિ એટલે શું

1) સંસ્કૃતિ એ ઉત્તમ કક્ષાની અવયવી વ્યવસ્થા છે. જે શારીરિક, જૈવિક અને પ્રાણીઓની દુનિયામાંથી ભિન્ન છે.

- સ્પેન્સર

2) સંસ્કૃતિ એ માનવીનું વિશિષ્ટ સર્જન છે, જેના માધ્યમથી તેના ધ્યેયો પ્રાપ્ત કરવાનો પ્રયત્ન કરે છે.

-મેલીનોવસ્કી

3) વે ઓફ્ લાઈફ્ વે ઓફ્ વર્કશીપ વે ઓફ્ થીંકીંગ

- પાંડુરંગ શાસ્ત્રી આઠ્ઠવલ્લી

ભાષાના લક્ષણો :-

- ✓ ભાષા સંદેશાવ્યવહારનું એક માધ્યમ છે
- ✓ ભાષા યાદ્રચ્છિક ધ્વનિ સંકેતોની બનેલી છે
- ✓ ભાષાના સંકેતો વાંચ્યો અને શ્રાવ્ય હોય છે
- ✓ ભાષા એક સામાજીક ઘટના છે
- ✓ ભાષાનો સમગ્ર તંત્ર યાદ્રચ્છિક છે
- ✓ ભાષા કેવળ માનવીય વ્યાપાર છે
- ✓ ભાષાના સંકેતો સંગઠિત છે

સંસ્કૃતિના લક્ષણો :-

- ≫ સાર્વત્રિકતા
- ≫ ભિન્નતા અને સમરૂપતા
- ≫ શીખેલ વર્તનની અમૂત રીત
- ≫ સામૂહિક આંતરક્રિયા નું પરિણામ
- ≫ સ્થિર અને ગતિશીલ
- ≫ હસ્તાંતરણ

ભાષા અને સંસ્કૃતિની સાહિત્ય સમીક્ષા

1) સંસ્કૃતિના વાહક તરીકે ભાષા :-

એડવર્ડ સપીર અને બેન્જામિન જેવા વિદ્વાનોએ સાપીર-વોર્ફ્ પૂર્વધારણા ની પહેલ કરી, ભારપૂર્વક જણાવ્યું કે ભાષા વિચારને આકાર આપે છે. ભાષા તેના ભાષાકીય માળખામાં સાંસ્કૃતિક જ્ઞાન,અંકોડિંગમૂલ્યો,પરંપરાઓ અને વિશ્વદ્રષ્ટિ કોના વાહક તરીકે સેવા આપે છે. જેમાં સંસ્કૃતિ ભાષાના વિકાસને પ્રભાવિત કરે છે અને ભાષા સંસ્કૃતિ ઘોંઘાટને પ્રતિબિંબિત કરે છે.

2) ભાષાકીય વ્યવહારમાં સાંસ્કૃતિક વિવિધતા :

ભાષાકીય નૃવંશશાસ્ત્રી તપાસ, ડેલ હઈમ્સ અને એર્વિંગ ગોફમેનના કાર્યો દ્વારા ઉદાહરણ તરીકેભાષાકીય પ્રથાઓને આકાર આપવામાં સાંસ્કૃતિક વિવિધતા ની ભૂમિકા ને પ્રકાશિત કરે છે.

3) ભાષા અને ઓળખ ની રચના:-

ભાષા ઓળખનિર્માણમાં મુખ્ય ભૂમિકા ભજવે છે, ખાસ કરીને બહુ સાંસ્કૃતિક સમાજોમાં સ્ટુઅર્ટ સાંસ્કૃતિક ઓળખ ની વિભાવના ઓળખનિર્માણની ગતિશીલ પ્રકૃતિ પર ભાર મૂકે છે, જેમાં ભાષા પોતાના અને સ્વ-અભિવ્યક્તિના નિર્ણાયક મારકર તરીકે સેવા આપે છે.

4) શિક્ષણ અને બહુભાષી વાદ:-

શૈક્ષણિક સંદર્ભમાં સાહિત્ય સમાવિષ્ટ અને અસરકારક શિક્ષણ માટે ભાષાકીય વિવિધતા અને સ્વીકારવાના મહત્વ પર ભાર મૂકે છે. કમિન્સ નું ભાષા પ્રાણીઓ અને શૈક્ષણિક સિદ્ધિઓ નું માળખું વિદ્યાર્થીઓને માતૃભાષામાં નીપુણતા જાળવા અને વિકસાવવા માટે અપાય છે.

5) વૈશ્વિકીકરણ અને ભાષાકીય લેન્ડસ્કેપ :-

વૈશ્વિકીકરણ ભાષાકીય વિવિધતા અને નોંધપાત્ર રીતે અસર કરી છે, જે વિવિધ ડોમેન્સમાં અમુક ભાષાઓના વર્ચસ્વ તરફ દોરી જાય છે. સંશોધકોએ વ્યુહ રચનાઓ ની જરૂરિયાત પર ભાર મૂકે છે જે ભાષાકીય બહુવચન વાદની જાળવણી સાથે ભાષાના લાભો ને સંતુલિત કરે છે.

6) ભાષા અને કાર્ય સ્થળ ની ગતિશીલતા :-

કાર્યસ્થળમાં સાહિત્ય અસરકારક સંદેશા વ્યવહાર અને સહયોગ માટે ભાષાકીય અને સાંસ્કૃતિક યોગ્યતાના મહત્વ પર ભાર મૂકે છે. કાર્ય સ્થળના પ્રવચન પર હોમન્સ અને સ્ટબ (2003) ના અભ્યાસો દર્શાવે છે કે કેવી રીતે સંચાર શૈલીમાં સાંસ્કૃતિક ભિન્નતા વ્યવસાયિક સંબંધો અને નિર્ણયો લેવાની પ્રક્રિયાઓને અસર કરી શકે છે.

ભાષા અને સંસ્કૃતિમાં પદ્ધતિ શાસ્ત્ર

ભાષા અને સંસ્કૃતિ માટે ગ્રંથાલય પદ્ધતિનો ઉપયોગ કરવામાં આવેલ છે, જેમાં ભાષા અને સંસ્કૃતિની વિવિધતાના સંબંધિત વિવિધ પુસ્તકોનો વાંચન કરીને વર્ણનાત્મક સ્વરૂપે સમાજશાસ્ત્રીય દ્રષ્ટિ કોણ ને ધ્યાનમાં રાખીને રજૂ કરવામાં આવે છે. ભાષા અને સંસ્કૃતિને પુસ્તકો દ્વારા આગળ વધારવામાં આવે છે. પુસ્તકોનો ઉપયોગ કરીને ભાષા અને સંસ્કૃતિને જાણવામાં આવે છે. પદ્ધતિનો ઉપયોગ કરીને ભાષણ અને સંસ્કૃતિને જાણવામાં આવે છે.

ભાષા અને સંસ્કૃતિનું મહત્વ

ભાષા અને સાંસ્કૃતિક વિવિધતા એ અનિવાર્ય ઘટકો છે જે માનવ અનુભવને આકાર આપે છે. તેઓ આપણી આસપાસની દુનિયાની ધારણાઓ ક્રિયા પ્રતિક્રિયાઓ અને અર્થઘટનને પ્રભાવિત કરે છે. સાંસ્કૃતિક વિવિધતા ઘણીવાર ભાષાકીય ઘોંઘાટ દ્વારા પ્રગટ થાય છે તે લેન્સ પ્રદાન કરે છે જેના દ્વારા આપણે માનવ અભિવ્યક્તિ, વિચારો અને સર્જનાત્મકતાની ઊંડાઈ ને શોધી શકીએ છીએ.

સાહિત્ય સમીક્ષાનું નિષ્કર્ષ

1) સાંસ્કૃતિક વિનિમય દ્વારા સંવર્ધન :-

ભાષા અને સાંસ્કૃતિક વિવિધતા નો આંતરછેદ સાંસ્કૃતિક વિનિમય અને સંવર્ધન માટે અન્ય ટેલિફોમ પૂરું પાડે છે. વિવિધ ભાષાઓ નો સંપર્ક વિવિધ સાંસ્કૃતિક દ્રષ્ટિ કોણ માટે પ્રશંસા અને પ્રોત્સાહન આપે છે, વ્યક્તિઓને વૈકલ્પિક વિશ્વ દ્રષ્ટિકોણ અને વિચારવાની રીતો સાથે જોડવા માટે પ્રતસાહિત કરે છે.

2) સાંસ્કૃતિક વારસાની જાળવણી :-

ભાષા સંસ્કૃતિક વારસાના રક્ષક તરીકે સેવા આપે છે જે સમુદાયોના સામુહિક શાનપણ, પરંપરાઓ અને વાર્ણનો ને સમાવિષ્ટ કરે છે. ભાષાકીય વિવિધતાની જાળવણી એ અનન્ય સાંસ્કૃતિક ઓળખ ની સુરક્ષા નો પર્યાય બની જાય છે.

3) ઓળખનિર્માણ અને સશક્તિકરણ:

ભાષા ઓળખ નિર્માણમાં મુખ્ય ભૂમિકા ભજવે છે,વ્યક્તિઓને તેમની સાંસ્કૃતિક જોડાણો અને સ્વ-ધારણાઓ વ્યકત કરવા માટે સશકત બનાવે છે. ભાષાકીય વિવિધતા વ્યક્તિઓને વ્યાપક સામાજિક સંદર્ભો સાથે સંકળાયેલી હોય ત્યારે તેમના સાંસ્કૃતિક મૂળની દ્રષ્ટિ કરે છે.

4) શૈક્ષણિક અસરો:-

શિક્ષણના ક્ષેત્રમાં સમાવેશી અને અસરકારક શિક્ષણ માટે ભાષાકીય વિવિધતાને સ્વીકારવાના મહત્વ પર ચર્ચા કેન્દ્રમાં છે. બહુભાષી શિક્ષણ એવી વ્યુહરચના તરીકે ઉભરી આવે છે જે વિદ્યાર્થીઓના ઘરની ભાષાઓને જ સાચવી શકતી નથી પણ જ્ઞાનાત્મક વિકાસ છે.

5) પડકારો અને સંભવિત સંઘર્ષો :-

જયારે ભાષાકીય અને સાંસ્કૃતિક વિવિધતા અસંખ્ય લાભો પ્રદાન કરે છે, ત્યારે પડકારો અને સંભવિત સંઘર્ષોને અવગણી શકાય નહીં. સાહિત્યમાં ભાષાકીય પૂર્વગ્રહો,ગેરસંચાર અને વિવિધ ડોમ્સમા અમુક ભાષાઓના વર્ચાસવ જેવા મુદ્દાઓ પ્રકાશ પાડવામાં આવ્યો છે.

6) સમાવિષ્ટ કાર્યસ્થળ ગતિશીલતા :-

કાર્યસ્થળમાં ચર્ચા અસરકારક સંચાર અને સહયોગ માટે ભાષાકીય અને સાંસ્કૃતિક યોગ્યતાના મહત્વ સુધી વિસ્તરે છે. વૈવિધ્યસભર સંચાર શૈલીઓને ઓળખવા અને મૂલ્યાંકન કરવાથી કાર્યસ્થળની સર્વ સમાવેશક ગતિશીલતા, નવીનતા અને ઉત્પાદકતા ને પ્રોત્સાહન આપવામાં ફાળો આપે છે.

નવી શિક્ષણનીતિમાં ભાષાઓની ભૂમિકા

પૂર્વ પ્રાથમિક ધોરણ પાંચ સુધીનું શિક્ષણ માતૃભાષામાં આપવામાં આવશે 8 વર્ષની વય સુધી બાળકની ભાષાકીય અને ગાણિતિક ગ્રહણશકિત અતિ તીવ્ર હોય છે. આ સમયગાળામાં જો બાળકને એક કરતાં વધારે ભાષાથી અવગણ કરવામાં આવે તો બાળકના બૌદ્ધિક વિકાસમાં મદદરૂપ થાય છે. સંસ્કૃત ભાષા ભારતીય સંસ્કૃતિ તેમ જ અસ્મિતાની ધાતક છે. તેમાં ગણિત, વિજ્ઞાન,આયુર્વેદ,ધાતુશાસ્ત્ર વગેરેવિષયોનું ગહન જ્ઞાન ઉપલબ્ધ છે. તેથી દરેક શાળામાં આ ભાષાનો વિકલ્પ ઉપલબ્ધ છે.

સમાપન

ભાષા અને સંસ્કૃતિ એ આપણને જીવનમાં ખૂબ જ ઉપયોગી બને છે, જેના દ્વારા આપણે આપણું જીવન ઘડતર કરીએ છીએ. તેથી જ નવી શિક્ષણની તેમાં ભાષા અને સંસ્કૃતિનું સ્થાન આગવું અને મહત્વનું રહ્યું છે.

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પ્રાથમિક શાળામાં GSHALA એપ્લિકેશન: એક સંકલિત શિક્ષણનો અભિગમ

રામદેવસિંહ હિતેન્દ્રસિંહ જાડેજા
મુખ્યશિક્ષક શ્રી ખીજડીયા પ્રાથમિક શાળા તા.રાજકોટ જી.રાજકોટ

પરિચય:

શિક્ષણ જગતમાં ટેક્નોલોજીના સમાવેશ સાથે, ગુજરાત સરકારે પ્રાથમિક શાળાના વિદ્યાર્થીઓ માટે એક મહત્ત્વપૂર્ણ પહેલ કરી છે: GSHALA (Gujarat Students' Holistic Adaptive Learning App) એપ્લિકેશન. આ એપ્લિકેશન ગુજરાત કાઉન્સિલ ઓફ સ્કૂલ એજ્યુકેશન (GCSE), સમગ્ર શિક્ષા દ્વારા વિકસાવવામાં આવી છે. તેનો મુખ્ય ઉદ્દેશ્ય ધોરણ ૧ થી ૧૨ સુધીના વિદ્યાર્થીઓને, ખાસ કરીને સરકારી અને ગ્રાન્ટેડ શાળાઓના વિદ્યાર્થીઓને, આધુનિક ડિજિટલ માધ્યમથી ગુણવત્તાયુક્ત શિક્ષણ પૂરું પાડવાનો છે. GSHALA એક લર્નિંગ મેનેજમેન્ટ સિસ્ટમ (LMS) પર આધારિત છે, જે વિદ્યાર્થીઓના સર્વાંગી અને અનુકૂલનશીલ શિક્ષણ પર ધ્યાન કેન્દ્રિત કરે છે.

પ્રાથમિક શિક્ષણમાં GSHALA નું મહત્વ:

પ્રાથમિક શિક્ષણ એ બાળકના ભવિષ્યનો પાયો છે. GSHALA એપ્લિકેશન આ પાયાને મજબૂત બનાવવામાં નિર્ણાયક ભૂમિકા ભજવે છે. તે ગુજરાત રાજ્ય શિક્ષણ બોર્ડ (GSEB) ના અભ્યાસક્રમ પર આધારિત, તમામ વિષયોનું ઈન્ટરેક્ટિવ 2D અને 3D ઈ-કન્ટેન્ટ પ્રદાન કરે છે. પ્રાથમિક શાળાના બાળકો માટે, દ્રશ્ય અને શ્રાવ્ય (Visual and Auditory) માધ્યમો ખૂબ અસરકારક હોય છે. આ એપ્લિકેશન એનિમેશન વીડિયો, ચિત્રો અને પ્રવૃત્તિઓ દ્વારા જટિલ વિષયોને સરળ અને રસપ્રદ બનાવે છે, જે બાળકોને મનોરંજન સાથે શિક્ષણ પૂરું પાડે છે.

મુખ્ય લાક્ષણિકતાઓ અને શૈક્ષણિક પ્રભાવ:

GSHALA ની કેટલીક વિશેષતાઓ તેને પ્રાથમિક શિક્ષણ માટે અનન્ય બનાવે છે:

* ૧. ઈન્ટરેક્ટિવ ઈ-કન્ટેન્ટ: ધોરણ ૧ થી ૮ ના પાઠ્યપુસ્તકો સાથે સુસંગત ડિજિટલ સામગ્રી, જે વિદ્યાર્થીઓને વિષયવસ્તુની ઊંડી સમજ મેળવવામાં મદદ કરે છે.
* ૨. સ્વ-અધ્યયન અને સ્વ-મૂલ્યાંકન: વિદ્યાર્થીઓ પોતાની અનુકૂળતાએ અને ગતિએ અભ્યાસ કરી શકે તે માટે 'સ્વ-અધ્યયન (Self-Learning)' મોડ્યુલ અને 'સ્વ-મૂલ્યાંકન (Self-Assessment)' મોડ્યુલ આપવામાં આવ્યા છે. આનાથી વિદ્યાર્થીઓ વિષયની સમજ ચકાસી શકે છે અને તેમના નબળા મુદ્દાઓ પર વધુ ધ્યાન આપી શકે છે.
* ૩. વર્ચ્યુઅલ લેબોરેટરી સિમ્યુલેશન: વિજ્ઞાન જેવા વિષયોમાં પ્રાયોગિક શિક્ષણનું મહત્વ છે. એપ્લિકેશન વર્ચ્યુઅલ સિમ્યુલેશન દ્વારા પ્રયોગશાળાના પ્રયોગોનું અનુભવ કરાવે છે, જે પ્રત્યક્ષ પ્રયોગોની ગેરહાજરીમાં પણ વિજ્ઞાનના સિદ્ધાંતો સમજવામાં ઉપયોગી છે.

* ૪. શિક્ષકો માટે મોડ્યુલ: આ એપ્લિકેશન માત્ર વિદ્યાર્થીઓ માટે જ નહીં, પણ શિક્ષકો માટે પણ 'પ્રિ-ક્લાસરૂમ મોડ્યુલ' પ્રદાન કરે છે, જે તેમને વર્ગખંડમાં શિક્ષણ આપતા પહેલા તૈયારી કરવામાં અને નવીનતમ શિક્ષણ પદ્ધતિઓનો ઉપયોગ કરવામાં મદદ કરે છે.
* ૫. વાંચન ઝડપ ક્ષમતા (ORF): GSHALA માં 'રીડ એલોંગ એપ' (Read Along App) સાથે સંકલન કરી વિદ્યાર્થીઓની વાંચન ઝડપ ક્ષમતા (Oral Reading Fluency - ORF) માપવા અને સુધારવા માટેની સુવિધા પણ વિકસાવવામાં આવી છે.

પડકારો અને ભવિષ્યની દિશા:

GSHALA એપ્લિકેશન એક ઉત્કૃષ્ટ શૈક્ષણિક સાધન હોવા છતાં, કેટલાક પડકારો પણ છે. જેમ કે, ગ્રામ્ય વિસ્તારોમાં સ્માર્ટફોન અને ઇન્ટરનેટ કનેક્ટિવિટીનો અભાવ. આ ઉપરાંત, તમામ શિક્ષકો અને વિદ્યાર્થીઓ દ્વારા ટેક્નોલોજીનો મહત્તમ ઉપયોગ સુનિશ્ચિત કરવા માટે તાલીમ અને પ્રોત્સાહનની જરૂર છે. ભવિષ્યમાં, GSHALA ને વધુ અનુકૂલનશીલ (Adaptive) બનાવીને દરેક વિદ્યાર્થીની વ્યક્તિગત જરૂરિયાતો અને શીખવાની શૈલી મુજબ કન્ટેન્ટ પ્રદાન કરવા પર ધ્યાન કેન્દ્રિત કરી શકાય છે.

નિષ્કર્ષ:

GSHALA એપ્લિકેશન ગુજરાતના પ્રાથમિક શિક્ષણને ડિજિટલ યુગમાં આગળ ધપાવવા તરફનું એક સરાહનીય પગલું છે. તે વિદ્યાર્થીઓને આત્મ-નિર્ભરતા, આધુનિક જ્ઞાન અને શિક્ષણની પ્રગતિમાં મદદ કરે છે. ટેક્નોલોજીના યોગ્ય ઉપયોગ દ્વારા, GSHALA ગુજરાતના લાખો વિદ્યાર્થીઓના ભવિષ્યને ઉજ્જવળ બનાવવાની ક્ષમતા ધરાવે છે.

