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ARTIFICIAL INTELLIGENCE IN ENGLISH LANGUAGE TEACHING AND LEARNING

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ABSTRACT

The integration of Artificial Intelligence (AI) in English Language Teaching and Learning (ELT) has transformed modern education by reshaping pedagogy, enhancing learner engagement, and enabling adaptive, data-driven instruction. AI technologies such as Natural Language Processing (NLP), speech recognition, intelligent tutoring systems, automated assessment tools, and conversational chatbots have significantly improved the ways English is taught and learned. These innovations provide personalized learning experiences by analyzing individual learners' strengths and weaknesses, delivering tailored feedback, and supporting skill development in grammar, pronunciation, vocabulary, and writing.

Beyond automation, AI fosters learner autonomy, interactive learning, and continuous feedback, creating flexible and engaging learning environments. Applications such as Duolingo, Grammarly, and ELSA Speak offer real-time evaluations and adaptive exercises that promote self-paced learning and measurable progress. Moreover, AI assists teachers by automating repetitive tasks such as grading and assessment, allowing them to focus on creativity, communication, and human interaction in the classroom.

However, the integration of AI in ELT presents challenges, including concerns about data privacy, algorithmic bias, and ethical use, as well as the need for teacher training in AI literacy. The human dimensions of empathy, cultural understanding, and emotional connection remain essential and cannot be replicated by technology. Therefore, the effective application of AI in ELT requires a human-centered pedagogical approach that harmonizes technological innovation with ethical and critical teaching practices.

This paper examines the applications, benefits, challenges, and future implications of AI in ELT, arguing that AI should act as a supportive, not substitutive, tool for teachers. When thoughtfully implemented, AI has the potential to enrich language education by promoting learner engagement, inclusivity, and communicative competence in an increasingly globalized and technologically driven world.

KEYWORDS: ARTIFICIAL INTELLIGENCE (AI); ENGLISH LANGUAGE TEACHING (ELT); PERSONALIZED LEARNING; INTELLIGENT TUTORING SYSTEMS; SPEECH RECOGNITION; LEARNER AUTONOMY; HUMAN-CENTERED PEDAGOGY

1. INTRODUCTION

The 21st century has witnessed a remarkable transformation in education, driven largely by advances in Artificial Intelligence (AI). In the field of English Language Teaching (ELT), AI has emerged as a catalyst for innovation, reshaping traditional pedagogical paradigms. The demand for English proficiency continues to grow globally, making effective and adaptive learning essential. AI offers opportunities to

enhance language acquisition through intelligent tutoring, automated feedback, and adaptive learning platforms that align with learners' unique linguistic profiles.

Traditional classroom instruction often follows a one-size-fits-all approach that may not meet diverse learner needs. In contrast, AI-powered technologies—ranging from speech recognition software and machine translation tools to intelligent writing assistants and chatbots—enable personalized and interactive learning experiences. These technologies promote learner engagement, facilitate self-directed study, and provide immediate feedback.

This paper explores how AI influences teaching methodologies, assessment, and teacher roles while addressing ethical, cultural, and practical challenges. It argues that AI should serve as an augmentative tool that empowers teachers and learners rather than replacing human instruction.

2. REVIEW OF LITERATURE

2.1 Evolution of AI in Education

Artificial Intelligence was first conceptualized in the mid-20th century, but its educational applications gained traction in the 1980s with the emergence of Intelligent Tutoring Systems (ITS). According to Woolf (2010), these systems simulate one-on-one tutoring by analyzing student responses and adapting instructional materials. The growth of big data and machine learning has since expanded AI's capacity to interpret learner behaviors and provide personalized support.

In ELT, AI began influencing digital language learning through applications such as Duolingo, Grammarly, Rosetta Stone, and ELSA Speak. These platforms use NLP and speech analysis to evaluate pronunciation, grammar, and vocabulary. As noted by Li and Ni (2021), such systems create data-driven insights into learner progress, promoting individualized language acquisition.

2.2 Key Theoretical Frameworks

The integration of Artificial Intelligence (AI) in English Language Teaching (ELT) can be meaningfully interpreted through the lens of several foundational educational theories that explain how learners acquire knowledge, interact with content, and construct meaning. These include **Constructivism, Connectivism, and Socio-Cultural Theory**—each providing valuable insights into the pedagogical relevance of AI technologies in modern language education.

1. **Constructivism**, proposed by Jean Piaget (1973), emphasizes that learners construct knowledge actively through experience and interaction rather than passively receiving information. In this framework, AI tools support learner-centered engagement by personalizing tasks, adjusting difficulty levels, and providing immediate feedback based on learner input. For example, intelligent tutoring systems and adaptive learning platforms encourage exploration, experimentation, and problem-solving—key principles of constructivist learning. Learners can thus build linguistic competence through authentic practice and self-discovery rather than rote memorization.
2. **Connectivism**, introduced by George Siemens (2005), extends learning theory into the digital age by asserting that knowledge resides within networks—both human and technological. AI technologies embody connectivist principles by linking learners to global linguistic communities through online communication tools, collaborative platforms, and AI-driven learning networks. Through chatbots, discussion forums, and virtual exchanges, learners can access diverse perspectives, share resources, and develop intercultural competence, illustrating how AI enables continuous learning across digital ecosystems.

3. **Socio-Cultural Theory**, articulated by Lev Vygotsky (1978), stresses the importance of social interaction, collaboration, and cultural context in learning. AI-enhanced platforms, such as intelligent conversational agents and collaborative writing tools, promote interactive language use and scaffold learning within the learner's Zone of Proximal Development (ZPD). These systems simulate communicative situations that encourage negotiation of meaning, peer interaction, and authentic language practice—thus bridging technology and social constructivism in ELT.

Collectively, these theories demonstrate that AI integration supports dynamic, interactive, and socially grounded approaches to English language learning.

2.3 Previous Research Findings

Research by Kukulska-Hulme (2020) highlights that the integration of AI applications in language learning significantly enhances learners' pronunciation, listening comprehension, and speaking fluency through real-time, adaptive feedback. AI-powered speech recognition tools and pronunciation trainers such as ELSA Speak and Google Speech-to-Text analyze learners' spoken input, detect pronunciation errors, and provide immediate corrective suggestions. This individualized feedback allows learners to monitor and refine their articulation and intonation patterns, contributing to more accurate and confident oral communication. Kukulska-Hulme's study underscores the value of formative, data-driven feedback loops, which support self-paced improvement and foster autonomy in oral language development. [1]

Similarly, Lu and Yang (2022) investigated the impact of AI-driven automated writing evaluation systems on English as a Second Language (ESL) learners and found substantial improvements in grammatical accuracy, lexical diversity, and syntactic complexity. Tools like Grammarly and Criterion employ Natural Language Processing (NLP) algorithms to detect and correct linguistic errors while also offering stylistic and structural feedback. Their findings suggest that such systems not only help learners identify weaknesses but also promote metalinguistic awareness, as students reflect on their errors and internalize grammatical patterns through iterative revision. [4]

However, Warschauer (2021) provides a critical perspective, cautioning against the overreliance on automation in language education. He emphasizes that while AI enhances efficiency and accessibility, it cannot replicate the nuanced human elements of empathy, cultural sensitivity, and contextual judgment that teachers bring to instruction. According to Warschauer, effective AI integration must therefore maintain a balance between technological assistance and human mediation, ensuring that language learning remains culturally meaningful and socially interactive. [3]

So, these studies illustrate that AI offers powerful tools for skill-specific improvement but must be implemented under thoughtful pedagogical guidance to achieve holistic language competence.

3. APPLICATIONS OF AI IN ELT

3.1 Intelligent Tutoring Systems (ITS)

ITS use machine learning algorithms to assess learner performance and deliver customized exercises. For example, Carnegie Learning's MATHia and ELL-tutor prototypes use adaptive models to tailor instruction based on student errors. In ELT, such systems can provide grammar exercises, reading comprehension tasks, and vocabulary quizzes suited to individual proficiency levels.

3.2 Natural Language Processing (NLP)

NLP enables machines to understand and generate human language. Tools like Grammarly, ChatGPT, and QuillBot analyze linguistic patterns to provide writing assistance, suggesting grammatical corrections, paraphrasing options, and stylistic improvements. NLP also powers automated essay scoring systems that assess coherence, lexical diversity, and syntax.

3.3 Speech Recognition and Pronunciation Training

Speech recognition tools such as Google Speech-to-Text, ELSA Speak, and Microsoft Read Aloud evaluate pronunciation accuracy, stress patterns, and fluency. AI algorithms compare learners' speech with native speaker models and provide corrective feedback, thus promoting speaking competence.

3.4 Chatbots and Virtual Assistants

AI-driven chatbots simulate conversation partners for language practice. For instance, Duolingo's AI conversation bots and Replica allow users to engage in realistic dialogues, enhancing communicative competence. These systems foster continuous learning outside classroom boundaries, offering an immersive environment for learners with limited exposure to native speakers. [6]

3.5 Automated Translation and Writing Assistance

Machine translation systems like Google Translate and DeepL help learners comprehend texts in English and refine their translation skills. Although not flawless, these tools have become valuable aids in vocabulary acquisition and cross-linguistic understanding. Similarly, AI writing assistants provide contextual feedback on structure, tone, and lexical selection, guiding learners toward advanced writing proficiency.

3.6 Assessment and Feedback Systems

AI-based assessment tools automate grading and feedback, enabling educators to focus on creative instruction. Platforms like ETS e-rater and Turnitin Revision Assistant evaluate writing mechanics, coherence, and plagiarism. These systems ensure timely, objective assessment while supporting formative feedback.

4. ROLE OF TEACHERS IN AI-INTEGRATED ELT

While AI offers remarkable efficiency, teachers remain irreplaceable in nurturing creativity, empathy, and cultural literacy. The teacher's role evolves from knowledge transmitter to learning facilitator and AI mediator. Teachers guide learners in interpreting AI feedback critically and integrating it meaningfully into their learning process.

Educators must develop AI literacy, understanding how algorithms work and where biases may arise. Training programs should empower teachers to design blended learning environments that combine AI tools with traditional instruction. Collaboration between technologists and educators is essential for developing pedagogically sound AI applications.

5. BENEFITS OF AI IN ENGLISH LANGUAGE LEARNING

5.1 Personalization

AI customizes content based on individual learning pace, goals, and weaknesses. Adaptive learning systems modify tasks according to learner proficiency, providing a more inclusive educational experience.

5.2 Immediate Feedback

Unlike traditional grading, AI offers instant feedback on pronunciation, grammar, and vocabulary usage, allowing learners to self-correct and progress rapidly.

5.3 Motivation and Engagement

Gamified AI platforms, such as Duolingo, use reward mechanisms that enhance motivation and sustained participation. Learners find interactive activities more engaging than static exercises.

5.4 Accessibility and Flexibility

AI-based mobile apps facilitate learning anytime and anywhere, expanding access for remote or under-resourced learners. Voice assistants support visually impaired students, while translation tools aid non-native learners.

5.5 Data-Driven Insights

Artificial Intelligence (AI) possesses the capability to collect and analyze vast amounts of learner-generated data, offering educators valuable insights into student performance, engagement, and progress. Through continuous monitoring of learners' interactions—such as response time, error patterns, and content mastery—AI systems can identify individual learning trends and areas requiring improvement. This data-driven approach allows teachers to make informed instructional decisions, personalize lesson plans, and design targeted interventions that address specific linguistic weaknesses.

AI-powered predictive analytics tools extend these capabilities further by using statistical modeling and machine learning algorithms to forecast learner outcomes. For instance, they can identify students who may be at risk of underperforming or disengaging based on behavioral indicators and past performance data. Teachers can then intervene early by providing additional support, differentiated materials, or remedial instruction, thereby preventing potential learning gaps.

Moreover, data visualization dashboards integrated into AI learning management systems present complex information in an accessible format, enabling educators to monitor progress across entire classes while still attending to individual learner needs. As a result, AI transforms traditional assessment into a continuous, formative, and adaptive process, promoting evidence-based pedagogy.

However, while these tools enhance educational precision, they also necessitate responsible data handling practices to safeguard learner privacy and ensure ethical use of analytics in English Language Teaching (ELT).

6.1 Lack of Human Interaction

While Artificial Intelligence (AI) offers efficiency and personalization in English Language Teaching (ELT), it remains inherently limited in replicating emotional intelligence, empathy, and nuanced human communication. Language learning is not merely a cognitive or mechanical process, it is a deeply social and emotional activity involving interpersonal understanding, motivation, and cultural exchange. AI systems, although capable of processing linguistic data, lack genuine affective awareness and the ability to interpret learners' emotions, body language, or contextual subtleties that influence communication.

An overreliance on automated learning environments may consequently reduce opportunities for authentic social interaction, collaboration, and the development of interpersonal skills essential to real-world communication. Learners who engage primarily with AI tools risk experiencing isolation or a diminished sense of belonging within the learning community. Moreover, emotional engagement—often fostered through teacher encouragement, peer interaction, and classroom dynamics—plays a crucial role in sustaining motivation and self-confidence in language learning.

Without deliberate integration of human elements, AI-driven instruction may inadvertently undermine the cultivation of empathy, intercultural competence, and communicative sensitivity, which are fundamental goals of language education. Therefore, AI should be viewed as a complementary aid rather than a substitute for human teachers, whose emotional insight, cultural understanding, and interpersonal responsiveness remain vital to the holistic development of language learners.

6.2 Bias and Inequality

AI models may reflect linguistic or cultural biases from their training data, disadvantaging learners from diverse linguistic backgrounds. Ethical frameworks are required to ensure fairness.

6.3 Data Privacy and Security

AI relies on extensive data collection, raising concerns over privacy and informed consent. Institutions must implement robust data protection measures.

6.4 Teacher Training and Resistance

Many educators lack familiarity with AI tools or fear being replaced. Professional development and awareness programs are crucial for smooth integration.

6.5 Infrastructure Constraints

In developing contexts, limited internet access, outdated devices, and financial constraints hinder effective AI adoption in classrooms.

7. ETHICAL CONSIDERATIONS

Ethical AI use requires transparency, accountability, and inclusivity. According to UNESCO (2023), educational AI must respect human rights and cultural diversity. Developers should design AI that complements human teachers, ensures data confidentiality, and avoids reinforcing stereotypes. Furthermore, ethical pedagogy must encourage critical digital literacy, enabling students to question and understand AI-generated feedback. [8]

8. CASE STUDIES

- **Case Study 1: Duolingo in ESL Classrooms**

Duolingo employs machine learning to personalize vocabulary and grammar lessons. Research by Loewen et al. (2020) found that students using Duolingo for supplementary practice improved their reading and listening skills faster than those using traditional materials. [3]

- **Case Study 2: Grammarly as a Writing Support Tool**

A study by Li and Cummings (2021) revealed that ESL students using Grammarly received constructive feedback on syntax and lexical choice, improving writing accuracy and coherence. Teachers noted increased learner autonomy and self-revision ability. [7]

- **Case Study 3: AI Speech Tutors**

ELSA Speak and Google's speech recognition models assist pronunciation learning. A 2022 experiment at the National University of Singapore demonstrated a 30% improvement in pronunciation accuracy after six weeks of AI-assisted practice. [7]

9. FUTURE DIRECTIONS OF AI IN ELT

The future of AI in ELT lies in adaptive multimodal learning environments, integrating virtual reality (VR), augmented reality (AR), and emotional AI. AI-powered classrooms will enable real-time speech correction, cross-cultural simulations, and immersive conversation practice. Research will likely focus on ethical AI design, teacher-AI collaboration, and emotion-aware systems that respond to learners' affective states.

Furthermore, large language models (LLMs) like ChatGPT are redefining autonomous learning by enabling contextualized, interactive conversation practice. As AI continues to evolve, ELT must adopt a

balanced approach—leveraging technology while maintaining human creativity and empathy at the center of education. [3]

10. CONCLUSION

Artificial Intelligence has become a transformative force in English Language Teaching and Learning. Its capabilities in personalization, feedback automation, and learner analytics have opened new avenues for effective language acquisition. However, successful integration demands ethical oversight, teacher empowerment, and equitable access. AI should not replace educators but augment their instructional capacities. Ultimately, human teachers remain vital in fostering creativity, empathy, and cultural understanding—elements that no algorithm can fully replicate.

AI's potential in ELT will continue to grow, and its responsible use can create inclusive, adaptive, and innovative learning environments that prepare learners for the demands of a globalized world. [3]

REFERENCES

1. Kukulska-Hulme, A. (2020). Mobile-assisted language learning and AI integration. Language Learning & Technology, 24(3), 1–15.

2. Li, J., & Ni, X. (2021). Artificial intelligence in language education: A review of emerging trends. Journal of Educational Technology, 18(4), 45–60.

3. Warschauer, M. (2021). Learning with AI: The changing role of teachers in digital ELT environments. TESOL Quarterly, 55(2), 345–367.

4. Lu, Y., & Yang, L. (2022). AI-based writing evaluation and ESL learner improvement. System, 104, 102–129.

5. Woolf, B. P. (2010). Building intelligent interactive tutors: Student-centered strategies for revolutionizing e-learning. Morgan Kaufmann.

6. Loewen, S., Isbell, D. R., & Sporn, Z. (2020). The effectiveness of app-based language learning: Duolingo in the classroom. Foreign Language Annals, 53(2), 314–339.

7. Li, Y., & Cummings, P. (2021). Evaluating Grammarly's impact on ESL writing development. Journal of Second Language Writing, 51, 100–752.

8. UNESCO. (2023).Ethical AI in education: Guidelines for responsible use. Paris: UNESCO Publications.

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THE ROLE OF EMOTIONAL APPEALS IN POLITICAL CAMPAIGN FOR LOKSABHA ELECTION 2024 IN GUJARAT: AN ANALYSIS OF NEUROMARKETING STRATEGIES

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ABSTRACT: PURPOSE
This paper therefore conjugates the role of emotional appeals in political campaigns in relation to neuromarketing strategies. The use of emotional appeal is one of the strongest tools politicians have because, through it, they can shape voters' perceptions, behaviours, and decision-making processes. With knowledge of neuroscience at their side, campaigns can draft messages that are intended to elicit emotions—of anxiety, fear, hope, pride, or anger—which may affect memory retention, engagement, and voting behaviour.

DESIGN/ METHODOLOGY
Data has been collected through a well design structured questionnaire from 250 political consumers (voters). The method of sampling is a non-probability convenience sampling method. This has analysed emotional appeals executed by political party or leaders to find elements affecting to vote the political leader or party.

ORIGINALITY/VALUE
This research indicates the adoption of the ethical emotional appeal to the political voters of Gujarat region. This study can help political parties and political strategist to design strategies and political campaign as well as advertisements.

FINDINGS
The present study has explored how different emotional triggers are manifesting in campaign messages and their impacts on attitude and choice of the voter. The outcome of this research has bring forth with insight how a political campaign can strategically create emotionally appealing messages and add to the volume that is beginning to rise on neuromarketing and its impact on political communication and political consumers.

KEY WORDS: CAMPAIGN, EMOTIONAL APPEAL, NEUROMARKETING, POLITICAL CONSUMERS

1. INTRODUCTION:

Political marketing

It is a multifaceted field that seeks to combine traditional marketing precepts with the dynamic nature of political campaigning, governance, and public opinion. It studies how political parties, candidates,

governments, or interest groups use marketing strategies and tools to influence political decisions or change the will of people, persuade electors, and show their policy and program contents. As media is climbing new heights of communication with advancement of social media platforms, adoption of modern marketing communication strategies has become inseparable part for all political parties for their political campaigns as well as communication. In recent times, this domain of study has elicited quite a significant spate of academic interest in the context of increasing relevance of media and consumer culture to shape the contours of political processes. The rise of personalized communication, micro-targeting, and the ability to trace voter behaviour through digital platforms have transformed the way campaigns are run and how political messages are crafted.

Political marketing is the intersection of political science, communication, and marketing; it focuses on the application of marketing principles and techniques in the political sphere.it is a field where politicians and political party reach to the electorate, design political tidings and makes efforts to sway voting behaviour and doxies in favour of particular candidate or political party. Political marketing is not limited to tactical deployment of crusade, it is more concerned with answerable to the fundamental problems and needs of the citizen as well as the role of government in democracy, it's governance and fulfilment of promises which part and candidate of the party has given to the voters or citizens..

1. Theoretical Base: Political marketing based on theories and principles of marketing communication, and political science. Some key theoretical frameworks include:

- Rational Choice Theory: Views voters as rational actors who make decisions based on their self-interest, influenced by political marketing strategies.
- Public doxies Theory: Evaluates how the political crusade and media affect or drive the behaviour and opinion of the voters.
- Branding and Identity Theory: Concerned with branding on the bases of political statistics or information and how it can drive the mind-set of voters for the political candidates or party.
- Sociocultural Theory: Emphasise the Analyses of how political marketing strategies can influence according to the demographic, social and cultural factors of voters.

2. Decision making and Behaviour of Voters: Elucidating the voting behaviour in centre to this field and how it can be influence by political marketing. It can answer the Key research questions like

- How do emotions, values, and identities interact with political messages in shaping voter preferences?
- What role does political marketing play in persuasion, mobilization, and manipulation of voters?
- How do political advertisements, debates, and speeches alter the political landscape during campaigns?

Definition

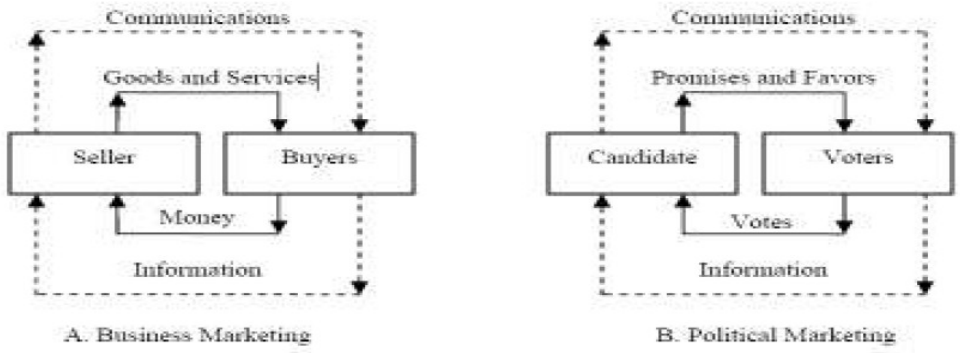
"Political marketing is application of tools and techniques to get the understanding voter opinion and behaviour before and during the election campaign to develop the contents and to measure the effect of campaign." Kavanagh (1995)

"The basic purpose of Political marketing is to influence voters during the elections. Political marketing is differentiated from the traditional marketing in the sense that in political marketing hopes, dreams and ideology are sold whereas in traditional marketing the sale is of products and services. But political marketing apply same tools such as advertisement, public relations and publicity as used in traditional marketing." Butler and Collins (1994)

WHAT IS NEUROPOLITICAL MARKETING?

The way an offer or an advertisement of a particular product or service run by a manufacturer or a company can make customers to purchase the goods as company has designed an offer. From that one time of transaction or exchange with company makes customer to reach at Satisfied. From the Prospectus to Satisfied and satisfied to loyal customer company enjoys the market and set its position in to the competitive landscape. The same way a political party or leader tries to convince the Political Customer (Political Voters) by advertisement, campaigns, public congeries, parole..etc.. in exchange of vote in his/her favour or in favour of respective party. It can be clearly understand by figure 1.1

Figure 1.1. Business Marketing VS Political Marketing



This article considers Lakoff's "neuropolitics" in the light of the work of political theorist William E. Connolly says that environmentalists should pay more attention to the affective effects of communities their language the culture in which they dwell and effect of micro political strategies executed on the communities.

There was another exam ple of online political micro targeting. In 2009 Chris Christie gathered data of republican women who had searched about breast cancer on any online internet platform, but this online political ad came against Christie, by his opponent John Crozine in the election. John Crozine was sitting at a kitchen with his wife and telling the story of his mother's long struggles to get cure from the breast cancer and gave a statement that Christie supported to reduce funding of mammogram.

2. LITERATURE REVIEW:

Nicholas A Valentino, Ted Brader, Eric W. Groenendyk, krisha gregorowicz, Vincent L. Hutchings 2011, The American National Election Studies -ANES have measured since 1980 the public feelings regarding the major parties and their candidates by asking the questions "Has the Democratic or Republican Candidates) because of the kind of person he is, or because of something he has done ever made you feel angry, afraid, proud, and hopeful? Public sentiment toward Democrats and Republicans tends to fluctuate significantly, indicating that some candidates on some political climates have triggered particular emotions more strongly than others.

Kishan Gopal (2020). Those supporting the "minimal effects" hypothesis believe there is, in fact, very little effect of political campaigns. Others suggest there is a great effect on voting behavior by political campaigning and it can be quantified. Curiously, political marketing has received minimal attention from academic scholars. Apparent interests on the one side, but also perceptions of a lack of relevance have often set limits to the examination of political marketing (Luck, 1969).

Hussain T. (2022), Has conducted the paper that undertakes the examination of transformative dimensions in the digital marketing approaches towards election campaigns that underpin the shift from the traditional to well-honed digital interactions. Social media and digital analytics, therefore, targeted advertising and ignited strong transformation in the way balance of power and reach between the voters and the political campaigns is attained. Ostensibly, there is little qualitative information on the effectiveness of the strategies applied; hence, the interest in researching exactly how the different strategies impinge on voter participation, behaviour, and the democratic process as a whole.

Jeff Chester, Kathryn C. Montgomery. 2019, It has been explored throughout this collection, the state of micro targeted programmatic advertising—the centerpiece of today's digital media and marketing apparatus—became part of electoral campaigns themselves amidst increasing concerns about privacy, discrimination, and manipulation. Many facets of the modern political campaign embrace digital strategy and technology that powerfully demonstrates ways campaign branding works throughout the election cycle. It also calls into focus the need for any prior and proposed regulatory and policy responses that seek to inject some transparency and accountability in the realm of digital politics.

Islam Mohamed Hegazy (2019), This paper tries to give profound insight into the more and more relevant role played by Big Data 2.0 and neuromarketing in general, and most particularly in connection with their use in manipulative relations to the distorting of election results. It tries responding in particular to some issues raised concerning the 2016 presidential campaign of Donald Trump and the capability to wash the brains of American political consumers and influence their choice. Analyzing the political marketing strategies of Trump, this paper suggests that Big Data 2.0 and neuromarketing techniques have played a significant role in interpreting voter behavior and helped create one of the most unexpected victories in presidential election history. However, this work also maintains that the morality of the use of Neuromarketing 2.0 in political activity for the promotion of candidacies and its negative results on the quality of the democracy remain a matter of debate.