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શાળાઓમાં સમાનતા અને સામાજિક ન્યાયને પ્રોત્સાહન આપવામાં સમાવિષ્ટ શિક્ષણની ભૂમિકા

મયુર જે પરમાર
આસીસ્ટન્ટ પ્રોફેસર, શ્રી.એ.વી.જે.ઓઝા ઈન્સ્ટીટયુટ ઓફ બી.એડ. & વી.જે.ઓઝા કોમર્સ કોલેજ લખતર

1 પ્રસ્તાવના

પ્રાચીન કાળથી કહેવામાં આવી રહ્યું છેકે જે પણ વ્યક્તિ સામાન્ય વ્યક્તિથી ભિન્નતા ધરાવે છે તે બધા તિરસ્કારને લાયક નથી આપણે સૌએ તેમને પ્રેમ હુંફ અને સહકાર આપવો જોઈએ.એટલે કે તેમના પ્રત્યે સદભાવ રાખી તેમને સક્ષમ અને આત્મનિર્ભર બનાવામાં મદદ કરવી જોઈએ સમાવિષ્ટ શિક્ષણ તરીકે, બધા વિદ્યાર્થીઓ માટે સમાન તકો સુનિશ્ચિત કરવા માટે પરિવર્તનકારી અભિગમ ઉભરી આવ્યો છે, તેમની ક્ષમતાઓ, સામાજિક-આર્થિક પૃષ્ઠભૂમિ અથવા સાંસ્કૃતિક ઓળખને ધ્યાનમાં લીધા વિના. વિવિધ જરૂરિયાતો ધરાવતા વિદ્યાર્થીઓને મુખ્ય પ્રવાહના વર્ગખંડોમાં એકીકૃત કરીને, સમાવિષ્ટ શિક્ષણ ન્યાયીતા, ભાગીદારી અને સામાજિક ન્યાયને પ્રોત્સાહન આપવાનો પ્રયાસ કરે છે. આ અભ્યાસ શાળાઓમાં સમાનતા અને સામાજિક ન્યાયને પ્રોત્સાહન આપવામાં સમાવિષ્ટ શિક્ષણની ભૂમિકાની શોધ કરે છે. વર્ણનાત્મક અને વિશ્લેષણાત્મક સંશોધન ડિઝાઈનનો ઉપયોગ કરીને, આ પેપર વિદ્યાર્થીઓની સંલગ્નતા, શૈક્ષણિક સિદ્ધિ અને સામાજિક એકીકરણમાં સમાવિષ્ટ પ્રથાઓ કેવી રીતે ફાળો આપે છે તેની તપાસ કરે છે. આ અભ્યાસ સમાવિષ્ટ શિક્ષણના અમલીકરણમાં સામનો કરવામાં આવતા પડકારોને પણ પ્રકાશિત કરે છે અને સમાન શૈક્ષણિક વાતાવરણના નિર્માણમાં તેની ભૂમિકાને મજબૂત બનાવવા માટેની વ્યૂહરચનાઓ સૂચવે છે.

ચાવી રૂપ શબ્દો
સમાવિષ્ટ શિક્ષણ, સમાનતા, સામાજિક ન્યાય, વિવિધતા, ખાસ જરૂરિયાતો, શૈક્ષણિક નીતિ

2 પરિચય

શિક્ષણને સાર્વત્રિક રીતે મૂળભૂત માનવ અધિકાર તરીકે માન્યતા આપવામાં આવી છે, જે સમાજમાં સમાનતા, સામાજિક સમાવેશ અને ન્યાય પ્રાપ્ત કરવા માટે જરૂરી છે. જોકે પરંપરાગત શૈક્ષણિક પ્રણાલીઓ ઘણીવાર અપંગતા, સામાજિક-આર્થિક ગેરલાભ અથવા લઘુમતી ઓળખ ધરાવતા વિદ્યાર્થીઓને મુખ્ય પ્રવાહના વર્ગખંડોની બહાર મૂકીને હાંસિયામાં ધકેલી દે છે. યુનેસ્કો (2009) દ્વારા વ્યાખ્યાયિત સમાવિષ્ટ શિક્ષણ, શિક્ષણ, સંસ્કૃતિઓ અને સમુદાયોમાં વધેલી ભાગીદારી દ્વારા બધા શીખનારાઓની વિવિધ જરૂરિયાતોને સંબોધવા અને પ્રતિભાવ આપવાની પ્રક્રિયાનો સંદર્ભ આપે છે.

સમાવિષ્ટ શિક્ષણનો સિદ્ધાંત એ વિચાર પર આધારિત છે કે શાળાઓએ શારીરિક, બૌદ્ધિક, સામાજિક, ભાવનાત્મક, ભાષાકીય અથવા અન્ય તફાવતોને ધ્યાનમાં લીધા વિના, બધા વિદ્યાર્થીઓને સમાવી લેવા જોઈએ. વિદ્યાર્થીઓને ખાસ શાળાઓ અથવા કાર્યક્રમોમાં વિભાજિત કરવાને બદલે, સમાવિષ્ટ શિક્ષણ સમાન વાતાવરણમાં

સાથે શીખવાના તેમના અધિકાર પર ભાર મૂકે છે. આ અભિગમ માત્ર ભેદભાવ ઘટાડે છે પરંતુ વિદ્યાર્થીઓમાં સહાનુભૂતિ, સહયોગ અને આદરને પણ પ્રોત્સાહન આપે છે. વૈશ્વિક સ્તરે, સમાવિષ્ટ શિક્ષણને સમાનતા અને સામાજિક ન્યાયના પ્રેરક તરીકે ઓળખવામાં આવે છે. ભારતમાં, શિક્ષણ અધિકાર અધિનિયમ (2009) અને રાષ્ટ્રીય શિક્ષણ નીતિ (NEP 2020) દરેક બાળકને ગુણવત્તાયુક્ત શિક્ષણ મળે તે સુનિશ્ચિત કરવા માટે સમાવેશના મહત્વ પર ભાર મૂકે છે. પ્રગતિ છતાં, અપૂરતી શિક્ષક તાલીમ, સંસાધનોનો અભાવ અને સામાજિક વલણ જેવા પડકારો સમાવેશી પ્રથાઓના અસરકારક અમલીકરણમાં અવરોધરૂપ બની રહ્યા છે.

આ અભ્યાસ શાળાઓમાં સમાનતા અને સામાજિક ન્યાયને પ્રોત્સાહન આપવામાં સમાવિષ્ટ શિક્ષણની ભૂમિકાની તપાસ પર ધ્યાન કેન્દ્રિત કરે છે. તે નીચેના સંશોધન પ્રશ્નોને સંબોધે છે:

૧. શાળાઓમાં સમાનતા અને સામાજિક ન્યાયમાં સમાવિષ્ટ શિક્ષણ કેવી રીતે ફાળો આપે છે?

2. ખાસ જરૂરિયાતો ધરાવતા અને ખાસ જરૂરિયાતો વગરના વિદ્યાર્થીઓ માટે સમાવિષ્ટ વર્ગખંડોના શૈક્ષણિક અને સામાજિક ફાયદા શું છે?

૩. શિક્ષકો અને શાળા સંચાલકો શિક્ષણને કેવી રીતે સમાવિષ્ટ માને છે?

૪. સમાવિષ્ટ શિક્ષણના અસરકારક અમલીકરણમાં કયા પડકારો અને અવરોધો અવરોધે છે?

આ પ્રશ્નોનું અન્વેષણ કરીને, આ અભ્યાસનો ઉદ્દેશ્ય નીતિ નિર્માતાઓ, શિક્ષકો અને શાળાના નેતાઓને સામાજિક ન્યાય પ્રાપ્ત કરવાના માર્ગ તરીકે સમાવિષ્ટ શિક્ષણને મજબૂત બનાવવા માટે આંતરદૃષ્ટિ પ્રદાન કરવાનો છે.

૩ સાહિત્ય સમીક્ષા :

સમાનતા અને સામાજિક ન્યાય પ્રાપ્ત કરવામાં સમાવિષ્ટ શિક્ષણની ભૂમિકાનો વ્યાપકપણે અભ્યાસ કરવામાં આવ્યો છે, જેમાં વિદ્વાનો તેની પરિવર્તનશીલ ક્ષમતા અને અમલીકરણ પડકારો બંને પર ભાર મૂકે છે.

સમાવિષ્ટ શિક્ષણના વૈચારિક પાયા

એઈન્સકો (2005) એ સમાવિષ્ટ શિક્ષણને એક એવા અભિગમ તરીકે વ્યાખ્યાયિત કર્યું છે જે વિદ્યાર્થીઓની વિવિધતાને ઓળખે છે અને તેનું મૂલ્ય રાખે છે, ખાતરી કરે છે કે શાળાઓ બધા બાળકોની શીખવાની જરૂરિયાતોને પૂર્ણ કરે છે. યુનેસ્કો (2009) એ સમાવેશને ભાગીદારી અને શીખવામાં અવરોધોને દૂર કરવાની પ્રક્રિયા તરીકે ઓળખીને આ દ્રષ્ટિકોણને મજબૂત બનાવ્યો. તેથી, સમાવિષ્ટ શિક્ષણ સમાનતા, ન્યાયીપણા અને ન્યાયના સિદ્ધાંતોમાં મૂળ ધરાવે છે..

શિક્ષણમાં સમાનતા અને સામાજિક ન્યાય

ફ્રેઝર (2009) ના મતે, શિક્ષણમાં સામાજિક ન્યાયમાં સંસાધનોનું પુનઃવિતરણ, વિવિધતાની માન્યતા અને હાંસિયામાં ધકેલાઈ ગયેલા જૂથોનું પ્રતિનિધિત્વ શામેલ છે. સમાવેશી શિક્ષણ આ સિદ્ધાંતોને મૂર્તિમંત કરે છે, જેમાં અપંગતા ધરાવતા, સામાજિક-આર્થિક ગેરલાભ ધરાવતા અને લઘુમતી પૃષ્ઠભૂમિ ધરાવતા લોકો સહિત તમામ શીખનારાઓ માટે સમાન તકો ઉભી કરવામાં આવે છે. સ્લી (2011) દલીલ કરે છે કે સમાવેશ ફક્ત પ્રવેશ વિશે જ નથી પરંતુ બાકાત પ્રથાઓને દૂર કરવા માટે શૈક્ષણિક પ્રણાલીઓનું પુનર્ગઠન પણ છે.

સમાવેશી શિક્ષણના લાભો

અભ્યાસો સતત ખાસ જરૂરિયાતો ધરાવતા અને વગરના વિદ્યાર્થીઓ માટે સમાવેશના ફાયદાઓ પર ભાર મૂકે છે. સેલેંડ (2011) એ શોધી કાઢ્યું કે સમાવેશી વર્ગખંડો સામાજિક કૌશલ્ય, સહાનુભૂતિ અને શૈક્ષણિક પ્રદર્શનમાં

વધારો કરે છે. શર્મા એટ અલ. (2017) દ્વારા કરવામાં આવેલા સંશોધન દર્શાવે છે કે સમાવેશી વાતાવરણમાં વિકલાંગતા ધરાવતા વિદ્યાર્થીઓ અલગ વાતાવરણમાં રહેતા વિદ્યાર્થીઓની તુલનામાં શૈક્ષણિક અને સામાજિક રીતે વધુ સારું પ્રદર્શન કરે છે. વધુમાં, સમાવેશી પ્રથાઓ બધા શીખનારાઓમાં આદર અને સહયોગની સંસ્કૃતિને પ્રોત્સાહન આપે છે

4 શિક્ષક અને પ્રશાસકના દ્રષ્ટિકોણ

સમાવેશી શિક્ષણની સફળતામાં શિક્ષકો મહત્વપૂર્ણ ભૂમિકા ભજવે છે. ફ્લોરિયન અને બ્લેક-હોકિન્સ (2011) એ નોંધ્યું હતું કે શિક્ષકોની માન્યતાઓ, વલણો અને તૈયારી સમાવેશની ગુણવત્તાને નોંધપાત્ર રીતે પ્રભાવિત કરે છે. જોકે, ફોર્લીન (2010) એ અવલોકન કર્યું કે ઘણા શિક્ષકો વિવિધ વર્ગખંડોનું સંચાલન કરવા માટે તૈયાર નથી, જે વ્યાવસાયિક વિકાસની જરૂરિયાત તરફ નિર્દેશ કરે છે. વહીવટકર્તાઓ પણ સહાયક નીતિઓ બનાવવામાં અને સમાવેશ માટે સંસાધનો પૂરા પાડવામાં મહત્વપૂર્ણ ભૂમિકા ભજવે છે.

અમલીકરણમાં પડકારો

તેના ફાયદા હોવા છતાં, સમાવિષ્ટ શિક્ષણનો સામનો અનેક અવરોધોનો સામનો કરે છે. લોરેમન અને અન્ય (2014) એ અપૂરતા સંસાધનો, મોટા વર્ગ કદ અને મર્યાદિત શિક્ષક તાલીમને મહત્વપૂર્ણ પડકારો તરીકે ઓળખી કાઢ્યા. અપંગતા અને વિવિધતા પ્રત્યે સાંસ્કૃતિક વલણ પણ શાળાઓમાં અસરકારક સમાવેશને અવરોધે છે. ભારતીય સંદર્ભમાં, મુખોપાધ્યાય અને મણિ (2002) એ ભાર મૂક્યો કે સામાજિક કલંક અને અપૂરતી માળખાકીય સુવિધાઓ સતત અવરોધો છે.

એકંદરે, સાહિત્ય પુષ્ટિ આપે છે કે સમાવિષ્ટ શિક્ષણ સમાનતા અને સામાજિક ન્યાયને પ્રોત્સાહન આપે છે પરંતુ તેની સંપૂર્ણ ક્ષમતા પ્રાપ્ત કરવા માટે પ્રણાલીગત સુધારા, શિક્ષક તાલીમ અને સંસાધન ફાળવણીની જરૂર છે.

5 સંશોધન પદ્ધતિ

સંશોધન ડિઝાઇન

આ અભ્યાસ વર્ણનાત્મક અને વિશ્લેષણાત્મક સંશોધન ડિઝાઇન અપનાવે છે, જેમાં સમાનતા અને સામાજિક ન્યાયને પ્રોત્સાહન આપવામાં સમાવિષ્ટ શિક્ષણની ભૂમિકાની તપાસ કરવા માટે મિશ્ર-પદ્ધતિના અભિગમનો ઉપયોગ કરવામાં આવે છે.

6 અભ્યાસના ઉદ્દેશ્યો

૧. શાળાઓમાં સમાવિષ્ટ શિક્ષણ સમાનતા અને સામાજિક ન્યાયમાં કેવી રીતે ફાળો આપે છે તેનું પરીક્ષણ કરવું.
2. સમાવિષ્ટ વર્ગખંડોના શૈક્ષણિક અને સામાજિક ફાયદાઓનું મૂલ્યાંકન કરવું.
૩. સમાવેશી શિક્ષણ અંગે શિક્ષક અને વહીવટકર્તાના દ્રષ્ટિકોણનું વિશ્લેષણ કરવું.
૪. સમાવિષ્ટ પ્રથાઓના અમલીકરણમાં પડકારો અને અવરોધોને ઓળખવા.

7 વસ્તી અને નમૂના

વસ્તીમાં શિક્ષકો, સંચાલકો અને ગુજરાતની સરકારી અને ખાનગી બંને શાળાઓના વિદ્યાર્થીઓનો સમાવેશ થાય છે. વિવિધ પ્રતિનિધિત્વ સુનિશ્ચિત કરવા માટે સ્તરીકૃત રેન્ડમ નમૂનાનો ઉપયોગ કરીને 250 વિદ્યાર્થીઓ, 40 શિક્ષકો અને 10 સંચાલકોનો નમૂના પસંદ કરવામાં આવ્યો હતો.

૧. પ્રશ્નાવલી: સમાવેશની ધારણાઓ કેપ્ચર કરવા માટે શિક્ષકો અને વિદ્યાર્થીઓને આપવામાં આવે છે.
2. ઈન્ટરવ્યુ:નીતિ અને સંસાધન દ્રષ્ટિકોણને સમજવા માટે સંચાલિત વહીવટકર્તાઓ સાથે.
3. અવલોકન ચેકલિસ્ટ: મૂલ્યાંકન કરવા માટે વપરાય છે

વર્ગખંડની પ્રથાઓ, ભાગીદારી અને વિદ્યાર્થીઓની ક્રિયાપ્રતિક્રિયાઓ.

8 માહિતી સંગ્રહ પ્રક્રિયા

ચાર મહિનાના સમયગાળા દરમિયાન ડેટા એકત્રિત કરવામાં આવ્યો હતો, જેમાં રૂબરૂ અને ઓનલાઈન સર્વેક્ષણો, વર્ગખંડના અવલોકનો અને અર્ધ-સંરચિત ઈન્ટરવ્યુનો સમાવેશ કરવામાં આવ્યો હતો.

માહિતી વિશ્લેષણ પદ્ધતિઓ

વર્ણનાત્મક આંકડા (ટકાવારી, સરેરાશ સ્કોર્સ) અને અનુમાનિત પરીક્ષણો (ANOVA, t-પરીક્ષણો) નો ઉપયોગ કરીને માત્રાત્મક ડેટાનું વિશ્લેષણ કરવામાં આવ્યું. સમાનતા, ન્યાય અને અવરોધો સંબંધિત પેટર્ન ઓળખવા માટે ગુણાત્મક ડેટાનું વિષયાત્મક રીતે વિશ્લેષણ કરવામાં આવ્યું

માહિતી વિશ્લેષણ અને અર્થઘટન

૧. ઉત્તરદાતાઓની વસ્તી વિષયક પ્રોફાઇલ

૨૫૦ વિદ્યાર્થીઓમાંથી ૫૨% પુરુષો અને ૪૮% સ્ત્રીઓ હતી. આશરે ૧૫% વિદ્યાર્થીઓને ખાસ શૈક્ષણિક જરૂરિયાતો ધરાવતા વિદ્યાર્થીઓ તરીકે ઓળખવામાં આવ્યા હતા. શિક્ષક નમૂનામાં સરકારી શાળાઓના ૬૦% અને ખાનગી શાળાઓના ૪૦% વિદ્યાર્થીઓનો સમાવેશ થતો હતો.

૨. સમાવિષ્ટ શિક્ષણની ધારણાઓ

૭૮% શિક્ષકો સંમત થયા કે સમાવિષ્ટ વર્ગખંડો સમાનતા અને ન્યાયને પ્રોત્સાહન આપે છે. ૭૦% વિદ્યાર્થીઓએ અનુભવ્યું કે સમાવેશી વાતાવરણ સહાનુભૂતિ અને સાથીદારોના સહયોગને પ્રોત્સાહન આપે છે. વહીવટકર્તાઓએ હાંસિયામાં ધકેલાઈ ગયેલા જૂથોમાં ડ્રોપઆઉટ દર ઘટાડવામાં સમાવિષ્ટ નીતિઓની ભૂમિકા પર ભાર મૂક્યો.

૩. શૈક્ષણિક અને સામાજિક લાભો

સમાવિષ્ટ વર્ગખંડોમાં વિશેષ જરૂરિયાતો ધરાવતા વિદ્યાર્થીઓએ વધુ સારી ભાગીદારી અને શૈક્ષણિક આત્મવિશ્વાસ દર્શાવ્યો. અપંગ ન હોય તેવા વિદ્યાર્થીઓએ પણ ટીમવર્ક અને વિવિધતાની સમજમાં સુધારો નોંધાવ્યો. અલગ વાતાવરણની તુલનામાં સમાવિષ્ટ વાતાવરણમાં વિદ્યાર્થીઓમાં ટેસ્ટ સ્કોર્સમાં સામાન્ય પરંતુ સતત સુધારો જોવા મળ્યો.

૪. શિક્ષકની તૈયારી

ફક્ત 45% શિક્ષકો જ સમાવિષ્ટ પ્રથાઓ લાગુ કરવા માટે પૂરતા પ્રમાણમાં તાલીમ પામેલા અનુભવે છે. ઘણાએ વિવિધ વર્ગખંડોને અસરકારક રીતે સંચાલિત કરવા માટે વર્કશોપ અને વ્યાવસાયિક વિકાસ કાર્યક્રમોની જરૂરિયાત પર ભાર મૂક્યો.

૫. પડકારોની જાણ કરવામાં આવી

અપૂરતા સંસાધનો અને માળખાગત સુવિધાઓ (૪૧%)
મોટા વર્ગોના કદ વ્યક્તિગત સપોર્ટને મર્યાદિત કરે છે (36%)
અપંગતા પ્રત્યે નકારાત્મક સામાજિક વલણ (29%)
શિક્ષકો અને વાલીઓ વચ્ચે સહયોગનો અભાવ (25%)
અને માતાપિતા (25%)

9 તારણો અને ચર્ચા

આ અભ્યાસમાં વિદ્યાર્થીઓ, શિક્ષક અને વહીવટકર્તાઓના દ્રષ્ટિકોણનું વિશ્લેષણ કરીને શાળાઓમાં સમાવિષ્ટ શિક્ષણ કેવી રીતે સમાનતા અને સામાજિક ન્યાયને પ્રોત્સાહન આપે છે તેની તપાસ કરવામાં આવી હતી. આ તારણો ઘણા મહત્વપૂર્ણ પરિણામો દર્શાવે છે.

૧. સમાનતા માટેના સાધન તરીકે સમાવિષ્ટ શિક્ષણ

અભ્યાસમાં પુષ્ટિ મળી છે કે સમાવેશી શિક્ષણ ન્યાયીતા અને સમાન તકોમાં નોંધપાત્ર ફાળો આપે છે. શિક્ષકો (78%) અને વિદ્યાર્થીઓ (70%) બંનેએ સ્વીકાર્યું હતું કે સમાવેશી વર્ગખંડો ભેદભાવ ઘટાડે છે અને સહાનુભૂતિને પ્રોત્સાહન આપે છે. આ શોધ એઈન્સકો (2005) અને ફ્રેઝર (2009) સાથે સુસંગત છે, જેમણે સામાજિક ન્યાયના માર્ગ તરીકે સમાવેશ પર ભાર મૂક્યો હતો.

2. શૈક્ષણિક અને સામાજિક લાભો

સમાવિષ્ટ વર્ગખંડોમાં વિશેષ જરૂરિયાતો ધરાવતા વિદ્યાર્થીઓએ શૈક્ષણિક આત્મવિશ્વાસમાં સુધારો અને ઉચ્ચ ભાગીદારી દર દર્શાવ્યો.બિન-વિકલાંગ વિદ્યાર્થીઓએ પણ વધુ ટીમવર્ક, સહિષ્ણુતા અને વિવિધતા પ્રત્યે આદર દર્શાવ્યો.

૩. શિક્ષક અને પ્રશાસકની ધારણાઓ

જ્યારે શિક્ષકોએ સમાવેશી પ્રથાઓના મૂલ્યને સ્વીકાર્યું, ત્યારે ફક્ત 45% લોકોએ વિવિધ વર્ગખંડોને સંભાળવા માટે પૂરતા પ્રમાણમાં તૈયાર અનુભવ્યું. વહીવટકર્તાઓએ ભાર મૂક્યો કે સમાવેશી નીતિઓએ ડ્રોપઆઉટ દર ઘટાડ્યો અને શાળા-સમુદાય સંબંધોમાં વધારો કર્યો. આ સૂચવે છે કે સમાનતા અને ન્યાય પ્રાપ્ત કરવા માટે સંસ્થાકીય પ્રતિબદ્ધતા મહત્વપૂર્ણ છે.

૪. અમલીકરણમાં પડકારો

આ અભ્યાસમાં અપૂરતા સંસાધનો, મોટા વર્ગ કદ અને નકારાત્મક સામાજિક વલણ જેવા સતત પડકારો પર પ્રકાશ પાડવામાં આવ્યો હતો. મર્યાદિત તાલીમ અને સમર્થનના અભાવને કારણે શિક્ષકો ઘણીવાર દબાયેલા અનુભવતા હતા.

૫. નીતિ અને વ્યવહાર માટે અસરો

આ તારણો મજબૂત નીતિઓ, વ્યાવસાયિક તાલીમ અને પર્યાપ્ત માળખાગત સુવિધાઓ દ્વારા સમાવિષ્ટ શિક્ષણને ટેકો આપવાની જરૂરિયાત પર ભાર મૂકે છે. આ સમર્થન વિના, સમાવિષ્ટ શિક્ષણ પરિવર્તનશીલ બનવાને બદલે પ્રતીકાત્મક બનવાનું જોખમ ધરાવે છે.

10 નિષ્કર્ષ અને સૂચનો

આ અભ્યાસ તારણ આપે છે કે સમાવિષ્ટ શિક્ષણ શાળાઓમાં સમાનતા અને સામાજિક ન્યાયને પ્રોત્સાહન આપવામાં મહત્વપૂર્ણ ભૂમિકા ભજવે છે. વિવિધ ક્ષમતાઓ અને પૃષ્ઠભૂમિના વિદ્યાર્થીઓને મુખ્ય પ્રવાહના વર્ગખંડોમાં એકીકૃત કરીને, સમાવિષ્ટ શિક્ષણ સહાનુભૂતિ, સહયોગ અને ન્યાયીપણાને પ્રોત્સાહન આપે છે. જો કે, સમાવેશની સફળતા શિક્ષકની તૈયારી, સંસ્થાકીય સમર્થન અને સામાજિક વલણ પર આધારિત છે.

૧. શિક્ષક શિક્ષણ કાર્યક્રમોમાં વિવિધ શીખનારાઓ માટે વિશિષ્ટ તાલીમ સમાવિષ્ટ પ્રથાઓ અને વર્ગખંડ વ્યવસ્થાપનને એકીકૃત કરવું જોઈએ.

2. સરકારો અને શાળાઓએ સમાવિષ્ટ વર્ગખંડોને ટેકો આપવા માટે માળખાગત સુવિધાઓ, શિક્ષણ સહાય અને સહાયક તકનીકોમાં રોકાણ કરવું જોઈએ.

૩. નીતિઓમાં ખાસ જરૂરિયાતો ધરાવતા વિદ્યાર્થીઓને વ્યક્તિગત સહાય પૂરી પાડવા માટે નાના વર્ગોનું કદ ફરજિયાત બનાવવું જોઈએ.

૪. કલંક ઘટાડવા અને સમાવેશની સ્વીકૃતિને પ્રોત્સાહન આપવા માટે માતાપિતા અને સમુદાય જાગૃતિ અભિયાનો ચલાવવા જોઈએ

૫. બધા વિદ્યાર્થીઓ માટે સર્વાંગી સમર્થન સુનિશ્ચિત કરવા માટે સામાન્ય અને વિશેષ શિક્ષકો વચ્ચે સહયોગ મજબૂત બનાવવો જોઈએ.

આ પગલાં અપનાવીને, સમાવિષ્ટ શિક્ષણ નીતિગત વાતોથી આગળ વધીને શાળાઓમાં સમાનતા અને સામાજિક ન્યાય પ્રાપ્ત કરવા માટે એક શક્તિશાળી સાધન બની શકે છે

11 ઉપસંહાર

સમાવિષ્ટ શિક્ષણ એ એક એવી શૈક્ષણિક પધ્ધતિ છે જે તમામ વિદ્યાર્થીઓને તેમની પાશ્વભૂમિકા, જાતિ, ધર્મ, આર્થિક સ્થિતિ, અથવા શારીરિક ક્ષમતાને ધ્યાનમાં લીધા વિના સમાન તકો અને સારવાર પ્રદાન કરે છે. શાળાઓમાં સમાનતા અને સામાજિક ન્યાયને પ્રોત્સાહન આપવામાં સમાવિષ્ટ શિક્ષણની ભૂમિકા ખૂબ જ મહત્વપૂર્ણ છે. સમાવિષ્ટ શિક્ષણ એ હાલના સમયની તાતી જરૂરિયાત છે કારણ કે કોઈ પણ રાષ્ટ્રના નિર્માણમાં દરેક પ્રકારના લોકોનો જુદી જુદી રીતે ફાળો રહેલો હોય છે સમાવિષ્ટ શિક્ષણ એ શાળા,સમાજ,કુટુંબ અને રાષ્ટ્રના નિર્માણમાં અગત્યનો ભાગ ભજવે છે .

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પ્રાથમિક શાળામાં મૂલ્ય શિક્ષણ

ગૌતમકુમાર કિશોરભાઈ શીલુ
રીસર્ચ સ્કૉલર- ભક્ત કવિ નરસિંહ મહેતા યુનિવર્સિટી, જૂનાગઢ

પ્રસ્તાવના

શિક્ષણ એ બાળકના સર્વાંગી વિકાસની પ્રક્રિયા છે. આમ જોવા જઈએ તો શિક્ષણના ઘણા હેતુઓ છે પરંતુ કહી શકાય કે શિક્ષણનો મુખ્ય હેતુ બાળકોમાં મૂલ્યોનું સ્થાપન કરવાનો છે. ચારિત્ર્ય નિર્માણ પર જ શિક્ષણનો પાયો નંખાય છે. શિક્ષણદ્વારા જ માનવીનો યોગ્ય વિકાસ થાય છે અને તે તમામ વિદ્યાશાખાઓમાં અપાતું હોય છે. કોઈપણ ક્ષેત્ર મૂલ્ય શિક્ષણ વિનાનું ન જ હોય. વિજ્ઞાન, વાણિજ્ય, ઈજનેરી અને વૈદકીય આમ તમામ વિદ્યાશાખાઓમાં મૂલ્યશિક્ષણ કોઈને કોઈ સ્વરૂપમાં પ્રાપ્ત થાય જ છે. મૂલ્યશિક્ષણના તજજ્ઞો એવું કહે છે. કે **"મૂલ્યશિક્ષણ એ કોઈ સ્વતંત્ર વિષય નથી પરંતુ વિષયવસ્તુના જ્ઞાનાત્મક પાસા સાથે ભાવાત્મક સંબંધ જોડી શિક્ષણ પ્રક્રિયામાં તેને સાંકડી શકાય."**[1]

નવી રાષ્ટ્રીય શિક્ષણ નીતિ ૨૦૨૦માં ૨૧મી સદીના શિક્ષણ માટે માત્ર સાક્ષરતા કે સંખ્યાજ્ઞાનની જ વાત કરી નથી. પરંતુ સાથે સાથે નૈતિક, સામાજિક, ભાવનાત્મક સ્તર પર વ્યક્તિના વિકાસની વાત તથા ભારતની પરંપરા અને સાંસ્કૃતિક મૂલયોના આધારોને યથાવત રાખવાની વાત કરવામાં આવી છે. આમ જો પારંભિક કાલ એટલે પ્રાથમિક શિક્ષણથી જ બાળકોમાં મૂલ્યો વિકસાવવામાં આવશે તો જ સાચા અર્થમાં મૂલ્યશિક્ષણ મેળવશે.

મૂલ્યશિક્ષણની વ્યાખ્યા

મૂલ્યશિક્ષણની વ્યાખ્યા કરતાં સ્વામી વિદિતાત્માનંદજી કહે છે કે **"મૂલ્યશિક્ષણ એ ખૂબ અગત્યનો માઈલસ્ટોન છે. મૂલ્યો કેળવવાથી માનવમાં પરિપક્વતા આવે છે. જિજ્ઞાસા જન્મે છે. જ્ઞાન પ્રાપ્ત કરવાની યોગ્યતા પ્રાપ્ત થાય છે. તેના થકી જ જીવનનું ધ્યેય સિદ્ધ કરી શકે છે."**[2] મૂલ્યોના પાલનથી જ માનવી વિશ્વ સાથે સંવાદિતા સ્થાપીને વ્યક્તિત્વને સુગ્રથિત બનાવી શકે છે. આ માટે મૂલ્યનિષ્ઠ વર્તન જ આવશ્યક છે, જે મૂલ્યશિક્ષણ દ્વારા જ શક્ય બને છે.

આપણાં વેદ, ઉપનિષદ અને પુરાણો એ મૂલ્યોના આદિસ્રોત અને શ્રેષ્ઠતમ મૂલ્યોની ખાણ સમાન છે. મૂલ્ય એટેલે સમાજવ્યવસ્થા, સંસારવ્યવસ્થા ટકાવી રાખવા વિશુદ્ધ સંસારચક્રના પ્રવર્તન માટેની આદર્શ આચારસંહિતા તેવું અવશ્ય કહી શકાય. ભારતની પૌરાણિક સમયમાં શિક્ષણવ્યવસ્થા એ પ્રકારની હતી કે બાળકોમાં મૂલ્યોને સરળતાથી સ્થાપિત કરી શકાતા હતા. આથી જ આજના આ સમયની શિક્ષણવ્યવસ્થામાં અભ્યાસક્રમ દ્વારા જ બાળકોમાં મૂલ્ય ઓળખ ઉભી થાય અને મૂલ્ય અંગેનું સાચું જ્ઞાન, સમજ તેના આધારે બાળકો મેળવી શકે. આથી જ નવી રાષ્ટ્રીય શિક્ષણનીતિમાં તેમજ પહેલાની બધી જ શિક્ષણનીતિઓમાં બાળક પ્રારંભિક કાળથી જ મૂલ્યશિક્ષણ મેળવે તે જરૂરી સમજયું છે. અને વિવિધ રીતે તેને બાળકોમાં કેળવી શકાય તેના પ્રયત્નો સતત કરતાં રહેવાથી જ મૂલ્યશિક્ષણ દ્વારા એક શ્રેષ્ઠ નાગરિક બનાવી શકાય છે.

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[1] પટેલ, ડૉ. હરિભાઈ એસ., મૂલ્ય શિક્ષણ, ગુર્જર પ્રકાશન, અમદાવાદ, ૧૯૯૭, પૃ.-૧૧૬.

[2] સ્વામી વિદિતાત્માનંદ, મૂલ્યો:આત્મજ્ઞાનનું દ્વાર, સાહિત્ય મુદ્રણાલય પ્રા. લિ., અમદાવાદ, ૧૯૯૭, પૃ.-૧૧૬.```

મૂલ્યશિક્ષણ પ્રાપ્ત કરવાના માધ્યમો

મૂલ્યશિક્ષણ એ મૂલ્યોનો પરિચય આપવાનું કાર્ય કરે છે. મૂલ્યોને ઓળખવા અને તેનો અર્થા તથા મહત્ત્વ સમજવું એટલે જ મૂલ્યશિક્ષણ. મૂલ્યશિક્ષણ એટેલે વિવિધ મૂલ્યોના અર્થા આપવા, તેની જરૂરીયાતની સમાજ ઊભી કરવી. સમયાંતરે થતાં મૂલ્યોમાં પરિવર્તનો વિશેની સમજ કેળવવી. વિવિધ પ્રકારના મૂલ્યોનો પરિચય કરાવવો. વર્તમાન સમયમાં એ જરૂરી છે કે ફક્ત કથનને બદલે અન્ય માધ્યમોનો ઉપયોગ કરવામાં આવે જેના થકી અધ્યેતા નીચે મુજબના લાભ પ્રાપ્ત કરી શકે તે માટે શિક્ષણકાર્ય જ મુખ્ય આધાર છે.

- વિદ્યાર્થીઓનો રસ જળવાઈ રહે તે માટે વિવિધ પ્રવૃત્તિઓ દ્વારા મૂલ્યપ્રાપ્તિ થાય તેવું આયોજન કરવું.
- વિદ્યાર્થીઓ જાતે જ ચિંતન, મનન અને કાર્ય કરતાં થાય.
- પોતે ભણેલી, જોયેલી અને અનુભવેલી બાબતથી મૂલ્યોની પ્રાપ્તિ કરે.
- પ્રદર્શનો તેમજ વિવિધ વ્યક્તિ વિશેષના વિવિધ દિનની ઉજવણી કરે.
- વિષયો-વિષયાંગોનું નાટ્યીકરણ કરી-ભજવી ઊંડાણપૂર્વકની સમજ કેળવવાનો પ્રયાસ કરે.
- વિવિધ મૂલ્યોને પ્રદર્શિત કરતાં પુસ્તકોનું વાંચન તથા તેના આધારે મૂલ્ય સમજવાનો પ્રયત્ન કરે.
- બોધકથાઓ, જીવનચરિત્રો દ્વારા ઉદાહરણોની બાળકો સમક્ષ રજૂઆત કરે તથા તેમાં નિષ્પન્ન થતાં મૂલ્યોને સમજે.
- દ્રશ્ય-શ્રાવ્ય માધ્યમો દ્વારા વિવિધ ઐતિહાસિક ઘટનાઓનું નિદર્શન, ચિત્રણ થતાં તેમાથી નિષ્પન્ન થતાં મૂલ્યોને સમજે.
- મૂલ્ય આધારિત વિવિધ વિષયાંગોનું પ્રાશ્નિકીકરણ કરીને બાળકોમાં મૂલ્યો વિશેનો રસ-સમજનો વિકાસ થાય .

પ્રાથમિક શિક્ષણમાં મૂલ્યોના પ્રકાર

મૂલ્યોના ઘણા પ્રકારો છે. પણ મારા માનવા પ્રમાણે પ્રાથમિક શિક્ષણમાં બાળકો નીચે મુજબ મૂલ્યોને પ્રાપ્ત કરે છે

૧. શારીરિક મૂલ્ય
૨. આર્થિક મૂલ્ય
૩. બૌદ્ધિક મૂલ્ય
૪. સંસ્કૃતિક મૂલ્ય
૫. નૈતિક મૂલ્ય
૬. રાષ્ટ્રીય મૂલ્ય

આમ ઉપરોક્ત મૂલ્યો પ્રાથમિક શાળામાં કોઈ ને કોઈ પ્રવૃત્તિ અથવા અભ્યાસ દ્વારા પોતાના જીવનમાં કેળવે છે. તે નીચે વિસ્તારથી છે.

૧. શારીરિક મૂલ્ય

'शरीरमाद्यं खलु धर्मसाधनम्' સંસ્કૃતમાં આપેલ પ્રસિદ્ધ સૂક્તિનો અર્થ છે કે શરીર એ સર્વ કાર્ય કરવા માટેનું આદ્ય (પ્રથમ) સાધન છે. શરીર સ્વસ્થ તો મન સ્વસ્થ. આમ, બાળકનું શરીર તંદુરસ્ત હશે તો તેનું મન પણ તંદુરસ્ત રહેશે. આપણે શાળામાં ઘણી પ્રવૃત્તિઓ કરીએ છીએ. જેમ કે યોગ, કસરત, વિવિધ રમતો આનાથી બાળક શારીરિક મૂલ્ય પ્રાપ્ત કરે છે. આથી જીવનમાં શારીરિક મૂલ્યનો વિકાસ બાળપણથી જ થાય છે.

૨. આર્થિક મૂલ્ય

'साहसे श्रीः प्रतिवसति' અર્થાત સાહસમાં લક્ષ્મીનો વાસ હોય છે. તેમજ અર્થોપાર્જન માટે સાહસ ખૂબ જ જરૂરી છે. પ્રાથમિક શાળાના બાળકો આર્થિક મૂલ્ય બાબતે પ્રવૃત્ત થાય, પોતાને તે બાબતે સમજાવે તે માટે દર વર્ષે લાઈફ સ્કીલ આધારિત બાળમેળાનું આયોજન કરવામાં આવે છે. જેમાં બાળક વિવિધ પ્રવૃત્તિઓ દ્વારા અર્થોપાર્જન કેવી રીતે શક્ય બને તે જાણે છે અને શીખે છે. આમ જીવનમાં આર્થિક મૂલ્યનો વિકાસ થાય છે.

3. બૌદ્ધિક મૂલ્ય

'बुद्धिर्यस्य बलं तस्य' અર્થાત જેની બુદ્ધિ તેનું બળ. માણસ બુદ્ધિના બળે ક્યાં ક્યાં પહોચી ગયા તેની કલ્પના પણ કોઈએ કરી નહોતી. આમ પ્રાથમિક શિક્ષણ અથવા કોઈપણ શિક્ષણ મેળવવા અથવા ઉચ્ચ ગુણવત્તા પામવા ઉચ્ચ બૌદ્ધિક ક્ષમતા મેળવવી પડે છે. આ એક એવું મૂલ્ય છે જેનો વિકાસ ધીમે-ધીમે થાય છે. બાળકો જુદા-જુદા વિષયનો અભ્યાસ કરી તેનું જ્ઞાન મેળવી એકમ કસોટી દ્વારા પોતાનો બૌદ્ધિક વિકાસ ચકાસી શકે છે. તેમજ વિવિધ ગાણિતિક કોયડા, તાર્કિક અભિયોગ્યતાથી વિદ્યાર્થીઓ બૌદ્ધિક મૂલ્યો પ્રાપ્ત કરે છે.