Sekoul Krastev1, Joseph T. McGuire2, Denver McNeney3, Joseph W. Kable2, Dietlind Stolle3, Elisabeth Gidengil3 and Lesley K. Fellows1 (2016), Political Choice is paramount, be it in the voting booth or in response to a pollster. The sum of individual choices yields the result that determines which way public policy goes—and, as a result—the well-being of the people they serve (Soroka and Wlezien, 2010). While cognitive neuroscience offers new tools for understanding choices, political scientists have so far been slower than their colleagues in economics to pick up the new approaches.

Hardeep Kaur (2018)

In India following main political and socio-economic factors which act as determinates of	1.Ideological commitment	6.Populist slogans	11.Personal contacts
	2. Public Esteem of the Candidate	7. Religion	12.Language
	3. Influence of money	8.Education	13.Mass literacy:
	4. Party Loyalty	9.Election campaign	14.Factionalism

voting behaviours in our Democratic system:	5.Performance of the Party in Power	10.Caste	15. Charisma

Table 1.1 Determinants of Voting Behaviours.

Rahul Verma, Shreyas Sardesai (NATIONAL ELECTION STUDY 2014)

Image 1.2.



Aindrila Biswas, Nikhil Ingle and Mousumi Roy 2014. The 2008 Barack Obama presidential campaign showed how social media could be effectively used within a political campaign. From advertising to planning, from organizing in all 50 states to fundraising, every aspect of the campaign utilized social media to communicate with its supporters. Virtual communities on social networking sites became essential components of the campaign, further entrenching social media in the political process. Following Obama's 2008 victory, social media usage in India experienced a sudden surge, particularly among the youth. Notably, during the 2011 India Against Corruption (IAC) movement, social networks played a crucial role for the first time. Facilitators at various levels used these platforms to disseminate information and orchestrate protests and demonstrations. Many Indians also turned to social media to express unwavering support for the movement around the clock. The primary use of social media in this campaign was to mobilize and connect people while raising awareness at minimal cost.

BACKGROUND OF THE STUDY

Human emotions are complex, multi layered feelings emerging from interactions between biological, psychological, and social factors. These feelings have evolved to help human beings negotiate the environment, face challenges, and build relationships. They shape decision-making and behavioural processes as well as social interaction, thus influencing the well-being of a person and the society or community in which he or she resides. Understanding and managing such emotions is, in fact, the path to personal growth and balance. Following are the emotions which has been chosen to study in this research

Proud (Pride): A feeling of deep satisfaction and contentment generated by personal achievements, or by the accomplishments of others with whom one has identified. Purpose: Pride pushes people to be the best and get social recognition. It reinforces good behaviour and helps in self-esteem-building and identity.

Hope: Hope is a forward-looking emotion in which one desires or believes something good will happen, or challenges will be surmounted. Purpose: Hope is the ability to be resilient during bad times, and it acts to motivate one to persist and work out problems.

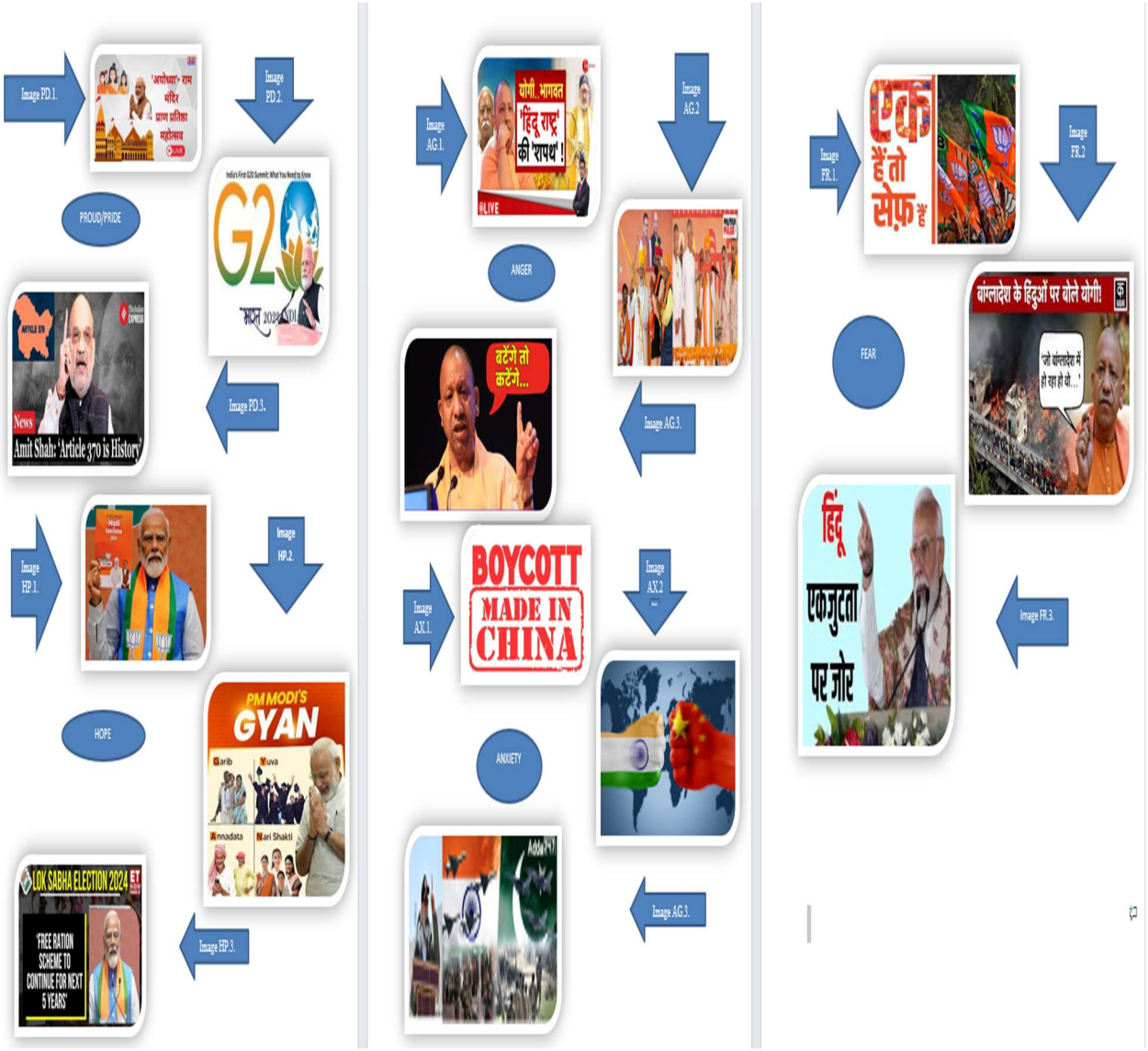
Anger: Anger is a strong emotion that arises if one perceives an attack, injustice, or obstruction. It generally happens when people feel violated, frustrated, or powerless. Purpose: Anger can mobilize

people to right wrongs, defend themselves, or set boundaries. Uncontrolled anger may result in destructive outcomes.

Anxiety: Anxiety is a state of heightened alertness and worry about potential future threats or uncertainties. It can range from mild unease to intense fear or panic. Purpose: Anxiety helps individuals anticipate danger and prepare for challenges, but excessive anxiety can hinder daily functioning and well-being.

Fear: Fear is a powerful emotion triggered by the perception of immediate danger or threat, real or imagined. Purpose: Feelings of fear initiate the "fight or flight" response, which prepares the human body to react to danger. This instinctive mechanism is vital for survival, but excessive or prolonged fear can cause distress and illness.

To justify all these emotions three political campaign, advertisements, or an event has chosen and on the basis of that could they like to vote or not has studied in this research paper Following are images which were used to study the relationship between to influence of advertisement, news on TV, radio, social media campaigns, or Political Campaigns, manifesto etc. and likeliness to vote.



3. OBJECTIVES / AIMS :

Primary Objective:-

"To know the emotional influences of political campaign, advertisement news on TV, or an event to address the prospected voters" This primary objective followed by"

Secondary objective

As followed by primary objective total five emotions has been identified and carried to study which are as follow

1. To identify the influence of proud moments on voter.
2. To identify the influence of moments of hope on voter.
3. To identify the influence of anger on voter.
4. To identify the influence of anxiety on voter.
5. To identify the influence of fear on voter.

4. RESEARCH METHOD / METHODOLOGY:

Research Design: - This research paper used descriptive research design. To describe those emotional appeals plays

Sampling Method: - Non probabilistic convenient sampling method has chosen to collect the data

Sampling size: - 270 peoples from entire Gujarat have been selected.

Data collection instrument: - Structured question consisting of 27 close ended questions has been framed up

Data Analysis Techniques: - Co- Relation of voting likeliness and emotional appeal of political campaign has been analysed by using Pearson's Co-relation.

Hypothesis

For all the images of advertisement, news on TV, radio, social media campaigns, or Political Campaigns, manifesto etc. and likeliness to vote. mention in research design has its own impact on voting decision of voter hence following hypothesis has framed.

PROUD/PRIDE

PD.1. H0: There is no significance relationship between PD.1. and vote to the government in 2024

PD.2. H0: There is no significance relationship between PD.2. and vote to the government in 2024

PD.3. HO There is no significance relationship between PD.3. and vote to the government in 2024

HOPE

HP.1. H0: There is no significance relationship between HP.1. and vote to the government in 2024.

HP.2. H0: There is no significance relationship between HP.2. and vote to the government in 2024

HP.3. H0: There is no significance relationship between HP.3. and vote to the government in 2024

ANGER

AG.1. H0: There is no significance relationship between AG.1. and vote to the government in 2024

AG.2. H0**:** There is no significance relationship between AG.2. and vote to the government in 2024

AG.3. H0: There is no significance relationship between AG.3. and vote to the government in 2024

ANXIETY

AX.1. H0: There is no significance relationship between AX.1. and vote to the government in 2024

AX.2.H0: There is no significance relationship between AX.2. and vote to the government in 2024.
AX.3. H0: There is no significance relationship between AX.3. and vote to the government in 2024

FEAR

FR.1. H0: There is no significance relationship between FR.1. and vote to the government in 2024.
FR.2. H0: There is no significance relationship between FR.2. and vote to the government in 2024
FR.3. H0: There is no significance relationship between FR.3. and vote to the government in 2024

Data Analysis

Here it is the analysis of all the five major emotions which has been included in this paper.

Proud/Pride

PD.1.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFAYODHYARAMMANDIR
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.330**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFAYODHYARAMMANDIR	Pearson Correlation	.330**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

From the image PD.1. Can be conclude from the present co-efficient co-relation it can be said that there is a these variables is .330 which is indicates the perceived effect of Ayodhya Ram-mandir to vote in Loksabha election 2024. So it is right to say for the hypothesis that H1 would be accepted.

PD.2.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFG20SUMMIT2023ININDIA
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.365**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFG20SUMMIT2023ININDIA	Pearson Correlation	.365**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

From the image PD.2. The above result indicates that G20 summit hosted by India in 2023 has positive moderate effect on voting choice of voters. So it is right to say for the hypothesis that H1 would be accepted.

PD.3.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFARTICLE370INKASHMIR
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.374**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFARTICLE370INKASHMIR	Pearson Correlation	.374**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

From the image PD.3. This table examines the relationship between the likelihood of voting in the 2024 Lok Sabha elections and perceptions regarding the impact of the abrogation of Article 370 in Kashmir. The correlation coefficient is 0.374, indicating a moderate positive relationship. So it is right to say for the hypothesis that H1 would be accepted.

HP.1.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFMODIKIGAURANTEE
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.358**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFMODIKIGAURANTEE	Pearson Correlation	.358**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image HP.1. Showed basic thing for any political party to offer voter is manifesto, which political party use as a attraction for upcoming years if they won an election, here it has significant positive relationship with likeliness to vote.

HP.2.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFPMMODIGYAN
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.353**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFPMMODIGYAN	Pearson Correlation	.353**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image HP.2. 'GYAN' scheme declared during election which was bounded to work for Garib (Poor), Yuva (Youth), Anndata (Farmers), Narishakti (Women empowerment) had the moderate positive relationship with likeliness to vote in election.

HP.3.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFFREERATIONSCHEMEFORNEXT5YEARS
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.333**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFFREERATIONSCHEMEFORNEXT5YEARS	Pearson Correlation	.333**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image HP.3. Prime minister of India Narendra Modi declared free ration for the next five years if BJP (Bharatiya Janata Party) wins the Loksabha Election of 2024. This has positive image on voters to vote him or his party.

AG.1.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFYOGIBHAGVATHINDURASHTRASAPATH
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.329**
	Sig. (2-tailed)		.000
	N	270	270

EFFECTOFYOGIBHAGVATHINDURASHTRASAPATH	Pearson Correlation	.329**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image AG.1. In which of oath ceremony of Yogi Adityanath (Chief Minister of Uttarpradesh) with Mohan Bhagvat (President of Rashtriya SwayamSevak Sangh) had moderate but significant positive effect on voters to vote.

AG.2.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFIMAGEOFMODIHAVINGWEAPONSONHAND
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.281**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFIMAGEOFMODIHAVINGWEAPONSONHAND	Pearson Correlation	.281**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image AG.2. Where Prime Minister having bowet and sword during live addressing the people such kind of images represents the strength or motivate to be like particular personality. This has low but significantly positive relationship with likeliness of vote.

AG.3.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFKATENGETOBATENGE
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.289**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFKATENGETOBATENGE	Pearson Correlation	.289**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image AG.3. was showing the recent scenario of political campaign which was done by BJP government in Uttarpradesh election. Though hypothetically it had used to study the effect of it in 2024 Loksabha election then it may had moderate significant relation to likeliness to vote at 0 .289**.

AX.1.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFBOYCOTTMADEINCHINA
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.216**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFBOYCOTTMADEINCHINA	Pearson Correlation	.216**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image AX.1. Showing movement of boycott Chinese product has moderate level of influence on voters.

AX.2.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFINDIAVSCHINAIMAGE
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.269**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFINDIAVSCHINAIMAGE	Pearson Correlation	.269**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image AX.2. Shows that any news on TV regarding border issues with neighbour country has impact. If situation like India VS China shows the moderate level of relationship with likeliness of voters to vote on such actions of ruling government.

AX.3.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFINDIAVSPAKISTANIMAGE

LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.296**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFINDIAVSPAKISTANIMAGE	Pearson Correlation	.296**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image AX.3. Shows a situation of border issues with Pakistan has moderate but positive influence on political voters.

FR.1.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFEKHETOSAFEHE
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.332**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFEKHETOSAFEHE	Pearson Correlation	.332**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The image FR.1. Shows political campaign appealing “Ek he to safe he” (Be unite to be safe) has very significant positive relationship with likeliness to vote.

FR.2.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFSUFFERINGOFHINDUINBANGLADESH
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.320**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFSUFFERINGOFHINDUINBANGLADESH	Pearson Correlation	.320**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The imageFR.2. Shows that Hindutva is in danger has positive and significant relationship with likeliness of voter to vote.

FR.3.

Correlations

		LIKELYTOVOTEIN2024LOKSABHAELECTION	EFFECTOFHINDUEKJUTATA
LIKELYTOVOTEIN2024LOKSABHAELECTION	Pearson Correlation	1	.312**
	Sig. (2-tailed)		.000
	N	270	270
EFFECTOFHINDUEKJUTATA	Pearson Correlation	.312**	1
	Sig. (2-tailed)	.000	
	N	270	270

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

The Image FR.3. Shows a political campaign of 'Hindu Ekjutata" (Unite the Hindus). The largest population of India has a significant positive relationship with likeliness to vote in 2024 Loksabha election.

5. RESULT / FINDINGS:

Proud/ Pride

The analysis reveals a significant positive correlation between the likelihood of voting in the 2024 Lok Sabha elections and the perceived effects of key national events, including the Ayodhya Ram Mandir (.330), the G20 Summit 2023 in India (.365), and the abrogation of Article 370 in Kashmir (.374).

Hope

The findings denote a significant positive relation between the likelihood of voters participating in the 2024 Lok Sabha election with key promises made by Prime Minister Narendra Modi and his party. The "Modi Ki Guarantee" ($r = 0.358$, $p < 0.01$), the "PM Modi GYAN" scheme for the poor, youth, farmers, and women frictional social groups ($r = 0.353$, $p < 0.01$),

Anger

Results show that emotional triggers associated with anger have a measurable relationship to the likelihood of voters to participate in the 2024 Lok Sabha elections. Association is related with an image of Prime Minister Modi holdings weapons at $r = 0.281$, p-value < 0.01 while the promotion of ideology "Hindu Rashtra" and Bhagvath oath-both by Yogi Adityanath-and the related slogan "Katenge Toh Batenge" at values of ; and r= 0.289:, p<0.01-respectively are all indications of a good positive moderated association.

Anxiety

India VS China imagery had a correlation of 0.269 and p-value of less than 0.01. Such visuals are most likely to influence voter sentiment. Moreover, the call for "Boycott Made in China" has a weak yet significant correlation, with a value of $r = 0.216$ and $p < 0.01$.

Fear

The data highlights a significant positive relationship between moments evoking fear and the likelihood of voters participating in the 2024 Lok Sabha elections. The narrative of safety symbolized by "Ek Hetho Safe He" ($r = 0.332$, $p < 0.01$), the portrayal of suffering of Hindus in Bangladesh ($r = 0.320$, $p < 0.01$), and the emphasis on "Hindu Ekjutata" (Hindu Unity) ($r = 0.312$, $p < 0.01$) are all associated with voter engagement.

6. DISCUSSION / ANALYSIS:

In this paper all the Ho hypothesis were rejected because there is a significant correlation has been founded between all the elements and likeliness to vote

PROUD/PRIDE

PD.1. H1: There is significance relationship between PD.1. and vote to the government in 2024
PD.2. H1: There is significance relationship between PD.2. and vote to the government in 2024
PD.3. H1 There is significance relationship between PD.3. and vote to the government in 2024

HOPE

HP.1. H1: There is significance relationship between HP.1. and vote to the government in 2024.
HP.2. H1: There is significance relationship between HP.2. and vote to the government in 2024
HP.3. H1: There is significance relationship between HP.3. and vote to the government in 2024

ANGER

AG.1. H1: There is significance relationship between AG.1. and vote to the government in 2024
AG.2. H1**:** There is significance relationship between AG.2. and vote to the government in 2024
AG.3. H1: There is significance relationship between AG.3. and vote to the government in 2024

ANXIETY

AX.1. H1: There is significance relationship between AX.1. and vote to the government in 2024
AX.2.H1: There is significance relationship between AX.2. and vote to the government in 2024.
AX.3. H1: There is significance relationship between AX.3. and vote to the government in 2024

FEAR

FR.1. H1: There is significance relationship between FR.1. and vote to the government in 2024.
FR.2. H1: There is significance relationship between FR.2. and vote to the government in 2024
FR.3. H1: There is significance relationship between FR.3. and vote to the government in 2024

7. CONCLUSION / SUMMARY:

The influencing voter sentiment. Taken together, these suggest that targeted welfare measures or guarantees are effective in capturing voter preferences for the next election. Along with that India VS Pakistan phenomena has near around results as of with China. All these anxiety-laden factors underline how issues on national security and economic independence could motivate voter participation and align their preference with the BJP's discourse. These findings indicate that these events resonate strongly with voters and may influence their electoral engagement, highlighting their importance in shaping public sentiment and political participation. Free rations for five years promise all have a significant relation to changing voter sentiment. These commitments trigger hope among electorates and at the same time act as influential factors to motivate voters and make them provide a favorable verdict for BJP in the coming

election. These elements of anger will stir such emotional responses that would resonate with the voter cohorts and perhaps be a good reason to believe in support for the BJP in this election. These emotionally charged themes leverage fear and vulnerability to drive voters toward supporting the BJP, reinforcing the party's positioning as a protector of cultural and national interests.

8. LIMITATIONS:

Many neuroscientific studies take small samples that cannot be considered representative. There might also be limits related to the generalization across a wide variety of voters due to reasons of culture, social systems, and demographic parameters.

Risk of Over-Interpretation: Neuromarketing data can easily get misinterpreted or overhyped. That would be: brain activity does not always amount to a concrete decision or preference, thus misleading conclusions.

Reductionism: Neuropolitical marketing seems to make the tendency to simplify human decision-making to an unrealistically simple model, mainly based on brain responses; political preferences depend on a lot of complicated psychological, social, and environmental factors—neuroscience is far from capable of revealing.

9. FIGURES/ TABLES/CHARTS:

Image 1.1 Differences between Consumer and Political Marketing
Image 1.2 Increasing Media Exposure in India Since 1996
Table 1.1 Table 1.1 Determinants of Voting Behaviours.

10. REFERENCES

Journal Articles:

- ***Chester, J., & Montgomery, K. C. (2019). The role of micro-targeted programmatic advertising in digital media and election campaigns: Privacy, discrimination, and manipulation. In Digital Strategies and Technologies in Political Campaigns.***
- ***Hegazy, I. M. (2019). Big data 2.0 and neuromarketing in political campaigns: Influencing election outcomes and ethical concerns. Trump's 2016 Presidential Campaign and the Ethics of Political Neuromarketing.***
- ***Hussain, T. (2022). Transformative dimensions in digital marketing approaches towards election campaigns: Social media, targeted advertising, and voter behavior. Journal of Digital Marketing in Politics.***
- ***Krastev, S., McGuire, J. T., McNeney, D., Kable, J. W., Stolle, D., Gidengil, E., & Fellows, L. K. (2016). Political choice and cognitive neuroscience: Mechanisms of individual decision-making and implications for public policy. Journal of Neuroscience and Political Science, 5(3), 234-250.***
- ***Luck, D. J. (1969). Relevance of political marketing in voting behavior: Minimal effects versus campaign influence. Journal of Political Marketing Studies, 3(2), 145-160.***
- ***Valentino, N. A., Brader, T., Groenendyk, E. W., Gregorowicz, K., & Hutchings, V. L. (2011). Emotional responses to political candidates: The American National Election Studies (ANES) since 1980. American Political Science Review, 105(4), 805-820.***

- *Gopal, K. (n.d.). Minimal effects versus significant impact: Analyzing the influence of political campaigns on voter behavior. [Thesis].*
- *Biswas, A., Ingle, N., & Roy, M. (2014). Social media in political campaigns: The 2008 U.S. presidential campaign and its influence on India. Journal of Political Communication and Media Studies, 8(3), 45-67.*
- *Kaur, H. (2018). Determinants of voting behavior in India's democratic system: Ideological commitment, populist slogans, and other socio-economic factors. Indian Journal of Political Studies, 12(1), 23-35.*
- *Verma, R., & Sardesai, S. (2014). Analysis of voter behavior in India: Insights from the National Election Study 2014. Journal of Electoral Studies in India, 9(2), 101-115.*
- *Ivakhiv, A. (2010). From Frames to Resonance Machines: The Neuropolitics of Environmental Communication. Environmental Communication, 4(1), 109–121. https://doi.org/10.1080/17524030903516530*
- *Kavanagh, D. (1995). Political marketing: Understanding voter opinion and behavior during election campaigns. Journal of Political Science and Marketing Studies, 12(3), 45-60.*
- *Butler, P., & Collins, N. (1994). Political marketing: Differentiating ideology and hopes from traditional product marketing. European Journal of Marketing, 28(1), 19-34.*
- *Vega, T. (2012). Chris Christie's 2009 online political micro-targeting campaign: Addressing accusations and connecting with voters.* **The New York Times***. Retrieved from www.nytimes.com*

BOOKS AND REPORTS:

Gopal, K., & Verma, R. (n.d.). **Influence of political marketing on citizen's political participation in Punjab** *(Doctoral dissertation, Lovely Professional University).*

Kaur, H. (2018). **Voting behaviour in India and its determinants** *(Issue 5).*

ONLINE SOURCE:

Modi, N., Modi Ki Guarantee, S., Teesri Baar Modi Sarkar, G., Baar, A., Hai Toh Mumkin Hai, M., & Shah, P., Nadda, R., Singh, N., Gadkari, N., Chouhan, S., & Adityanath, Y. (n.d.). **Key people Narendra Modi***. Retrieved from https://www.bjp.org/*

CONFERENCE PAPERS OR UNPUBLISHED WORKS:

Verma, R., & Sardesai, S. (2014). Does media exposure affect voting behaviour and political preferences in India?

Web References:

PD.1. :- https://shorturl.at/TaZ4q
PD2:- https://tinyurl.com/3x3tezc5
PD.3.:- https://tinyurl.com/yck5vtcf
HP.1.:- https://tinyurl.com/44w7tbkz
HP.2.: https://tinyurl.com/2smv3jc6
HP.3.:- https://tinyurl.com/22fv5det
AG.1.:- https://tinyurl.com/5n76fx75
AG.2. https://rb.gy/r7ihws
AG.3.:- https://rb.gy/72izj6

AX.1.:- https://tinyurl.com/yc2bj3nk
AX.2.:- https://tinyurl.com/y6sdzem9
AX.3. :- https://tinyurl.com/epcds47n
FR.1.:- https://tinyurl.com/3taey9v4
FR.2.:- https://tinyurl.com/5fzbeukb
FR.3.:- https://tinyurl.com/34nkj96k

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A STUDY ON THE EFFECTS OF MULTIMEDIA-BASED TEACHING ON THE ACADEMIC PERFORMANCE OF STUDENTS WITH HEARING IMPAIRMENTS

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ABSTRACT

The rapid advancement of Information and Communication Technology (ICT) has opened new avenues in inclusive education, particularly for children with hearing impairment. This study, titled "The Impact of Multimedia-Based Instruction on Academic Achievement of Hearing-Impaired Students", investigates the effectiveness of multimedia teaching strategies in enhancing learning outcomes. Traditional teaching methods often rely heavily on verbal instruction, which creates significant barriers for hearing-impaired learners. In contrast, multimedia-based instruction integrates visual aids, animations, sign language videos, captions, and interactive activities to create a more accessible learning environment. Data was collected through pre- and post-tests to measure academic performance and comprehension levels. Findings revealed that students taught with multimedia-based instruction demonstrated significant improvement in academic achievement, comprehension, and retention compared to those taught with conventional methods. Moreover, multimedia tools enhanced learner engagement, motivation, and confidence in classroom participation. The results highlight the potential of ICT as a powerful facilitator of inclusive education, offering equitable opportunities for hearing-impaired students. The study concludes with recommendations for integrating multimedia-based instructional strategies into mainstream and special education settings to improve accessibility and learning outcomes.

KEYWORDS: MULTIMEDIA-BASED INSTRUCTION, HEARING-IMPAIRED STUDENTS, ACADEMIC ACHIEVEMENT, INCLUSIVE EDUCATION, ICT IN SPECIAL EDUCATION, VISUAL LEARNING, ASSISTIVE TECHNOLOGY.