૪. સાંકૃતિક મૂલ્ય

'उत्सवप्रियाः खलु मानवाः' અર્થાત ખરેખર મનુષ્યો ઉત્સવપ્રિય છે. મનુષ્યોને તહેવાર ઉજવવા ખૂબ જ ગમે છે. આપણી ભારતીય સંસ્કૃતિ જ તહેવારો છે. સંસ્કૃતિ એ મનુષ્યની જીવનશૈલી છે તે વર્તનની એક ખાસ પરંપરા છે. સંસ્કૃતિ અને શિક્ષણનો ગાઢ સંબંધ છે. સામાન્ય રીતે સંસ્કૃતિ વ્યક્તિને વારસામાં મળે છે. કુટુંબમાં મોટેરાઓના વર્તન દ્વારા બાળકો તેને શીખે છે. આપો-આપ મેળવે છે. આથી ખૂબ જ સહજ રીતે માણસને સાંસ્કૃતિક વારસો મળી રહે છે. શાળામાં પણ બાળકો પ્રાર્થના સભામાં તેમજ વિવિધ ધાર્મિક તહેવારો ઉજવીને સાંસ્કૃતિક મૂલ્યને ઉજાગર કરે છે. સાહજિક રૂપે મેળવે છે.

૫. નૈતિક મૂલ્ય

'शीलं परम् भूषणम्' અર્થાત ચારિત્ર્ય જ સર્વશ્રેષ્ઠ ઘરેણું (આભૂષણ) છે. નૈતિક મૂલ્ય દ્વારા જ ઉત્તમ ચારિત્ર્ય ઘડતર થાય છે. ઉમદા ચારિત્ર્ય દ્વારા જ મનુષ્ય શ્રેષ્ઠતા પામે છે. સત્ય, અહિંસા, ધર્મનું આચરણ વગેરે જેવા નૈતિક મૂલ્યો આપણા અભ્યાસક્રમમાં વણાયેલા છે. તો આના દ્વારા જ બાળકો પ્રારંભિક સ્તરથી જ નૈતિકતા પ્રાપ્ત કરે છે અને ધીરે-ધીરે તેનામાં નૈતિક મૂલ્યોનો વિકાસ થાય છે. આથી સારા ચારિત્ર્ય નિર્માણ માટે આપણે સતત પ્રયત્નશીલ થવું જોઈએ.

૬. રાષ્ટ્રીય મૂલ્ય

'वयं राष्ट्रे जागृयामः' અર્થાત આપણે સૌ લોકોએ રાષ્ટ્ર માટે જાગૃત રહેવું જોઈએ. બાળકોમાં બધા જ મૂલ્યો સાથે સાથે રાષ્ટ્રીય મૂલ્ય પણ વિકસાવવું જોઈએ. સૌપ્રથમ તેમાં સ્વચ્છતા, રાષ્ટ્ર પ્રત્યે સમ્માન, સામાજિક જવાબદારી, સહિષ્ણુતા, સર્વધર્મસમભાવ વગેરે જેવા રાષ્ટ્રીય મૂલ્યોનો તે પોતાના જીવનમાં કેળવે તે માટે આપણે પ્રયત્નશીલ રહેવું જોઈએ. તેમજ પ્રાથમિક શિક્ષનમાં વિવિધ પ્રવૃત્તિઓ, શાળા સ્વચ્છતા વગેરે દ્વારા બાળકો આ મૂલ્ય કેળવે છે.

ઉપસંહાર

ભાગ્યે જ કોઈ એવો મનુષ્ય હશે જેને મૂલ્ય સાથે નાતો ન હોય. માનવી વિચારશીલ પ્રાણી ગણાય છે. તો માણસ જ્યારે થોડો પરિપક્વ થાય એટ્લે વિચારો કરવા માંડે છે. આમ કરતાં-કરતાં મનુષ્યો મૂલ્યને સહજ જ પ્રાપ્ત કરે છે. આવી જ રીતે પ્રાથમિક શિક્ષણમાં પણ વિદ્યાર્થીઓમાં નિહિત મૂલ્યોનો વિકાસ થાય તે માટે આપણે અભ્યાસ, સહ અભ્યાસીક પ્રવૃત્તિ, ઈતર પ્રવૃત્તિ કરાવવી જોઈએ જેથી બાળકો મૂલ્યશિક્ષણ પ્રાપ્ત કરે.

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ROLE OF ARTIFICIAL INTELLIGENCE (AI) IN COMMERCE EDUCATION

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ABSTRACT

Artificial Intelligence (IA)) is innovating rapidly in diverse fields, and commercial education is one of them. The integration of AI in study plans and commercial pedagogy has redefined how students learn, how professors teach and how institutions manage academic performance. Tools based on IA, such as intelligent tutoring systems, adaptive learning platforms and virtual teaching assistants, allow personalized and efficient learning experiences. In the commercial field, where subjects like accounting, finance, marketing and business analysis require both theoretical knowledge and practical application, simulation, data analysis and predictive modeling based on IA provide tools that close the gap between classroom learning and industry expectations.

Artificial Intelligence (IA) has quickly become a pillar of technological transformation in the whole world. In India, the integration of AI in education, especially in commercial education, has opened up new avenues for teaching, learning and research. As the Indian educational system experiences a digital evolution driven by initiatives such as the National Policy of Education (NEP) 2020 and "India Digital", IA offers a huge potential to modernize commercial education, align study plans with the needs of the industry and improve the employability of students. This article explores the importance, uses, challenges and future perspectives of AI in the teaching of commerce in the Indian context.

Key Words: Artificial Intelligence (AI), Commerce, Education Mechanism,

1. INTRODUCTION:

Artificial Intelligence (AI) is revolutionizing business education by improving how students learn, how teachers teach, and how organizations operate. As business-related fields such as finance, accounting, marketing, and economics become increasingly data-driven, the integration of AI tools into the educational environment is helping to bridge the gap between academic theory and business practice.

In the classroom, AI is fostering personalized learning through platforms that easily adapt to each student's needs and performance levels. AI-powered chatbots and virtual teaching assistants provide on-demand support, while automated assessment tools streamline grading and provide immediate feedback.

Business education is also benefiting from AI-powered data analytics, which enables students to work with real-time datasets and develop practical skills in areas such as financial forecasting, consumer behavior analysis, and supply chain optimization. AI-powered business simulations and virtual labs create immersive, hands-on experiences that simulate real-world business scenarios.

At the organizational level, AI makes it easier for institutions to track student performance, plan core curriculum, and allocate resources, making education more efficient and data-driven. While AI implementation also presents challenges such as the digital divide, data security, and the need for teachers to acquire innovative methodological skills,

Overall, AI is not just a tool, but a transformative force in commercial education, equipping students with the skills needed for the future job market and redefining how education is delivered and managed.

2. AI IN THE CONTEXT OF INDIAN HIGHER EDUCATION

The Government of India has recognized AI as a priority area for development. Initiatives such as "National AI Strategy" (NITI Aayog, 2018), "AI for All" (2021), and the National Education Policy (NEP) 2020 emphasize the integration of emerging technologies in higher education. The NEP advocates for multidisciplinary, technology-driven learning and encourages institutions to adopt AI tools for both academic and administrative purposes.

In commerce education, this integration aligns with the growing demand for professionals skilled in financial analytics, digital marketing, e-commerce, and data interpretation. The University Grants Commission (UGC) and All India Council for Technical Education (AICTE) have also encouraged universities to develop AI-based courses and modules as part of commerce and management curricula.

Commerce education in India has traditionally focused on subjects such as accounting, business administration, economics, taxation and finance. However, with the rapid globalization of markets and the rise of data-driven economies, traditional business curricula are no longer sufficient to meet modern industrial demands. The Fourth Industrial Revolution (Industry 4.0) has brought technologies such as artificial intelligence, machine learning (ML), blockchain and big data analytics, which are redefining how businesses operate and make decisions.

3. APPLICATIONS OF AI IN COMMERCE EDUCATION

1. Personalized Learning

Artificial intelligence-based platforms analyze students' learning patterns, strengths, and weaknesses to personalize educational content. Adaptive learning systems, such as Coursera, edX, and Google Classroom, integrate AI algorithms to recommend specific study materials or exercises that match each student's learning pace and preferences

.2. Virtual Teaching Assistants

AI-powered chatbots and virtual assistants can answer student questions, provide immediate feedback, and help teachers manage administrative tasks. This ensures a more interactive and accessible learning experience even outside of class time.

3. Data Analytics and Decision-Making

Commerce students can use AI tools for real-time data analysis, forecasting, and financial modeling. Incorporating AI-powered analytics software like Power BI and Tableau into the curriculum equips students with practical, industry-relevant skills.

4. Smart Assessment Systems

AI can automate assessment through pattern recognition and natural language processing. Objective tests, essay grading, and plagiarism detection have become more efficient, allowing teachers to focus more on conceptual learning and guidance.

5. Career Guidance and Skill Mapping

AI applications in career guidance help identify appropriate career paths for students based on their aptitude, performance, and market trends. AI-based platforms analyze labor market needs, enabling business students to align their learning outcomes with the skills needed for employment.

4. BENEFITS OF AI INTEGRATION IN COMMERCE EDUCATION

1. Increased learning efficiency: AI tools provide immediate feedback and personalized resources, improving understanding and retention**.**

2. Bridging the skills gap: The use of AI-powered analysis tools prepares business students for emerging roles in financial technology, data analytics, and digital marketing.

3. Improved accessibility: AI-powered online learning systems make quality education accessible to students from diverse geographic locations and socioeconomic backgrounds**.**

4. Valuable insights for teachers: Teachers can monitor student progress in real time and adjust their teaching methods based on performance analytics.

5. Challenges and Limitations

Despite its advantages, integrating AI into commerce education poses several challenges:

1. High implementation costs: Many educational institutions face financial constraints in adopting AI technology.

2. Lack of teacher training: Teachers need adequate training to effectively use AI tools and integrate them into their teaching**.**

3. Data privacy and ethics: The use of student data for AI analysis raises ethical and privacy concerns.

4. Digital divide: Unequal access to digital resources can widen the educational gap between urban and rural students.

6. CONCLUSION

AI is not just a technological trend, but a pedagogical revolution. In business education, AI offers the potential to make learning more personalized, practical, and globally competitive. By adopting AI responsibly, educators can produce future-ready graduates equipped with the analytical, technological, and ethical skills demanded by today's business world.

AI, defined as the simulation of human intelligence by machines, enables automation, predictive analytics, and data-driven decision-making. In the context of business education, AI has the potential to revolutionize classroom learning, assessment methods, administrative efficiency, and collaboration with industry. Universities and higher education institutions in India are finding ways to integrate AI into their pedagogy, equipping students with the digital skills needed for the 21st-century job market.

Artificial intelligence (AI) has established itself as a transformative force across various sectors, and education is no exception. In the field of business education, AI offers new possibilities for personalized learning, data-driven decision-making, and enhanced employability. This article explores the growing role of AI in business education, highlighting its uses, benefits, challenges, and future prospects.

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‘એક સિગરેટ એક ધૂપસળી’ વાર્તાસંગ્રહમાં આલેખાયેલ નારી સંવેદના

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ઈલાબહેનના પતિ ડૉ. આરબ મહેતાનો જન્મ એડનમાં થયો હતો. આથી હુલામણું નામ 'આરબ' રાખેલું ને પછી તે કાયમ જાળવી રાખ્યું. એક તબીબશાસ્ત્રમાં તો બીજા સાહિત્યશાસ્ત્રમાં નિષ્ણાત હોવા છતા બંનેના વિચારોમાં સાયુજય હતું. લગ્ન બાદ બે વર્ષ બાદ ૧૯૬૬માં પ્રથમ સંતાન પુત્ર સલીલનો જન્મ થયો. ત્યારબાદ ૧૯૬૭ માં પુત્રી સોનાલીનો જન્મ થયો. બંને બાળકોના ઉછેર માટે ઈલાબહેને નોકરીમાંથી રાજીનામું આપ્યું. બાળકો મોટાં થયાં. બંનેએ શાળાએ જવાનું શરૂ કર્યું. ત્યાર પછી ફરી તેમણે સેંટ ઝેવિયર્સ કૉલેજમાં પાર્ટ-ટાઈમની નોકરી સ્વીકારી. સિદ્ધહસ્ત સાહિત્યકાર પિતાની પુત્રી હોવાને નાતે લેખન પ્રવૃત્તિ એમને વારસામાં મળેલી. બાળપણથી જ અભ્યાસ ઉપરાંત અન્ય વાંચનનો શોખ હોવાથી ઈલાબહેને ગીતા, ઉપનિષદ વગેરેનો ઉંડો પરિચય મેળવ્યો હતો. ગુજરાતી-સંસ્કૃત તેમના શોખના વિષયો હતા. છતાં અંગ્રેજી શીખવાના ઉત્સાહને કારણે અંગ્રેજી સાહિત્યની જાણકારી પણ મેળવી હતી.

વિશાળ વાંચનને કારણે વારસામાં મળેલી લેખનવૃત્તિ જાગૃત થઈ. ૧૯૬૬માં પુત્ર સલીલ બે-ત્રણ મહિનાનો હતો ત્યારે તેમની પ્રથમ નવલકથા ‘ત્રિકોણની ત્રણ રેખા’ પ્રગટ થઈ. ત્યાર પછી ધીમે ધીમે તેમનું લેખનકાર્ય આગળ ચાલ્યું. જેના પરિપાકરૂપે પંદર જેટલી નવલકથા અને બે નવલિકાસંગ્રહ મળ્યાં. પિતાએ લખેલ દરિયાઈ સાહસની કથાઓમાંથી પ્રેરણા લઈ ઈલાબહેને ‘દરિયાનો માણસ’ નવલકથા લખી. પતિ ડોક્ટર હોવાથી ઈલાબહેન તબીબીશાસ્ત્ર વિશે ઘણું જ્ઞાન ધરાવતાં થયા હતા. જેના ફળ સ્વરૂપે તેમણે ‘બત્રીસ લક્ષણો’નું સર્જન કરેલું. પિતાના મિત્ર ધનસુખલાલ રાઈટર ઈલાબહેનને લેખનપ્રવૃત્તિ માટે વારંવાર પ્રોત્સાહિત કરતા. સસરા એન્જિનિયર હોવાથી તેમના તરફથી પણ પૂરતું પ્રોત્સાહન મળતું હતું. આમ, લેખન પ્રવૃત્તિ માટે કૌટુંબિક વાતાવરણ અનુકૂળ હોવાથી ઈલાબહેને ગુજરાતી સાહિત્યને સમૃદ્ધ કર્યું છે.

પોતાની આ લેખન-પ્રવૃત્તિ કે રસ-રુચિને પ્રોત્સાહિત કરતો ઈલા આરબ મહેતાનો પ્રથમ વાર્તાસંગ્રહ ‘એક સિગરેટ એક ધૂપસળી’ છે. આ વાર્તાસંગ્રહમાં ‘એક સિગરેટ એક ધૂપસળી’, ‘સોનેરી આકાશ’, ‘ક્ષિતિજ’, ‘વૃક્ષ વાવ્યું’, ‘સ્મશાનયાત્રા’, ‘આજે સાંજે’,'પાંખ’, ‘સંબંધોના રણ’, ‘ગુજરાતીનો પ્રોફેસર’, ‘સમર્પિતા’, ‘દુશ્મનાવટ’, ‘પર’, ‘ઘરને ઉબરે’, ‘ચહેરો’, ‘સોદો’, ‘રસ્તો’, ‘થોર’, ‘હું પણ એ જ વિચારતી હતી’, ‘સ્માઈલ’, ‘સુખીનીબા’, ‘વારસો’, ‘અહલ્યા’ વગેરે બાવીસ વાર્તાઓનો સમાવેશ થાય છે.

જેમાંથી ‘એક સિગરેટ એક ધૂપસળી’, ‘ક્ષિતિજ’, ‘વૃક્ષ વાવ્યું’, ‘આજે સાંજે’, ‘પાંખ’, ‘સંબંધોના રણ’, ‘સમર્પિતા’, ‘ઘરને ઉબરે’, ‘ચહેરો’, ‘હું પણ એ જ વિચારતી હતી’, ‘સુખીનીબા’, ‘અહલ્યા’ વગેરે વાર્તાઓ નારીના જીવનને, મનને કે તેની સંવેદનાને કયાંકને કયાંક સ્પર્શે છે.

'એક સિગરેટ એક ધુપસળી' વાર્તામાં શુભાના જીવનને, સુખ દુ:ખને સિગરેટ અને ધૂપસળીના પ્રતીક દ્વારા મૂકેલું છે. સિગરેટ અને ધૂપસળી બન્ને સળગે છે. બન્નેમાંથી ધ્રુમસેર ઊઠે છે. પરંતુ ધૂપસળીની પવિત્રતા સામે સિગરેટ પ્રત્યેનો તિરસ્કાર - વિરોધ મૂકીને, વ્યક્તિના માન-અપમાનને અહીં લેખિકા પ્રતીકાત્મક રીતે વ્યક્ત કરે છે.

લગ્નના ચાર જ મહિનામાં પતિ સુબોધ તથા સસરાને ગુમાવનારી ડૉક્ટર શુભા–સાસુ સાથે એકલતાના કપરા દિવસો યંત્રવત ગુજારે છે, અને જીવનની કોઈ એવી હતાશાની એકલતાની ભીંસી નાંખતી ક્ષણે સિગરેટ પીતા શીખી જાય છે. તેની વ્યસની બની જાય છે. તેમાંયે બહારગામ ગયેલા બાની ગેરહાજરીમાં તો સિગરેટ પીવામાં કોઈ અડચણ નહોતી. પરંતુ તેમના આવ્યા પછી શું થશે ? ના વિચારો મનને ઘેરી વળે છે. આ મનોમંથનમાં સ્ત્રી હૃદયના, મનના ભાવોને નારીની ચેતનાને લેખિકા સચોટતાથી મૂકી આપેછે. સાસુના આવી ગયા પછી એનકેન પ્રકારે તે પોતાની સિગરેટની તલપ બુઝાવી લે છે. અહીં કેવળ શુભા સિગરેટ માટે જ તડપે છે તેવું નથી પરંતુ યુવાનીમાં વિધવા થયેલી આ સ્ત્રીની સાથી-સંગાથીની હૂંફ માટેની તરસ કે એકલતાથી ઉબાઈ ગયેલી જિંદગીને ભરી-ભરી બનાવવાની તલપનું પણ પ્રતીકાત્મક આલેખન જોવા મળે છે. શુભા મનોમન ડરે છે કે રખેને પોતાના મનના ભાવ કે વ્યસન વિશે કોઈને ખબર પડશે તો? કારણ કે સમાજ તો હંમેશા સ્ત્રીઓનું જીવન, તેમાંયે વિધવા સ્ત્રીનું જીવન તો ધૂપસળી સમાન સંસ્કારની મહેંકવાળું જ હોવું જોઈએ તેમ માને છે. આવો જ ભાવ શુભાના જીવન વિશે રાખતા શબ્દો બા કહે છે : "મામા તો મો-ફાટ વખાણ કરે હો શુભા, મને કહે શુભા તો સાચે જ દેવી છે. એનું જીવન એટલે ધૂપસળી, જાતે બળીને બીજાને સુગંધ આપે."[૧]

આવું વિચારતાં ઘરનાં સભ્યો કે સમાજ તે સ્ત્રીની અંગત લાગણીઓ વિશે કદી વિચાર નથી કરતાં. ભલેને તે સ્ત્રીનું જીવન જ ગુંગળાઈ જાય અથવા તો તે વ્યક્તિની હયાતીની ભાવના જ સમૂળગી ઉખડી જાય. તે બધું ચાલે તેની કોઈને ચિંતા નથી, કે નથી સમાજને તેની કંઈ પડી. સમાજ અને સરેરાશ સ્વજનો તો કોઈ પણ ભોગે ઈચ્છે છે કે "સાચી હિન્દુ વિધવા રત્નસમી છે."[૨]

પરંતુ પેલી સ્ત્રીથી જો આ રત્નપણું ન જળવાય અથવા તો પુરુષપ્રધાન સમાજે તેના માટે જે સીમાઓ આંકી છે તેનાથી ઉફરા ચલાય તો ? તો તો જાણે આભ જ તૂટી પડે છે. સમાજે બનાવેલા નિશ્ચિત ઢાંચાની બહાર કંઈક સ્ત્રીના હાથે બને એટલે તો મોટો અનર્થ જ સર્જાય જાય છે. તેમાંયે યુવાન વિધવાની સંવેદનાઓને ઉલટાની વધારે કચડવામાં આવે છે. તેના વિશે અભ્યાસ કરનાર શ્રી રામ આહુજા જણાવે છે કે, "વૃદ્ધ વિધવાઓ કરતાં યુવાન વિધવાઓને વધુ અપમાનિત તથા હેરાન કરવામાં આવતી હોય છે. તેનું શોષણ પણ વધુ થતું હોય છે."[૩]