INTRODUCTION:

Education is a fundamental right and an essential tool for social and economic development. However, for students with hearing impairments, traditional teaching methods that rely heavily on auditory instruction often present significant barriers to effective learning. These students frequently face challenges in accessing spoken information, participating in classroom discussions, and fully engaging with teachers and peers. As a result, their academic performance may lag behind that of their hearing counterparts. In recent years, the integration of multimedia-based teaching has emerged as a promising approach to address these challenges. By combining visual, textual, and interactive elements, multimedia learning environments can provide inclusive, engaging, and accessible educational experiences that cater to the diverse needs of students with hearing impairments. Multimedia-based teaching refers to the use of multiple forms of media—such as videos, animations, images, text, graphics, and interactive simulations—to facilitate learning. This approach aligns with the principles of Universal Design for Learning (UDL), which emphasizes providing multiple means of representation, engagement, and

expression to accommodate individual differences. For students with hearing impairments, visual components such as subtitles, sign language videos, pictorial aids, and graphical presentations can compensate for the lack of auditory input, allowing them to better grasp concepts and retain information. Moreover, interactive features of multimedia resources can encourage active learning, self-paced exploration, and improved motivation among learners who might otherwise struggle in conventional classroom settings.

The growing availability of digital technologies in education has made multimedia-based instruction increasingly feasible and impactful. Teachers can now integrate computer-assisted learning tools, educational software, and online platforms designed with accessibility features to create inclusive learning environments. Empirical studies have suggested that multimedia instruction enhances comprehension, retention, and problem-solving skills, particularly when visual supports are integrated effectively. For hearing-impaired students, these tools not only facilitate understanding but also promote independence and confidence in learning, fostering a sense of inclusion within mainstream educational contexts.



Despite the potential benefits, the effectiveness of multimedia-based teaching for hearing-impaired students depends on several factors, including the quality of the materials, the pedagogical approach of the teacher, and the alignment of content with learners' cognitive and linguistic abilities. Additionally, there is a need for more systematic research to evaluate how multimedia interventions influence specific aspects of academic performance—such as reading comprehension, vocabulary development, and conceptual understanding—across different grade levels and subject areas. Understanding these dynamics can help educators, policymakers, and curriculum developers design more effective strategies for inclusive education.

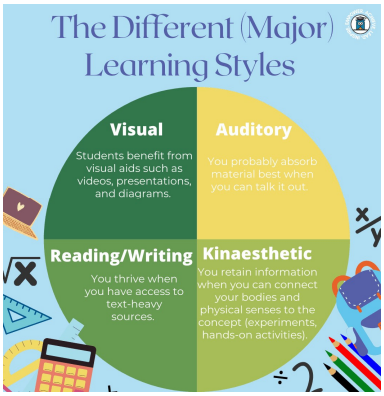
This study aims to examine the effects of multimedia-based teaching on the academic performance of students with hearing impairments. It seeks to explore how visual and interactive learning tools influence students' comprehension, motivation, and overall achievement compared to traditional instructional methods. By investigating these effects, the study contributes to the broader discourse on inclusive education and the role of technology in bridging learning gaps for students with disabilities. Ultimately, the findings are expected to provide valuable insights into how multimedia-based approaches can enhance educational accessibility, equity, and effectiveness for learners with hearing impairments.

LITERATURE REVIEW:

The integration of multimedia-based instruction in education for hearing-impaired students has gained significant attention in recent years. This review examines the impact of such instructional methods on the academic achievement of hearing-impaired learners.(Astuti et al., 2022) Traditional teaching approaches often rely heavily on verbal communication, creating substantial barriers for students with hearing impairments. In contrast, multimedia-based instruction incorporates various elements such as visual aids, animations, sign language videos, captions, and interactive activities. This multifaceted approach aims to create a more accessible and engaging learning environment for hearing-impaired students.(Aloraini, 2012)

Research in this field has demonstrated the potential of Information and Communication Technology (ICT) as a powerful tool in inclusive education. Studies have shown that multimedia-based instruction can significantly improve academic performance, comprehension, and retention among hearing-impaired students compared to conventional teaching methods.(Ndoh & Umbugadu, 2024)

The effectiveness of multimedia-based instruction is often measured through pre- and post-tests, which assess changes in academic achievement and comprehension levels. Results from these assessments have consistently shown positive outcomes for students exposed to multimedia-based learning environments. Beyond academic performance, multimedia tools have been found to enhance learner engagement, motivation, and confidence in classroom participation. This increased engagement is crucial for creating a more inclusive educational experience for hearing-impaired students.(Ndoh & Umbugadu, 2024)



The literature emphasizes the role of ICT as a facilitator of inclusive education, offering more equitable learning opportunities for hearing-impaired students. By leveraging visual learning and assistive technology, multimedia-based instruction addresses many of the challenges faced by these learners in traditional classroom settings. Researchers recommend the integration of multimedia-based instructional strategies into both mainstream and special education settings. This integration is seen as a key step in improving accessibility and learning outcomes for hearing-impaired students.(Effect of Multimedia Learning on Visual Attention, Academic Achievement and Positive Attitude of Hearing Impaired Students A Synopsis, n.d.)

The Covid-19 pandemic has brought changes in the world of education, including in Higher Education. During the pandemic, the face-to-face learning system has switched to an online system (in the network). The current learning scenario uses digital technology. Teachers and students are connected virtually. The use of computers, laptops, smartphones, and the internet are the main components of this learning method (Radha et al., 2020). E-learning in a broad scope which includes technology-based learning through websites, learning portals, video conferencing, YouTube, and mobile and web applications are available for free (Shahzad et al., 2020).

This certainly brings changes for all students and at the same time has an impact on students with special needs. In face-to-face learning, there is still many lacks of accessibility for these students with special needs and even more so in the distance learning system. Various ways continue to be pursued, both in terms of methods and other resources in dealing with situations that have an impact on the effectiveness of learning for these students with special needs. Hearing-impaired students have a special language in interaction which will be a challenge in distance learning (Alsadoon & Turkestani, 2020). In a lesson that presents the material in the form of a complex text in the form of a combination of text and graphics, such as the Research Methods subject, this is certainly a challenge. Lecturers are required to be able to use different ways and methods to deliver the material to special needs students(Astuti et al., 2022)

METHOD:

The research method used in this study is the mixed-methods approach. Mixed-methods research involves the combination of qualitative and quantitative research techniques, approaches, and concepts within a single study. This approach allows researchers or research teams to integrate

qualitative and quantitative viewpoints, data collection procedures, analysis strategies, and inference techniques. The primary purpose of using mixed methods is to achieve both breadth and depth in understanding a research problem, as well as to corroborate findings from different data sources (Schoonenboom & Johnson, 2017).

This research is conducted in two stages. The first stage employs a qualitative approach, while the second stage uses a quantitative approach. In the first stage, multimedia materials are developed, and in the second stage, the effectiveness of these multimedia materials is tested using single-subject research methods. Single-subject designs offer the field of special education an alternative to traditional group designs. In this type of research, behaviours or performances from two different phases of an experiment are compared—specifically, behaviours or performances before the intervention are contrasted with those observed during or after the intervention of interest (Alnahdi, 2015). (Astuti et al., 2022)

RESULT AND DISCUSSION

In the preliminary study, individual differences among students were identified, including the level of hearing impairment, history of language development, family background, learning methods, communication styles, interactions with lecturers and peers, and the specific difficulties they faced. Subsequently, key materials in research methods courses that required accommodation or modification were identified. The needs analysis stage is a crucial part of this research, as lecturers must first understand the challenges experienced by students with hearing impairments in online learning environments. The teaching approach and strategies were then adapted to address these difficulties and ensure inclusivity in the learning process (Alsadoon & Turkestani, 2020).(Astuti et al., 2022)

In developing multimedia content, careful consideration was given to integrating various elements such as narrative text, images, sign language, and subtitles into videos that can be utilized through e-learning platforms and video conferencing tools. At the beginning of each lesson, lecturers provide an overview of the material, followed by visual explanations delivered through animations. Each animated video features a sign language interpreter displayed in the lower-right corner. A total of seven videos were created, corresponding to the chapters in the educational methodology course. The audio pace of each video was synchronized with the interpreter's signing to ensure accessibility and comprehension.

Previous studies suggest that individuals with hearing impairments often possess enhanced visual-spatial abilities compared to hearing individuals; however, the extent to which these abilities contribute to academic performance remains uncertain. To benefit from these strengths, deaf students must be aware of how and when to apply their cognitive skills to specific learning situations (Stawski et al., 2015). Visual-based multimedia that incorporates full linguistic content is particularly effective when used consistently across learning contexts. Likewise, videos that include sign language interpretation must be carefully synchronized to match the timing of the spoken content. Such visual media, featuring interpreters, are highly advantageous for students who are deaf or hard of hearing (Ramadhan et al., 2020). Moreover, the explanations and examples presented in these videos are crucial, as many deaf learners face challenges with certain vocabulary due to limited exposure to spoken interactions. Research indicates that restricted access to everyday conversations can lead to delays in vocabulary development among deaf children (Kelly et al., 2019).

The visual learning approach used in this model serves as an accommodation designed to meet the educational needs of students with hearing impairments. Individuals who are hard of hearing generally rely more on visual learning, making it the most effective mode for delivering instructional content (Ikasari et al., 2019). Integrating both textual and visual elements enables these students to read and comprehend material more efficiently. For learners with hearing impairments, the reading process typically involves three stages—pre-reading, reading, and post-reading—each supporting comprehension and retention in different ways.(Astuti et al., 2022)

Educators can enhance learning experiences for deaf students by utilizing visual multimedia technologies that combine imagery and language to convey information more effectively. The use of such multimedia tools not only provides accessible learning opportunities but also improves the overall quality of instruction. Within educational settings, teachers are encouraged to adapt and implement visual multimedia according to the subject matter or learning objectives being addressed (Ramadhan et al., 2020).

CONCLUSIONS

The use of multimedia-based learning design represents an innovative advancement in educational models that benefits all learners, including those with special needs. This approach aims to enhance the effectiveness of learning outcomes for students with hearing impairments by developing visually rich instructional materials that combine animation, narrative text, spoken language supported by subtitles, and sign language interpretation. The design serves as a prototype model intended for implementation in online learning environments.

The primary goal of integrating multimedia in teaching is to address the diverse learning needs of students with disabilities and to foster their active engagement in virtual classrooms. This model was developed based on established theoretical foundations and empirical studies emphasizing the importance of linguistic and visual components in supporting comprehension. Findings from the quantitative phase of the research indicated that the use of animated videos in instruction significantly improved students' academic performance.

Overall, the integration of multimedia in teaching not only enhances learning outcomes but also promotes accessibility and inclusivity for students with hearing impairments. By ensuring that educational materials are both visually and linguistically accessible, this approach contributes to the creation of a more equitable and inclusive learning environment within higher education.

REFERENCES:

- ***Sert, N., & Boynueğri, E. (2017). Digital technology use by students and English teachers and self-directed language learning. World Journal on Educational Technology: Current Issues, 9(1), 24–34. https://doi.org/10.18844/wjet.v9i1.993***
- ***Shahzad, A., Hassan, R., Aremu, A. Y., Hussain, A., & Lodhi, R. N. (2020). Effects of COVID-19 in e-learning on higher education institution students: A group comparison between male and female.Quality and Quantity. https://doi.org/10.1007/s11135-020-01028-z***

- *Stawski, R. S., Almeida, D. M., Lachman, M. E., & Rosnick, C. B. (2015). Genetic changes: NIH public access. Learning and Individual Differences, 61(6), 515–525. https://doi.org/10.1016/j.lindif.2013.02.006*
- *Alnahdi, G. H. (2015). Single-subject designs in special education: Advantages and limitations. Journal of Research in Special Educational Needs, 15(4), 257–265. https://doi.org/10.1111/1471-3802.12039*
- *Alsadoon, E., & Turkestani, M. (2020). Virtual classrooms for hearing-impaired students during the coronavirus (COVID-19) pandemic. Revista Romaneasca pentru Educatie Multidimensionala, 12(1Sup2), 1–8. https://doi.org/10.18662/rrem/12.1sup2/240*
- *Kelly, C., Morgan, G., Freeth, M., Siegal, M., & Matthews, D. (2019). The understanding of communicative intentions in children with severe-to-profound hearing loss.* **Journal of Deaf Studies and Deaf Education, 24***(3), 245–254. https://doi.org/10.1093/deafed/enz001*
- *Raiyn, J. (2016). The role of visual learning in improving students' higher-order thinking skills.* **Journal of Education and Practice, 7***(24), 115–121. http://www.iiste.org*

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IMPACT OF DIGITALIZATION ON NATIONAL ECONOMIC GROWTH: AN ANALYTICAL STUDY ON FINTECH, UPI AND AI-BASED PRODUCTIVITY IN INDIA

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સારાંશ

આ સંશોધનપત્રમાં ડિજિટલાઈઝેશન, ખાસ કરીને FinTech, UPI અને કૃત્રિમ બુદ્ધિ(AI) આધારિત ટેકનોલોજીઓ દ્વારા ભારતની રાષ્ટ્રીય આર્થિક વૃદ્ધિ પર પડતા પ્રભાવનું વિશ્લેષણ કરવામાં આવ્યું છે. વિવિધ સરકારી અહેવાલો અને ઉદ્યોગ સંશોધનો પરથી પ્રાપ્ત માહિતી પરથી જાણી શકાય કે UPI જેવી ડિજિટલ ચુકવણી પદ્ધતિઓ અને ડિજિટલ ઈન્ડિયા પહેલોએ નાણાકીય સમાવેશમાં નોંધપાત્ર વધારો કર્યો છે.(1)(2) પ્રત્યેક વર્ષની વૃદ્ધિમાં ભારતમાં ડિજિટલ પેમેન્ટ્સનાં વ્યવહારો $2 ટ્રિલિયન નજીક પહોંચી ચુક્યા છે અને આગામી વર્ષોમાં આ દિશામાં વધુ વધારો થવાની અપેક્ષા છે.(3) સંશોધનમાં અમુક અહેવાલ અનુસાર, ભારતની ડિજિટલ અર્થવ્યવસ્થા 2030 સુધીમાં લગભગ $1 ટ્રિલિયન સુધી પહોંચવાની સંભાવના દર્શાવવામાં આવી છે.(4)(5) વધુમાં, RBIના અહેવાલ મુજબ જનરેટિવ AI 2029-30 સુધી દેશના GDPમાં $359-438 અબજ સુધી યોગદાન આપી શકે છે.(6) તેમ જ, AI આધારિત ઉત્પાદનક્ષમતા વધારવાના પગલાં દ્વારા 2035 સુધીમાં સમાજવ્યવસ્થામાં વધારાની લાંબા ગાળાની વૃદ્ધિ નોંધાશે.(7) આ સંશોધનને અંતે, ડિજિટલ ઈન્ફ્રાસ્ટ્રક્ચર, કનેક્ટિવિટી અને વધુ તાલીમ માટેના નીતિ-સૂચનો રજૂ કરેલ છે.

પ્રસ્તાવના

અહીં ડિજિટલાઈઝેશન એટલે ટેકનોલોજી દ્વારા પ્રક્રિયાઓને ડિજિટલ અથવા ઑનલાઈન બનાવવી તથા રાષ્ટ્રીય આર્થિક વૃદ્ધિ એટલે દેશની સમગ્ર અર્થવ્યવસ્થાનો વિકાસ. ટુંકમા ભારતમાં જે ટેકનોલોજી આધારિત વ્યવસ્થાઓ ઉભી થઈ છે, જેમ કે FinTech (ડિજિટલ નાણા વ્યવહારની પ્રણાલીઓ), UPI (તુરંત પેમેન્ટ સિસ્ટમ) અને કૃત્રિમ બુદ્ધિ એટલે કે Artificial Intelligence, તે દેશની આર્થિક વૃદ્ધિ પર કેવો પ્રભાવ પાડે છે, તેનો અહીં અભ્યાસ કરવામા આવ્યો છે.

Fintech (financial technology) એ બેંકિંગ અને નાણાકીય સેવાઓને ટેકો આપવા અને સક્ષમ કરવા માટે ઉપયોગમા લેવાતી કમ્પ્યુટર પ્રોગ્રામ્સ અને અન્ય તકનીકીઓ છે. એ મોબાઈલ એપ્લિકેશન્સ, ક્લાઉડ કમ્પ્યુટિંગ અને આર્ટિફિશિયલ ઇંટેલિજંસ જેવી નવીન ટેક્નોલોજીનો ઉપયોગ છે, જે વ્યવસાયો અને ગ્રાહકો માટે નાણાકિય સેવાઓને સુધારવા અને સ્વચાલિત કરવા માટે છે. તે ડિજિટલ ચુકવણી સિસ્ટમ્સ, (UPI-Unified Payments Interface) જે ફોનથી તાત્કાલિક પૈસા ટ્રાન્સફર કરે છે અને ઓનલાઈન ધિરાણ અને સ્વચાલિત રોકાણ પ્લેટફોર્મ જેવા નવા ઉકેલો બનાવવા માટે ટેકનોલોજી સાથે નાણાકીય કુશળતાને જોડે છે. જેનો હેતુ વધુ કાર્યક્ષમ, સુલભ અને મૈત્રીપૂર્ણ નાણાકીય સેવાઓ પ્રદાન કરવાનો છે. ફિનટેક સોલ્યુશન્સ બેંકિંગ સેવાઓથી વંચિત અથવા બિન-બેંકિંગ વસ્તી સુધી પહોંચી શકે છે, નાણાકીય સેવાઓની વધુ ખરીદારી પ્રદાન કરે છે અને આર્થિક વિકાસને પ્રોત્સાહન આપે છે. આધુનિક સમયના જ્ઞાનભૂત

સમાજમાં ડિજિટલાઈઝેશન અર્થતંત્રના વિવિધ ક્ષેત્રમાં ક્રાંતિ લાવી રહ્યું છે. મોટા પાયે ઈન્ટરનેટ અને સ્માર્ટફોન અને કૃત્રિમ બુદ્ધિ (AI) જે મશીનોને માનવી જેવી બુદ્ધિ આપતી ટેકનોલોજી (automation, predictions, robotics) ઉપલબ્ધતાએ ઈ-કોમર્સ, ડિજિટલ પેમેન્ટ, ફિનટેક તથા બ્લોકચેઈન જેવા ક્ષેત્રોના વિકાસને ગતિ આપી છે.(5) ભારત સરકારે ઘણી યોજના અમલમા મુકી છે. જેમા "Digital India", "Make in India" અને "Startup India" જેવી યોજનાઓ છે, જે ડિજિટલ ઈન્ફ્રાસ્ટ્રક્ચર બનાવવા, નવીનતા પ્રોત્સાહિત કરવા અને સમુદાયને સશક્ત બનાવવા પર કેન્દ્રિત છે.(5) NDCP 2018 જેવા નીતિ-લેખનો પણ પ્રદેશમાં ઈન્ટરનેટ પહોંચ વધારવા અને બ્રોડબેન્ડ કનેક્શનમાં વૃદ્ધિ કરે છે. 2024ના મધ્ય સુધીમાં ભારતમાં 650 મિલિયનથી વધુ સ્માર્ટફોન વપરાશકર્તા અને 950 મિલિયન ઈન્ટરનેટ વપરાશકર્તા નોંધાયા છે, જેના કારણે ઔદ્યોગિક 4G/5G નેટવર્કોમાં વિકાસ, ખાસ કરીને ગ્રામીણ વિસ્તારોમાં, ઝડપથી થઈ રહ્યો છે(5). આ ડિજિટલ પરિપ્રેક્ષ્યમાં ફિનટેક પોતાની ખાસ ઓળખ બનાવી રહ્યું છે. ઉદાહરણ તરીકે, સંસ્થાવાર અહેવાલોએ જણાવ્યું છે કે 2016 પછી યુનિફાઈડ પેમેન્ટ્સ ઈન્ટરફેસ (UPI) દ્વારા વ્યવહાર કરવા ડિજિટલ માધ્યમ વિકસાવવાની પ્રક્રિયા શરૂ થઈ, જેને કારણે વેપાર-ખર્ચાઓ સરળ બન્યાં અને રોકડ પરની નિર્ભરતામાં ઘટાડો થયો.(1),(2)

ઉદ્યોગ-નિયંત્રકો અને સંશોધકોમાં એ ચર્ચા પણ જોવા મળી છે કે ફિનટેક પ્લેટફોર્મો તથા AI આધારિત સિસ્ટમો દેશની સામાન્ય ઉત્પાદનક્ષમતામાં વધારો લાવી શકે છે. RBIના અહેવાલ મુજબ, ભારતની જનરેટિવ (AI) ટેકનોલોજી 2029-30 સુધી GDPમાં $359–438 અબજ વધારવા સક્ષમ રહેશે.(6) આમ, પ્રાથમિક અવલોકન સૂચવે છે કે ડિજિટલાઈઝેશનનો આરોગ્ય, કૃષિ, સેવાઓ અને ઉદ્યોગજન્ય ક્ષેત્રોમાં પણ મહત્વપૂર્ણ પ્રભાવ જોવા મળી રહ્યો છે. આ સંશોધન દ્વારા ડિજિટલ સગવડતાઓ (ફિનટેક, UPI, AI)ને કારણે ભારતમાં થયેલી અર્થવ્યવસ્થાની વૃદ્ધિને સંપૂર્ણપણે સમજીએ અને તેની સામે ઉપસતા પડકારોને ઓળખીએ.

હેતુઓ

આ અભ્યાસના મુખ્ય હેતુઓની સૂચિ નીચે મુજબ છે:

ડિજિટલાઈઝેશન (ફિનટેક, UPI, AI) દ્વારા ભારતીય રાષ્ટ્રીય GDPમાં થયેલા ફેરફારોનો આંશિક મૂલ્યાંકન કરવું.

ફિનટેક ઉદ્યોગ, વિશેષ કરીને UPI પેમેન્ટ સિસ્ટમ દ્વારા નાણાકીય સમાવેશ (financial inclusion) અને વ્યવસાય-વ્યાપાર વ્યવહારોમાં વૃદ્ધિના સ્તરોનો વિશ્લેષણ.

ભારત સરકાર દ્વારા અમલમાં આવેલ ડિજિટલ નીતિઓ અને ઈન્ફ્રાસ્ટ્રક્ચર (જેમ કે "ડિજિટલ ઈન્ડિયા", "જામ ત્રિમૂર્તિ" વગેરે)ની માહિતી મેળવવી.

સંશોધનમાં પ્રાપ્તિ પરથી આધારિત વ્યાવહારિક સૂચનો અને ભવિષ્યની દિશામાં સંશોધનની શક્યતાઓ રજૂ કરવી.

સંશોધન પદ્ધતિ

આ સંશોધનમાં મુખ્યત્વે દ્વિતીય (secondary) સ્તરની માહિતી પર આધાર રાખવામાં આવ્યો છે. સૌથી પહેલાં સાહિત્ય સમીક્ષા દ્વારા ગવર્મેન્ટ-સોર્સ, સશક્ત સંશોધન અહેવાલો અને રિસર્ચ પેપરોનો સમાવેશ કરવામાં આવ્યો છે. ઉદાહરણ તરીકે, Reserve Bank of India, NITI Aayog અને અન્ય જાહેર અહેવાલો ઉપરાંત PwC, Fintech Times જેવા ઉદ્યોગ અહેવાલોમાંથી તાજા આંકડાઓ એકત્રિત કરવામા આવ્યા છે. ત્યારબાદ તેનુ વિશ્લેષણ કરવામા આવ્યુ છે.

સાહિત્ય સમીક્ષા

ભૂતપૂર્વ સંશોધનમાં ડિજિટલાઈઝેશન અને ફિનટેક દ્વારા થયેલા આર્થિક ફેરફારો સંબંધિત અનેક પરિણામો નોંધાયા છે. ઉદાહરણ તરીકે, Cornell Universityના વિશ્લેષકે જણાવ્યા મુજબ 2016 પછી UPIએ ભારતીય અર્થતંત્રમાં ઊંડો પ્રભાવ છોડ્યો છે; UPI દ્વારા વ્યાપાર-ગ્રાહક, B2B અને P2P વ્યવહાર સરળ બન્યા છે અને રોકડ પરની નિર્ભરતા ઘટી છે, જેના કારણે નાણાકીય સમાવેશ વધ્યું છે.(1)

Fintech Timesના અભ્યાસ મુજબ, 2016ની ડેમોનેટાઈઝેશનની ઘટનાએ ડિજિટલ ચુકવણીઓ અપનાવવાની પ્રક્રિયાને તેજ કરી; 2014માં બેંક-સેવા હેઠળ 53% લોકો આવ્યા હતા, જ્યારે 2021માં આ આંક 78% સુધી પહોંચ્યો હતો.(2) આમ, વિકાસશીલ બજારો સાથે તાલમેલ બેસાડી, ભારતમાં ડિજિટલ પેમેન્ટ્સમાં વૃદ્ધિ થઈ રહી છે.

PwCના અહેવાલ અનુસાર, FY2023માં ભારતમાં ડિજિટલ ટ્રાન્ઝેક્શન્સનું મૂલ્ય લગભગ $2 ટ્રિલિયન પાસેથી પસાર થયું છે અને 2026 સુધીમાં એ $10 ટ્રિલિયન વધવાની શક્યતા છે.(3) તે જ અહેવાલમાં જણાવાયું છે કે UPI હાલ રિટેલ ડિજિટલ પેમેન્ટ્સમાં 75% હિસ્સો ધરાવે છે.(3)

India Brand Equity Foundationની સમીક્ષામાં પણ અંદાજ લગાવવામાં આવ્યું છે કે UPI અને ઈ-ગવર્નન્સ પહેલો ભારતની આર્થિક ક્ષમતા વધારી રહી છે, અને 2030 સુધીમાં GDPમાં $1 ટ્રિલિયન સુધીનુ યોગદાન કરી શકે છે.(4)

વિશ્વ બેંક જેવી સંસ્થાઓ પણ ભારતીય ડિજિટલ અર્થવ્યવસ્થા 2030 સુધીમાં $1 ટ્રિલિયન સુધી પહોંચી શકે તે બાબતની આગાહી કરી રહી છે.(4),(5)

RBI તથા અન્ય સંસ્થાઓ AI સહિત પૂર્વવત ટેકનોલોજીના લાભ અંગે પણ સંશોધન કર્યું છે. RBIના રિપોર્ટમાં જણાવ્યું છે કે જનરેટિવ AI 2029-30 સુધીમાં ભારતના GDPમાં $359-438 અબજ સુધી યોગદાન આપવાની શકયતા ધરાવે છે.(6)

NITI Aayogના અભ્યાસમાં આંકલન કરવામાં આવ્યું છે કે 2035 સુધીમાં AI અમલ 850 થી વધુ વ્યવસાયોમાં ઉત્પાદનક્ષમતામાં $500-600 અબજ સુધીનો વધારો લાવી શકે છે.(7) બંને સૂચવે છે કે ડિજિટલ ટેકનોલોજી પર રોકાણ અને આવશ્યક ઊપકરણો ઉપલબ્ધ થાય તો લાંબા ગાળામાં વ્યાપક આર્થિક લાભ મળી શકે છે.

Times of Indiaના વિશ્લેષણે નોંધ્યું છે કે 2025 સુધીમાં ભારતનું ફિનટેક બજાર લગભગ $145 અબજ સુધીનું બનવાની અપેક્ષા છે અને ભારત હાલમાં વૈશ્વિક ફિનટેક અર્થતંત્રોમાં ત્રીજું સ્થાન ધરાવે છે.(8) તે ઉપરાંત વિશ્વની ડિજિટલ પેમેન્ટ માર્કેટ $8 ટ્રિલિયનથી વધુ મૂલ્યની છે અને 20%ના વૃદ્ધિદર સાથે આગળ વધશે, જે ભારત માટે વધુ તકનીકી તકોના સંકેતરૂપ છે.(8)

આ તમામ સાહિત્યિક ચર્ચા દર્શાવે છે કે ડિજિટલયાત્રા (UPI, ફિનટેક, AI) ભારતની અર્થવ્યવસ્થાને પાયાનું મજબૂત આધાર આપી રહી છે અને ઉત્પાદનક્ષમતાને તેજીથી આગળ ધકેલી રહી છે.

સંશોધનનુ સંક્ષિપ્ત આંકડાકીય વિશ્લેષણ

UPI ટ્રાન્ઝેક્શનમાં વિસ્ફોટક વૃદ્ધિ

વર્ષ	UPI ટ્રાન્ઝેક્શન વેલ્યુ (₹ લાખ કરોડ)
2019	21
2020	34
2021	84
2022	139
2023	200
2024	261

source: https://www.npci.org.in/product/bhim/product-statistics

ઉપરોક્ત કોષ્ટકમા UPI ટ્રાન્ઝેક્શન વેલ્યુ (₹ લાખ કરોડ)મા દર્શાવી છે. જે મુજબ વર્ષ 2019મા ₹21 લાખ કરોડ, 2020મા ₹34 લાખ કરોડ, 2021મા ₹84 લાખ કરોડ, 2022મા ₹139 લાખ કરોડ, 2023મા ₹200 લાખ કરોડ અને 2024મા ₹261 લાખ કરોડ જેટલી થયેલા ટ્રાન્ઝેક્શનની વેલ્યુ હતી. તથા NPCIની સત્તાધિક એન્ટ્રીઝ દર્શાવે છે કે UPI દૈનિક ટ્રાન્ઝેક્શન 600-700 મિલીયન વોલ્યુમ(સપ્ટેમ્બર-2025) સુધી પહોચ્યુ છે. અને દર મહિને 20 અબજથી વધુ ટ્રાન્ઝેક્શન પ્રોસેસ કરે છે. UPI ટ્રાન્ઝેક્શન્સ 2024-25માં સતત વધતી રફ્તારમાં છે. આનો અર્થ UPI હવે રિટેલ ડિજિટલ પેમેન્ટ્સમાં મુખ્ય પ્લેટફોર્મ છે.(10)

UPI ટ્રાન્ઝેક્શનની સંખ્યામાં 1% નો વધારો, ભારતના જીડીપી ગ્રોથમાં 0.03% ના વધારા સાથે સંકળાયેલો છે. આ આંકડો દર્શાવે છે કે UPI કોઈ નાનો હિસ્સો નથી; તે આર્થિક પ્રવૃત્તિનું મુખ્ય એન્જિન છે.(11)

નાણાકીય વર્ષ 2023-24 માં, યુપીઆઈ ટ્રાન્ઝેક્શનનું કુલ મૂલ્ય (₹199.7 લાખ કરોડ) ભારતના નોમિનલ જીડીપી (₹296.5 લાખ કરોડ)ના લગભગ 67.5% ની બરાબર હતું.

UPI દ્વારા થતી નાણાકિય લેવડ-દેવડમા ઝડપથી વધારો થઈ રહ્યો છે. જેનો હકારાત્મક પ્રભાવ દેશના GDP પર પણ પડી રહ્યો છે. 2020મા UPI દ્વારા થતી આર્થિક વ્યવહારોનુ મુલ્ય કૂલ GDPના 15% જેટલુ હતુ. તથા 2022-23મા કુલ 88.4 અબજ ડિજિટલ નાણાકીય વ્યવહારોમા UPIનો હિસ્સો 52% હતો.

આ સાબિત કરે છે કે દેશના આર્થિક વ્યવહારોનો એક મોટો હિસ્સો હવે યુપીઆઈ સિસ્ટમ દ્વારા થાય છે, જે સીધા જ ફોર્મલ અર્થતંત્રમાં અને જીડીપીમાં યોગદાન આપે છે. 2024-25ના કાયમી અહેવાલો અનુસાર ભારતની GDP વૃદ્ધિ (FY 2024-25, provisional) = 6.5% હતી.(9)

PwC અહેવાલ મુજબ FY 2023-24માં ભારતના રિટેલ ડિજિટલ પેમેન્ટ્સનો કુલ ટ્રાન્ઝેક્શન વોલ્યુમ 131 અબજ અને તેમા UPIનો હિસ્સો 80% છે. જેથી કહી શકાય કે UPI નો ફાળો સૌથી વધુ છે.(3)

RBI ડિજિટલ પેમેન્ટ ઈન્ડેક્સ (DPI): Sept -2024 મા 465.33, અને March- 2025 મા 493.22 છે. આ સૂચકાંક ડિજિટલાઈઝેશનની ઝડપી જાહેર વિકસતી સ્થિતિ દર્શાવે છે.(9) આમ થયેલા અનુમાનોએ સૂચવ્યું છે કે ડિજિટલ ફાઈનાન્સીઅલ ઈન્ફ્રાસ્ટ્રક્ચરનું વિસ્તરણ ક્ષેત્રિય વ્યાપાર ઉધ્યોગો માટે ટ્રાન્ઝેક્શન ખર્ચ ઘટાડી, વ્યવહાર ઝડપ અને પારદર્શિતા વધારી GDP વિકાસને સપોર્ટ કરતું દેખાય છે. (9)

RBI-DPI માં વધારો (465.33 → ~493.22) એ સૂચવે છે કે પેમેન્ટ ઈન્ફ્રાસ્ટ્રક્ચર અને તેના ઉપયોગથી બંને વધ્યાં છે. આનો અર્થ ડિજિટાઈઝેશનના જ્ઞાનાત્મક અને ઢાંચાકીય ઘટકો સક્રિય રહ્યા છે. DPI ચલિત સબ ઈન્ડિકેટર્સમાં ઈન્ફ્રાસ્ટ્રક્ચર, અરજીપાત્રતા અને ઓફરિંગ્સની વ્યાપકતા ઉભી છે.(9)

JAM ત્રિમૂર્તિનું ઉલ્લેખનીય ફાયદા: Aadhaar આધારિત KYC અને Jan Dhan ખાતા સાથે મોબાઈલ ઈન્ટરનેટ જેવી સુવિધાઓએ UPI અને DBT રૂપે સીધા ટ્રાન્સફરને પ્રોત્સાહન આપ્યું અને નાણાકીય સમાવેશમાં વલણ વધાર્યું.(3)

ડિજિટલ ઈન્ડિયા ઈન્ફ્રાસ્ટ્રક્ચર: સરકારી પહેલોએ બ્રોડબેન્ડ એક્સપેંશન અને ઈ-ગવર્નન્સ સેવા પૂરી પાડવાની ક્ષમતા વધારી છે. આ તકનીકી ઈન્ફ્રાસ્ટ્રક્ચર ડિજિટલ પેમેન્ટ્સની વૃદ્ધિનો પાયાનો આધાર છે.(9)

સંક્ષિપ્ત તારણ

ડિજિટલ પેમેન્ટ્સ (ખાસ કરીને UPI) એ ભારતની છુટક ચુકવણી માળખામાં મુખ્ય ડ્રાઈવર બની ચૂક્યા છે. વોલ્યુમ અને વેલ્યૂ બંને બમણા જોરથી વધી રહ્યા છે. (3)

ડિજિટાઈઝેશન અને GDP વચ્ચે સીધો સંબંધ દેખાય છે: ડિજિટલ ઈન્ફ્રાસ્ટ્રક્ચર વધવાથી વ્યાપાર ખર્ચ ઘટે છે અને પારદર્શિતા વધે છે. પરિણામે તેની અસર તરીકે GDPમા વધારો થાય છે. (3)

નીતિગત પ્રવૃત્તિઓ (JAM, ડિજિટલ ઈન્ડિયા, RBI નિયમન) એ વિકસિત આર્થિક પ્રણાલી માટે જરૂરી બાબતો છે; પણ જોડાણ તફાવત અને સાઈબર-સિક્યુરિટી હજુ પણ મુખ્ય પડકારો છે. (9)

અપેક્ષિત પરિણામો

આ અભ્યાસના આધારે અપેક્ષિત પરિણામોમાં સમાવેશ થાય છે કે ડિજિટલાઈઝેશનથી ભારતીય અર્થતંત્રને મહત્વપૂર્ણ વધારો મળશે. એકંદરે અપેક્ષિત પરિણામો નીચે મુજબ છે:

UPI જેવા ડિજિટલ પેમેન્ટ માધ્યમો 2025 સુધી રોજિંદા 1 અબજથી વધુ ટ્રાન્ઝેક્શન ઉપલબ્ધ કરાવશે(2), જે વેપાર વ્યવહારોમાં વૃદ્ધિ માટે શક્તિશાળી તર્ક પૂરું પાડે છે.

RBIની એક દિશામાં દલીલ છે કે હાલ ડિજિટલ અર્થવ્યવસ્થા ભારતના GDPનો લગભગ 10% છે, 2026 સુધી તે 20% સુધી પહોંચી શકે.(6) તેથી ડિજિટલ વિસ્તારો GDPમાં મહત્વપૂર્ણ યોગદાન આપશે.

કૃત્રિમ બુદ્ધિ (AI)નો વ્યાપક સ્વીકાર 2035 સુધીમાં GDPમાં $500-600 અબજનો ઉછાળો લાવી શકે છે.(7) ફેક્ટરીઓમાં ઓટોમેશન, તકનિકી-સાક્ષર કર્મચારીઓ, અને વ્યવસાય પ્રક્રિયાઓમાં AI અનુભવચિત્રો વિકસવાથી મહત્વપૂર્ણ ઉત્પાદનક્ષમતામાં વધારો થવાની અપેક્ષા છે.

ડિજિટલ ઈન્ફ્રાસ્ટ્રક્ચરની સુધારેલી સુવિધાઓ અને વધુ માવજત સાથે દેશના કુલ અર્થતંત્રમાં વિકાસદર્શક વૃદ્ધિ થશે. "ડિજિટલ ઈન્ડિયા" જેવી યોજનાઓ, ઓનલાઈન સેવાઓ અને JAM ત્રિમૂર્તિ (Jan Dhan, Aadhaar, Mobile) પ્રણાલી હેઠળ વધુ લોકો બેંકિંગ અને ઈ-લેણદેણમાં સામેલ થશે.

માહિતી સુરક્ષા અને ડિજિટલ વિભાજન જેવા પડકારોને ઉકેલવા માટે નવા નિયમ, તાલીમ કાર્યક્રમો અને પ્રયાસોની જરૂર પડશે. ઉદાહરણ તરીકે, સાઈબર સુરક્ષા મજબૂત કરવાની સાથે ગ્રામિણ અને અસક્ષમ વર્ગોને ઈ-લેણદેણ માટે તાલીમ આપવી જરૂરી રહેશે.(4)(8)

પરિણામો

ડિજિટલ પેમેન્ટ વૃદ્ધિ: 2023માં ભારતની ડિજિટલ પેમેન્ટ્સનો કુલ વ્યવહાર મૂલ્ય લગભગ $2 ટ્રિલિયન પર પહોંચ્યો છે.(3) 2026 સુધીમાં આ મૂલ્ય $10 ટ્રિલિયન થવાની સંભાવના દર્શાવવામાં આવી છે.(3) UPI દ્વારા રિટેલ ડિજિટલ પેમેન્ટ્સમાં 75%થી વધુ હિસ્સો આવતો રહ્યો છે.(3) RBIના ડિજિટલ પેમેન્ટ ઈન્ડેક્સ (DPI) મુજબ, 2018થી 2023 સુધી ચુકવણી ડિજિટલાઈઝેશનમાં લગભગ 4 ગણી વૃદ્ધિ નોંધાઈ છે.(3)

UPI ટ્રાન્ઝેક્શનો: NPCIના તાજેતરના આંકડાઓ અનુસાર, UPI દૈનિક ટ્રાન્ઝેક્શન પર 2023 માર્ચમાં 14.04 અબજ સુધી પહોંચ્યાં હતા. (3) ડેપ્યુટી ગવર્નર RBIના નિવેદન મુજબ ઑક્ટોબર 2024માં માત્ર એક મહિનામાં UPI દ્વારા 16.6 અબજ ટ્રાન્ઝેક્શન નોંધાયા છે.(6) આ ઝડપી વૃદ્ધિથી સ્પષ્ટ છે કે ડિજિટલ પેમેન્ટ પ્લેટફોર્મ સામાન્ય જન માટે પણ લોકપ્રિય બની રહ્યા છે.

વિત્તીય સમાવેશ: 2014માં માત્ર 53% ભારતીય વયસ્કો પાસે બેંક એકાઉન્ટ ધરાવતા હતા, 2021માં આ સંખ્યા 78% સુધી વધી ગઈ.(2) આ સમયમાં મુખ્ય ફેક્ટર હતા Jan Dhan અને UPI જેવી પહેલો. ડિજિટલ લેણદેણ બિંદુઓ (POS, QR કોડ)ની સંખ્યા 170 મિલિયનથી વધી 361 મિલિયન સુધી પહોંચી ગઈ છે(2), જે એ દર્શાવે છે કે ભાવિમાં ભારત વ્યાપક રૂપે કેશલેસ સમાજ તરફ આગળ વધી રહ્યું છે.

fintech બજારનું કદ: ભારતનુ fintech બજાર $584 અબજ સુધી 2022માં પહોંચી ગયુ હતુ, તેમજ 2025 સુધીમાં $1.5 ટ્રિલિયન થવાની અનુમાનિત વૃદ્ધિ ધરાવે છે. (2) ડિજિટલ લોન, ઈન્સ્યોરટેક અને વેલ્થટેકમાં પણ મોટી વૃદ્ધિ થઈ રહી છે. ઈન્શ્યોરટેક ક્ષેત્ર એશિયા-પેસિફિકનો બીજો સૌથી મોટો બજાર છે અને 2030 સુધી $88.4 અબજ સુધી પહોંચવાની શક્યતા છે.(2)

ડિજિટલ અર્થતંત્રમાં ફાયદો: RBIના DEPR અધ્યયન અનુસાર, હાલ ડિજિટલ ભારતમાં લગભગ GDPના 10% છે, અને વર્તમાન વૃદ્ધિ દરોથી 2026 સુધી 20% સુધી પહોંચવાની શક્યતા છે.(6) ભારતીય સરકારની JAM ત્રિમૂર્તિ (Jan Dhan-Aadhaar-Mobile) અને ઈ-ગવર્નન્સ પહેલોએ આમાં સામેલ લોકોની સંખ્યામા વધારો કર્યો છે.(3)

AI આધારિત સુધારા: ડેપ્યુટી ગવર્નરના નિવેદનમાં ઉલ્લેખિત છે કે બેંકિંગ સેક્ટરમાં ડિજિટલાઈઝેશન દ્વારા દર માસે 14,500 દિવસોની બચત થઈ રહી છે, ખર્ચમાં 25-30% નો ઘટાડો, સમય ખર્ચમા ઘટાડો એ તેના વ્યાપક પરિણામો દેખાડે છે.(6) આ સૂચવે છે કે AI, ચેટબોટ્સ, ડિજિટલ KYC અને ઓપન બેંકિંગ જેવી ઊભી થયેલી ટેક્નોલોજીઓએ કાર્યક્ષમતામાં મહત્વપૂર્ણ વધારો કર્યો છે.

ટુંકમાં, આ વિગતો દર્શાવે છે કે ભારતમાં ડિજિટલતાએ નાણાકીય સમાવેશને વિસ્તૃત કર્યો છે અને GDP વૃદ્ધિમાં યોગદાન કર્યું છે. UPI માટે 2024માં નિશ્ચિત સામાન્ય ઝડપ અને બજારવાહક પ્રવૃત્તિઓનું અનુમાનિત માહિતી દર્શાવે છે કે ડિજિટલ ટેકનોલોજીમાં આગામી વર્ષો વધુ વિકાસકારક હશે.

ચર્ચા

આ અભ્યાસ પરથી સ્પષ્ટ થાય છે કે ડિજિટલાઈઝેશન ભારતીય અર્થતંત્ર માટે કડક પ્રેરણા બની રહ્યું છે. UPI જેવા અનોખા પ્લેટફોર્મોથી નાણાંનું હસ્તાંતરણ આસાન બન્યું છે.(1),(6) જેના કારણે નાના અને ગ્રામીણ વેપારીઓ પણ ડિજિટલ

પેમેન્ટ્સ અપનાવી રહ્યા છે. ડિજિટલ પેમેન્ટ સિસ્ટમ્સનું વિસ્તરણ લોકોને બેંકિંગ અને ક્રેડિટ સેવાઓ સાથે જોડે છે, જે ઔદ્યોગિક સાહિત્યમાં "વિત્તીય સમાવેશ" તરીકે ઓળખાય છે.(2) ડિજિટલાઈજેશનને કારણે અર્થતંત્ર વધુ પારદર્શક, ઝડપથી કાર્યરત અને આંતરિક વ્યવહાર ખર્ચ ઓછો થાય છે. આમાંથી એક તાજું ઉદાહરણ એ છે કે RBIએ જણાવ્યું છે કે 2024માં ભારતીય બેંકિંગ ક્ષેત્રે 75% સંસ્થાઓ ઓનલાઈન ખાતા, ડિજિટલ KYC અને મોબાઈલ બેંકિંગ જેવી સુવિધાઓ લાવી ચૂક્યા છે, જેના કારણે ગ્રાહક પ્રતિમુલ્ય ખર્ચમાં 25-30%નો ઘટાડો થયો.(6)

આર્થિક વિકાસમાં ફિનટેક તથા AIનો સામેલ કરાયો હિસ્સો વધુ શક્તિશાળી બને તે માટે સૂચનોમાં જોડાણ અને સુરક્ષા પર ભાર મૂકાયેલો છે.(3),(4) ડિજિટલ વિભાજન (જેમ કે ગ્રામિણ-શહેરી ઈન્ટરનેટ અંતર) દૂર કરવા અને બહુમુખી તાલીમ કાર્યક્રમો ચલાવવાની જરૂર છે. PwCના અહેવાલ મુજબ, ભારતીઓ ફિનટેક ગ્રોવિગલ પાર્ટનર તરીકે કામગીરી બઢાવી રહ્યા છે, પરંતુ એ માટે 5G નેટવર્ક, બ્રોડબેન્ડ કનેક્ટિવિટી, તેમજ ક્લાઉડ અને બ્લોકચેઈન સહિતની આગેવાની ટેક્નોલોજી જરૂરી છે.(4)

સામાજિક સ્તરે, ડિજિટલ પ્રવૃત્તિઓથી નવી રોજગાર શક્યતાઓ પણ ઊભી થઈ રહી છે (જેમ કે Fintech સ્ટાર્ટઅપસ, ડેટા એનાલિસ્ટ, AI એન્જિનિયર), જેના લાભો ભવિષ્યમા પ્રાપ્ત થશે. તેમ છતાં, આંકડાકીય વૃદ્ધિ સાથે સંકળાયેલા જોખમો (સાઈબર ફ્રોડ, ગોપનીયતા ચિંતાઓ)ને યોગ્ય નિયંત્રણ જરૂરી છે.(8) ભારત સરકારે છેલ્લા વર્ષોમાં અનેક નિયમો (ડેટા સંરક્ષણ કાયદા, ડિજિટલ ક્રાઈમ વિરુદ્ધ પગલાં) બહાર પાડ્યા છે, જેના દ્વારા ડિજિટલ ટ્રાન્ઝેક્શનોને સુરક્ષિત કરવાના પ્રયાસ થઈ રહ્યા છે.

નિષ્કર્ષ

આ અભ્યાસમાં પ્રાપ્ત મૂળભૂત નિષ્કર્ષો અનુસાર, ડિજિટલાઈઝેશન (ફિનટેક, UPI, કૃત્રિમ બુદ્ધિ) ભારતની આયાતિત સમૃદ્ધિમાં નોંધપાત્ર યોગદાન આપી રહી છે. UPI અને અન્ય ઈ-પેમેન્ટ ટેકનોલોજીઓ દ્વારા રોકડનો પ્રભાવ ઘટાડ્યો છે(1),(6),અને લોકો નાણાકીય સેવાઓની વધુ પહોંચ ધરાવતા થયા છે. RBI રિપોર્ટની દલીલ પ્રમાણે, ગ્રામિણ-અશિક્ષિત વિસ્તારોમાં પણ ડિજિટલ પ્રવૃત્તિથી બેંક એકાઉન્ટ ધરાવતા લોકો વધ્યા છે.(2) દેશમાં ડિજિટલ GDPનો હિસ્સો દશકનાં અંત સુધીમાં લગભગ $1 ટ્રિલિયન સુધી પહોચશે.(4),(5) AI પર રોકાણના લીધે લાંબા ગાળાની ઉત્પાદનક્ષમતામાં પણ મોટા ઉછાળા આવી શકે છે.(6),(7)

તો પણ, ચકાસણીમાં આવ્યું કે ડિજિટલ વિભાજન, ઈન્ફ્રાસ્ટ્રક્ચર અને સુરક્ષા પડકારની સામે ફક્ત ટેકનોલોજી વિકાસ પૂરતો નથી. સમગ્ર દેશમાં ઈન્ટરનેટ કનેક્ટિવિટી અને ડિજિટલ સાક્ષરતા વધારવી પડશે.(4) સરકારની વહીવટકારી પહેલો (જેમ કે ડિજિટલ ઈન્ડિયા, બ્લોકચેઈન હબ્સ, 5G નેટવર્ક) મહત્વની સાબિત થશે, પરંતુ આવશ્યક છે કે જાહેર અને ખાનગી સહભાગીદારી દ્વારા લાંબા ગાળાના આયોજન થાય.

સુચનો

ડિજિટલાઈઝેશનના લાભોને વધુ મજબૂત કરવા માટે અમુક વ્યાવહારિક સૂચનો નિચે મુજબ છે:

કનેક્ટિવિટી વિસ્તરણ: દેશમાં દરેક ગામડામાં ઝડપી ઈન્ટરનેટ (4G/5G) પહોંચવું જોઈએ. 5G સેન્ટ્રલ શહેરોમાં પહેલેથી શરૂ થઈ ગયું છે(5), પરંતુ ગ્રામિણ વિસ્તારમાં પણ ઝડપથી નેટવર્ક વિસ્તરણ જરૂરી છે.

સાઈબર સુરક્ષા મજબૂત કરવા: નાણાકીય સંસ્થાઓ, ફિનટેક કંપનીઓ અને સરકારી સેવાઓમાં ક્રિપ્ટોગ્રાફી, એનક્રિપ્શન અને સીસટેમિક મોનીટરીંગ વધારવું જોઈએ. ઓનલાઈન ચોરી અને ફ્રોડ ઘટાડવા માટે AI આધારિત ફ્રોડ ડિટેક્શન માળખાઓ અમલમાં લાવવા જરુરી છે.

ડિજિટલ સાક્ષરતા: દેશના તમામ વર્ગો માટે ડિજિટલ તાલીમ કાર્યક્રમો શરૂ કરવા. રાજ્ય સરકાર દ્વારા કોમ્પ્યુટર શિક્ષણ અને મોબાઈલ બેંકિંગ ઉપયોગીતા અંગે વર્કશોપ્સ ચલાવવા જોઈએ.

વિત્તિય સમાવેશને પ્રોત્સાહન: તે માટે સરળતા વધારવા, જેમ કે UPI પર વ્યવહારો માટે વધારે યોજનાઓ, ગ્રાહકોને ક્રેડિટ, વિમા-વિતરણ અને રોકાણ સેવાઓની સરળતાથી પ્રવેશ દ્વારા વધુ સામેલ કરવા પ્રયત્નો કરવા.

AI અને નવી ટેક્નોલોજીમાં રોકાણ: કૃત્રિમ બુદ્ધિ, બ્લોકચેઈન, IoT આધારિત ઉત્પાદન અને રોબોટિક્સમાં સંશોધન-વિકાસ (R&D) અને પાયકી ટેકનોલોજી પૈકીના કામોમાં સહાયભાવ વધારવો.(4)(7) સરકારી વિવિધ વિસ્તારના "AI ટેસ્ટિંગ પાયલોટ" યોજનાઓ દ્વારા ખેડૂત, સ્વાસ્થ્ય, શિક્ષણ ક્ષેત્રે AIને ઉચિત ઉપયોગીતા માટે પ્રોત્સાહિત કરી શકાય.

નીતિ-નિયમ સુગમતા: વધતી માંગને જોતા, ડેટા સત્તાધિકરણ (Data Protection Authority) માટે માન્ય ધોરણ બનાવવાની સાથે ડિજિટલ વ્યવહાર માટે સ્પષ્ટ કાયદાકીય માળખું જોઈએ. ફિનટેક નવીનતા માટે નિયમનકારી માળખાઓ ઝડપી અપનાવવા, જેથી નવા સ્ટાર્ટઅપ્સ અસરકારક રીતે ઉડાન ભરે.

આ સૂચનો અમલમાં લેવાથી ભારતમાં ડિજિટલ પરિવર્તનને વધુ ગતિ મળશે અને રાષ્ટ્રીય આર્થિક વૃદ્ધિમાં પણ ઝડપી વધારો થશે.

સંદર્ભ સુચિ

(1) Raj, D. (2024, December 20). https://business.cornell.edu/hub/2024/12/20/indias-unified-payments-interface-has-revolutionized-its-digital-payments-market/

(2) Santosdiaz, R. (2024, October 26). https://thefintechtimes.com/richie-not-done-yet-fintech-landscape-of-india-2024/

(3) PricewaterhouseCoopers India-2024. https://www.pwc.in/assets/pdfs/industries/powering-indias-usd-5-trillion-economy-by-fostering-innovations.pdf

(4) IBEF (India Brand Equity Foundation-2024). https://ibef.org/blogs/india-s-digital-transformation-dividend-the-impact-of-digital-infrastructure

(5) International Trade Administration, U.S. Dept. of Commerce. (2024, September 18). https://www.trade.gov/country-commercial-guides/india-digital-economy

(6) Mukherjee, P. (2024, November 26). https://coingeek.com/rbi-says-generative-ai-may-contribute-up-to-438b-to-gdp/

(7) NITI Aayog. (2024). AI for Viksit Bharat: https://niti.gov.in/sites/default/files/2025-09/AI-for-Viksit-Bharat-the-opportunity-for-accelerated-economic-growth.pdf

(8) Pande, K. (2025, July 7). https://timesofindia.indiatimes.com/business/cybersecurity/digital-payments-vs-digital-risks-indias-fintech-ambitions-and-bridging-a-trust-gap-with-ai/articleshow/122292047.cms

(9) https://www.pib.gov.in/PressReleasePage.aspx?PRID=2149372&utm

(10) https://www.npci.org.in/product/bhim/product-statistics?