આ વાર્તામાં પણ શુભાના વખાણ કરતાં, તેના જીવનની ઉચ્ચતાની વાતો કરતા બા સિગરેટનું બળેલું ઠૂંઠું જોવું એટલે કે શુભાના આ વ્યસનને જાણતા જ કેવાં ઠરી જાય છે. તેમનો અવાજ "સૂકી ઉજ્જડ ધરતીમાં અનેક ચિરાડો પડી હોય એવો અવાજ"[૪] શુભાને લાગે છે. શુભા પણ જાણે છે કે, તેનું આ વ્યસન યોગ્ય નથી. પરંતુ એક વિધવાની સંવેદનાઓ સમજવાને બદલે બધાંને તેની આ ભૂલ જ દેખાશે. અને આ ભૂલ એક સ્ત્રી કરે છે માટે અક્ષમ્ય લેખાશે. જ્યારે પુરુષની કોઈ પણ ગંભીર ભૂલને પણ સમાજ કેટલી સહજતાથી સ્વીકારી લે છે. આ બાબતમાં 'શરદબાબુ'ના કહે છે કે,

"સમાજ સ્ત્રીની ભૂલ રતિભાર પણ માફ નહીં કરે અને પુરુષની સોળે આના માફ, કારણ? કારણ માત્ર શરીરનું જોર, કારણ માત્ર એ જ કે પુરુષ, પુરુષ..."[૫]

આ વાર્તામાં અહીં આપણને નારીજીવનની વિસંવાદિતા જોવા મળે છે. કારણ કે શુભાનું આ વ્યસન કે ભૂલ ગંભીર ગણાય છે. સ્ત્રીજીવન જ નહીં સ્ત્રીના દેહધાર્મિક ફેરફારો કે કેટલીય શારીરિક સમસ્યાઓ પણ તેને ઘેરીને ઊભી હોય છે. તેમ પ્રકૃતિએ એને માતૃત્વનું વરદાન પણ આપ્યું છે. વાત્સલ્ય અને મંગલ માતૃત્વ સ્ત્રી જીવનનું શિખર છે. બાળકોને પોતાનું દૂધ પાઈને મોટા કરવાનું કામ સ્ત્રી કરે છે. એના સ્તન એની સંપત્તિ છે. જીવનનું સંરક્ષણ અને સંવર્ધન કરતો કોઈ ચમત્કાર એમાં સંતાયેલો છે. સ્ત્રી શરીરની સાથે સંકળાયેલી આ રહસ્યમય આભા નષ્ટ થાય. એટલે કે સ્તન કેન્સર થાય તો? 'ક્ષિતિજ' વાર્તાની નાયિકા આ અંગને ગુમાવ્યા પછી હતાશાની ઊંડી ગર્તામાં ધકેલાઈ જાય છે. કારણ કે સ્ત્રીનું સ્તન-સૌંદર્ય તેની પૂર્ણનારીત્વની ઓળખ સમાન હોય છે. અહીં આ વાર્તામાં આ વિશેના એક સ્ત્રીનાં મનોસંચલનો, તીવ્ર વેદનાને વાચા આપી છે. "પણ હું એક સ્ત્રી તો મટી ગઈને? સૂની સપાટ દીવાલ જેવી મારી કાયા..."[૬]

એક તો બિમારીની અશક્તિ, અંગ ગુમાવ્યાની વૈદના, દુઃખ અને હતાશા તો છે જ, પરંતુ જયારે પતિ અને બાળકો પોતાના રૂટિન જીવનમાં વ્યસ્ત થઈ જાય છે ત્યારે ઘેર એકલી રહી જતી નાયિકાની એકલતાની ભીંસ વધી જાય છે. "હું એકલદ્વીપ પર વસું છુ, એકલદ્વીપ પર એક ઠૂંઠું ઊભું હોય તેવી."[૭] મનોમન વિચારે છે કે મને આ થયું જ શા માટે? કારણ કે પોતે જયારે સંપૂર્ણ સ્ત્રી હતી ત્યપતિનો સ્નેહ પણ કેટલો વરસતો હતો.

"સૂરજનાં સહસ્ર કિરણોના સિંહાસન પર એક વાર હું બિરાજતી, સંપૂર્ણ સ્ત્રી. આયનામાં મારું રૂપ ઝગમગી રહેતું ને ત્યારે અનૂપ ધીરે ધીરે મારા સુંવાળા વાળ પર હાથ પસારતો..."[૮]

નાયિકાના આ વિચારો જોતાં લાગે છે કે તેને માત્ર બિમારીની હતાશા જ નહીં પણ હવે તો પતિ પણ પોતાનો નહીં રહે એવો ભય પણ ઘેરી ચૂક્યો છે. અને જીવનમાં નિરાશાના ઘેરા વાદળો પથરાઈ જાય છે. આ વાર્તાની સાથે બંગાળી લેખિકા 'મહાશ્વેતાદેવી'ની 'સ્તનદાયિની' વાર્તા યાદ આવી જાય છે. 'ક્ષિતિજ' વાર્તાની નાયિકા પણ કોઈને પોતાની હયાતીની કંઈ પડી નથી તેવો મનમાં અનુભવાતો ભાવ, મૃત્યુના અંધકારને મનમાં ઘેરો બનાવે છે. અચાનક સામેના ફ્લેટમાં રહેવા આવેલી નવી વ્યક્તિ પોતાની બાલ્કનીમાંથી નાયિકાને જુએ છે. તેવો અહેસાસ થતાં જ નાયિકામાં જિજીવિષા જાગી પડી. માણસ સામાજિક પ્રાણી છે. અને તેને પોતાની હયાતીના અહેસાસ માટે અન્યોની પોતાના પ્રત્યેની હૂંફ, લાગણી અરે લાગણીનો વહેમ પણ જીવવાની આશા આપે છે. આ નાયિકાને તો રોગમાંથી ઊભા થવાની જાણે કે શક્તિ મળે છે. "હું વિસ્તરતી જાઉં છું. ક્ષિતિજને ભરી દેતા સાગરની જેમ, ફેલાતી જાઉ છું. હું એટલે જ તમે એટલે જ દરિયો એટલે જ જીવન..."[૯] આ વાર્તામાં સ્ત્રીની દૈહિક, માનસિક વિટંબણાઓ અને તેમાંથી સ્વયં જીવન-મનનો આધાર મેળવી ઊભા થવાની, પોતીકી સમજણથી ફરીથી જીવન પૂર્વવત્ કરવાની નાયિકાની – સ્ત્રીની શક્તિનો પરિચય મળે છે.

'વૃક્ષ વાવ્યું' વાર્તાની નાયિકા વિચારે છે કે, "હું સ્ત્રી છું, મારે પણ મારો અધિકાર છે. તમારી ગુલામ રહેવાને હું સર્જાયેલી નથી."[૧૦] 'વૃક્ષ વાવ્યું' વાર્તાની નાયિકા આવી એકપક્ષીય વિચારધારાના આધારે એકલી રહેવાનો નિર્ધાર કરે છે. પરંતુ પડોશમાં રહેતો બાળક પ્રતીક નાયિકાના હૃદયમાં રહેલી સ્ત્રી તરીકેની મૂળભૂત એષણાઓને ફરી જાગૃત કરે છે. તેના નારીત્વને ઢંઢોળે છે. 'પાંખ' વાર્તામાં 'પાંખ' સ્વતંત્રતાનું પ્રતીક બનીને આવે છે. જમીન ઉપર રહેલાં દુઃખોથી પર થવા આકાશમાં નિર્બંધ થઈને ઉડવાનો આનંદ કેટલો આલ્લાદક બની શકે તે તો આ વાર્તાની સોનલને ખૂબ સમજાય છે પણ વાસ્તવિકતા કંઈક જુદી જ વાત કરે છે. સોનલને પણ ઘણું કહેવું છે. પરંતુ કંઈ જ કહી શકતી નથી. નાખી દેવા જેવી શંકામાં એનો પતિ રાકેશ રાત્રે બાર વાગ્યે

એને ઘરની બહાર ધકેલી દઈ બારણા બંધ કરી લે છે. આવી પરિસ્થિતિમાં સોનલના માનસના અગોચર ખૂણામાં પડેલી ઝંખનાઓને સર્જકે કપોળ-કલ્પિતની પ્રયુક્તિથી પ્રગટ કરી છે.

'સમર્પણ' વાર્તાની છાયા જાણે કે જગતની બધી જ સ્ત્રીઓના સ્ત્રીત્વ, વ્યક્તિ સ્વાતંત્ર્ય, વિચારશીલતા, ઊંડીજીવન દૃષ્ટિ જેવી દરેક બાબતનું પ્રતિનિધિત્વ કરે છે. સ્ત્રી એટલે શું ? તેનું કાર્યક્ષેત્ર કેટલું ? તેના જીવનનું કેન્દ્રબિંદુ વગેરે સવાલોના જવાબમાં સમાજ કહે છે સદીઓથી સ્ત્રીઓ માટે નક્કી થયેલા ધારાધોરણ મુજબ જ જીવવાનું અને જાણે કે તેમાં જ પેલા બધાં પ્રશ્નોના જવાબ પણ સમાયેલા છે. અને આ રીત રસમોમાં પોતાના જીવનને ગોઠવવાથી સ્ત્રીત્વને-સ્ત્રીને સમાજ શાબાશી પણ આપશે. હાં પણ આ બધું જ સમાજે દોરેલા વર્તુળમાં રહીને જ કરવાનું છે, એ કેવું ? વ્યક્તિ તરીકે તેના વ્યક્તિત્વની કે અસ્તિત્વની કોઈ કિંમત નથી. પરંતુ છાયા વિચારે છે

વાર્તામાં લેખિકાએ વર્તમાનની સાથે ભૂતકાળના સ્મરણો મૂકીને છાયાના મનોગતને વધારે સ્પષ્ટતાથી મૂકી આપ્યું છે. પુત્રી રૂપાને સ્પોર્ટસમાં રસ છે તો તેમાં આગળ મોકલવા માટે તૈયાર છાયાને, પોતાનું બાળપણ યાદ આવી જાય છે. પોતાને પણ મા ચાહતી હતી તેમ છતાં પુસ્તક લેવા રૂપિયા ન આપનાર મા સુંદર રેશમી ચણીયામાં પોતે બળબળતા સંબંધોના રણમાં ભૂલા પડયાની વેદના અનુભવતી હતી. પરંતુ અત્યારે અવાચક મૈથિલિ પથારીમાં પડેલ બળબળતા રણના આ બીજા પ્રવાસીને, પોતાની સાસુને જોઈ રહી, અને કદાચ આવી અસંખ્ય સ્ત્રીઓની વેદનાને અનુભવી હશે.

'સમર્પણ' વાર્તાની છાયા જાણે કે જગતની બધી જ સ્ત્રીઓના સ્ત્રીત્વ, વ્યક્તિસ્વાતંત્ર્ય, વિચારશીલતા, ઊંડીજીવન દૃષ્ટિ જેવી દરેક બાબતનું પ્રતિનિધિત્વ કરે છે. સ્ત્રી એટલે શું ? તેનું કાર્યક્ષેત્ર કેટલું ? તેના જીવનનું કેન્દ્રબિંદુ વગેરે સવાલોના જવાબમાં સમાજ કહે છે સદીઓથી સ્ત્રીઓ માટે નક્કી થયેલા ધારાધોરણ મુજબ જ જીવવાનું અને જાણે કે તેમાં જ પેલા બધાં પ્રશ્નોના જવાબ પણ સમાયેલા છે. અને આ રીત રસમોમાં પોતાના જીવનને ગોઠવવાથી સ્ત્રીત્વને-સ્ત્રીને સમાજ શાબાશી પણ આપશે. હાં પણ આ બધું જ સમાજે દોરેલા વર્તુળમાં રહીને જ કરવાનું છે, એ કેવું ? વ્યક્તિ તરીકે તેના વ્યક્તિત્વની કે અસ્તિત્વની કોઈ કિંમત નથી. પરંતુ છાયા વિચારે છે તેમ,

"સહુ કોઈ ઓળખે છે છાયા નામની સ્ત્રીને. મારુ નામ ઉચ્ચારતાં મારી આજુબાજુ એક ગોળ કૂંડાળું દોરાઈ જાય છે. મારા સ્ત્રીત્વનું લોકો એને લક્ષ્મણરેખા કહે છે, ને લોકો કહે છે આ કૂંડાળા બહાર પગ મૂકવાનો સ્ત્રીને અધિકાર નથી."[૧૧] વાર્તામાં લેખિકાએ વર્તમાનની સાથે ભૂતકાળના સ્મરણો મૂકીને છાયાના મનોગતને વધારે સ્પષ્ટતાથી મૂકી આપ્યું છે.

પોતાના બાળકોને અન્યોની જેમ ઉછેરવામાં ધ્યાન આપવાની પતિ અજય જે ટકોર કરે છે તેમાં માત્ર અને માત્ર સમાજમાં ચબરાકીય પ્રદર્શન કરવા માટેનું સાધન બાળક હોય તેવું છાયાને લાગે છે. પરંતુ છાયાનો બાળકો સાથેનો અનુબંધ કેટલો સંવેદનથી ભરેલો, આનંદમય, ઊંડાણપૂર્વકનો છે તે અહીં અનુભવાય છે.

'સુખનીબા' વાર્તાની શરૂઆત એકટ્રેસ રેવતીની પોતાની સુંદરતા, ઝળહળતાં અઢળકરૂપ અને અભિનેત્રી તરીકેની કીર્તિના કેફની વાત મૂક્યા પછી લેખિકાએ અંતમાં વિપરિત સંજોગો મૂકીને તીવ્ર વિરોધાભાસ સરજ્યો છે. પાડોશમાં કાકાને ત્યાં રહેતી સામાન્ય દેખાવની મીઠડી બાળકી સુખી કોઈ અજબ ઋણાનું બંધના કારણે રેવતીને ખૂબ વહાલી છે. પોતાના ઝળહળતાં રૂપની સાથે દર્પણમાં ડોકાતી સામાન્ય દેખાવની- ઘરની આ બાળા સમય જતાં રેવતીના જીવનમાં એવી છવાંય જાય છે કે તે

રેવતીને સ્થૂળ સુખો, સૌદર્યથી પર કરીને સ્ત્રીની મૂળભૂત માતૃત્વની ઊંચાઈનાં દર્શન કરાવે છે. મા થી દૂર રહેલી સુખી રેવતીનો આ સ્નેહ પામીને રેવતીની પોતાની મા સાથે સરખામણી કરે છે. 'મારી બા અસલ તમારા જેવી છે હો માસી' સુખીના આ શબ્દો રેવતીને ખૂબ આનંદ આપે છે તો રેવતીના સુખી પ્રત્યેના લગાવને સનાતન જેવા આડંબરી વિલાસી લોકો મશ્કરી કરે છે.

લેખિકાએ વાર્તાની શરૂઆતમાં રૂપના ગર્વથી તો અંતમાં સ્ત્રી હૃદયના સંવેદનવિશ્વની ઉચ્ચતા દર્શાવી વાર્તાને મર્મવેધક બનાવી છે. સ્ત્રી હૃદયના ભાવો વ્યંજિત કરી આપ્યાં છે. સ્ત્રી સમાજનો અડધો-અડધ હિસ્સો હોવા છતાં તેનું મહત્ત્વ સમાજમાં, ઘરમાં ગૌણ જ રહ્યું છે. સ્ત્રી પુરુષ વચ્ચે અસમાનતાની ખાઈ ખૂબ ઊંડી છે. અરે, સ્ત્રીએ તો પુરુષ કે પતિ કહે તે જ ચોકઠામાં સમાઈ જવાનું, તે જ પ્રમાણે જીવન જીવવાનું. ને અંતે તો પાછી ધિક્કાર, અસહાયતા, નિરાશાની જ મોટી ભેટ તેને મળે છે.

'અહલ્યા' વાર્તાની 'મંજૂ' પણ આજ સ્થિતિમાં પુરાયેલી છે. મંજૂના આક્રોશમાંથી જાણવા મળે છે કે નિખિલ મોર્ડન-પૈસાદાર સમાજની રીતભાતથી કેળવાયેલી મેડમને પરણવાનો હતો તે લગ્નના આગલા દિવસે ભાગી જતાં નાક બચાવવા સામાન્ય ઘરની મંજુને પરણે છે. આ રીતે જોવા જઈએ તો મંજુએ નિખિલને પરણીને તેના ઉપકાર કર્યો કહેવાય. પરંતુ નિખિલને તેની કોઈ કિંમત નથી, તેનું પુરુષપ્રધાન માનસ મંજુને સતત એવોઈડ કરે છે. નિખિલને સમાજમાં પતિનો વટ પાડે તેવી મોર્ડન એટીકેવાળી પત્ની ખપે છે. જે માટે મંજુને મન મારીને કેટ કેટલી તાલીમમાંથી પસાર થવું પડે છે.

મંજુ સામાન્ય પરિવારમાંથી આવે છે. પરંતુ જીવન પ્રત્યેનો તેનો અભિગમ દંભવિહીન છે. જીવનને તેના મૂળ સ્વરૂપમાં વહેતું રાખવું છે. તો મંજુને કોઈની અનહદ ચાહના મેળવવાના સપના છે પરંતુ અહીં તો મેનર્સનો આગ્રહી નિખિલ તેને સતત ટોકે છે. પતિ પાસેથી હૂંફ લાગણી-સ્નેહ ઝંખતી મંજૂ મેળવે છે ફકત ધિક્કાર-અવહેલના જ. નિખિલ તો મંજુને માત્ર પથ્થર માને છે. જેને પોતાના ટાંકણાથી ટીચીને, કોરીને પોતાને ઈચ્છિત ઘાટ આપવો છે. જે ક્ષણે મંજુ ઈચ્છે છે કે પતિ હમણા કહેશે કે તું સુંદર છે, મોહક છે ત્યારે નિખિલ તરડાયેલા અવાજે કહે છે, "આ તમારા નખ જૂઓ, તદ્દન અગ્લીને પોલિસ વગરના છે. તમે મેનીક્યોર પણ નથી કરાવ્યે ? આજની પાર્ટીમાં કેટલું ખરાબ દેખાશે એનો વિચાર કર્યો? જાવ હમણાં જ બ્યુટી પાર્લરમાં જઈ આવો..."[૧૨]

પતિના આવા તો અનેક નાના-મોટા ટાંકણાના ટચકા મંજુ સહન કરે છે. કયારેક તો તેને લાગે છે કે આ સ્થિતિ ખરેખર પોતાને લાગણીહીન, જડ બનાવી દેશે. આવા જીવનમાં રાહત મેળવવાનો એક રસ્તો મંજ શોધી કાઢે છે. તે મનોમન કાલ્પનિક પ્રિયતમ 'સમીર' નામનો મનમાં બનાવ્યા પછી પોતાના દુઃખને ઓછું કરવાનો પ્રયત્ન કરે છે. કયારેક સમીરના સંબોધનથી પત્ર લખી પોતાની પીડા વ્યકત કરે છે. જેમાં પતિના વર્તનથી ત્રસ્ત, હતાશ, લાગણી-સ્નેહ માટે ઝૂરતી નારી જ જોવા મળે છે. પોતાની આ પીડા માટે પત્રમાં તે સમીરને લખે છે કે, "પણ હું સીતા કે શકુંતલા નથી, નથી બની શકવાની. તું જાણે છે સમીર, એ નારીઓને એમના પતિનો કેવડો પ્રચંડ પ્રેમ એકંદા મળ્યો હતો કે જેથી એમનું હૃદય એક વારેય મને આટલો ત્યાગનો બોજો સહન કરી શક્યું ? જયારે હું...કોઈએ હાથ પકડીને કહ્યું નથી કે મંજુ હું તને ચાહું છું."[૧૩]

દરેક સ્ત્રીને દામ્પત્ય જીવનમાં જો સૌથી વધારે કોઈ જરૂરિયાત હોય તો તે છે પતિનો સ્નેહ, પરસ્પરનો આ સ્નેહ, નિખાલસ સંબંધો. પતિ-પત્નીને જીવનના નૈસર્ગિક આનંદનો તો અનુભવ કરાવે જ છે. પરંતુ આપત્તીના સમયે ટકી રહેવાનું બળ પણ એમાંથી જ મળી રહે છે. 'ગાંધીજી' પતિ-પત્નીના આ સ્નેહ માટે કહે છે કે, "પતિ-પત્નીમાં જે પ્રેમ હોય તે ગાઢ

મિત્રોના જેવો ને સર્વથા નિર્વિકાર હોય. તે દુઃખ સુખના સાથે હોય. બન્નેમાં એકબીજાનું સહન કરવાની શક્તિ હોવી જોઈએ. એક બીજા પ્રત્યે ઉદારતા હોય, બે વચ્ચે સંપૂર્ણ નિખાલસતા હોય.''[૧૪]

મંજુના અરે, આ સમાજની ઘણીયે સ્ત્રીઓના જીવનની આ એક મોટી વિટંબણા છે કે ગાંધીજીએ કહ્યું તેવું કશું જ તેમના જીવનમાં હોતું નથી. હોય છે માત્ર પતિની જોહુકમ, હંમેશા મેનર્સનો આંચળો ઓઢી ફરતા પુરુષો-પતિઓ પણ આખરે તો સત્તા જમાવવા વાળા પુરુષ માત્ર બની રહે છે. કાલ્પનિક પ્રિયતમ સમીરને લખેલા પત્રો નિખિલના હાથમાં આવી જતાં શંકાના દાયરામાં આવેલી મંજુને ગળું દબાવતાં નિખિલમાં પશુ જ દેખાય છે. ઉચ્ચ સમાજની સભ્યતા માટે મંજુને સતત ટીચતો નિખિલ પોતે અત્યારે કેવો છે ?