(11) Bansal R, sep-2024

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ROLE OF EDUCATIONAL TECHNOLOGY IN ENHANCING CLASSROOM ENGAGEMENT AMONG SCHOOL STUDENTS

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ABSTRACT
The integration of educational technology has significantly transformed classroom dynamics across the globe. Tools such as smart boards, interactive applications, learning management systems, and gamification techniques have redefined the traditional teaching-learning process by making it more interactive, personalized, and engaging. This study examines the role of educational technology in enhancing classroom engagement among school students. It explores how digital tools contribute to participation, motivation, and collaborative learning, while also addressing the challenges associated with technology integration. Using a descriptive research design, the study relies on both quantitative and qualitative methods to measure the impact of technology-driven approaches on student engagement. Findings are expected to highlight the extent to which technology can bridge learning gaps and provide strategies for educators to maximize its potential.

KEYWORDS: EDUCATIONAL TECHNOLOGY, CLASSROOM ENGAGEMENT, STUDENT MOTIVATION, DIGITAL LEARNING TOOLS, INTERACTIVE TEACHING, GAMIFICATION

INTRODUCTION
Education in the 21st century is increasingly shaped by rapid advancements in information and communication technologies (ICT). Traditional classroom practices, often criticized for being teacher-centered and rigid, are undergoing transformation as technology provides opportunities for interactive, student-centered learning environments. Engagement, which refers to the level of attention, curiosity, and participation students demonstrate in the learning process, has emerged as a crucial factor in improving academic outcomes and overall learning experiences.

Educational technology, encompassing digital devices, learning platforms, interactive software, and online resources, plays a central role in enhancing classroom engagement. Smart classrooms equipped with projectors, digital whiteboards, tablets, and high-speed internet allow teachers to deliver content more effectively. Moreover, platforms such as Google Classroom, Kahoot, and Edmodo encourage real-time interaction and collaboration, making students active participants rather than passive recipients of knowledge.

Several international and national policy frameworks, including UNESCO's guidelines on ICT in education and India's National Education Policy (NEP 2020), emphasize the integration of technology in classrooms as a means to enhance engagement and learning outcomes. However, the success of educational technology depends on accessibility, teacher readiness, and the extent to which tools are aligned with pedagogical goals.

This study focuses on analyzing the role of educational technology in improving classroom engagement among school students. The research aims to answer the following questions:

1. How does educational technology influence the participation and motivation of school students in classroom activities?
2. What digital tools and approaches are most effective in enhancing engagement?
3. How do teachers and students perceive the integration of technology in classrooms?
4. What challenges limit the effectiveness of technology in fostering classroom engagement?

By addressing these questions, the study seeks to provide evidence-based insights that can guide educators, school administrators, and policymakers in designing more engaging classroom environments through educational technology.

REVIEW OF LITERATURE

The relationship between educational technology and student engagement has been widely studied across various educational contexts. Literature consistently suggests that technology can enhance motivation, participation, and interaction, provided it is integrated with appropriate pedagogical strategies.

Educational Technology and Student Motivation

According to Skinner and Belmont (1993), engagement is closely tied to motivation, and technology-driven methods can enhance intrinsic motivation. Research by Schunk and DiBenedetto (2020) shows that digital tools such as gamification and interactive applications increase student interest and encourage active participation in classroom activities.

Interactive Tools and Engagement

Zheng et al. (2016) highlighted that interactive tools like Kahoot, Quizizz, and Nearpod stimulate competition and collaboration, thereby increasing cognitive and emotional engagement. Similarly, Hew and Brush (2007) found that technology-supported classrooms foster problem-solving skills and cooperative learning, which are critical aspects of engagement.

Impact of ICT on Classroom Participation

Selwyn (2016) argued that ICT integration transforms the passive classroom into an active learning space. Smart boards, video lessons, and simulations provide real-world experiences that encourage participation. Alqahtani and Rajkhan (2020) observed that students exposed to ICT-integrated teaching methods demonstrated higher levels of participation compared to traditional lecture-based environments.

Teacher Readiness and Technology Integration

While technology has potential, its effectiveness depends on teacher preparedness. Ertmer and Ottenbreit-Leftwich (2010) emphasized that teacher beliefs, digital literacy, and confidence in using ICT determine the success of technology integration. Without adequate training and institutional support, engagement benefits may remain limited.

Challenges in Technology Use

Despite advantages, challenges such as digital inequality, lack of resources, and over-reliance on devices persist. Warschauer (2004) discussed how access gaps between urban and rural schools limit the benefits of educational technology. Furthermore, prolonged screen time can lead to fatigue, reducing student attentiveness (Tarafdar et al., 2020).

Overall, literature supports the view that technology positively impacts engagement when it is pedagogically aligned, equitably accessible, and supported by teacher readiness.

RESEARCH METHODOLOGY

Research Design

This study employs a descriptive research design with a mixed-method approach, combining survey-based quantitative data with qualitative insights from teacher interviews.

Objectives of the Study

1. To examine the impact of educational technology on participation and motivation of school students.
2. To identify digital tools and techniques that enhance classroom engagement.
3. To analyze teachers' and students' perceptions of technology integration.
4. To explore challenges associated with educational technology in classrooms.

Population and Sample

The population includes students from classes 6 to 10 in both government and private schools of Gujarat. A total of **280 students** and **25 teachers** were selected using stratified random sampling to ensure representation across school types and geographic locations.

Data Collection Tools

1. **Questionnaire**: A structured Likert-scale questionnaire was administered to students, covering dimensions such as participation, motivation, and interaction.
2. **Interviews**: Semi-structured interviews with teachers captured qualitative insights into technology use and challenges.
3. **Observation Checklist**: Classroom observations were conducted to assess engagement indicators such as attentiveness, participation in activities, and use of digital tools.

Data Collection Procedure

Data collection was carried out over two months. Questionnaires were distributed physically and online, while interviews were conducted through both face-to-face and virtual modes.

Data Analysis Methods

- Quantitative data were analyzed using descriptive statistics (mean, standard deviation, percentages) and inferential tests (correlation and regression analysis).
- Qualitative data from teacher interviews were coded thematically to identify common patterns.

Data Analysis & Interpretation

1. Demographic Profile of Respondents

Among 280 students surveyed, 52% were male and 48% female. About 60% belonged to urban schools and 40% to rural schools. Teachers interviewed included 15 from private schools and 10 from government schools.

2. Use of Educational Technology in Classrooms

- 88% of students reported exposure to at least one form of digital tool in classrooms.
- The most commonly used technologies were projectors (70%), smart boards (55%), and interactive apps such as Kahoot or Quizizz (40%).
- Average daily exposure to classroom technology was 1.5 hours.

3. Impact on Participation and Motivation

Correlation analysis revealed a strong positive relationship between use of digital tools and student participation ($r = 0.71$, $p < 0.01$). Students engaged in gamified lessons reported higher motivation levels compared to traditional classes.

4. Teacher and Student Perceptions

- 80% of students agreed that technology made lessons more interesting and interactive.
- 76% of teachers reported improved classroom participation when digital tools were used.
- However, 42% of teachers felt that lack of infrastructure limited effective technology use.

5. Challenges Identified

Key challenges included unequal access to devices among students (38%), poor internet connectivity in rural schools (34%), and increased screen-related fatigue among students (27%). Teachers also expressed the need for more professional development programs to enhance ICT competence.

FINDINGS & DISCUSSION

The study aimed to examine how educational technology influences classroom engagement among school students. Based on quantitative and qualitative findings, several key insights emerged.

1. Technology as a Catalyst for Participation

The results confirmed that digital tools such as smart boards, interactive apps, and online quizzes significantly improved student participation. Students reported higher levels of attentiveness and willingness to contribute during tech-enabled lessons. This finding aligns with Zheng et al. (2016), who highlighted the role of interactive tools in promoting collaborative and competitive learning environments.

2. Motivation and Enjoyment of Learning

Students expressed that gamified platforms such as Kahoot and Quizizz made learning enjoyable and motivating. The correlation analysis ($r = 0.71$, $p < 0.01$) demonstrated a strong link between the use of digital tools and student motivation. This resonates with Schunk and DiBenedetto (2020), who emphasized that motivation is critical for sustained engagement.

3. Teacher and Student Perspectives

Teachers acknowledged that educational technology helped diversify their teaching strategies and made lessons more dynamic. Students similarly reported that technology broke the monotony of traditional lectures and encouraged active participation. However, some teachers highlighted a dependency issue, where students became disengaged in the absence of technology-driven activities.

4. Challenges in Implementation

Infrastructure limitations, unequal access to digital tools, and inadequate teacher training were identified as barriers to effective technology integration. These challenges echo concerns raised by Ertmer and Ottenbreit-Leftwich (2010), who stressed that teacher readiness and institutional support are vital for successful technology adoption.

5. Implications for Policy and Practice

The findings suggest that while technology can substantially enhance engagement, it must be integrated thoughtfully and equitably. Policymakers and schools need to ensure that infrastructure gaps are addressed, particularly in rural areas, and that teachers receive adequate training to use digital tools effectively.

CONCLUSION & SUGGESTIONS

The study concludes that educational technology has a significant and positive impact on classroom engagement among school students. It enhances participation, fosters motivation, and supports interactive learning experiences. However, unequal access to resources, poor internet connectivity, and lack of teacher readiness remain pressing challenges.

Key Suggestions

1. Schools should adopt a blended learning model that combines technology with traditional pedagogical methods to balance engagement and personal interaction.

2. Professional development workshops should be organized to strengthen teachers' digital literacy and confidence in using ICT.
3. Governments and institutions should invest in infrastructure development, particularly in rural schools, to bridge the digital divide.
4. Teachers should design activities that encourage collaboration, critical thinking, and creativity through technology rather than relying solely on content delivery.
5. Awareness campaigns should be conducted for parents and students on responsible and balanced use of technology to reduce digital fatigue.

By addressing these areas, educational technology can become a powerful tool in shaping engaging, inclusive, and effective classroom environments.

REFERENCES

- ***Alqahtani, A. Y., & Rajkhan, A. A. (2020). E-learning critical success factors during the COVID-19 pandemic: A comprehensive analysis of e-learning managerial perspectives. Education Sciences, 10(9), 216. https://doi.org/10.3390/educsci10090216***
- ***Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. Journal of Research on Technology in Education, 42(3), 255–284. https://doi.org/10.1080/15391523.2010.10782551***
- ***Hew, K. F., & Brush, T. (2007). Integrating technology into K–12 teaching and learning: Current knowledge gaps and recommendations for future research. Educational Technology Research and Development, 55(3), 223–252. https://doi.org/10.1007/s11423-006-9022-5***
- ***Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social-emotional learning: Theory, research, and practice. Contemporary Educational Psychology, 60, 101830. https://doi.org/10.1016/j.cedpsych.2019.101830***
- ***Selwyn, N. (2016). Education and technology: Key issues and debates (2nd ed.). Bloomsbury Academic.***
- ***Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. Journal of Educational Psychology, 85(4), 571–581. https://doi.org/10.1037/0022-0663.85.4.571***
- ***Tarafdar, M., Maier, C., Laumer, S., & Weitzel, T. (2020). Explaining the link between technostress and technology addiction for social networking sites: A study of distraction as a coping behavior. Information Systems Journal, 30(1), 96–124. https://doi.org/10.1111/isj.12253***
- ***Warschauer, M. (2004). Technology and social inclusion: Rethinking the digital divide. MIT Press.***
- ***Zheng, B., Lin, C.-H., & Kwon, J. B. (2016). The impact of interactive learning modules on student learning outcomes in higher education. Computers & Education, 95, 207–217. https://doi.org/10.1016/j.compedu.2015.12.005***

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A STATISTICAL ANALYSIS OF IMPACT OF RAINFALL ON ONION CROP YIELD IN BHAVNAGAR DISTRICT USING MULTIVARIATE ADAPTIVE REGRESSION SPLINES (MARS)

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ABSTRACT
The purpose of this study is to analyse the impact of rainfall on onion crop yield in the Bhavnagar district of Gujarat, India. The study aims to understand how variations in rainfall amount and distribution influence onion growth and productivity. By analysing the effect of rainfall on yield patterns, using Multivariate adaptive regression splines (MARS), a flexible non parametric regression technique. Onion is a climate sensitive crop, and fluctuations in rainfall can significantly affect its growth and production. Data on onion yield, production, area and seasonal rainfall from 2018-2023 were collected from the Statistical Branch of the District Panchayat Office, Bhavnagar and analyzed. The MARS model was applied to identify nonlinear relationships between various variable and crop yield. The model efficiency captures the complex dependencies, offering improved prediction accuracy over traditional linear models. Results indicated that both the amount and distribution of rainfall during critical growth stages play a vital role in determining final yield. The findings can support decision making for irrigation planning and adaptive farming practices.

KEYWORD: STATISTICAL ANALYSIS, RAINFALL, ONION CROP, REGRESSION, MARS MODEL

INTRODUCTION
Onion is a vital commercial crop grown extensively in Bhavnagar district of Gujarat, which is recognized for its significant contribution to the state's overall onion production. The district's agro-climatic conditions, particularly its semi-arid climate and well-drained alluvial soils, make it well-suited for both kharif and Rabi onion cultivation. Bhavnagar district experiences an average annual rainfall of approximately 178–1165 mm, largely concentrated during the southwest monsoon season (June to September). This seasonal rainfall is crucial for initial soil moisture recharge, which supports seed germination and early vegetative growth. However, the timing, distribution, and intensity of rainfall events are often erratic, directly affecting crop performance. Excessive rainfall during the bulb development or pre-harvest stage can lead to water logging, fungal diseases, and poor bulb quality, while insufficient rainfall during early growth stages may result in stunted plants and reduced yield. Given the economic importance of onions in Bhavnagar's rural economy especially in areas like Mahuva, which is renowned for onion processing and export understanding the impact of rainfall on onion cultivation is essential. Integrated weather-based planning, along with adaptive water management practices, can help mitigate the risks associated with unpredictable rainfall and enhance sustainable onion production in the district. Researchers have previously explored topics aligned with the objectives of the present study.

Terán-Chaves, C. A., Montejo-Nuñez, L., et al. (2023) evaluated multiple indicators, including normalized water productivity, irrigation water productivity, consumptive water productivity, blue water footprint, marginal water use efficiency, and elasticity of water productivity. Results indicated that the highest WP* for onions were 17.42 g m^{-2}, with maximum yield achieved at a water application depth of approximately 943 mm.

Enchalew, B., Gebre, S. L., et al. (2016) carried out the study at the Melkassa Agricultural Research Centre, Ethiopia, evaluated the impact of varying Deficit irrigation levels on onion yield and quality under drip irrigation. Results suggested that DI up to 20% below full irrigation can save 45–108 mm of water without substantial yield loss, making it a viable strategy for regions facing water scarcity.

Shaibu, A. G., Alhassan, S., et al. (2015) have conducted the research at the Golinga Irrigation Scheme in Ghana evaluated four irrigation treatments: T1 (ad-lib application by farmers), T2 and T3 is 100% of daily ETc applied morning and evening, and T4 is 50% of daily ETc applied in the morning and evening. Results revealed significant effects of irrigation scheduling on bulb weight, plant height, and tiller number.

Tesema, M., Schmitter, P., et al. (2016) have carried out a comparative study on two irrigation scheduling approaches with evaluated Wetting Front Detector (WFD) and soil water balance estimation via Time Domain Reflectometry (TDR). Results indicated that WFD reduced water application by 24% compared to TDR, without significantly affecting crop yield, water productivity, or water use efficiency.

DATA BASE

The present study was conducted in Bhavnagar district of Gujarat, with a specific focus on the talukas of Mahuva, Talaja, Ghogha, and Jesar, is to examine the effect of rainfall on onion crop yield. These regions were selected due to their significant contribution to onion cultivation, with Mahuva in particular being widely recognized as the leading onion-producing belt of the district. The study relied on secondary data covering a six-year period from 2018 to 2023. Information on onion production and yield was collected from the Statistical Branch of the District Panchayat Office, Bhavnagar, which provides authentic agricultural and administrative records at the district level. In parallel, meteorological data, including rainfall weather variable, were sourced from the Weather API platform (https://www.weatherapi.com), ensuring accurate and time-specific climatic information for the study area. Together, these datasets formed the empirical basis for analyzing the influence of climatic variability on onion yield in the region.

METHODOLOGY

Multivariate adaptive regression splines (MARS) is a data mining technique that can be used for solving regression-type problems (Hastie *et al*., 2001).

As a widening of classification and regression tree (CART) algorithm, MARS is an effective machine learning algorithm that defines the relation between a dependent variable and a set of independent variables (Celik *et al*., 2019).

It is a non-parametric procedure, for invention adaptive regressions that uses piece wise basis functions to define relationships between a dependent variable and a set of estimations. MARS allows for the

capture of linear and additive relationships and for the separation in excess of all nodes at each step, rather than just the terminal ones. Hence, MARS compose a bended regression line to fit the data from subgroup to subgroup and from spline to spline. (Friedman,1991).

In every spline, MARS splits the data an anymore inside many sub groups. Several knots are constituted by MARS. These knots can be established between distinct input variables or distinct intervals in the same input variable, to separate the subgroups. The data of each sub group are called basis function (BF). The model takes the form of an expansion in product spline basis functions, where the number of basic functions as well as the parameters associated with each one (product degree and knot locations) are automatically determined by the data (Friedman, 1991; Sephton2001).

The MARS algorithm constructs models from two sided functions of the predictors(x) of the form:

$$(x - t)+= \begin{cases} x > t \\ 0, \text{otherwis} \end{cases}$$

These serve as basic functions for linear or nonlinear expansion that approximates some true underlying function f(x).
The MARS model for a response variable y, and M terms, can be given in the sequent equation:

$$y = f(x) = \beta_0 + \sum_{m=1}^{M} \beta_m K_{km}(X_{v(k,m)})$$

Where the aggregate is over the M terms in the model and β_0 is an intercept, β_m is a coefficient of basic functions, $K_{km}(X_{v(k,m)})$ is a basis function, here $v(k,m)$ is an index of a predictor for an m^{th} component of k^{th} product (Hastie et al., 2001) [52]. Function H is defined as,

$$H_{km}(X_{v(k,m)}) = \prod_{k=1}^{K} h_{km}$$

Where $X_{v(k,m)}$ is the predictor in the k^{th} of the m^{th} product? Here, k is a parameter interaction order. For order of interactions K=1, the model is additive and for K=2 the model pair wise interactive (Friedman, 1991).

During forward step, a number of basic functions are added to the model according to a predetermined maximum which should be considerably larger (twice as much at least) than the optimal (best least-squares fit) (Hastie et al., 2001).

A backward procedure is applied in which the model is pruned by removing those basis functions that are associated with the smallest increase in the goodness of-fit. Generalized Cross Validation error is a measure of the goodness of fit that takes into account both the residual error and the model complexity as well. It is formulated by (Koronacki and Ćwik 2005).

$$GCV = \frac{\sum_{i=1}^{N}(y_i - f(xi))^2}{\left[1 - \frac{C}{n}\right]^2}$$

With, $C = 1 + cd$

Where n is the number of cases in the data set, d is the effective degrees of freedom, which is equal to the number of independent basis functions. The quantity C is the penalty for adding a basis function (Hastie et al., 2001).

To comparatively test the estimate criteria of MARS, the following goodness of fit criteria were used (Willmott and Matsuura, 2005; Liddle, 2007; Takma et al., 2012; Eyduran et al., 2019) [66, 64, and 33]: 1. Pearson correlation coefficient (r) between the actual and predicted dependent variable values, 2. Coefficient of determination,

$$R^2 = 1 - \frac{\sum_{i=1}^{n}(Y_i - \hat{Y}_i)^2}{\sum_{i=1}^{n}(Y_i - \hat{Y}_i)^2}$$

3. Adjusted Coefficient of determination,

$$Adj.R^2 = 1 - \frac{\frac{1}{n-k-1}\sum_{i=1}^{n}(Y_i - \hat{Y}_i)^2}{\frac{1}{n-1}\sum_{i=1}^{n}(Y_i - \hat{Y}_i)^2}$$

4. Root mean square error (RMSE) given by following formula:

$$RMSE = \sqrt{\frac{1}{n}\sum_{i=1}^{n}(Y_i - \hat{Y}_i)^2}$$

5. Standard deviation ratio $SDratio$

$$SD_{ratio} = \sqrt{\frac{\frac{1}{n-1}\sum_{i=1}^{n}(\varepsilon_i - \bar{\epsilon})^2}{\frac{1}{n-1}\sum_{i=1}^{n}(Y_i - \bar{Y})^2}}$$

6. Akaike Information Criterion (AIC)

$$AIC = n\log\sum_{i=1}^{n}\left(\frac{(Y_i - \hat{Y}_i)^2}{n}\right) + 2k$$

7. Corrected Akaike Information Criterion (AICc)

$$AIC_C = AIC + \frac{2k(k+1)}{n-k-1}$$

Where k is the number of selected terms and n is the sample size. (Hu,2007). Here, Y_i is the observed dependent variable value of i^{th} variable, $\hat{Y}_i$ is the predicted dependent values of i^{th} variable, $\bar{Y}$ is the average of the dependent variable of the variable, ε_i is the residual value of i^{th} variable, $\bar{\epsilon}$ is the average of the residual values, k: number of the selected terms in the model, and n: total number of variable. The residual value of each observation is expressed as $\varepsilon i = Y_i - \hat{Y}_i$.

The MARS analysis was performed using the earth package of R software (Milborrow, 2011; Milborrow, 2018; R Core Team, 2014; Eyduran et al., 2019).

RESULT AND DISCUSSION

The dataset is categorized in to six distinct variables. These include Y, representing yield (in tonnes per hectare); X1, representing production (in '000 tonnes); X2, representing area (in hectare); X3, indicating rainfall (in mm); X4, denote in taluka; X5, representing in year. The descriptive statistics of these variables are provided in Table 1.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Y	60	23.46	26.74	25.3705	.66903
X1	60	494.00	507142.00	78856.5167	107658.49717
X2	60	21.00	19305.00	3050.4000	4140.36203
X3	60	178.00	1165.00	651.8167	225.05709
X4	60	1.00	10.00	5.5000	2.89652
X5	60	2018.00	2023.00	2020.5000	1.72224

The descriptive statistics presented in Table 1 provide an overview of the selected variables related to yield and its influencing factors. Yield (Y) shows a relatively stable trend with a mean of 25.37 tonnes per hectare and a small standard deviation, indicating limited variability. Production (X1) and area (X2) demonstrate wide ranges and higher standard deviations, reflecting substantial fluctuations in output and cultivated land. Rainfall (X3) also shows considerable variation, with values ranging from 178 mm to 1165 mm, highlighting climatic differences across the study period. The variable representing talukas (X4) is evenly distributed with a mean value of 5.5, while the year variable (X5) spans from 2018 to 2023, covering six years of observations.

Table 2: Goodness of fit criteria for MARS algorithm

Variables	r	R^2	Adj. R^2	RMSC	SD_{ratio}	AIC	AIC_C	GCV
Y	0.8037661	0.646	0.606	0.395	0.595	-100	-98	0.2335908
X3	0.6594842	0.435	0.371	167.764	0.752	627	628	42199.47

This study utilized two Multivariate Adaptive Regression Splines (MARS) models to predict important dependent variables such as yield and rainfall. The model performance was evaluated using various goodness-of-fit statistics, including r, R^2, adjusted R^2, SD ratio, AIC, AICc, and GCV. Results (Table 2) indicated that both models achieved high predictive accuracy. Based on the criteria of Grzesiak and Zaborski (2012) and Eyduran et al. (2019), models with an SD ratio below 0.40 indicate a good fit. Accordingly, the MARS models in this study showed a good and moderate fit, explaining 64.6% and 43.5% of the variability in production.

In the present study, two distinct Multivariate Adaptive Regression Splines (MARS) models were developed and evaluated to analyse the relationships among key variables related to onion crop yield. The models were structured as follows:

- Model 1: Dependent variable: Y = yield, independent variable: X1= production, X2 = area, X3 = rainfall.
- Model 2: Dependent variable: X3 = rainfall, independent variable: Y= yield, X1= production, X5 = year.

Model: 1

In Model 1, the variable Y (yield) is considered as the dependent variable. This model, along with all other MARS models developed in the study, was constructed using the R software with the 'earth' package, which is specifically designed for implementing Multivariate Adaptive Regression Splines (MARS) analysis. And a detailed summary of MARS Model 1 (Y ~.) is presented in the following section.
coefficients

- (Intercept)0.36934174
- h(35339-X1)-0.00018090
- h(X1-35339)0.00015129
- h(7949-X2)0.00389255
- h(X2-7949)-0.00398563
- h(X3-515)-0.00095261

Selected 6 of 16 terms, and 3 of 5 predictors. Termination condition: Reached maximum RSq 0.646 at 6 terms.

Importance: X1, X2, X3, X5-unused, X4-unused. Number of terms at each degree of interaction: 1 5 (additive model) GCV 0.2335908 RSS 9.347524 GRSq 0.4868243 RSq 0.64604.