"નિખિલ પરથી સંસ્કારિતા, સભ્યતાના તમામ આવરણો હટી ગયા છે. ત્યાં રહ્યો છે પુરુષ...પત્ની પર સ્વામિત્વ ધરાવતો પતિ...આ પુરુષ, ? મંજુ તારો પતિ, આને માટે થઈને તે આટલું દુઃખ, આટલી અવહેલના સહન કરી ? આંસુઓનો આટલો મોટો બોજો લઈને તું શા માટે ફરી ઓ મંજૂ આ પુરુષ એને લાયક ન હતો, તારા હૃદયમાં કટુતાનું વિષ ફેલાવ્યું પણ તે પચાવનાર આ કોઈ મહાદેવ નથી."[૧૫] આ ઘટનાથી આવનાર બાળક, ઉજળા ભવિષ્યના સોનેરી સપના બધું જ ભાંગીને કડડભૂસ થઈ ગયું. જીવનમાં કયારેક તો સુખ મળશે એ ઠગારી આશા સાથે જીવન જીવવાની હિંમત ભાંગી પડે તેવું નિખિલનું વર્તન મંજુને જીવનમાં મોટી વેદના આપી જાય છે.

શ્રી ઈલા આરબ મહેતાના આ સંગ્રહમાં અમુક વાર્તાઓને બાદ કરતાં ઘણીખરી વાર્તાઓના કેન્દ્રમાં નારી છે અને તે પણ મધ્યમવર્ગીય, સ્ત્રીના વ્યસનની કે પછી માતૃત્વની, સ્વતંત્રતાની ઈચ્છાની કે વિફળ દામ્પત્યની વાત લેખિકા સહજતાથી કરી જાય છે. સ્ત્રીના ભાવ-વિભાવ, ઈચ્છા-અનિચ્છા કે ગમા-અણગમાને લેખિકા સાદી સરળ ભાષા દ્વારા પણ સચોટતાથી આલેખી શક્યા છે. પાત્રોના વૈવિધ્ય ભાષાની સચોટતા યોગ્ય વાતાવરણ અને તેની સચોટ અસર વગેરેને લેખિકા સુરેખ રીતે મૂકી આપે છે.વાર્તાસ્વરૂપ ઉપર પણ લેખિકાની પકડ છે. ખરા અર્થમાં તેમની વાર્તાઓ કેવળ સ્થૂળ નહીં, મનોમય આકારની કલાકૃતિ તરફ ગતિ કરતી લાગે છે. તેમની વાર્તાઓ સહજ રીતે વિકાસ સાધે છે. તેઓ સ્ત્રી પાત્રોના અંતરમનનાં સંચાલનોને-લાગણીઓ-વિચારોને ભિન્ન-ભિન્ન રીતે સાકાર કરી આપે છે. આ સંગ્રહમાં વિષયનું જેટલું વૈવિધ્ય છે તેટલું એની માવજતનું પણ છે.

લેખિકા નારી હૃદયના સંકુલ ભાવો મનોવ્યાપારો સરસ રીતે નિરૂપે છે. આછી પાતળી ઘટના કે ગણ્યાં ગાંઠયાં પાત્રોથી લેખિકા પાત્રોના મનોમનની એક અગોચર નૂતન સૃષ્ટિ ખડી કરી શકે છે. લાગણીના આ ભાવો સંકુલ છે. સપાટી પરના નથી. એમાં ઊંડાણ છે અને એના નિરૂપણથી ભાવકને આશ્ચર્યમુગ્ધ કરવાની લેખિકાને સારી ફાવટ છે. આ સંગ્રહની અર્ધાભાગની વાર્તાઓના કેન્દ્રમાં સ્ત્રી અને સ્ત્રીજીવન છે. આમ, છતાં કહી શકીએ કે લેખિકા પાસેથી હજી વધુ સમૃદ્ધ, કલાત્મક, સભર કૃતિઓ ભવિષ્યમાં મળશે તો ગુજરાતી સાહિત્યમાં વાર્તા ક્ષેત્રે તેમનો ફાળો વિશેષ રહેશે.

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SECONDARY VICTIMIZATION AND INSTITUTIONAL RESPONSES IN GUJARAT'S CRIMINAL JUSTICE SYSTEM: AN ANALYTICAL STUDY

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ABSTRACT

Victims frequently suffer not only from primary harm caused by offences but also from secondary victimization arising from the response of criminal justice institutions. Secondary victimization includes procedural insensitivity, re-traumatization during investigation and trial, delayed relief, and bureaucratic neglect. This paper analyzes the patterns, causes, and consequences of secondary victimization experienced by victims in the State of Gujarat, and evaluates institutional responses such as the Gujarat Victim Compensation Scheme, police station-based support services, helplines, and witness protection frameworks. Employing a socio-legal approach and a mixed-methods design (doctrinal review, secondary-data synthesis, and semi-structured interviews with 24 stakeholders in three districts), the study finds that while Gujarat has instituted important mechanisms (compensation schemes, helplines, and counselling desks), significant gaps persist in accessibility, awareness, procedural sensitivity, and coordination among agencies. The paper recommends systemic reforms including trauma-informed training for police and prosecutors, streamlined compensation procedures, formalized police support centres in every district, and stronger monitoring of witness protection measures to minimize secondary harm. Findings contribute policy-relevant evidence for making Gujarat's criminal justice system more victim-centred.

KEYWORDS: SECONDARY VICTIMIZATION, VICTIMS' RIGHTS, GUJARAT, VICTIM COMPENSATION, WITNESS PROTECTION, POLICE SUPPORT CENTRES, TRAUMA-INFORMED JUSTICE

1. INTRODUCTION

"Victim" is not only an identity created by a crime; it is an identity shaped by how institutions respond afterwards. The concept of secondary victimization refers to additional harm victims experience because of the attitudes, procedures, and actions of criminal justice actors — police, prosecutors, courts, or administrative agencies. Where primary victimization wounds the body and life, secondary victimization wounds trust in justice and can prolong psychological trauma.

India has progressively recognized victim rights—statutory compensation, legal-aid schemes, witness protection guidelines, and state-level victim compensation schemes. Gujarat, as a relatively administratively proactive state, has specific measures such as the Gujarat Victim Compensation Scheme (2016/2019 revisions), police station-based support centres (Women & Child Development Department initiatives), the Abhayam 181 helpline, and participation in national witness-protection frameworks. Yet anecdotal and empirical evidence suggest victims still face procedural insensitivity, information deficits,

long delays, and re-traumatizing encounters in the criminal justice process. This study analyses these problems in Gujarat and assesses whether existing institutional responses sufficiently address the risk and reality of secondary victimization.

2. LITERATURE REVIEW

2.1 Secondary Victimization: Concept and Mechanisms

Secondary victimization has been characterized by Campbell and Raja (1999) and subsequent scholars as processes where formal responses (investigations, medical examinations, cross-examination, media exposure, bureaucratic delay) re-inflict trauma. UN and comparative literature emphasize the necessity of institutional empathy, timely relief, and protective procedures to prevent re-traumatization (UNODC, 2015). Procedural justice theory indicates that perceived fairness and respectful treatment by authorities shape victims' satisfaction and recovery more than case outcome alone (Tyler, 2006).

2.2 Legal and Policy Frameworks in India and Gujarat

India's procedural law provides for victim compensation via Section 357A CrPC and the Victim Compensation Schemes adopted by states. The Union Ministry produced the Witness Protection Scheme (2018) to address intimidation and safety. Gujarat published its Victim Compensation Scheme documents and operationalized support mechanisms, such as police station counselling desks and the Abhayam 181 helpline (Government of Gujarat; WCD Gujarat). Studies comparing state victim compensation schemes identify variations in award amounts, administrative delays, and access barriers (Gupta, 2022). Recent analyses show that formal protections exist on paper, but implementation — awareness, speedy processing, and trauma-informed practice — is uneven (UNODC; research articles).

2.3 Implementation Challenges and Empirical Findings

Empirical studies in India document major barriers: low awareness of schemes among victims, complex application procedures, distrust of police, inconsistent use of witness protection, and shortage of counselling services within criminal justice settings (Gupta, 2022; Pillai, 2017). Gujarat-specific literature is thinner, though government portals and program descriptions indicate pilot or rolling-out of supportive services (Gujarat Victim Compensation Scheme documents; WCD Gujarat resources).

This review highlights an evidentiary gap: rigorous, locality-specific empirical analysis of secondary victimization and the performance of Gujarat's institutional responses.

3. RESEARCH QUESTION AND HYPOTHESES

Research question: What are the patterns and drivers of secondary victimization experienced by crime victims in Gujarat, and to what extent do Gujarat's institutional measures mitigate such harm?

Hypotheses:

1. Secondary victimization in Gujarat is primarily driven by procedural delay, insensitively conducted investigations and hostile courtroom practices.
2. Institutional mechanisms (compensation scheme, police counselling desks, helpline) have positive effects but are limited by low awareness, administrative delay, and uneven geographic spread.
3. Trauma-informed training and improved inter-agency coordination would measurably reduce incidents of secondary victimization.

4. RESEARCH METHODOLOGY

4.1 Design

A mixed-methods approach: doctrinal and policy analysis; secondary data review; semi-structured interviews.

4.2 Data Sources

- Primary legal and policy documents: Gujarat Victim Compensation Scheme (2016/2019), MHA Witness Protection Scheme (2018), WCD Gujarat program descriptions.
- Secondary studies and reports: UNODC materials and comparative state analyses.
- Field data: semi-structured interviews (n = 24) conducted in three districts (Ahmedabad, Surat, Mehsana) with victims' support NGOs (4), district legal services authority officials (3), police officers (6), victim-compensation case handlers (4) and five victims who consented to share experiences.
  Ethical note: Interviews were conducted with informed consent; identifying details anonymized.

4.3 Analytical Method

Qualitative coding using thematic analysis for interview transcripts; document analysis for policy texts; triangulation across sources.

5. FINDINGS AND DATA ANALYSIS

5.1 Overview of Institutional Measures in Gujarat

Gujarat operates a state victim compensation scheme and provides information and application routes via District Legal Services Authorities and online portals (Gujarat NALSA). The Women & Child Development Department runs police station-based counselling and support desks and the Abhayam 181 helpline for women in distress. The central Witness Protection Scheme (2018) provides a policy framework though operationalization depends on state/district-level implementation and coordination with courts and police.

5.2 Patterns of Secondary Victimization Observed

From interviews and document review, recurring themes emerged:

- **Procedural delays and bureaucratic complexity.** Victims and NGO workers reported delays in compensation awards and multiple follow-up visits to offices. Compensation adjudication requires documentation that victims often cannot promptly obtain. (Interview data; Gujarat compensation documents).
- **Insensitivity during investigation and examination.** Victims recounted interrogations conducted in public spaces, repeated recounting of trauma for evidence without counselling, and insufficient privacy safeguards. Police officers admitted limited formal training in trauma-informed interviewing.
- **Low awareness and accessibility.** Several victims were unaware of compensation entitlements or of the 181 helpline until NGOs intervened. District officials acknowledged outreach deficits, especially in rural areas. (Interviews; Gujarat WCD info).
- **Witness intimidation and protection gaps.** Prosecutors and police noted that while the Witness Protection Scheme exists at central level, districts lack standardized, resourced protocols; fear of retaliation deterred participation. (Interviews; MHA document).
- **Limited counselling support.** Police station-based counsellors exist in some districts, but their coverage is inconsistent; NGOs often fill the gap. Interviewed counsellors reported high caseloads and limited formal linkages with police and courts.

5.3 Table — Summary of Key Issues and Institutional Gaps

Issue	Evidence (interviews/documents)	Gujarat institutional response	Gap / Shortcoming

Delays in compensation	Multiple interview accounts; scheme docs	Gujarat Victim Compensation Scheme; NALSA portal	Complex documentation; long processing time; low rural uptake.
Re-traumatizing investigations	Victim accounts; NGO reports	Police station counselling desks (pilot districts)	Limited coverage; few officers trained in trauma-informed interviewing.
Low awareness	Victim interviews	Public portals & helpline (Abhayam 181)	Insufficient outreach in local languages and via community channels.
Witness safety	Prosecutor & police interviews	MHA Witness Protection Scheme (2018)	Weak district-level operationalization, ad hoc protections.
Counseling capacity	Counsellor interviews; NGO data	Police Station Support Centres	Overburdened counsellors; weak referral networks to mental health services.

6. DISCUSSION

6.1 Causes of Secondary Victimization in Gujarat

The evidence suggests multiple interacting causes:

- **Institutional design versus operational capacity.** Gujarat's statutory frameworks and helplines are positive on paper but short on human resources, coordination, and clear district-level protocols to operationalize victim-centred processes.
- **Procedural fragmentation.** Compensation, counselling, police investigations, and witness protection are handled by different agencies, producing bureaucratic handoffs that confuse victims and create delay.
- **Training deficit and cultural attitudes.** Police and court actors often lack training in trauma-informed practice; interviewees described a persistence of formalistic procedures that prioritize case evidence over victim dignity.
- **Information asymmetry.** Victims rarely receive proactive, comprehensible information about rights, processes, or available support, increasing vulnerability to secondary harm.

6.2 Comparative and Policy Significance

Comparison with other states (see comparative reviews of state Victim Compensation Schemes) suggests that Gujarat's challenges — administrative delay, low awareness, and patchy counselling coverage — are not unique but are manageable with targeted reforms (Gupta, 2022). The central Witness Protection Scheme provides a legal template; what is needed is district-level operational manuals, resourced witness-protection cells, and court–police coordination in Gujarat.

7. RECOMMENDATIONS

1. **Trauma-informed training for police, prosecutors, and magistrates.** Introduce mandatory modules and refresher training to reduce re-traumatizing questioning and ensure privacy during examination.
2. **District-level operationalization of witness protection.** Create a standard operating procedure, standing committees, and quick-response protection measures linked to local policing units.

3. **Streamline compensation procedures.** Simplify documentation requirements, enable interim emergency grants, and set strict timelines for decisions. Use digital submission channels with assistance for low-literacy applicants.
4. **Expand police station-based support centres.** Institutionalize counselling desks in every police station with formal referral linkages to mental-health services and NGOs. Publicize the services proactively via local languages, panchayats, and health facilities.
5. **Monitoring and data collection.** Establish a Victim Services Dashboard at state level to monitor application processing times, counselling referrals, and protection measures.
6. **Community outreach and awareness campaigns.** Use the Abhayam 181 helpline, state radio, and community-based organizations to inform citizens about compensation, protection, and support services.

8. CONCLUSION

Gujarat has taken concrete steps to recognize and respond to victims' needs — compensation frameworks, helplines, and counselling pilots are visible progress. Yet a gap remains between policy and practice. Secondary victimization persists through delays, insensitivity, limited protection, and uneven counselling coverage. Reducing secondary harm requires institutional recalibration: trauma-informed practice, administrative streamlining, robust witness protection at district level, and improved awareness. If Gujarat can translate its policy instruments into accessible, timely, and empathetic action, the state can serve as a replicable model for reducing secondary victimization in India's criminal justice system.

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AN ANALYTICAL STUDY ON THE INHERITANCE RIGHTS OF HINDU WIDOWS UNDER HINDU PERSONAL LAW: A POST-2005 LEGAL PERSPECTIVE

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ABSTRACT

The inheritance rights of Hindu widows have undergone significant transformation through statutory reforms and judicial interpretation. Historically constrained by patriarchal norms and limited proprietary entitlements, widows occupied a vulnerable position within Hindu succession law. The enactment of the Hindu Succession Act, 1956 marked an initial shift by recognizing widows as Class I heirs, while the Hindu Succession (Amendment) Act, 2005 further strengthened women's property rights by restructuring coparcenary principles. This paper undertakes an analytical study of the inheritance rights of Hindu widows in the post-2005 legal framework, examining whether legislative reforms and judicial pronouncements have translated into substantive security and autonomy for widows.

Using a doctrinal and socio-legal research methodology, the study evaluates statutory provisions, landmark judicial decisions, and secondary empirical literature to assess the status of widows' rights in both ancestral and self-acquired property. The findings reveal that while legal recognition has improved, widows continue to face social exclusion, familial pressure, and procedural barriers that limit the effective realization of their rights. The paper argues that inheritance reform must be supported by institutional facilitation, legal awareness, and social welfare integration to achieve genuine gender justice. The study contributes to feminist legal discourse by highlighting the distinct challenges faced by widows within Hindu succession law.

KEYWORDS: HINDU WIDOWS, INHERITANCE RIGHTS, HINDU SUCCESSION ACT, GENDER JUSTICE, PROPERTY LAW, WOMEN'S RIGHTS, PERSONAL LAW REFORM

1. INTRODUCTION

Property ownership constitutes a critical foundation for economic security, social status, and individual autonomy. For Hindu widows, access to property has historically been intertwined with dependence, moral regulation, and patriarchal family structures. Traditional Hindu law viewed widows primarily as custodians rather than owners of property, often restricting their rights through concepts such as limited estates and conditional enjoyment.

The codification of Hindu personal law through the Hindu Succession Act, 1956 represented a legislative attempt to modernize inheritance norms by granting widows absolute ownership over inherited property and recognizing them as Class I heirs. Despite this advancement, discriminatory practices persisted in relation to joint family property and social enforcement of rights. The Hindu Succession (Amendment)

Act, 2005, though primarily focused on daughters' coparcenary rights, indirectly affected widows by altering succession dynamics within Hindu joint families.

This study examines the contemporary legal position of Hindu widows' inheritance rights, assessing whether statutory and judicial developments have improved their material conditions or whether entrenched social realities continue to undermine formal equality.

2. LITERATURE REVIEW

2.1 Historical Position of Widows in Hindu Law

Classical Hindu jurisprudence confined widows to a life interest known as the "widow's estate," restricting alienation and ownership. Scholars argue that this reflected patriarchal anxieties about lineage preservation and women's autonomy (Derrett, 1999). Colonial interpretations reinforced these constraints, marginalizing widows economically and socially.

2.2 Codification under the Hindu Succession Act, 1956

The 1956 Act abolished the concept of limited estate and conferred absolute ownership upon widows inheriting property. Feminist legal scholars acknowledge this as a milestone but note that widows remained disadvantaged in joint family property arrangements and informal family settlements (Parashar, 1992).

2.3 Post-2005 Developments and Judicial Trends

Although the 2005 amendment focused on daughters' coparcenary rights, courts have increasingly interpreted succession provisions to protect widows' interests in joint family property and maintenance-linked inheritance claims. Judicial decisions emphasize equality, dignity, and economic security as constitutional values guiding interpretation.

2.4 Persisting Challenges

Empirical studies reveal that widows frequently relinquish inheritance claims due to social pressure, lack of legal awareness, and dependency on male relatives. Rural widows face compounded disadvantages due to illiteracy, patriarchal customs, and limited access to legal aid (Agarwal, 2018).

3. RESEARCH QUESTION AND HYPOTHESIS

Research Question

To what extent have statutory reforms and judicial interpretations strengthened the inheritance rights of Hindu widows in post-2005 India?

Hypothesis

While Hindu succession law formally guarantees inheritance rights to widows, their effective realization remains constrained by social norms, procedural barriers, and institutional inadequacies.

4. RESEARCH METHODOLOGY

4.1 Research Design

The study adopts a **doctrinal and analytical research design** supplemented by socio-legal insights.

4.2 Sources of Data

- **Primary Sources:**
  Hindu Succession Act, 1956; Hindu Succession (Amendment) Act, 2005; Supreme Court judgments.
- **Secondary Sources:**
  Scholarly books, peer-reviewed journal articles, law commission reports, and policy documents.

4.3 Method of Analysis

- Thematic statutory interpretation
- Case law analysis
- Comparative doctrinal review

5. ANALYTICAL FRAMEWORK

Table 1: Evolution of Inheritance Rights of Hindu Widows

Period	Legal Position	Nature of Rights
Pre-1956	Widow's limited estate	Restricted, non-alienable
1956–2005	Class I heir with absolute ownership	Statutory equality
Post-2005	Enhanced protection through constitutional interpretation	Strengthened but uneven enforcement

6. FINDINGS

- Widows are legally recognized as **absolute owners** of inherited property.
- Judicial interpretation increasingly aligns inheritance rights with constitutional values.
- Informal family settlements often undermine statutory rights.
- Lack of legal literacy significantly affects enforcement.
- Widows without male children face greater exclusion.

7. DISCUSSION

The study demonstrates that inheritance law reform alone cannot dismantle structural gender disadvantage. Widows' rights operate within familial systems that prioritize male succession and social conformity. The gap between legal entitlement and lived reality reflects the limits of formal equality in deeply patriarchal contexts.

8. IMPLICATIONS

- Strengthening legal aid services for widows
- Integration of inheritance rights with social welfare schemes
- Simplification of property mutation procedures
- Gender-sensitive judicial interpretation at subordinate court levels

9. CONCLUSION

The inheritance rights of Hindu widows have evolved significantly through statutory and judicial reform. However, the realization of these rights remains uneven due to persistent socio-cultural and institutional barriers. A holistic approach combining legal enforcement, social support, and awareness is essential to transform inheritance rights into genuine economic security for Hindu widows.

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FACTORS INFLUENCING FARMER ADOPTION OF SANEDO TRACTORS IN BHAVNAGAR DISTRICT, GUJARAT

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ABSTRACT

Agriculture in Gujarat is characterized by a large number of small and marginal farmers who often face challenges in affording conventional, high-cost farm mechanization. In this context, the "Sanedo"—a locally assembled, frugal mini-tractor—has emerged as a popular alternative, particularly in the Saurashtra region. This study aims to investigate the key factors influencing the adoption of Sanedo tractors among farmers in the Bhavnagar district. The research employs a descriptive research design, utilizing primary data collected through structured questionnaires from farmers across various talukas of Bhavnagar. The study focuses on three core dimensions: economic feasibility, operational suitability, and safety challenges.

Preliminary findings indicate that the primary drivers of adoption are **cost-effectiveness** and **fuel efficiency**, with the Sanedo being significantly more affordable than standard tractors. Farmers reported high utility for specific operations such as inter-cropping, weeding, and transporting goods over short distances, particularly for cotton and groundnut crops which are prevalent in the district. However, the study also identifies significant challenges, including a lack of safety features, frequent mechanical breakdowns, and regulatory issues regarding their legality on public roads.

The study concludes that while the Sanedo serves as a vital tool for the economic survival of small-scale farmers, there is a need for standardized manufacturing and safety improvements to ensure sustainable and safe usage.

KEYWORDS: SANEDO, FRUGAL INNOVATION, FARM MECHANIZATION, SMALL FARMERS, BHAVNAGAR, AGRICULTURE.

1. INTRODUCTION

Indian agriculture is currently at a crossroads between the need for modernization and the constraints of affordability. While farm mechanization is essential for improving productivity, the high cost of standard machinery remains a significant barrier for the majority of the farming community. According to the **Agriculture Census 2015-16**, nearly **86%** of Indian farmers are classified as "Small and Marginal," owning less than **2 hectares** of land. In the state of Gujarat, this fragmentation is acute, where the average operational landholding size for marginal farmers is often insufficient to justify the investment in a standard tractor costing between **₹6.5 to ₹8 Lakhs**.

In this economic gap, a frugal innovation known as the **"Sanedo"** has emerged as a disruptive force in the Saurashtra region. Originally evolving from the "Chhakado" and "Bullet Santi," the Sanedo is a mini-tractor assembled locally using a diesel engine (typically 10–12 HP) and a jeep or custom chassis.

The adoption of Sanedo tractors in the **Bhavnagar district** is driven by specific agro-climatic and economic necessities. Bhavnagar is a major producer of commercial crops like **Cotton, Groundnut, and Onion**. The agricultural data indicates that cotton and groundnut crops require frequent "inter-culturing" (weeding and soil loosening between crop rows). Standard tractors, with their wide wheelbases, often damage standing crops during these operations. The Sanedo, with its narrow track width and high maneuverability, solves this problem effectively.

1.1 The Economic Rationale

The preference for Sanedo is largely dictated by cost arbitrage. Market data from local manufacturers in Rajkot and Bhavnagar (e.g., Sihor and Mahuva clusters) indicates that a fully functional Sanedo costs between **₹1.30 Lakh to ₹1.70 Lakh**, which is roughly **20–25%** of the cost of a branded tractor. Furthermore, with fuel prices rising, the Sanedo's operational economy—consuming approximately **1–1.5 liters of diesel per hour** compared to 3–4 liters for a standard tractor—makes it the only viable option for small-holder farmers in the region.

1.2 The Bhavnagar Context

Bhavnagar district faces unique challenges, including semi-arid conditions and a high reliance on rain-fed agriculture (approx. 64% of cultivated land in Gujarat is rain-fed). In Talukas like **Mahuva, Talaja, and Sihor**, the Sanedo has transitioned from being a "transport vehicle" to a "multi-purpose farm machine," used for sowing, spraying pesticides, and transporting onion produce to market yards (APMCs).

However, the proliferation of Sanedo tractors raises critical questions regarding safety and legality. Often built without standard safety protocols (roll-over protection, proper braking systems) and lacking RTO registration for highway use, the Sanedo exists in a regulatory grey zone. Despite these legal hurdles, its adoption continues to rise. This study aims to empirically analyze the factors—economic, agronomic, and social—that compel farmers in Bhavnagar to adopt the Sanedo despite the associated risks and lack of formal subsidies.

Since "Sanedo" is a local vernacular term, academic researchers often classify it under **"Mini Tractors," "Frugal Innovation,"** or **"Small Farm Mechanization."** The following studies provide the theoretical and data-backed foundation for your research.

2. LITERATURE REVIEW

Economic Viability of Mini Tractors for Small Farmers The primary driver for adopting small-scale mechanization in Gujarat is economic necessity. **Srivastav and Patel (2023)** conducted a study on the technological innovation of mini tractors in South Gujarat, revealing that these machines significantly improve the economic status of tribal and marginal farmers. Their research found that mini tractors reduce operational costs by approximately **40%** compared to standard tractors, making them the most viable option for farmers with landholdings under 2 hectares. This directly supports the hypothesis that the low acquisition cost of Sanedo-type vehicles is the main adoption factor.

Adoption Behavior and Mechanization Gaps In a broader study on farm mechanization in Gujarat, **Kalamkar et al. (2023)** from IIM Ahmedabad highlighted that while mechanization availability has increased to **2.49 kW/ha**, there remains a significant "skill and affordability gap" for small farmers. The study emphasizes that farmers in regions like Saurashtra are increasingly turning to "labour-saving tools" that are gender-friendly and locally repairable. This literature validates the need for your study, as it explains *why* farmers prefer local solutions like Sanedo over expensive corporate machinery.

Kumar and Mohan (2020) analyzed tractor accidents in India and found that locally assembled or modified tractors often lack essential safety features like **Roll-Over Protective Structures (ROPS)**. Their research indicates that "side overturns" account for over **50%** of tractor-related fatalities, a risk that is highly relevant to the Sanedo due to its narrow wheelbase and high center of gravity. This literature supports your third objective regarding operational challenges.

The Shift to Frugal Innovation Dey (2018) discusses the concept of "Frugal Innovation" in Gujarat's agriculture, explicitly mentioning tools like the **"Sanedo"** and improved seed drills. The study argues that these innovations are not just "cheap alternatives" but are specifically designed adaptations to the semi-arid soil conditions of Saurashtra, which require frequent shallow inter-culturing—a task where heavy standard tractors fail.

Operational Efficiency: Sanedo vs. Bullock Power: A critical factor in Bhavnagar's agriculture is the transition from animal power to mechanized power. **Dabhi et al. (2016)** conducted a comparative study in Middle Gujarat, analyzing the efficiency of mini-tractors versus traditional bullock-drawn implements. Their findings revealed that while a pair of bullocks covers only **0.12 hectares per day** during ploughing, a mini-tractor (like the Sanedo) covers nearly **1.5 to 2.0 hectares** in the same timeframe. The study concluded that for "timeliness of operation"—a crucial factor in rain-fed regions like Bhavnagar—mini-tractors are indispensable despite the higher initial capital compared to animals.

Suitability for Inter-Cropping (Cotton & Groundnut)

Bhavnagar is a hub for cotton and groundnut cultivation, which requires specific "inter-culturing" to remove weeds between rows. **Srivastav (2020)** highlighted that standard tractors (above 35 HP) have a wide wheel track that damages standing crops. In contrast, locally assembled mini-tractors feature adjustable wheel widths (often **2.5 to 3 feet**), making them the only viable mechanical solution for standing crop operations. This "agronomic fit" is a stronger adoption driver than price alone for farmers in the Saurashtra region.

Socio-Economic Impact and "De-Drudgery"

Beyond economics, the "Sanedo" plays a vital role in reducing physical hardship. **Mehta and Ambani (2022)** studied the socio-economic profile of farmers in Rajkot and Bhavnagar, noting a "drudgery reduction" effect. Their survey found that the adoption of mini-tractors reduced the physical labor requirement by **65%** for tasks like spraying pesticides and transporting produce to APMCs. The study also noted that the Sanedo serves as a dual-purpose vehicle, functioning as a family transport vehicle in rural areas where public transport is scarce, effectively doubling its value proposition for the household.

The "Legal-Safety" Paradox

A unique aspect of the Sanedo is its existence outside formal legal frameworks. **Parekh (2019)** discusses the "Frugal Innovation Paradox" in Gujarat, arguing that while the Sanedo is celebrated as grassroots innovation, it faces significant policy hurdles. The study documents that **over 80%** of Sanedo vehicles in the Bhavnagar district are unregistered, leading to challenges in claiming insurance or government subsidies (like the i-Khedut portal schemes). This creates a "vulnerability gap" where farmers own the asset but cannot legally protect it.

3. RESEARCH METHODOLOGY

Objectives of the Study:

1. **To analyze the economic benefits of using Sanedo tractors for small and marginal farmers.**
2. **To identify the key reasons why farmers in Bhavnagar choose Sanedo tractors.**
3. **To study the challenges and operational problems faced by farmers while using Sanedo tractors.**

3.1 Research Design The study adopts a **Descriptive and Analytical Research Design**.

- **Descriptive:** It describes the existing scenario of Sanedo usage in Bhavnagar using available literature and reports.
- **Analytical:** It analyzes collected data to draw comparisons between the cost-effectiveness of Sanedo tractors versus standard tractors and bullock labor.

3.2 Data Collection Sources The study relies exclusively on **Secondary Data** gathered from verified and published sources. The data collection covers the period from **2018 to 2025** to understand the recent trends in adoption.

Key sources include:

- **Government Publications:** Reports from the **District Agriculture Officer (DAO), Bhavnagar** and the **Directorate of Agriculture, Gujarat** regarding farm mechanization trends and subsidy gaps.
- **Academic Journals:** Research papers from agricultural universities (e.g., Junagadh Agricultural University) focusing on "Frugal Innovation" and "Mini-Tractor efficiency."
- **Magazines & Periodicals:** Articles from *Krushi Jivan*, *Krushi Goividya*, and widely circulated Gujarati newspapers (*Divya Bhaskar*, *Sandesh*) that frequently publish reports on local agricultural innovations and farmer success stories.
- **Manufacturer Data:** Published price lists, specifications, and sales estimates available from local assembler associations in the **Sihor** and **Mahuva** industrial clusters.
- **Web Resources:** Reliable agricultural news portals and reports from NGOs working in the Saurashtra region.

4. Data Analysis and Interpretation

This section analyzes secondary data regarding the cost structure, operational efficiency, and technical suitability of Sanedo tractors compared to conventional options.

1. <u>To analyze the economic benefits of using Sanedo tractors for small and marginal farmers.</u> of the study is to analyze economic benefits. Table 1 compares the initial capital requirement for different mechanization options available to farmers in Bhavnagar.

Table 1

Machine Type	Approx. Market Price (₹)	Subsidy Availability	Net Burden on Farmer
Standard Tractor (45 HP)	₹ 7,50,000 – ₹ 9,00,000	Yes (approx. 25-30%)	~ ₹ 6,00,000+
Branded Mini Tractor (18-24 HP)	₹ 3,50,000 – ₹ 4,50,000	Yes	~ ₹ 3,00,000+

Machine Type	Approx. Market Price (₹)	Subsidy Availability	Net Burden on Farmer
Sanedo (10-12 HP)	**₹ 1,30,000 – ₹ 1,60,000**	**No**	**~ ₹ 1,45,000**

Source: Market survey data from Rajkot and Sihor agricultural machinery clusters (2024-25 estimates).

Interpretation:

The data reveals a massive price arbitrage. Even without government subsidies, the **Sanedo is approximately 75% cheaper** than a standard tractor and **50% cheaper** than a branded mini-tractor. For a marginal farmer in Bhavnagar (owning <2 hectares), the investment of ₹1.45 Lakh is manageable through personal savings or informal loans, whereas ₹6 Lakh for a standard tractor is often financially impossible. This huge capital difference is the **primary factor influencing adoption**.

2. To identify the key reasons why farmers in Bhavnagar choose Sanedo tractors.

Operational Efficiency Analysis (Fuel & Maintenance)

Table 2 analyzes the recurring operational costs, which are critical for daily farming activities.

Table 2

Operational Cost Comparison (Per Hour of Operation)

Parameter	Standard Tractor	Sanedo (10 HP)	Economic Benefit
Fuel Consumption	3.5 – 4.0 Liters/hr	**1.0 – 1.25 Liters/hr**	~65% Fuel Saving
Diesel Cost (@ ₹90/L)	₹ 315 – ₹ 360	**₹ 90 – ₹ 112**	Save ~₹200/hr
Repair & Maintenance	High (Requires Workshop)	Low (Local Mechanic)	Easy local repair

Source: Compiled from agricultural engineering performance reports (Junagadh Agricultural University studies).

Interpretation:

The data indicates that the Sanedo offers **65% fuel savings** per hour of operation. For light tasks like spraying pesticides or inter-culturing (weeding), using a 45 HP tractor is "over-mechanization" and fuel wastage. The Sanedo performs these light tasks at a fraction of the cost (approx. ₹100/hour vs ₹350/hour), making it highly efficient for the small landholdings of Bhavnagar.

4.3 Technical Suitability for Bhavnagar Crops

Objective 1 focuses on reasons for adoption. The cropping pattern in Bhavnagar (Cotton and Groundnut) dictates the machinery choice.

Table 3

Machine Suitability for Inter-Cropping (Weeding between rows)

Crop	Required Row Spacing	Standard Tractor Wheel Width	Sanedo Wheel Width	Result
Cotton (Kapas)	3 – 4 Feet	5.5 – 6 Feet	**2.5 – 3.5 Feet (Adjustable)**	**Sanedo Fits**
Groundnut	1.5 – 2 Feet	5.5 – 6 Feet	**2.5 – 3.5 Feet**	**Sanedo Fits**

Interpretation:

Standard tractors have a wide track width that crushes standing crops if used for weeding. The Sanedo's narrower, often adjustable width allows it to enter standing crops without causing damage. This **technical "Crop-Machine Fit"** is a critical adoption factor specifically for the cotton-growing belt of Talaja and Mahuva.

3. To study the challenges and operational problems faced by farmers while using Sanedo tractors.

Safety Hazards and Design Flaws

The most critical challenge is the lack of standardized safety features.

- **Instability (Toppling Risk):** The Sanedo typically has a narrow wheel track (to fit between cotton rows) and a high center of gravity. This structural design makes it highly prone to **"toppling" or rolling over** on uneven farm terrain or sharp turns.
- **Lack of Protection:** Unlike standard tractors which increasingly come with Roll-Over Protective Structures (ROPS), the Sanedo is an open vehicle. In the event of a rollover, there is no roll cage or seatbelt to protect the driver, often leading to fatal accidents.
- **Braking Limitations:** Many locally assembled units use drum brakes repurposed from old jeeps or three-wheelers, which are often insufficient for the load the vehicle carries, especially when hauling trailers of heavy produce like onions.
- **High Safety Risk (Toppling):** The most dangerous issue is the Sanedo's instability. Due to its narrow wheel width (designed for cotton rows) and high center of gravity, the vehicle is prone to **toppling over** on uneven ground or sharp turns. Unlike standard tractors, it lacks a "Roll-Over Protection System" (ROPS), leading to severe accidents.
- **Legal & Regulatory Hurdles:** Most Sanedo tractors operate in a **"Grey Zone."** They are often unregistered with the RTO because they are locally assembled "Jugad" vehicles without safety certifications. This means farmers cannot get vehicle insurance, leaving them financially vulnerable in case of theft or accidents, and they face fines when driving on highways.
- **Mechanical Reliability Issues:** Since these are not manufactured by branded companies, there is **no standardization**. Farmers face frequent breakdowns of the gearbox and axle because local mechanics often use refurbished or second-hand parts. There is no warranty or authorized service support.
- **Occupational Health Hazards:** The vehicle lacks shock absorbers and power steering. The intense vibration from the diesel engine and the loud noise levels cause long-term health issues for farmers, including severe back pain and hearing problems.

5. FINDINGS

Based on the analysis of secondary data, the study presents the following key findings:

1. **Cost as the Primary Driver:** The strongest factor influencing adoption is the low capital cost. The Sanedo (approx. ₹1.5 Lakh) creates an entry point for mechanization for farmers who cannot afford the ₹6 Lakh+ price tag of conventional tractors.
2. **Suitability for Inter-Culturing:** The technical design of the Sanedo (narrow wheelbase) makes it agronomic superior to standard tractors for "Inter-Culturing" operations in Cotton and Groundnut crops, which are the main cash crops of Bhavnagar district.
3. **Operational Economy:** Farmers save approximately **₹200–250 per hour** on diesel costs by using Sanedo for light tasks (spraying, weeding) compared to using a heavy tractor.
4. **Regulatory Gap:** A major negative finding is the lack of safety and legality. Most Sanedo vehicles are unregistered and lack insurance, posing a significant financial risk to the farmer in case of accidents, yet adoption continues due to economic necessity.

6. SCOPE OF THE STUDY

- **Geographical Scope:** The study is limited to the **Bhavnagar District** of Gujarat, specifically focusing on agricultural clusters in Mahuva, Talaja, and Sihor where local manufacturing of these units is concentrated.
- **Content Scope:** The research focuses on the **socio-economic factors** (Cost, Utility, Income) and **technical factors** (Fuel, Design) of adoption. It does not cover the detailed mechanical engineering design or manufacturing processes of the vehicle.
- **Data Scope:** The study is based on **Secondary Data** spanning from 2018 to 2025, utilizing reports from agricultural universities, media articles, and industry estimates.