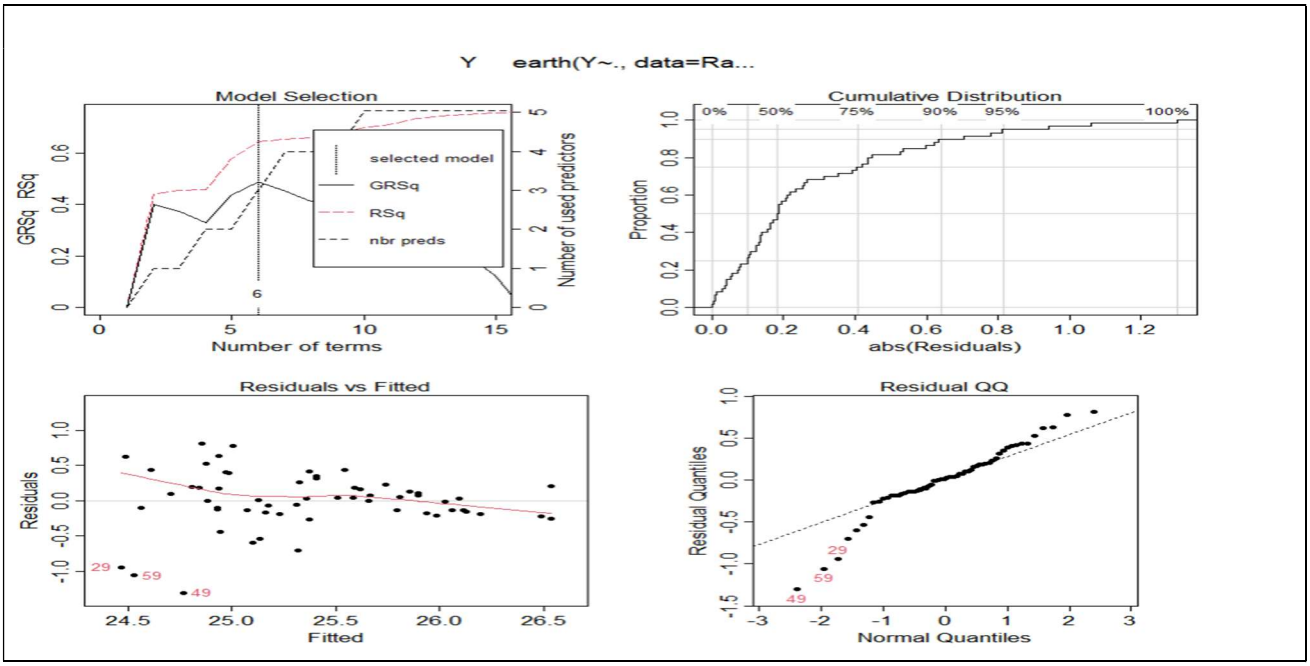
Therefore, the predictive relationship for the MARS model, represented through five fundamental basis functions, is given as follows:

$$Y = 0.36934174 - 0.00018090\ \mathrm{h}(35339 - \mathrm{X1}) + 0.00015129\ \mathrm{h}(\mathrm{X1} - 35339) + 0.00389255\ \mathrm{h}(7949 - \mathrm{X2}) - 0.00398563\ \mathrm{h}(\mathrm{X2} - 7949) - 0.00095261\ \mathrm{h}(\mathrm{X3} - 515)$$

It shows that 6 out of 16 terms were used from the original predictor. It can be seen that a variable X1, X2 and X3 are included with a knot at 35339, 7949 and 515 respectively, the coefficient for h(35339-X1) is -0.00018090, the coefficient for h(7949-X2) is 0.00389255 and the coefficient for h(X3-515) is -0.00095261. It is also clear that total 64.60% variability is explained by the model 1.

The various graphical outputs of MARS model 1 are shown below.

Figure 1: model 1 plot



The diagnostic plots of the MARS model 1 for the dependent variable Y indicate a good and reliable model fit. The optimal model with six terms shows a stable GRSq, balancing accuracy and complexity. About 90% of residuals are within 0.8, suggesting predictions are close to observed values. The residuals vs. fitted plot shows random scatter with minor non-linearity, while the QQ plot confirms near-normal

residuals. Overall, the model demonstrates good predictive accuracy, minimal bias, and satisfactory residual behaviour.

Model: 2

In Model 2, the variable X3 (Rainfall) is considered as the dependent variable. This model, along with all other MARS models developed in the study, was constructed using the R software with the 'earth' package, which is specifically designed for implementing Multivariate Adaptive Regression Splines (MARS) analysis. And a detailed summary of MARS Model 1 (X3 ~.) is p resented in the following section.

coefficients

- (Intercept)620.30390
- h(2019-X5)-294.45237
- h(X5-2019)-46.05980
- h(25.25-Y)211.15144
- h(X1-8085)0.01124
- h(X1-35339)-0.01201

Selected 6 of 16 terms, and 3 of 5 predictors. Termination condition: Reached maximum RSq 0.435 at 6 terms.

Importance: X5, X1, Y, X4-unused, X2-unused. Number of terms at each degree of interaction: 1 5 (additive model) GCV 42199.47 RSS 1688682 GRSq 0.180739 RSq 0.4349193.

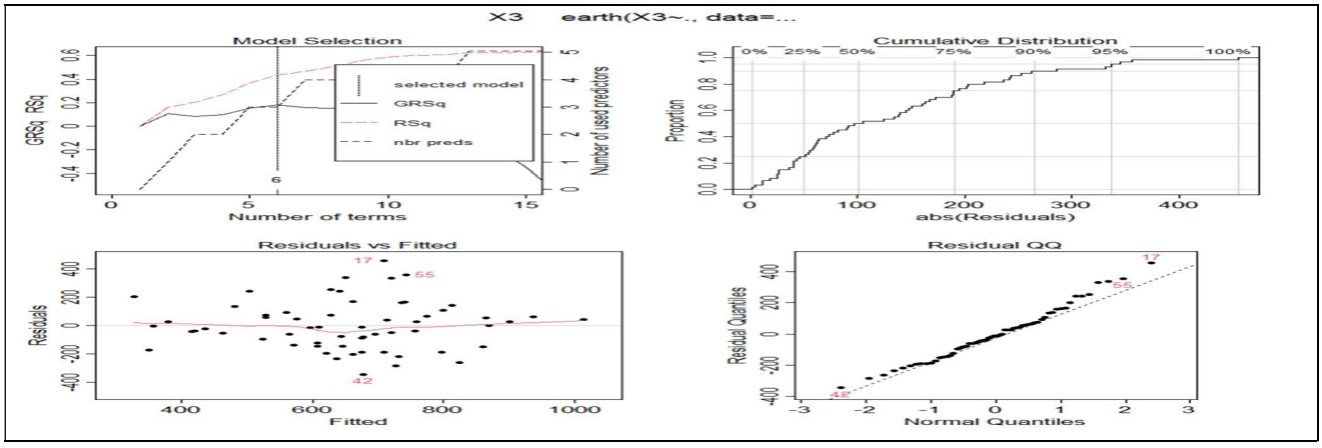
Therefore, the predictive relationship for the MARS model, represented through five fundamental basis functions, is given as follows:

$$X3 = 620.30390 - 294.45237\,h(2019 - X5) - 46.05980\,h(X5 - 2019) + 211.15144\,h(25.25 - Y) + 0.01124\,h(X1 - 8085) - 0.01201\,h(X1 - 35339)$$

It shows that 6 out of 16 terms were used from the original predictor. It can be seen that a variable Y, X1 and X5 are included with a knot at 25.25, 35339 and 2019 respectively, the coefficient for h(25.25-Y) is 211.15144, the coefficient for h(X1-35339) is -0.01201 and the coefficient for h(X5-2019) is -46.05980. It is also clear that total 43.50% variability is explained by the model 1.

The various graphical outputs of MARS model 2 are shown below.

Figure 2: model 2 plot



The diagnostic plots of the MARS model 2 for variable X3 indicate a good model fit. The optimal model was obtained with six terms, where the GRSq stabilized, showing a balance between accuracy and complexity. About 90% of residuals fall below 400, meaning most predictions are close to actual values. The residuals vs. fitted plot shows random scatter around zero, confirming a good fit with a few outliers. The QQ plot indicates that residuals are approximately normal with slight tail deviations. Overall, the model shows good predictive accuracy and acceptable residual behaviour.

CONCLUSION

Rainfall has a major influence on onion yield in the Bhavnagar district. During 2018–2023, rainfall varied between 178 mm and 1165 mm. The best yield was obtained when rainfall ranged from 480–850 mm and was evenly distributed during the growing season. Low rainfall (<515 mm) caused water stress, smaller bulbs, and poor yield, while excess rainfall (>890 mm) led to waterlogging, fungal diseases, and reduced bulb quality. The timing and distribution of rain were found to be more important than the total amount received. To manage rainfall effects, farmers should adopt rainwater harvesting, proper drainage, drip irrigation, and timely sowing. Practices like mulching and raised-bed cultivation help conserve moisture and prevent damage. Balanced and timely rainfall ensures better onion growth and higher productivity.

REFERENCES

1. ***Ajay, K. S., Kumar, S., Ashraf, S. N., & Jyoti, B. (2022). Implications of farmer's adaptation strategies to climate change in Agricultural Sector of Gujarat: Experience from Farm Level Data. Research on World Agricultural Economy, 3(1), 42-57.***
2. ***Bhagvanbhai, j. B. (2022). Evaluation of underground water quality in north saurashtra agro climatic zone.***
3. ***Celik S, Akın M, Aliyev P, Eyduran SP, Eyduran E. A hybrid approach of combining factor analysis scores with MARS predictive model for regression problems. 1st Int Erciyes Agric Anim Food Sci Conf (AGANFOS); 2019 Apr 24-27; Kayseri, Turkey.***
4. ***Chattopadhyay, N., Devi, S. S., John, G., & Choudhari, V. R. (2017). Occurrence of hail storms and strategies to minimize its effect on crops. Mausam, 68(1), 75-92.***
5. ***Enchalew, B., Gebre, S. L., Rabo, M., Hindaye, B., Kedir, M., Musa, Y., & Shafi, A. (2016). Effect of deficit irrigation on water productivity of onion (Allium cepal.) under drip irrigation. Irrigat Drainage Sys Eng, 5(172), 2.***
6. ***Eyduran E, Akin M, Eyduran SP. Application of multivariate adaptive regression splines in agricultural sciences through R software. Ankara: Nobel Bilimsel Eserler; 2019. ISBN:978-605-2149-81-82.***
7. ***Friedman JH. Multivariate adaptive regression splines. Ann Stat. 1991;19(1):1-67.***
8. ***Gummagolmath, K. C. (2013). Trends in marketing and export of onion in India. National Institute ofAgricultural Marketing.***
9. ***Hastie T, Tibshirani R, Friedman J. The elements of statistical learning: data mining, inference and prediction. New York: Springer-Verlag; 2001.***
10. ***Kornacki J, Ćwik J. Statistical learning systems. Warsaw: WNT; 2005. Polish.***
11. ***Liddle, A. D., & Davies, A. H. (2007). Pelvic congestion syndrome: chronic pelvic pain caused by ovarian and internal iliac varices. Phlebology, 22(3), 100-104.***
12. ***Milborrow S. Derived from mda:mars by T. Hastie and R. Tibshirani. earth: Multivariate adaptive regression splines. R package; 2011.***

13. Milborrow S. Notes on the earth package. 2018. Available from: http://www.milbo.org/doc/earth-notes.pdf
14. R Core Team. R: A language and environment for statistical computing. Vienna: R Foundation for Statistical Computing; 2014. Available from: http://www.R-project.org.
15. Ramalan, A. A., Nega, H., &Oyebode, M. A. (2010). Effect of deficit irrigation and mulch on water use and yield of drip irrigated onions. WIT Transactions on Ecology and the Environment, 134, 39-50.
16. Sanjay, m. C. V. Economics of production and marketing of rabi onion in nashik district of maharashtra.
17. Sephton P. Forecasting recessions: can we do better on MARS™? Fed Reserve Bank St Louis Rev. 2001; Mar/Apr:39-49.
18. Shaibu, A. G., Alhassan, S., & Adongo, T. A. (2015). Effect of different water application schedules on the growth and yield of onion (Allium cepa L.) at Golinga Irrigation Scheme in the Tolon District of Northern Region, Ghana. International Journal of Science and Technology, 5(9).
19. Takma C, Atil H, Aksakal V. Comparison of multiple linear regression and artificial neural network models goodness of fit to lactation milk yields. Kafkas Univ Vet Fak Derg. 2012; 18:941-944.
20. Terán-Chaves, C. A., Montejo-Nuñez, L., Cordero-Cordero, C., & Polo-Murcia, S. M. (2023). Water productivity indices of onion (Allium cepa) under drip irrigation and mulching in a semi-arid tropical region of Colombia. Horticulturae, 9(6), 632.
21. Tesema, M., Schmitter, P., Nakawuka, P., Tilahun, S. A., Steenhuis, T., & Langan, S. (2016). Evaluating irrigation technologies to improve crop and water productivity of onion in Dangishta watershed during the dry monsoon phase.
22. Willmott C, Matsuura K. Advantages of the mean absolute error (MAE) over the root mean square error (RMSE) in assessing average model performance. Clim Res. 2005; 30:79-82.

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ક્રીડા અને યોગ સર્વાંગી વિકાસ માટેનું સંયોજન

NIDHI M. VAJA

(૧) સારાંશ:

આજના સમયમાં બાળકોની ધમાચકડી, કાચ ફૂટવાનોઅવાજ દોડાદોડી વગેરે બધું જાણે લુપ્તપ્રાય થતું જણાય છે. પહેલાના બાળકો નારગોલ, કબડ્ડી, ખો-ખો, ઊભી ખો, આંબલી પીપળી, સંતાકૂકડી, ફૂડાળા સ્તંભ જેવી રમતો રમતા. આ પરંપરાગત રમતો શારીરિક વિકાસ, ટીમ-સ્પિરિટ માટે, સમાજિક આંતર સંબંધો સંબંધોનો વિકાસ કરવામાં મદદરૂપ બને છે. પરંતુ ડિજિટલ યુગમાં નવા અવતારો, મેટા વર્ષની દરિયા જેવી વિશાળ દુનિયા વિડિયો ગેમ 3D ગેમ બાળકો પર પગ જમાવીને બેઠા છે. યોગના ઈતિહાસનો પ્રારંભ ભારતના ઈતિહાસની સાથે સિંધુ ખીણની સભ્યતાની સાથે થયેલો છે. સર મોટી મર વહોલર અને તેમના નેતૃત્વવાળી ટુકડીને ખોદકામમાં એક પુરૂષ દેવતા યોગ મુદ્રામાં (આસનમાં) બેઠેલ હોય તેવા પુરાવાઓ મળી આવ્યા હતા. એટલે કે યોગાસન એ વૈદિક કાળ પહેલા અસ્તિત્વ ધરાવતા હતા. આમ, યોગ એ વિશ્વને ભારત વર્ષની એક અમૂલ્ય દેન છે. યોગ શરીર અને મન બંનેનું વિજ્ઞાન હોવાથી તેને વિશ્વભરમાં આવકાર અને વૈજ્ઞાનિક સ્વીકૃતિ મળી છે. નિયમિત યોગાભ્યાસથી બુદ્ધિનો સહજ વિકાસ, યાદશક્તિમાં વધારો થાય છે. પ્રાચીન કાળથી જ યોગને શિક્ષણનું એક અભિન્ન અંગ ગણવામાં આવે છે.

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(૩) હેતુઓ:-

૧. ક્રીડા તથા યોગનું શારીરિક આરોગ્ય પર પ્રભાવ સમજવામાં મદદરૂપ બને છે.
૨.ઋષિમુનિઓના કહ્યા મુજબ-યોગ એક પ્રકાશ છે જેને સાર્થક બનાવવું.
3. માનસિક અને ભાવનાત્મક સંતુલન માટે ક્રીડા તથા યોગની ભૂમિકા અભ્યાસ કરવામાં મદદરૂપ બને છે.
૪. સામાજિક જીવન અને શિક્ષણ ક્ષેત્રે ક્રીડા તથા યોગનું મહત્વ દર્શાવવું.
૫. વિદ્યાર્થીના સર્વાંગી વિકાસ કરવામાં આવે છે.
૬. વિદ્યાર્થી માત્ર પુસ્તકયુ જ્ઞાન ન મેળવે તથા પ્રકૃતિના ખોળે રહી અને શિક્ષણ કાર્ય કરી શકે.
૭. રાષ્ટીય તથા આંતરરાષ્ટીય સ્તરે ખેલાડીઓ સારામાં સારૂ પ્રદર્શન કરી શકે.
૮.યોગ હે જીવન જીને કા જ્ઞાન - જીસકે આગે નતમસ્તક હે વિજ્ઞાનના કથનને અમલી બનાવવું.

(૪) ફાયદા:-

૧.શારીરિક આરોગ્યની સ્વસ્થતા :-

શરીરની સ્વચ્છતા અને સ્વચ્છતામાં વધારો થાય છે. મન પ્રફુલ્લિત અને શાંત રહે છે. આજુબાજુનો વાતાવરણ હકારાત્મકતા ફેલાવે છે. વિચારોમાં હકારાત્મકતા હકારાત્મકતાનું વલણ જોવા મળે છે. શરીરને મજબૂત અને તંદુરસ્ત બનાવે છે. રોગ પ્રતિકારક શકિતમાં વધારો કરે છે.

૨.માનસિક અને ભાવાનાત્મક વિકાસ-

વ્યકિતના તનાવમાં ઘટાડો કરે છે. એકાગ્રતા અને આત્મવિશ્વાસમાં વધારો કરે છે તથા વ્યકિતમાં સ્પર્ધાત્મક ભાવના અને ધીરજ વિકસે છે. વ્યકિત તણાવ મુકત રહે છે.

3.સામાજિક અને શૈક્ષણિક વિકાસ :-

ટીમવર્ક, શિસ્ત અને નેતૃત્વના ગુણોનો વિકાસ થાય છે. શાળા અને મહાવિદ્યાલયોમાં ક્રીડા દ્વારા સર્વાંગી વિકાસ યોગ્ય રીતે થાય છે. રાષ્ટ્રીય અને આંતરરાષ્ટ્રીયસ્તરે ગૌરવ મેળવવાની તક મળે છે.

૪.ક્રાંતિ લાવવી :-

વર્તમાન સમયમાં ક્રીડા તથા યોગના માધ્યમથી રાષ્ટ્રીય તથા આંતરરાષ્ટ્રીય ક્ષેત્રે નવી ક્રાંતિનું નિર્માણ શકય બન્યું છે. ભારતમાં ક્રીડા તથા યોગ સંદર્ભે ક્રીડા સંસ્કૃતિ તથા યોગા સંસ્કૃતિનું નિર્માણ થશે. તેથી ભારતના અર્થતંત્રને લાભ મળશે.

૫. નાના પાયા પર થતું આયોજન:-

વિવિધ સોસાયટી લેવલે થતું ક્રીડા સંસ્કૃતિ તથા યોગ સંસ્કૃતિ અંગેનું આયોજન. તેની મદદથી ત્યાં નાના-મોટા તમામ નાગરિકો તેની વિવિધ બાબતોથી અવગત થશે. તેમજ તેનાથી થતા ફાયદાથી લાભાન્વિત થઈ શકશે.

(૫) સંશોધન પદ્ધતિઓ:-

૧.સાહિત્ય અભ્યાસ (literature review) :-

* ક્રીડા અને યોગ વિષયક વિવિધ પુસ્તક, સંશોધન લેખો અને અહેવાલો નો અભ્યાસ.

૨.સર્વેક્ષણ(Survey method) :-

* ૧૦૦ વિદ્યાર્થીઓ પર પ્રશ્નાવલી દ્વારા માહિતી એકત્રિત.

* પ્રશ્નો: 'શું તમે નિયમિત રમત કે યોગ કરો છો ?", "તેના કારણે તમારા આરોગ્યમાં કયાં ફેરફાર અનુભવાયા ?" વગેરે.

3.નિરીક્ષણ પદ્ધતિ (observation method) :-

* ખેલાડીઓને દૈનિક પ્રેકટિશ સાથે યોગ ક્ષેત્રનું નિરીક્ષણ.

* શરીર ભાષા, એકાગ્રતા અને કાર્યક્ષમતા નો અભ્યાસ.

૪.પ્રયોગિક પદ્ધતિ (Experimental method) :-

* 30 વિદ્યાર્થીઓને બે જૂથમાં વહેંચ્યા :-

* એક જૂથ ફકત ક્રીડા કરે

* બીજું જૂથ ક્રીડા અને યોગ બંને કરે

* ૩ મહિના પછી તંદુરસ્તી, એકાગ્રતા અને તણાવસ્તરનું માપન.

(૬) પરિણામો:-

* ૬૫% વિદ્યાર્થીઓએ જણાવ્યું કે યોગ સાથે રમત કરતા શરીર વધુ ચપડ અને મન વધુ શાંત રહ્યું.

* પ્રયોગાત્મક અભ્યાસ મુજબ ક્રીડા અને યોગ કરનાર વિદ્યાર્થીઓમાં એકાગ્રતા અને કામગીરીમાં ૨૦% સુધારો નોંધાયો.

* સર્વેક્ષણમાં મોટે ભાગે કહ્યું કે દૈનિક જીવનમાં બંનેનું સંયોજન સૌથી વધુ ફાયદાકારક છે.

(૭).નિષ્કર્ષ

સંશોધન પદ્ધતિઓના આધારે સાબિત થાય છે કે ક્રીડા અને યોગ એક બીજાના પૂરક છે. ક્રીડા શરીરને મજબૂત બનાવે છે જ્યારે યોગ માનસિક શકિત આપે છે. વૈજ્ઞાનિક અભ્યાસ દર્શાવે છે કે બંનેનો સંયુકત અમલ છે ક્ષણ ક્ષેત્રે અને દૈનિક જીવનમાં અપનાવવો અનિવાર્ય છે. ક્રીડા માત્ર મનોરંજનનું સાધન નથી પરંતુ જીવનશૈલીનો મહત્વપૂર્ણ ભાગ છે. તે શરીરને તંદુરસ્ત, મનને શાંત અને સમાજને એકતાબદ્ધ બનાવે છે. શિક્ષણ ક્ષેત્રે તથા દૈનિક જીવનમાં ક્રીડાને પ્રાથમિકતા આપવી જરૂરી છે. જેથી આરોગ્યપ્રદ અને સંસ્કારી સમાજનું નિર્માણ થઈ શકે.

(૮) સંદર્ભ:-

૧ સ્વામી વિવેકાનંદ "યોગ પર પ્રવચન"

૨. રમતગમત મંત્રાલય-ભારત સરકારના અહેવાલો

3. વિશ્વ આરોગ્ય સંસ્થા (WHO) - શારીરિક પ્રવૃત્તિ અને આરોગ્ય પર અભ્યાસ

૪.ક્રીડા અને આરોગ્ય સંબંધિત સંશોધન લેખો.

૫. ડૉ. એમ. આર. મહેતા - આધુનિક રમતગમત અને આરોગ્ય

૬. ભારત સરકાર- રમતગમત મંત્રાલય, વાર્ષિક અહેવાલ (૨૦૨૩)

૭.પટેલ જી. કે. - યોગ અને માનસિક સ્વાસ્થ્ય (ગુજરાતી પ્રકાશન ૨૦૨૨)

૮. વિશ્વ આરોગ્ય સંસ્થા (WHO) - Health Benefits of physical Activity and Yoga

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ઉચ્ચત્તર માધ્યમિક શાળાના વિધાર્થીઓની સાંવેગિક બુદ્ધિનો તેમનાં અનુકૂલન, મનોભાર અને શૈક્ષણિક સિદ્ધિ સાથે સંદર્ભિત વિશ્લેષણાત્મક અભ્યાસ

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ABSTRACT (સારાંશ)

આ સંશોધનનો મુખ્ય ઉદ્દેશ ઉચ્ચત્તર માધ્યમિક શાળાના વિધાર્થીઓની **સાંવેગિક બુદ્ધિ (Emotional Intelligence)** અને તેના **અનુકૂલન, મનોભાર** તથા **શૈક્ષણિક સિદ્ધિ** સાથેના સંબંધનું વિશ્લેષણ કરવો છે. **સાંવેગિક બુદ્ધિ (Emotional Intelligence – EI)** એ આધુનિક શિક્ષણક્ષેત્રમાં એક મહત્વપૂર્ણ માનસિક ક્ષમતા તરીકે ઊભરી રહી છે, જે વ્યક્તિની પોતાની તથા અન્યની ભાવનાઓને ઓળખવા, સમજવા અને વ્યવસ્થિત કરવા માટેની ક્ષમતા દર્શાવે છે. આ સંશોધનનો મુખ્ય ઉદ્દેશ ઉચ્ચત્તર માધ્યમિક શાળાના વિધાર્થીઓની EI અને તેના અનુકૂલન, મનોભાર તથા શૈક્ષણિક સિદ્ધિ સાથેના સંબંધોનું વિશ્લેષણ કરવો છે. સંશોધન માટે 250 વિધાર્થીઓનો નમૂનો લેવામાં આવ્યો હતો, જેમાં EI સ્કેલ, અનુકૂલન ચકાસણી પત્રક, મનોભાર સૂચક પત્રક અને શૈક્ષણિક પરિણામોનો ઉપયોગ કરીને માહિતી એકત્રિત કરવામાં આવી. આ માહિતીનું વિશ્લેષણ Pearson's correlation અને regression analysis દ્વારા કરવામાં આવ્યું.

અભ્યાસના પરિણામો દર્શાવે છે કે EI અને શૈક્ષણિક સિદ્ધિ વચ્ચે સકારાત્મક અને મહત્વપૂર્ણ સહસંબંધ છે. ઊંચી EI ધરાવતા વિધાર્થીઓ વધુ સારી રીતે શૈક્ષણિક પડકારોનો સામનો કરી શકે છે, તણાવને નિયંત્રિત કરી શકે છે અને સામાજિક રીતે વધુ અનુકૂળ બની શકે છે. EI અને અનુકૂલન ક્ષમતા તથા EI અને મનોભાર વચ્ચે પણ સકારાત્મક સંબંધ જોવા મળ્યો. સ્ત્રી વિધાર્થીઓ EIના સ્તરે પુરૂષ વિધાર્થીઓ કરતાં આગળ હોવાનું પણ જાણવા મળ્યું.

આ અભ્યાસ દર્શાવે છે કે EI એ માત્ર વ્યક્તિગત વિકાસ માટે નહીં, પરંતુ શૈક્ષણિક સિદ્ધિ માટે પણ મહત્વપૂર્ણ છે. શાળાઓમાં EIના વિકાસ માટે તાલીમ, માર્ગદર્શન અને અભ્યાસક્રમમાં સંકલન જરૂરી છે, જેથી વિધાર્થીઓ વધુ સક્ષમ અને સફળ બની શકે.

🔑 **Key Words (મુખ્ય શબ્દો):**

- સાંવેગિક બુદ્ધિ
- અનુકૂલન ક્ષમતા
- મનોભાર
- શૈક્ષણિક સિદ્ધિ
- ઉચ્ચત્તર માધ્યમિક વિધાર્થીઓ
- Pearson's correlation
- શૈક્ષણિક મનોયજ્ઞાન

- શૈક્ષણિક પ્રદર્શન
- સામાજિક બુદ્ધિ
- India-based emotional intelligence study

પરિચય

શૈક્ષણિક સિદ્ધિ પર પરંપરાગત રીતે બૌદ્ધિક ક્ષમતા (IQ) ને મુખ્ય ઘટક માનવામાં આવે છે. જોકે Daniel Goleman (1995) દ્વારા રજૂ કરાયેલ "Emotional Intelligence" (EI) એ દર્શાવ્યું કે EI પણ વ્યક્તિના શૈક્ષણિક અને સામાજિક જીવનમાં મહત્વપૂર્ણ ભૂમિકા ભજવે છે. EI એ વ્યક્તિની પોતાની તથા અન્યની ભાવનાઓને ઓળખવા, સમજવા અને વ્યવસ્થિત કરવાની ક્ષમતા છે. EIના મુખ્ય ઘટકોમાં સ્વ-જ્ઞાન, સ્વ-નિયંત્રણ, પ્રેરણા, સહાનુભૂતિ અને સામાજિક કુશળતા શામેલ છે. EI વ્યક્તિને તણાવ સંભાળવામાં, સંબંધો જાળવવામાં અને શૈક્ષણિક પડકારોનો સામનો કરવામાં મદદરૂપ થાય છે.