7. LIMITATIONS OF THE STUDY

- **Lack of Official Statistics:** As the Sanedo falls under the "Unorganized/Informal" manufacturing sector, there is no official government census on the exact number of units sold or operating in the district. The data relies on estimates.
- **Absence of Safety Data:** Official accident reports specifically categorized under "Sanedo" are rare in secondary records (often grouped under general road accidents), making it difficult to quantify the safety risk accurately.
- **Regional Specificity:** The findings are highly specific to the cropping patterns of Saurashtra (Cotton/Groundnut). These results may not be applicable to other districts like Kheda or Anand where cropping patterns (e.g., Paddy/Wheat) and soil types differ.

8. CONCLUSION

The study **"Factors Influencing Farmer Adoption of Sanedo Tractors in Bhavnagar District, Gujarat"** concludes that the "Sanedo" is not merely a vehicle but an economic necessity for the small and marginal farmers of the Saurashtra region.

The analysis of secondary data confirms that the primary driver of adoption is **Economic Frugality**. With an acquisition cost that is **75% lower** than standard tractors and operational fuel savings of nearly **65%**, the Sanedo bridges the "mechanization gap" for farmers who are otherwise priced out of the formal machinery market. Furthermore, the study identifies a critical **"Agronomic Fit."** The Sanedo's design—specifically its narrow and adjustable wheel track—makes it technically superior to larger tractors for

inter-culturing operations in **Cotton and Groundnut**, the two dominant crops of Bhavnagar. This proves that adoption is driven not just by poverty, but by the specific functional utility of the machine.

However, the study also highlights a significant **"Regulatory Paradox."** While the Sanedo creates economic value, it operates in a legal grey zone with high safety risks due to the lack of Roll-Over Protection Systems (ROPS) and formal registration.

Final Verdict: For sustainable agricultural development in Bhavnagar, the Sanedo should not be banned but **standardized**. The study suggests that policymakers and engineering institutes should collaborate with local assemblers in Sihor and Mahuva to upgrade the safety features of these vehicles, bringing them into the formal economy while retaining their cost advantage.

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GENDER JUSTICE AND CONSTITUTIONAL MORALITY IN RELIGIOUS DIVORCE LAWS IN INDIA: A CRITICAL LEGAL STUDY

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ABSTRACT
India's pluralistic legal system governing marriage and divorce is deeply rooted in religious personal laws. While this diversity reflects constitutional respect for religious freedom, it has also resulted in unequal divorce regimes that disproportionately affect women. The principle of gender justice, a cornerstone of constitutional democracy, often comes into conflict with religious norms governing dissolution of marriage. In recent years, Indian constitutional jurisprudence has increasingly invoked the doctrine of constitutional morality to reconcile this tension. This paper critically examines the concept of gender justice within religious divorce laws in India through the lens of constitutional morality. It analyses statutory frameworks and landmark judicial decisions to evaluate whether personal laws align with constitutional values of equality, dignity, and individual autonomy. The study adopts a doctrinal and analytical methodology, supported by case law analysis and comparative insights. The findings reveal that judicial intervention has played a transformative role in harmonizing personal laws with constitutional mandates, yet significant structural and social barriers remain. The paper argues that constitutional morality must function as a guiding principle for reforming religious divorce laws while preserving legitimate religious freedoms. The study concludes by suggesting legal and policy reforms aimed at achieving substantive gender justice in India's family law regime.

KEYWORDS: GENDER JUSTICE, CONSTITUTIONAL MORALITY, RELIGIOUS DIVORCE, PERSONAL LAWS, INDIAN CONSTITUTION, FAMILY LAW

1. INTRODUCTION
Marriage and divorce in India are regulated through a complex framework of religion-based personal laws. Hindus, Muslims, Christians, Parsis, and Jews are governed by distinct statutory and uncodified legal systems that reflect their respective religious doctrines. While this pluralism was constitutionally preserved to respect cultural autonomy, it has simultaneously entrenched gender inequality, particularly in matters of divorce.

Gender justice is not merely a social aspiration but a constitutional mandate derived from Articles 14, 15, and 21 of the Constitution of India. However, religious divorce laws often embody patriarchal norms that restrict women's autonomy, impose unequal procedural burdens, and deny substantive equality. Practices such as unilateral talaq, restrictive grounds for divorce, and differential standards of maintenance illustrate systemic discrimination.

In response to these inequities, Indian courts have increasingly relied on the doctrine of constitutional morality. This doctrine emphasizes fidelity to constitutional values over social morality or religious

custom. The judiciary's application of constitutional morality in cases involving personal laws marks a significant shift from non-intervention to transformative constitutionalism.

This paper seeks to critically examine how constitutional morality has been employed to advance gender justice within religious divorce laws. It evaluates whether judicial and legislative reforms have meaningfully addressed gender discrimination and explores the continuing challenges in balancing religious freedom with constitutional supremacy.

2. CONCEPTUAL FRAMEWORK

2.1 Gender Justice

Gender justice refers to the fair treatment of individuals of all genders, ensuring equality in rights, opportunities, and outcomes. In constitutional law, gender justice transcends formal equality and embraces substantive equality, recognizing structural disadvantages faced by women.
In the context of divorce laws, gender justice demands:

- Equal grounds for divorce
- Procedural fairness
- Economic security post-divorce
- Recognition of women's dignity and autonomy

2.2 Constitutional Morality

The concept of constitutional morality was first articulated by Dr. B.R. Ambedkar, emphasizing adherence to constitutional values even when social morality resists change. Constitutional morality requires state institutions, including courts, to prioritize constitutional principles such as liberty, equality, dignity, and fraternity. In family law, constitutional morality operates as a corrective tool, enabling courts to scrutinize personal laws that conflict with fundamental rights.

3. LITERATURE REVIEW

Scholarly discourse on gender justice and personal laws reveals three dominant strands. First, feminist legal scholars argue that religious divorce laws institutionalize patriarchy. Agnes (2011) highlights how personal laws reinforce male dominance under the guise of religious freedom. Similarly, Bina Agarwal emphasizes that economic dependency exacerbates women's vulnerability during divorce.
Second, constitutional theorists focus on the role of judiciary in reforming personal laws. Bhatia (2019) discusses constitutional morality as a transformative principle that enables courts to challenge discriminatory practices without abolishing religious diversity.

Third, socio-legal studies examine the gap between legal reform and social reality. Despite progressive judgments, women often lack access to justice due to social stigma, illiteracy, and economic dependence. However, existing literature inadequately integrates gender justice with constitutional morality specifically in divorce jurisprudence. This study addresses that gap by providing a focused doctrinal and constitutional analysis.

4. RESEARCH QUESTIONS AND HYPOTHESIS

Research Questions

1. To what extent do religious divorce laws in India conform to constitutional principles of gender justice?

2. How has the judiciary employed constitutional morality to address gender discrimination in personal laws?
3. What limitations persist in achieving substantive gender justice in religious divorce regimes?

Hypothesis

Religious divorce laws in India, as traditionally interpreted, are inconsistent with constitutional guarantees of gender justice; however, judicial application of constitutional morality has significantly advanced women's rights, though comprehensive reform remains incomplete.

5. RESEARCH METHODOLOGY

This study adopts a **doctrinal and analytical research methodology**.

5.1 Data Collection

- Primary sources: Constitutional provisions, statutes, Supreme Court and High Court judgments
- Secondary sources: Books, peer-reviewed journals, law commission reports

5.2 Method of Analysis

- Critical legal analysis of statutes and judgments
- Comparative evaluation across personal laws
- Normative assessment using constitutional morality framework

6. RELIGIOUS DIVORCE LAWS IN INDIA: A GENDERED ANALYSIS

6.1 Hindu Law

The Hindu Marriage Act, 1955 provides relatively progressive grounds for divorce. However, procedural delays, societal pressure, and economic dependency undermine women's effective access to divorce remedies.

6.2 Muslim Law

Traditional Muslim law permitted unilateral talaq, placing women at a severe disadvantage. Although the Muslim Women (Protection of Rights on Marriage) Act, 2019 criminalized instant triple talaq, women continue to face barriers in accessing khula and maintenance.

6.3 Christian and Parsi Laws

Christian divorce law historically imposed stricter conditions on women. Although amendments have introduced parity, residual biases remain. Parsi divorce law, while procedurally structured, is criticized for elitism and limited accessibility.

7. JUDICIAL INTERVENTION AND CONSTITUTIONAL MORALITY

7.1 Transformative Judgments

In *Shayara Bano v. Union of India*, the Supreme Court invalidated instant triple talaq, emphasizing dignity and equality. In *Joseph Shine v. Union of India*, constitutional morality was invoked to strike down adultery laws rooted in patriarchal assumptions.

7.2 Expanding Gender Justice

Courts have progressively interpreted maintenance, alimony, and custody rights to ensure economic justice for divorced women. The emphasis on dignity under Article 21 reflects constitutional morality in action.

8. DATA ANALYSIS AND KEY FINDINGS

Although this study is doctrinal, analysis of judicial trends reveals:

- Increased willingness of courts to intervene in personal laws
- Shift from formal equality to substantive equality
- Recognition of women as rights-bearing individuals rather than dependents

However, implementation gaps persist due to social resistance and lack of legal awareness.

9. IMPLICATIONS OF THE STUDY

This study contributes to constitutional and family law scholarship by:

- Reinforcing constitutional morality as a legitimate tool for personal law reform
- Providing a gender-centric framework for evaluating divorce laws
- Informing policymakers and judiciary on balancing religious freedom with gender justice

10. FUTURE RESEARCH DIRECTIONS

Future studies may:

- Conduct empirical research on women's lived experiences post-divorce
- Examine intersectionality of caste, religion, and gender
- Explore comparative models of secular family law reforms

11. CONCLUSION

This paper demonstrates that religious divorce laws in India have historically marginalized women, conflicting with constitutional guarantees of equality and dignity. The judiciary's reliance on constitutional morality marks a decisive shift toward transformative justice. While significant progress has been made, true gender justice requires sustained judicial vigilance, legislative reform, and societal change. Constitutional morality must continue to guide India's family law jurisprudence to ensure that personal laws evolve in harmony with constitutional values.

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A STUDY OF CONSUMER AWARENESS FOR GREEN MARKETING

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ABSTRACT

In today's scenario being concerned about environment plays a big role. Focusing on sustainable product and practices that are environmentally safe helps business to achieve a good image in society. Government is also getting strict over industries as these industries are creating major environmental problems, in such situation "Green Marketing" is one of the strategy firms can adapt. Green Marketing is a process in which goods and services are offered to consumers by adapting overall green practices, which means starting from its production to its disposal during each stage those strategies are selected that do not harm our earth.

Development of green marketing has brought new opportunities for businesses to create a separate line in which those goods are sold that do not impact negatively on environment and to provide such products these companies are charging slightly higher prices by stating that its even costlier for them to produce such products as it requires different technologies and machineries and the installation of which is costly. Businesses have increased their rate of targeting those consumers who care about their surroundings and nature. Although these consumers because of their concern are themselves adapting using those products that do not harm our environment. However there are still many who has little or no idea on what's happening to environment and still consume those traditional products. Hence, the objective of this paper is to measure the level of awareness amongst consumers regarding green products.

INTRODUCTION

Global Warming, Ozone layer depletion, Carbon credits, Environmental hazards all these are the common terminologies in todays scenario. Well these words are getting so much highlighted these days because society is getting more conscious about the degradation of our environmental health, the reason behind societies concern is that the ill effects are now being felt and experienced by society itself. Talking about the reasons behind such depletion the main reason behind it is mass production of those environmentally irresponsible products.

Traditionally manufactures used to sell products and services which used to satisfy consumers' need at reasonable price but in grief of money and satisfaction we all forgot its ill impact on surroundings. We humans have polluted environment through our endless demands and wants. The continuous cycle of demand and supply is never going to stop but we can change one thing about this is we start consuming those goods and services whose production is causing less damage to our "Mother Earth". With the rise in consumers knowledge regarding environmental degradation slowly and gradually they have started changing their consumption habits, now with the changing consumer approach all the manufactures also

have to inculcate different activities which includes changing production process, changing packaging style, using better distribution channels and all those activities that are environmentally safe.

As we all know that businesses make decision regarding production and marketing based on factors like government regulation and consumers preferences. Both Government and Consumers play a big role in inculcating green initiative. If the consumers start demanding and consuming those goods that are less hazardous to environment automatically these firms will change their behaviour.

Hence awareness amongst consumers is a major factor that impacts the concept of "Green Marketing". Talking about awareness U.S market has more than 3.5 confirmed green consumers, while European countries also have a strong consumer base for green products but if we talk about India very less amount of data is available. The present paper is an attempt to study the awareness regarding green marketing of people that resides in the kachchh district.

DEFINIITION OF GREEN MARKETING

Ottman states that

"Green marketing involves the development and promotion of products that minimize environmental impact while meeting consumer needs and business objectives."

According to Kotler and Keller,

"Green marketing refers to marketing strategies that support environmental protection by integrating ecological considerations into product design, pricing, promotion, and distribution decisions."

ROLE OF CONSUMER AWARENESS IN GREEN MARKETING

Consumer awareness plays a vital role in the effectiveness of green marketing. It refers to consumers' understanding of environmental issues, green products, and the environmental impact of their purchasing decisions. Awareness helps consumers differentiate between conventional and eco-friendly products by enabling them to understand eco-labels, recyclable packaging, and sustainable production practices. This reduces confusion and mistrust related to green claims.

Further, environmentally aware consumers are more likely to prefer green products due to concerns about environmental protection and personal health. Awareness helps translate positive environmental attitudes into actual green purchasing behaviour. In addition, informed consumers exert pressure on firms to adopt sustainable and transparent business practices, thereby encouraging corporate environmental responsibility. In developing countries like India, regional studies on consumer awareness are essential to identify knowledge gaps and support effective green marketing strategies.

OBJECTIVES OF THE STUDY

The study is conducted to achieve the following objectives:

1. To study the level of awareness amongst consumers regarding green marketing.
2. To examine consumers' awareness and understanding of green products and eco-labels.
3. To determine what motivates consumers to purchase green products.

LITERATURE REVIEW

Ms. Anuradha Gaikwad (2011) created a research on 100 respondents and concluded that 60% of respondent are aware about the concept. Respondents of service industry are more aware and willing to buy green products. He also stated that amongst those who are aware about eco-friendly products are not ready to pay higher amount for the same, so he stated that consumers are price sensitive.

Anupreet Kaur Mokha (2017) conducted a survey with 152 respondents and concluded that respondents are aware about eco-friendly products and respondents also understand the need of using eco-friendly products o protect environment. Researcher also stated that youngsters are more concerned as education plays a role in making a purchase. Hence he concluded that more awareness campaign should be made by government and manufacturers so that consumers learn from such campaigns and understand the neeed of adapting green products.

Kohila B G (2019) Conducted a survey on 507 respondent and stated that majority of them are less aware about green marketing practices and those who has knowledge from them even majority are not purchasing green products due to lack of availability. Hence he opined that proper awareness campaigns must be created to boost the demand of green products.

Diamantolopous et al (2003) researcher made a research on 1697 respondents from Britain and stated that demographic variables are insufficient to determine green consumers profile. He further stated that women are more concerned about environment compared to man. Married couples also have tendency to care about environment. He stated positive relation between education, information and attitude. Whereas negative relation between age and concern for environment.

RESEARCH METHODOLOGY

The study is based on both **primary data** and **secondary data** to ensure accuracy and reliability of the research findings.

1.PrimaryData

Primary data was collected directly from respondents in the study area through a questionnaire survey. The questionnaire was designed to gather first-hand information relevant to the objectives of the study. Responses from participants helped in understanding their views, experiences, and opinions related to the research topic.

2.SecondaryData

Secondary data was collected from **existing sources** such as published research articles, academic journals, books, reports, and reliable internet websites. These sources were used to gain background information, support the analysis, and compare the findings of the study with earlier research.

HYPOTHESIS OF THE STUDY

- **H_0:** Consumers do not have a significant level of awareness regarding green marketing.

H_1: Consumers have a significant level of awareness regarding green marketing.

- **H_0**: Consumers do not have adequate awareness and understanding of green products and eco-labels.

H_1: Consumers have adequate awareness and understanding of green products and eco-labels.

- **H_0:** Factors such as environmental concern, health consciousness, and social influence do not significantly motivate consumers to purchase green products.

H_1: Factors such as environmental concern, health consciousness, and social influence significantly motivate consumers to purchase green products.

ANALYSIS AND INTERPRETATION

What according to you is Green Marketing?		
Particular	**Frequency**	**Percent**
Promotion of environmentally friendly products, services, and initiatives.	20	3.64
Creating biodegradable product packaging and cutting down on water consumption.	23	4.18
Utilizing eco-friendly manufacturing process in order to restrict environmental hazard.	12	2.18
All of Above	495	90.00
Total	550	100.00

DATA INTERPRETATION

The findings indicate that a vast majority of participants (90.00%) perceive green marketing as a holistic concept that includes promoting environmentally responsible products and services, adopting biodegradable packaging, conserving water resources, and implementing eco-friendly production methods to minimize environmental damage. In contrast, a smaller share of respondents associates green marketing with specific elements alone: 3.64% relate it primarily to the promotion of green products and services, 4.18% focus on biodegradable packaging and water conservation, and 2.18% emphasize environmentally sustainable manufacturing practices. This broad level of understanding reflects a relatively informed consumer population in Kachchh District, suggesting strong potential acceptance of integrated green marketing initiatives within the FMCG sector.

Have you ever heard about eco labels or Green Products? (special symbols and information imprinted on the products that are environment friendly)		
Particular	**Frequency**	**Percent**
Yes	473	86.00
No	77	14.00
Total	550	100.00

DATA INTERPRETATION

The results show that a large majority of respondents (86.00%) are aware of eco-labels or green products, reflecting substantial familiarity with environmental symbols and information displayed on environmentally responsible goods. In contrast, 14.00% of respondents indicated that they are not aware of such labels. This strong level of awareness points to a consumer base in Kachchh District that is relatively well informed about sustainable product choices, which may support the effective implementation and growth of green marketing practices in the FMCG sector.

Which factor mainly attracts you to buy green products?		
Particular	**Frequency**	**Percent**
Environment preservation	367	66.73
Health consciousness	125	22.73
Potential Increase in product value	32	5.82
Increase in Status	26	4.73
Total	550	100.00

DATA INTERPRETATION

The findings reveal that environmental protection is the dominant reason influencing the purchase of green products, as reported by 66.73% of respondents. Health awareness emerges as the next significant motivator, accounting for 22.73% of participants. In comparison, relatively fewer respondents are influenced by factors such as enhanced product value (5.82%) or perceived status enhancement (4.73%). The prominence of environmental concern as a purchasing motive indicates that sustainability considerations play a central role in shaping consumer behavior in Kachchh District. Accordingly, green marketing efforts should prioritize environmental benefits to align effectively with consumer values.

CONCLUSION

The present study examined the level of consumer awareness regarding green marketing with specific reference to consumers residing in Kachchh District. The findings clearly indicate that consumers possess a high level of awareness about the concept of green marketing and green products. A significant majority of respondents correctly perceived green marketing as a comprehensive approach encompassing environmentally friendly production processes, biodegradable packaging, efficient use of natural resources, and responsible promotion practices. This reflects a mature and informed understanding of sustainability-related marketing concepts among consumers.

The study also reveals substantial awareness of eco-labels and green product symbols, with most respondents recognizing and understanding their significance. Such awareness plays a crucial role in guiding consumers toward environmentally responsible purchase decisions and supports the growing relevance of eco-labeling as an effective green marketing tool. The acceptance of eco-labels suggests that consumers are receptive to credible and transparent environmental information provided by manufacturers.

Further, the analysis highlights that environmental concern is the primary motivating factor influencing the purchase of green products, followed by health consciousness. Factors such as social status and perceived increase in product value were found to be relatively less influential. This indicates that consumers in the study area are driven more by ethical and long-term environmental considerations rather than by symbolic or prestige-related motives.

The results lead to the rejection of the null hypotheses and confirm that consumers exhibit significant awareness and understanding of green marketing practices. Additionally, environmental concern, health awareness, and social influence were found to positively motivate consumers toward purchasing green products. These findings underscore the importance of awareness as a key determinant in promoting sustainable consumption behaviour.

In conclusion, the study emphasizes that increasing consumer awareness is vital for the successful implementation of green marketing strategies. While awareness levels are encouraging, continuous efforts are required from government agencies, marketers, and policymakers to strengthen education, improve product availability, and ensure authenticity in green claims. Such initiatives will not only foster responsible consumer behaviour but also contribute meaningfully to environmental sustainability and long-term economic development.

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