વિદ્યાર્થીઓના શૈક્ષણિક જીવનમાં EI કેવી રીતે અસર કરે છે, તે જાણવા માટે અનુકૂલન ક્ષમતા, મનોભાર અને શૈક્ષણિક સિદ્ધિ સાથે EIના સંબંધોનું વિશ્લેષણ કરવું જરૂરી છે. આ સંશોધનનો ઉદ્દેશ એ છે કે EIના સ્તર અને શૈક્ષણિક પ્રદર્શન વચ્ચેના સંબંધોનું વૈજ્ઞાનિક મૂલ્યાંકન કરવું.

સાહિત્ય સમીક્ષા

વિશ્વભરના સંશોધકો EIના વિવિધ પાસાઓ પર અભ્યાસ કરી ચૂક્યા છે.

- Goleman (1995) એ EIને વ્યક્તિગત અને વ્યવસાયિક સફળતાનો આધાર ગણાવ્યો.
- Mayer & Salovey (1997) એ EIને માનસિક પ્રક્રિયાઓ સાથે જોડીને વ્યાખ્યાયિત કર્યું.
- Bar-On (2006) એ EIને સામાજિક બુદ્ધિ સાથે સંકળાવ્યું.
- ભારતીય સંદર્ભમાં Desai (2018) એ દર્શાવ્યું કે ઉચ્ચ EI ધરાવતા વિદ્યાર્થીઓ શૈક્ષણિક રીતે વધુ સફળ હોય છે.
- EI, coping skills અને academic performance વચ્ચેના સંબંધો પર આંતરરાષ્ટ્રીય સ્તરે પણ અનેક અભ્યાસો થયા છે.

આ અભ્યાસો દર્શાવે છે કે EI એ માત્ર વ્યક્તિગત વિકાસ માટે નહીં, પરંતુ શૈક્ષણિક સિદ્ધિ માટે પણ મહત્વપૂર્ણ છે.

સંશોધનના ઉદ્દેશો

- ઉચ્ચત્તર માધ્યમિક વિધાર્થીઓની EIનું માપન
- EI અને અનુકૂલન ક્ષમતા વચ્ચેના સંબંધોનું વિશ્લેષણ
- EI અને મનોભાર વચ્ચેના સંબંધોનું મૂલ્યાંકન
- EI અને શૈક્ષણિક સિદ્ધિ વચ્ચેના સંબંધોનું નિર્ધારણ

સંશોધન પદ્ધતિ

- **નમૂના:** 250 વિધાર્થીઓ (Class 11 & 12), વિવિધ શાળાઓમાંથી
- **સાધનો:**
  - EI સ્કેલ (Goleman આધારિત)
  - Adaptability Checklist

- Attitude Inventory
- Academic Score Records

- **પદ્ધતિ:**
  - વર્ણનાત્મક અને અનુસંધાનાત્મક ડિઝાઈન
  - Pearson's Correlation, Regression Analysis
  - SPSS Software દ્વારા ડેટા વિશ્લેષણ

પરિણામો અને વિશ્લેષણ

- EI અને શૈક્ષણિક સિદ્ધિ વચ્ચે Pearson's r = 0.58 ($p < 0.01$)
- EI અને અનુકૂલન વચ્ચે r = 0.62
- EI અને મનોભાર વચ્ચે r = 0.47
- સ્ત્રી વિધાર્થીઓ EIમાં પુરૂષ વિધાર્થીઓ કરતાં વધુ આગળ
- Regression model દર્શાવે છે કે EI એ શૈક્ષણિક સિદ્ધિ માટે મહત્વપૂર્ણ પૂર્વાનુમાનક (predictor) છે

આ પરિણામો દર્શાવે છે કે EI માત્ર સામાજિક વ્યવહાર માટે નહીં, પરંતુ શૈક્ષણિક સફળતા માટે પણ મહત્વપૂર્ણ છે. ઊંચી EI ધરાવતા વિધાર્થીઓ વધુ સારી રીતે તણાવ સંભાળી શકે છે, અનુકૂળ થઈ શકે છે અને શૈક્ષણિક પડકારોનો સામનો કરી શકે છે.

ચર્ચા

આ અભ્યાસના પરિણામો EIના શૈક્ષણિક મહત્વને સમર્થન આપે છે. EI એ વ્યક્તિને પોતાની ભાવનાઓને ઓળખવા, સમજવા અને નિયંત્રિત કરવા માટે સક્ષમ બનાવે છે. ઊંચી EI ધરાવતા વિધાર્થીઓમાં શૈક્ષણિક પડકારો સામે વધુ સહનશીલતા અને અનુકૂળતા જોવા મળે છે. તેઓ શૈક્ષણિક તણાવને વધુ સારી રીતે સંભાળી શકે છે અને સામાજિક રીતે વધુ સક્રિય રહે છે. EIના વિકાસથી વિધાર્થીઓના મનોભાર અને અનુકૂલન ક્ષમતા પણ સુધરે છે, જે શૈક્ષણિક સિદ્ધિમાં સહાયક બને છે.

નિષ્કર્ષ

EI એ શૈક્ષણિક સિદ્ધિ માટે એક મહત્વપૂર્ણ માનસિક અને સામાજિક ક્ષમતા છે. EIના વિકાસ માટે શાળાઓમાં તાલીમ, માર્ગદર્શન અને સહાયક કાર્યક્રમો અમલમાં મૂકવા જોઈએ. EIના માપન અને તાલીમ દ્વારા વિધાર્થીઓના શૈક્ષણિક અને સામાજિક જીવનમાં સુધારો લાવી શકાય છે. EIના અભ્યાસ દ્વારા શિક્ષણપદ્ધતિ વધુ માનવકેન્દ્રિત અને અસરકારક બની શકે છે.

ભવિષ્યના સૂચનો

- EI આધારિત શિક્ષણ કાર્યક્રમો
- શિક્ષકો માટે EI તાલીમ
- અભ્યાસક્રમમાં EIને સ્થાન
- વધુ વિશાળ નમૂનાના આધારે ભવિષ્યમાં અભ્યાસ
- EI અને અન્ય માનસિક ઘટકો (self-esteem, motivation) વચ્ચેના સંબંધોનું વિશ્લેષણ
- વિવિધ શૈક્ષણિક પ્રવાહોમાં EIના તફાવતોનું વિશ્લેષણ

સંદર્ભ

- *Goleman, D. (1995). Emotional intelligence: Why it can matter more than IQ. Bantam Books.*
- *Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), Emotional development and emotional intelligence: Educational implications (pp. 3–31). Basic Books.*
- *Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). Psicothema, 18(Suppl), 13–25.*
- *Desai, R. (2018). Emotional intelligence and academic achievement among Indian adolescents. International Journal of Indian Psychology, 6(3), 45–52. https://doi.org/10.25215/0603.123*
- *Singh, D. (2003). Emotional intelligence at work: A professional guide. Sage Publications.*

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IMPACT OF GAMIFICATION ON STUDENT MOTIVATION AND ENGAGEMENT IN LEARNING

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ABSTRACT

Gamification, the application of game design elements in non-game contexts, has gained significant attention in education as a strategy to improve student motivation, engagement, and learning outcomes. By incorporating elements such as points, badges, leaderboards, challenges, and rewards, gamification transforms traditional classroom experiences into interactive and stimulating environments. This study investigates the impact of gamification on student motivation and engagement in learning. Using a descriptive and analytical research design, the study explores student perceptions of gamified learning environments, compares engagement levels in gamified versus traditional classrooms, and analyzes the effectiveness of gamification strategies in enhancing motivation and academic performance. Findings are expected to demonstrate that gamification positively influences student learning experiences, although challenges such as over-competition, design limitations, and sustainability of engagement need to be addressed. The study further provides recommendations for educators and policymakers to integrate gamification effectively into curricula to support the goals of holistic and student-centered education.

KEYWORDS: GAMIFICATION, STUDENT MOTIVATION, ENGAGEMENT, LEARNING, GAME-BASED LEARNING, EDUCATIONAL TECHNOLOGY

INTRODUCTION

The transformation of education in the 21st century has been significantly influenced by the integration of digital tools and innovative pedagogies. Among these, **gamification** has emerged as a dynamic approach to address one of the most persistent challenges in education: how to sustain student motivation and engagement. Unlike traditional methods that often emphasize rote learning and passive participation, gamification leverages the motivational aspects of games to create more interactive, engaging, and meaningful learning experiences.

Gamification involves applying game mechanics—such as rewards, progress tracking, challenges, and competition—into learning contexts (Deterding et al., 2011). In educational settings, this can include points for completing tasks, badges for achievements, leaderboards for ranking, and narrative-based challenges that immerse students in active participation. Research indicates that gamification fosters intrinsic motivation by making learning enjoyable and purposeful while also providing extrinsic motivators through recognition and rewards (Deci & Ryan, 2000).

Globally, gamification is increasingly integrated into classrooms, online learning platforms, and higher education programs. Hamari et al. (2014) found that gamification enhances engagement by providing instant feedback and promoting a sense of accomplishment. In India, the **National Education Policy**

(NEP 2020) highlights the importance of innovative pedagogical approaches, including digital and experiential learning, which aligns closely with the philosophy of gamification.

Despite its growing adoption, the effectiveness of gamification remains debated. While some studies confirm its positive impact on engagement, others argue that poorly designed gamification can lead to over-competition, superficial learning, and disengagement once rewards are removed (Hanus & Fox, 2015). Therefore, understanding the contextual application and student perceptions of gamification is essential for maximizing its benefits.

This study focuses on analyzing the **impact of gamification on student motivation and engagement in learning**. It aims to explore both the opportunities and challenges of gamified learning environments in the Indian context.

The research specifically addresses the following questions:

1. How does gamification influence student motivation in learning environments?
2. What impact does gamification have on student engagement compared to traditional teaching methods?
3. Which gamification strategies are most effective in promoting sustained interest and learning outcomes?
4. What challenges and limitations do educators and students face in gamified learning settings?

By exploring these questions, this study contributes to the growing body of research on technology-enhanced pedagogy. It also provides practical recommendations for teachers, institutions, and policymakers on how gamification can be systematically integrated into curricula to foster interactive and student-centered learning experiences.

REVIEW OF LITERATURE

Gamification in education has become a focal point of research in the past two decades, with scholars exploring its impact on motivation, engagement, and academic performance. The literature reflects both optimism and caution, highlighting its transformative potential as well as the limitations of its implementation.

Theoretical Foundations of Gamification

Gamification draws from psychological and motivational theories that explain human behavior. Deci and Ryan's (2000) *Self-Determination Theory (SDT)* identifies intrinsic motivation (driven by curiosity, enjoyment, and self-fulfillment) and extrinsic motivation (driven by external rewards) as central to learning. Gamification incorporates both by making tasks enjoyable while offering points, badges, and rewards.

Flow Theory, proposed by Csikszentmihalyi (1990), also supports gamification, suggesting that individuals experience "flow" when engaged in challenging tasks that balance skill and difficulty. Gamified tasks, with their progressive levels and feedback, help sustain this optimal learning state.

Gamification and Student Motivation

Hamari et al. (2014) found that gamification significantly enhances intrinsic motivation by providing immediate feedback and a sense of accomplishment. Domínguez et al. (2013) reported that university students in gamified environments showed higher engagement in practical tasks, though sometimes at the cost of reduced focus on theoretical content.

In school settings, Nah et al. (2014) observed that gamified learning platforms increased student

persistence and time-on-task, suggesting that gamification reduces procrastination. However, Hanus and Fox (2015) warned that over-reliance on extrinsic rewards like points and badges may undermine intrinsic motivation in the long term.

Gamification and Engagement

Kapp (2012) emphasized that gamification enhances engagement by making learning active, participatory, and fun. By integrating competition, collaboration, and storytelling, gamification transforms routine learning into an immersive experience. Research by Buckley and Doyle (2017) in higher education found that gamification increased student attendance, participation, and willingness to contribute to discussions.

At the same time, Santhanam et al. (2016) highlighted that not all students respond equally—competitive leaderboards motivated high achievers but demotivated lower-performing students, raising questions of equity in gamified systems.

Educational Technology and Gamification

The rise of Learning Management Systems (LMS) and mobile applications has expanded gamification in education. Platforms like Kahoot, Duolingo, and Classcraft integrate gamification elements to support interactive learning. According to Surendeleg et al. (2014), such tools improve short-term engagement but their long-term impact depends on careful design aligned with learning objectives.

Challenges in Gamification

While gamification offers benefits, several challenges persist. Hanus and Fox (2015) pointed out that competition-driven gamification may lead to anxiety and disengagement among weaker students. Bovermann and Bastiaens (2020) noted that sustainability of engagement is a concern—students may lose interest once novelty fades or rewards are withdrawn. Moreover, teachers often lack training in designing effective gamified experiences, leading to superficial applications (Seaborn & Fels, 2015).

Overall, the literature suggests that gamification can enhance motivation and engagement when thoughtfully designed, but its success depends on balancing intrinsic and extrinsic motivators, ensuring inclusivity, and aligning with educational goals.

RESEARCH METHODOLOGY

Research Design

This study adopts a descriptive and analytical research design with a mixed-method approach. Quantitative surveys measured motivation and engagement levels, while qualitative interviews explored student experiences and perceptions of gamification.

Objectives of the Study

1. To examine the impact of gamification on student motivation.
2. To compare engagement levels in gamified and traditional classrooms.
3. To identify the most effective gamification strategies in educational settings.
4. To explore challenges and limitations in implementing gamification.

Population and Sample

The study population consisted of undergraduate students from universities and colleges in Gujarat. A total of **300 students and 25 faculty members** were selected using stratified random sampling, ensuring representation across commerce, science, and arts disciplines.

Data Collection Tools

1. **Motivation Scale:** A standardized Likert-scale questionnaire measuring intrinsic and extrinsic motivation.

2. **Engagement Scale:** Instrument measuring behavioral, emotional, and cognitive engagement.
3. **Interviews:** Semi-structured interviews with students and faculty regarding gamification experiences.
4. **Observation Checklist:** Classroom observations during gamified and traditional lessons.

Data Collection Procedure

Data were collected over one academic term. Selected classes were gamified using tools such as Kahoot, leaderboards, and point-based participation systems, while control groups continued with traditional teaching methods. Surveys were conducted at the end of the term.

Data Analysis Methods

- Quantitative data analyzed using descriptive statistics, paired t-tests, and regression analysis.
- Qualitative data coded thematically to identify patterns in student and teacher perceptions.

Data Analysis & Interpretation

1. Demographic Profile of Respondents

Of the 300 student participants, 52% were male and 48% female. About 60% were undergraduates in commerce and management, 25% in science, and 15% in arts and humanities.

2. Motivation Levels

- Students in gamified classes reported higher motivation scores (Mean = 78%) compared to traditional classes (Mean = 66%).
- Intrinsic motivation (enjoyment, curiosity) was particularly higher in gamified environments, while extrinsic motivation (points, badges) contributed to short-term interest.

3. Engagement Levels

- Behavioral engagement (attendance, participation) increased by 15% in gamified classrooms.
- Emotional engagement (enjoyment, enthusiasm) was significantly higher in gamified groups.
- Cognitive engagement (deep learning, critical thinking) showed moderate improvement, suggesting that gamification alone is not sufficient for deeper conceptual understanding.

4. Effectiveness of Specific Gamification Strategies

- Quiz-based tools (e.g., Kahoot) were most effective in sustaining participation.
- Leaderboards motivated high performers but discouraged 22% of low-performing students.
- Narrative-based challenges (e.g., case studies with role-play) had the strongest impact on collaboration and critical thinking.

5. Teacher and Student Perceptions

- 82% of students reported that gamification made learning more enjoyable and interactive.
- Teachers acknowledged improved participation but raised concerns about the time required to design gamified lessons.
- Both groups noted the need for balance between rewards and learning objectives.

6. Observations

Gamified classes showed higher levels of participation, laughter, peer collaboration, and energy compared to traditional lectures. However, some students were observed focusing more on competition than on learning content.

FINDINGS & DISCUSSION

The findings of this study highlight that gamification has a significant influence on student motivation and engagement, though its effectiveness depends on the design, implementation, and context.

1. Positive Impact on Motivation

The data revealed that gamification increased both intrinsic and extrinsic motivation. Intrinsic motivation improved because students found learning more enjoyable and meaningful when interactive elements like quizzes, challenges, and stories were used. Extrinsic motivation was fueled by tangible rewards such as points and badges. These findings align with Hamari et al. (2014) and Domínguez et al. (2013), who reported that gamification creates an immediate sense of achievement. However, similar to Hanus and Fox (2015), this study also found that extrinsic motivators had only short-term effects, as some students lost interest when rewards were absent.

2. Enhanced Engagement Across Dimensions

Gamification significantly boosted behavioral, emotional, and cognitive engagement. Attendance rates increased, class participation improved, and students demonstrated greater enthusiasm for activities. Emotional engagement was particularly high, as students expressed enjoyment and satisfaction with gamified lessons. Cognitive engagement showed moderate gains, with students more willing to think critically in narrative-based challenges but less so in simple competitive quizzes. This supports Kapp (2012) and Buckley & Doyle (2017), who found gamification fosters active and enjoyable participation, though its depth depends on task design.

3. Effectiveness of Gamification Strategies

The analysis indicated that not all gamification strategies are equally effective. Quiz-based tools such as Kahoot successfully boosted short-term engagement but risked superficial learning if not followed by deeper discussions. Leaderboards created mixed results: while they motivated high achievers, they discouraged 22% of low-performing students, echoing Santhanam et al. (2016). Narrative-based and collaborative gamification elements, however, proved most effective in encouraging teamwork, creativity, and critical thinking, showing stronger long-term potential.

4. Student and Teacher Perceptions

Most students (82%) reported that gamification made learning more interactive and enjoyable. Many also noted that gamification reduced boredom and helped them stay focused longer. Teachers appreciated the increase in student participation but raised concerns about the additional time required to design gamified lessons and the difficulty of aligning game mechanics with academic objectives. These findings echo Seaborn and Fels (2015), who emphasized that poor gamification design can undermine educational value.

5. Challenges Identified

The study identified several challenges:

- Over-competition discouraged weaker students.
- Designing effective gamified lessons required significant teacher effort.
- Some students focused more on winning than on actual learning.
- Sustainability of engagement was a concern, as novelty wore off after repeated exposure.

These challenges highlight that gamification should not be viewed as a universal solution but as a complementary strategy requiring thoughtful integration.

CONCLUSION & SUGGESTIONS

The study concludes that gamification positively impacts student motivation and engagement in learning by creating interactive, enjoyable, and rewarding experiences. However, its effectiveness depends on careful design that balances extrinsic and intrinsic motivators, inclusivity, and alignment with learning outcomes.

Key Suggestions

1. **Balanced Design:** Educators should combine competitive and collaborative elements to ensure that both high and low achievers remain motivated.
2. **Narrative-Based Gamification:** Incorporating storytelling, role-play, and real-world scenarios can deepen cognitive engagement and problem-solving.
3. **Teacher Training:** Institutions should provide training for teachers on gamification design, aligning it with curriculum objectives.
4. **Blended Approach:** Gamification should complement—not replace—traditional and experiential learning methods.
5. **Sustainability:** To prevent loss of interest, gamification elements should be varied over time and integrated with reflective activities.
6. **Policy Support:** Policymakers under NEP 2020 should encourage gamification as part of digital learning initiatives, while also ensuring equitable access to technology for all students.

By adopting these measures, gamification can be transformed from a novelty into a powerful pedagogical approach that fosters sustained motivation, engagement, and holistic learning.

REFERENCES

- ***Bell, F. (2010). Network theories for technology-enabled learning and social change: Connectivism and actor network theory. Proceedings of the 7th International Conference on Networked Learning, 526–533.***
- ***Bovermann, K., & Bastiaens, T. J. (2020). Towards a motivational design? Connecting gamification user types and online learning activities. Research and Practice in Technology Enhanced Learning, 15(1), 1–19. https://doi.org/10.1186/s41039-019-0121-4***
- ***Buckley, P., & Doyle, E. (2017). Individualising gamification: An investigation of the impact of learning styles and personality traits on the efficacy of gamification using a prediction market. Computers & Education, 106, 43–55. https://doi.org/10.1016/j.compedu.2016.11.009***
- ***Csikszentmihalyi, M. (1990). Flow: The psychology of optimal experience. Harper & Row.***
- ***Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68***
- ***Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011). From game design elements to gamefulness: Defining gamification. Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments, 9–15. https://doi.org/10.1145/2181037.2181040***
- ***Domínguez, A., Saenz-de-Navarrete, J., de-Marcos, L., Fernández-Sanz, L., Pagés, C., & Martínez-Herráiz, J. J. (2013). Gamifying learning experiences: Practical implications and outcomes. Computers & Education, 63, 380–392. https://doi.org/10.1016/j.compedu.2012.12.020***
- ***Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work? — A literature review of empirical studies on gamification. 47th Hawaii International Conference on System Sciences, 3025–3034. https://doi.org/10.1109/HICSS.2014.377***
- ***Hanus, M. D., & Fox, J. (2015). Assessing the effects of gamification in the classroom: A longitudinal study on intrinsic motivation, social comparison, satisfaction, effort, and academic performance. Computers & Education, 80, 152–161. https://doi.org/10.1016/j.compedu.2014.08.019***

- *Kapp, K. M. (2012). The gamification of learning and instruction: Game-based methods and strategies for training and education. John Wiley & Sons.*
- *Nah, F. F. H., Zeng, Q., Telaprolu, V. R., Ayyappa, A. P., & Eschenbrenner, B. (2014). Gamification of education: A review of literature. Proceedings of the 1st International Conference on HCI in Business, 401–409. https://doi.org/10.1007/978-3-319-07293-7_39*
- *Santhanam, R., Liu, D., & Shen, W. C. (2016). Research note—Gamification of technology-mediated training: Not all competitions are the same. Information Systems Research, 27(2), 453–465. https://doi.org/10.1287/isre.2016.0630*
- *Seaborn, K., & Fels, D. I. (2015). Gamification in theory and action: A survey. International Journal of Human-Computer Studies, 74, 14–31. https://doi.org/10.1016/j.ijhcs.2014.09.006*
- *Surendeleg, G., Murwa, V., Yun, H. K., & Kim, Y. S. (2014). The role of gamification in education – A literature review. Contemporary Engineering Sciences, 7(29), 1609–1616. https://doi.org/10.12988/ces.2014.411217*

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AN EXAMINATION OF THE APPLICATION OF DATA ANALYTICS AND ARTIFICIAL INTELLIGENCE (AI) IN FORENSIC ACCOUNTING INVESTIGATIONS (FAI)

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ABSTRACT

Forensic accounting investigations have also been transformed by the combination of data analytics and artificial intelligence (AI). The purpose of this exploratory study is to look into how data analytics and AI are used in forensic accounting investigations. This study report offers insightful information into the changing field of forensic accounting techniques by examining the acceptance and application of these cutting-edge technologies in identifying financial fraud, embezzlement, and other financial crimes. This paper uses an exploratory research design to shed light on the usage of AI in forensic investigations. Finally, the paper offers recommendations on how to incorporate AI in forensic accounting investigations after examining the ethical issues and potential drawbacks of current, non-AI forensic accounting investigations.

Overall, this exploratory study offers a thorough evaluation of the application of AI and data analytics in forensic accounting investigations. It establishes the foundation for future study and improvements in the convergence of technology and forensic accounting and emphasizes the importance of utilizing cutting-edge technologies to successfully combat financial crimes.

KEYWORDS: ARTIFICIAL INTELLIGENCE (AI), FORENSIC ACCOUNTING, FINANCIAL CRIME, INVESTIGATION, TECHNOLOGY, FINANCIAL FRAUD, FRAUD DETECTION

INTRODUCTION

Forensic accounting investigates financial crimes, ensures openness, and safeguards financial systems. As financial transactions and fraud become increasingly sophisticated, forensic accountants struggle to detect fraud quickly and effectively. Data analytics and AI have changed forensic accounting investigations to address these issues.

Data analytics and AI could change forensic accounting investigations. Modern technology can analyze enormous amounts of financial data at historic speeds, boosting fraud detection. Data analytics and AI will help forensic accountants find and prosecute financial crimes more efficiently and accurately.

The paper addresses data analytics and AI ethics in forensic accounting. These tools analyse sensitive financial data, making data protection and ethical technology use essential. The study balances advanced technology and forensic accounting ethics.

This paper helps firms and forensic accountants employ data analytics and AI in investigations by emphasizing effective implementation methods and best practices. Technology in forensic accounting investigations and financial crime prevention in today's data-driven world are improved by this research.

LITERATURE REVIEW

1. **(J. Odia & Osaheni Thaddeus Akpata, 2021)** This review covers recent data analytics research in forensic accounting investigations. It describes methods for evaluating financial data to detect fraud and other financial crimes.
2. **(Ozili, 2015)** This review discusses fraud, forensic accounting, and forensic investigator abilities and education. The differences in fraud detection views between academics and authorities are also explained. To regulators, I ask why academic forensic accounting research doesn't inform policy. Further, I give a rich set of topics and highlight some important forensic accounting research directions. This paper encourages debate and research on the concerns raised.
3. **(Flores & Young, 2022)** studied that People utilize social media more because to the COVID-19 epidemic and its policies. Researchers used AI to evaluate social media data for public health surveillance. They examined public knowledge and behavior using machine learning and natural language processing on social media. This study examines the ethical implications of employing artificial intelligence to monitor social media to learn public opinion on COVID-19, including risks and advantages. Investigators and ethics committees must ensure that researchers follow ethical values of respect for humans, beneficence, and justice to advance science while ensuring public safety and confidence

STATEMENT OF THE PROBLEM

This exploratory study addresses the need to understand data analytics and AI in forensic accounting investigations. As financial transactions and crimes become more complex, standard forensic accounting approaches may struggle to efficiently evaluate massive amounts of data to uncover abnormalities and patterns of fraud. The study examines the adoption and use of data analytics and AI technologies in forensic accounting, their benefits and drawbacks, successful implementation strategies, and ethical and bias issues related to data privacy and bias. The research addresses these difficulties to shed light on forensic accounting techniques and the transformational power of data analytics and AI in fighting financial crimes.

OBJECTIVE OF THE STUDY

1. To assess the adoption and integration of data analytics and artificial intelligence technology into forensic accounting methods.
2. To identify (without utilizing AI) the difficulties in the present forensic accounting investigations.
3. To look at the effectiveness and impact of applying data analytics and AI in forensic accounting investigations, especially in identifying financial fraud, embezzlement, and other financial crimes.
4. To put out suggestions and best practices for using AI and data analytics in forensic accounting investigations.

LIMITATION OF THE STUDY

- Time Constraints.
- Only secondary data used in the study.

NEED OF THE STUDY

The increasing complexity and sophistication of financial crimes in today's business environment has necessitated the exploratory study on the application of data analytics and artificial intelligence in forensic accounting investigations. Modern transactions generate an enormous amount of financial data, making

it difficult to efficiently detect and probe fraudulent acts using traditional forensic accounting approaches. This study intends to close the gap between conventional investigative methods and the revolutionary potential of cutting-edge technology by investigating the adoption and implementation of data analytics and AI in forensic accounting. For companies and practitioners looking to improve their capacity for fraud detection and prevention, it is essential to comprehend how data analytics and AI may improve the effectiveness, efficiency, and accuracy of forensic accounting investigations. The ethical and appropriate use of data analytics and AI in forensic accounting processes is further ensured by looking into the ethical issues and restrictions associated with technology use. The study's conclusions will ultimately help to improve financial crime detection, optimize investigative procedures, and strengthen the integrity of financial systems in the face of evolving fraud schemes and cyber threats.

RESEARCH METHODOLOGY

The secondary information used in this exploratory investigation was gathered from peer-reviewed journals, credible periodicals, forensic accounting-specific websites, as well as other case studies and research papers.

Forensic Accounting

Investigating financial irregularities and locating evidence for legal actions are the main goals of the specialist field of accounting known as forensic accounting. Concepts from accounting, auditing, and law make up the forensic accounting theoretical framework. To spot and stop fraudulent acts, forensic accountants are taught to scrutinize financial records, spot suspicious activity, and track down funds. Forensic accountants play a crucial role in preserving financial integrity and preventing financial crimes by utilizing their knowledge of financial analysis and investigation methods.

Analytics of Data

In the multidisciplinary subject of data analytics, processing, interpreting, and drawing conclusions from massive amounts of data requires the use of statistical and analytical techniques. Data analytics is theoretically supported by ideas from statistics, data mining, machine learning, and data visualization. Data analytics can help in forensic accounting investigations by spotting patterns, trends, and abnormalities in financial data that may indicate fraud or other irregularities. Regression analysis, clustering, and anomaly detection are a few examples of techniques that can be used to identify hidden patterns and give investigators important new information.

Artificial intelligence

The creation of algorithms and systems that can mimic human intelligence and decision-making is referred to as artificial intelligence. Machine learning, robotics, and natural language processing are some of the theoretical ideas in AI. Forensic accounting investigations can make use of AI technologies to automate data analysis, spot trends, and foretell potential fraud. Machine learning algorithms can be trained using historical data to identify fraudulent activity patterns and warn investigators in real time. In order to assist the investigation process, natural language processing can be used to extract pertinent information from unstructured textual data, such as emails and papers.

Theories of technology adoption

awareness how data analytics and AI technologies are incorporated into forensic accounting methods requires an awareness of theoretical frameworks related to technology adoption. According to the Technology Acceptance Model (TAM), perceived utility and simplicity of use are key factors in determining whether a technology is adopted. Researchers' opinions and intentions on the use of data analytics and AI may be influenced by things like their anticipated advantages, how well they fit into

current procedures, and organizational support. The Diffusion of Innovations theory also aids in analyzing the variables that affect how firms and the accounting industry as a whole adopt and diffuse new technologies.

Theories for detecting fraud

The investigation of how data analytics and AI technologies can improve investigative capabilities can be guided by theoretical frameworks linked to fraud detection and prevention. In the context of data analytics and AI, ideas like the fraud triangle, which takes opportunity, motivation, and rationalization into account, can be taken into consideration. The use of advanced technologies may make it easier to spot new fraud tendencies and comprehend the fundamental causes of fraudulent behavior. To create efficient algorithms and models for spotting suspicious activity in financial data, research might also depend on ideas of red flags and fraud risk assessment.

A strong foundation for investigating the application of data analytics and AI in forensic accounting investigations is provided by the study's theoretical underpinnings. The study attempts to provide a thorough knowledge of the possible advantages and difficulties of utilizing cutting-edge technologies in the fight against financial crimes by merging principles from forensic accounting, data analytics, AI, technology adoption, ethics, and fraud detection. These theoretical frameworks serve as a guide for the design of the study, the analysis of the data, and the interpretation of the results. This allows researchers to examine the subject from a variety of angles and draw well-informed conclusions on the implications of technology adoption in the forensic accounting area. The theoretical foundation assures that the research is solid, pertinent, and influential in increasing our understanding of the role of data analytics and AI in forensic accounting investigations as the study delves into the changing environment of forensic accounting procedures.

FINDINGS

How might artificial intelligence and data analytics be incorporated into forensic accounting procedures?

Identify Use Cases: Identify places where data analytics and AI can be effectively employed in forensic accounting. This could involve fraud detection, financial anomaly detection, risk assessment, trend analysis, etc.

Collect and prepare financial data from sources such transaction records, invoices, receipts, and bank statements.

Clean and preprocess data for accuracy and uniformity. This may entail missing values, duplication removal, and format standardization.

Use data visualization tools to build charts and graphs for data exploration and insights. Visualizations can reveal financial data patterns, outliers, and abnormalities.

Algorithm Selection: Select suitable data analytics and AI algorithms for the use case. Decision trees, neural networks, and clustering algorithms are examples of machine learning algorithms with several uses.

Feature Engineering: Select relevant data features (variables) for algorithm input. Feature engineering may add or change variables to improve model prediction.

train selected AI models using past data with known outcomes. This entails feeding the model data to learn patterns and relationships.

Perform validation and testing by dividing the dataset into training and testing subsets to assess model performance. If needed, adjust model parameters to improve accuracy and generality.
Implementation: Create software or tools to apply trained models to real-time or new data. A specific software platform, web application, or accounting software integration could do this.
Continuous Monitoring and Maintenance: Monitor forensic accounting systems to guarantee accuracy and efficacy. As data becomes available, models may need updating to stay relevant.
The output of AI algorithms should be analyzed by forensic accountants for expert analysis . Human judgment is needed to understand context and make informed decisions, but AI can recognize patterns.
Ethical Considerations: Comply with legislation and ethical norms for data usage. Protect sensitive financial data and be transparent about AI use to minimize unforeseen repercussions.
Forensic accountants and analysts require training in data analytics and AI methodologies to effectively utilize these technologies , This may involve workshops, courses, or data scientist collaboration.
Feedback Loop: Collect continuously from forensic accountants utilizing AI techniques. This feedback can improve models, accuracy, and resolve flaws and constraints.
Continuous Improvement: Keep up with the newest data analytics and AI approaches and technologies. Regularly evaluate use cases and seek new improvements.
Following these procedures, forensic accounting can incorporate data analytics and AI to improve fraud detection, risk assessment, and financial analysis.

OBSTACLES IN THE PRESENT FORENSIC ACCOUNTING INVESTIGATIONS SYSTEM.

1. Data availability and quality: Insufficient or faulty data might impede accurate analysis and result in erroneous inferences. It may be challenging to access and combine data if it is dispersed across numerous platforms.
2. Data number and Complexity: Traditional manual analysis techniques may become unwieldy due to the growing number and complexity of financial data. Large datasets may be difficult for traditional technologies to manage well.
3. Technological Advancements: To keep up with advancing technology and techniques, such as AI and data analytics, forensic accountants must regularly upgrade their abilities.
4. Privacy and Data Security: To secure people's personal and financial information, handling sensitive financial data requires rigorous respect to privacy standards.
5. Lack of Standardization: It may be difficult to examine data consistently because different industries may have different accounting processes and standards.
6. competence Gap: It is challenging to fully utilize sophisticated technologies due to a lack of personnel with competence in both accounting and data analytics.
7. Interdisciplinary Collaboration: It can be difficult to manage the collaboration of forensic accountants, data scientists, and IT specialists that may be necessary for effective application of data analytics and AI.
8. Bias in Algorithms: AI models may pick up on data biases, which could result in erroneous findings or reinforce preconceived notions.

CHALLENGES OVERCOME BY USING AI AND DATA ANALYSING

Artificial intelligence (AI) and data analytics have a huge potential to help the current forensic accounting investigation system overcome its difficulties. Here are some ways that these technologies can handle each difficulty:

1. Data Availability and Quality: Data quality can be increased prior to analysis by using data analytics to help find inconsistencies and errors in the data. Algorithms "powered by AI" can clean up and change data, increasing its dependability.
2. Data Volume and Complexity: AI can analyze complicated financial transactions with ease even with enormous datasets. Large volumes of data can be processed and summarized using data analytics technologies to make interpretation simpler. 3. Technological Developments: Artificial intelligence (AI) can automate repetitive processes, freeing forensic accountants to concentrate on in-depth research and interpretation. Training programs can fill the skills gap by educating forensic accountants in data analytics.
4. Data Security and Privacy: AI models can be created to anonymize and safeguard sensitive data, ensuring compliance with privacy laws. To protect sensitive information, robust access controls and data encryption can be applied.
5. Lack of Standardization: Artificial intelligence (AI) algorithms can be modified to meet diverse industry standards, ensuring uniform analysis across multiple industries. 6. knowledge Gap: By combining their individual knowledge, forensic accountants and data scientists can produce results that are more accurate.
7. Interdisciplinary Collaboration: Cross-functional teams with a variety of skills can work well together by fusing data analytics know-how with accounting understanding.
8. Bias in Algorithms: To provide fair results, AI models can be designed with bias detection and mitigation approaches. 9. Complex Fraud Schemes: Artificial intelligence (AI) can find hidden links and patterns in complex financial transactions, making it more difficult for fraudsters to go undetected.

SUGGESTIONS:

1. Data Centralization and Integration: Create a consolidated data repository to collect financial data from diverse sources.
To give a complete picture of financial activity, make sure "data integration across departments.
2. Cross-Disciplinary Training: Offer forensic accountants specialized instruction in data analytics and AI ideas.
To take a comprehensive strategy, encourage cooperation between forensic accountants, data scientists, and IT specialists.
Organizations can more efficiently use the potential of data analytics and AI in forensic accounting investigations by developing a single data strategy that stresses integration and cross-disciplinary collaboration.
3. Interpretability Frameworks: Make use of AI models that offer comprehensible justifications for their choices.
To display model reasoning, use methods like LIME (Local Interpretable Model-Agnostic Explanations).
4. Expert-Driven Insights: Use expert opinion in conjunction with AI-generated insights to contextualize and validate findings.
Create AI systems that can not only identify abnormalities but also point up potential red flags for human inspection.

Organizations may ensure transparency, foster confidence, and improve cooperation between AI systems and human forensic accountants by implementing explainable AI models.

5. Feedback Mechanism: Create a feedback loop where forensic accountants can offer their opinions on the effectiveness and precision of the model. Utilize this feedback to gradually improve and update AI models.
6. Adaptive Learning Algorithms: Use algorithms that may change in response to evolving fraud methods and patterns. Utilize machine learning methods, such as online learning, to modify models in response to current data. Organizations may keep ahead of evolving fraud schemes and increase the precision of their forensic accounting investigations by continuously improving AI models through human feedback and adaptive learning. Set up AI-driven tools to monitor financial activities in real time.
7. Automated Alerts. Set up alerts to go off when abnormalities or unexpected behavior is noticed. 8. Behavioral analysis: Create AI models that can recognize deviations from the typical patterns of financial activity. Quickly identifying questionable activity enables fast inquiry and mitigation. Organizations can quickly respond to possible financial fraud or anomalies, limiting loss and harm, by integrating real-time monitoring with AI-enabled alarm systems.

CONCLUSION

In conclusion, the exploratory study on data analytics and artificial intelligence in forensic accounting investigations has shown how advanced technologies can improve financial fraud detection and prevention. The integration of data analytics and AI has helped forensic accountants find patterns and abnormalities in financial data that indicate fraud faster and more accurately.

A thorough examination of literature and case studies showed that data analytics and AI could transform financial irregularity detection, investigation, and mitigation. Data-driven insights and powerful algorithms help forensic accountants find nuanced correlations in massive financial data.

While the potential benefits are significant, the study also showed certain obstacles that must be considered. Ethical, privacy, and algorithmic bias issues required rigorous oversight. Organizations must also address the lack of cross-disciplinary accounting-data science competence.

Still, the trajectory is good. The combination of human and computer intelligence can fight financial fraud. This study suggests promoting transparent AI models, collaborative workspaces, and continuous learning to maximize data analytics and AI in forensic accounting investigations.

This exploratory study is a step toward a future when data analytics, AI, and forensic accounting skills will help practitioners unravel complex financial webs, ensuring financial integrity and economic stability. As these tools progress, forensic accounting will revolutionize how financial crimes are discovered and stopped.

The study highlighted successful implementation techniques and best practices to help companies and practitioners use these technologies. To use technology responsibly and ethically in investigations, data privacy, fairness, and bias must be considered. The study emphasizes the importance of data analytics and AI in forensic accounting, laying the groundwork for future research and developments to strengthen financial systems and combat financial crimes in today's data-driven world.

REFERENCES

- *J. Odia, & Osaheni Thaddeus Akpata. (2021). Role of Data Science and Data Analytics in Forensic Accounting and Fraud Detection. https://www.semanticscholar.org/paper/Role-of-Data-Science-and-Data-Analytics-in-Forensic-Odia-Akpata/541b01ae3c422e3a5844e9102e90daf7858ab43d*
- *Ozili, P. K. (2015). Forensic Accounting and Fraud: A Review of Literature and Policy Implications. ResearchGate; Elsevier BV. https://www.researchgate.net/publication/315336607_Forensic_Accounting_and_Fraud_A_Review_of_Literature_and_Policy_Implications*
- *Flores, L., & Young, S. D. (2022). Ethical Considerations in the Application of Artificial Intelligence to Monitor Social Media for COVID-19 Data. Minds and Machines, 32(4), 759–768. https://doi.org/10.1007/s11023-022-09610-0*
- *Harshani Shashikala Wijerathna, & Perera, P. (2020). A Systematic Literature Review on Forensic Accounting. ResearchGate; unknown. https://www.researchgate.net/publication/351710923_A_Systematic_Literature_Review_on_Forensic_Accounting*
- *Cioffi, R., Travaglioni, M., Piscitelli, G., Petrillo, A., & Fabio De Felice. (2020). Artificial Intelligence and Machine Learning Applications in Smart Production: Progress, Trends, and Directions. Sustainability, 12(2), 492–492. https://doi.org/10.3390/su12020492*
- *A.G.H.S.K. Wijerathna, & Perera, H. A. P. L. (2020). A Systematic Literature Review on Forensic Accounting. Social Science Research Network. https://doi.org/10.2139/ssrn.3844260*

WEBSITES

- *https://en.wikipedia.org/wiki/Artificial_intelligence*
- *https://www.theforage.com/blog/careers/forensic-accounting#:~:text=Forensic%20accounting%20is%20a%20type%20of%20accounting%20that%20investigat es%20financial,such%20as%20embezzlement%20or%20fraud.*
- *https://scholarlycommons.law.emory.edu/cgi/viewcontent.cgi?article=1002&context=elj-online*

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CORPORAT SOCIAL RESPONSIBILITY: A CASE STUDY OF TATA INVESTMENT CORPORATION LIMITED

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ABSTRACT
CSR has become the most important obligation to perform by the companies. Tata groups have a long legacy of CSR. The aim of this research paper is to analyze the CSR activities carried out by the Tata Investment Corporation Limited in the year 2023-24. For this secondary source were used to collect the data. The finding shows the initiatives taken by the company in different arrears including education, health, livelihood, environmental sustainability etc research concludes that for companies' reputation and goodwill CSR initiatives are mandatory to perform

KEYORDS: CORPORATE SOCIAL RESPONSIBILITY, TATA INVESTMENT CORPORATION LIMITED, CASE STUDY

1. INTRODUCTION
CSR has now become the familiar term for every organization. It is mandatory for every organization to spent 2% of average profit towards society's benefit if they are fulfil the criteria stated by Companies Act, 2013, Schedule VII.

2. TATA INVESTMENT CORPORATION LIMITED
In the vision of Jamsetji Tata, the founder of Tata group, a huge share of profit was being shared as an act of charity by Tata Group long before the existence of CSR policies in the Companies Act, 2013.

The company's main aim is to improve the quality life of individuals and help those institutions which work for the community. The company always engaged in programmes and policies states in the CSR guidelines.
Last many years, CSR project and programmes were carried out by the company through Tavescor Charitable trust, a public trust formed by company in 1997. Most of the CSR activities are carried out by this trust on behalf of the company.

3. REVIEW OF LITERATURE
(Dalwadi, 2023) in his research paper he examine top ten CSR companies and their involvement towards Environmental Sustainability for the year 2020-21. The result after the research shows a notable variation in their CSR spending and spending in Environmental Sustainability. After finding it suggests a need of giving priority to Environmental Sustainability in CSR activities.

(Kumar & Srivastava, 2024) the researchers has taken Reliance Industries Limited, the purpose was to examine the initiatives taken by companies towards CSR by study. The paper includes CSR OB and practices and their impact on environment and society. In his finding company takes several measures for social environmental and economic responsibilities. Companies' main areas for CSR activities are education, women's empowerment, healthcare, environmental conservation and sustainability's. Five years data has taken and found that in CSR every year company was spending more than prescribed CSR. (DR. Kunjukunju, 2020) examined the top 100 CSR spending firms and found that near about 70 to 80% of CSR were spend by the companies which were disappointing. Found that there are still companies who have not keep aside even 2% of their net profit.

(Mr. Dalwadi & Mr. Sharma, 2022) carried out the primary research to know about the investors opinion and the investment choice in CSR contributing business organization. Paper's finding reveals that investors' trust more on CSR focused companies and they willingly pay more money for the company's products and services.

4. RESEARCH OBJECTIVES:

1. To study the legal framework of CSR.
2. To study the various CSR practices carried out by Tata Investment Corporation limited in the year 2023-24.

5. METHODOLOGY OF THE STUDY:

The study is based on the descriptive and exploratory research. To collect data researcher ha used secondary sources including official websites of Tata Investment Corporation limited, articles, Research paper and journals etc.

6. FOCUS AREAS OF THE COMPANY

1) Medical and Healthcare
2) Education
3) Skill development
4) Conservation of resources
5) Governance
6) Serve- and be seen to serve- society, local and national goals in all the countries where we operate.

7. DATA ANALYSIS AND INTERPRETATION:

Table No. 1.1: showing Prescribed CSR amount and Actual CSR amount spent

Sr.No.	Particular	Amount(in Cr)
1.	Prescribed amount	8.33
2.	Actual amount	8.41

Table No. 1.2: list of amount spend in different sector.

Sr.No.	Sector of spending	Amount spent in CSR(in Cr)
1.	Healthcare	6.08
2.	Education	1.60

3.	Gender equality	0.15
4.	Environmental sustainability	0.42
5.	Protection of national heritage	0.16
6.	Benefit of armed	-
7.	Training to promote rural relief fund	-
8.	contribution to relief fund	-
9.	Contribution to public funded Universities	-
10.	Rural development projects	-
11.	Slum development	-
12.	disaster management	-
	Total	**8.41**

(source- National CSR Portal)

8. FINDING

Table 1.1 shows that the company had spent more than the prescribed amount, it spent 2.01% of their average profit, which shows that company had actively participated in CSR activities.

Table 1.2 shows the amount spent on different CSR activities by Tata investment Corporation Limited in the year 2023-24.

As the company's actual spending is more than that of prescribed amount but company has focused on some sector only.

Company basically spends their entire amount in only five sector, out of twelve sectors, ignoring the rest.

9. SUGGESTION

The study suggests that company is performing their responsibility in some sector ignoring the other major sectors.

Company has to focus on other areas also and spend some amount on them.

10. CONCLUSION

The study concludes that company's actual CSR spending is more than the prescribed amount, means company is actively taking part in CSR activities

Company needs to take care of other sector also rather than some specific sectors.

11. RESEARCH GAP

Many researches has been carried out on CSR and their contribution towards sector but for the year 2023-24, very few research has carryout. Hence to know about the spending of Tata Investment Corporation limited towards different sector, the study is carrying out.

REFERENCES

- *1.Dalwadi, P. (2023, 3 12). INDIA'S TOP TEN CSR CONTRIBUTING COMPANIES AND THEIR CONTRIBUTIONS TOWARDS ENVIRONMENTAL SUSTAINABILITY. International Journal ofManagement, Public Policy and Research, 2(1), 149-152.*
- *2.DR. Kunjukunju, B. (2020). CSR in Banking Sector- An Empirical Study on Yes Bank Limited. American Journal of Multidisciplinary Research & Development (AJMRD), 2(10), 16-22.*
- *3.Kumar, D., & Srivastava, H. (2024, 9 3). Corporate Social Responsibility (CSR): a Study of Reliance Industries Limited. International Journal For Multidisciplinary Research, 6(2).*
- *4.Mr. Dalwadi, P., & Mr. Sharma, P. (2022). PUBLIC PERCEPTION AND INVESTMENT PREFERENCE FOR THE COMPANIES CONTRIBUTING TO CSR. Sachetas, 1(2), 42-54.*
- *affairs, M. o. (2021-22). www.csr.gov.in. Retrieved april 17, 2024, from Natinal CSR portal: https://www.csr.gov.in>csr>home*
- *Mustafa. (2012). Research Methodology 3rd Edition (3rd edition ed.). AITBS publishers.*
- *Training, N. C. (2006). Business Studies. New Delhi: NCERT.*
- *Upagade, V. (2010). Research Methodology. S chand.*

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THE ROLE OF CULTURAL CONTEXT IN FILM ADAPTATIONS OF WESTERN LITERATURE IN INDIAN CINEMA

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ABSTRACT

This research paper examines the adaptation of Western literary works into Indian cinema, specifically analyzing Bollywood renditions of Shakespeare's two tragedies – Othello and Macbeth and Jane Austen's Pride and Prejudice. The paper conducts a comprehensive analysis of Maqbool (2003), Omkara (2006), and Bride and Prejudice (2004), exploring the localization of themes such as ambition, jealousy, power, class, family, and marriage within the socio-political and cultural context of Indian society. It examines how these adaptations recontextualize universal themes like social hierarchy and interpersonal relationships to resonate with Indian audiences, illustrating the intricacies of caste, arranged weddings, and familial roles within Indian culture. The research also looks at how intercultural adaptation and intertextuality affect the relationship between the original literary works and their movie versions. It shows how Bollywood changes these stories while keeping their main themes. This study underscores the cultural negotiation inherent in film adaptations, illustrating how Indian cinema reconciles Western literary traditions with Indian societal ideals, thereby crafting narratives that resonate with contemporary viewers.

KEYWORDS

FILM ADAPTATION, SHAKESPEAREAN TRAGEDY, BOLLYWOOD CINEMA, CULTURAL CONTEXT, CLASS, CASTE, MARRIAGE, FAMILY, AMBITION, POWER, JEALOUSY, BETRAYAL, INDIAN SOCIETY, PRIDE AND PREJUDICE, MODERNIZATION, TRADITION, INTERCULTURAL ADAPTATION, FIDELITY, TRANSFORMATION, INTERTEXTUALITY, SOCIO-POLITICAL CONTEXT, POSTCOLONIAL LITERATURE, GENDER, SOCIAL EXPECTATIONS, BOLLYWOOD MUSICALS, CULTURAL REINTERPRETATION.

[1] INTRODUCTION

Adapting literary works into movies is an age-old craft that connects the worlds of literature and film and gives artists new ways to interpret stories. In the context of Indian cinema, this process is especially interesting because Western literary masterpieces are typically reinvented through the perspective of Indian culture, history, and social standards. When Hindi films translate Western literature, they don't just turn words into pictures; they also move cultural ideals, moral concerns, and social systems from one place to another. Indian filmmakers have long been inspired by the works of Shakespeare, Austen, Dickens, and Fitzgerald, and they have made adaptations that change these Western stories to fit Indian culture. Vishal Bhardwaj's adaptations of Shakespeare's tragedies in Maqbool (2003) and Omkara (2006), as well as the Bollywood twist on Pride and Prejudice in Bride and Prejudice (2004), show how Western literary themes like ambition, class, and love are changed to fit Indian audiences.

This study seeks to examine the influence of cultural context in these adaptations, analyzing how filmmakers manage the intricate balance of preserving the fundamental spirit of the original work while including local cultural subtleties. It will contend that adaptation transcends mere translation of a text; it is a dynamic process in which both the original literary work and the adapting culture participate in a dialogue, culminating in a modified narrative that reflects the specificities of the new cultural environment. This study examines the interconnections of culture, identity, and story in cinematic reinterpretation through a comparative analysis of selected Western literary masterpieces and their Indian film adaptations.

[2] ADAPTATION THEORY

Adaptation theory is key to figuring out how novels, plays, and movies are turned into various forms of media. This idea helps us understand how cultural, social, and cinematic elements affect how Indian movies adapt Western literature. The idea is complex and looks at how adaptations stay true to the original, how different media work together, and how stories are recontextualized in different cultures.

Adaptation theory looks at how a literary work that was first written for one medium, like text, gets turned into another medium, like film. The idea examines the preservation, transformation, or reinterpretation of the original work's essence when converted to a different medium. Linda Hutcheon in A Theory of Adaptation characterizes adaptation as "an acknowledged transposition of a recognizable other work or works" (8). An adaptation keeps the "core" of the original work, like its main ideas, characters, and story. However, it often changes in form, structure, and context to match the new medium. This could mean modifying the motivations of the characters, the plot points, or the setting. The result is a hybrid text that sits between the original book and the new movie or performance medium.

One of the fundamental points of contention in adaptation theory is fidelity: Should an adaptation be loyal to the original text, or can it change the source material in a creative way? Robert Stam and Mikhail Bakhtin are two scholars who have been thinking about the faithfulness vs. transformation debate for a long time.

Fidelity means that an adaptation should stay as true to the original text as possible, keeping its characters, themes, and story structure the same. Many people don't like this attitude since it can lead to adaptations that are too literal and don't make the most of the new medium. Stam in Literature and Film states that “adaptation is not simply a matter of copying, but involves transformation and innovation” (12). He supports a more adaptable strategy that gives filmmakers the ability to change parts of the original work while keeping the primary themes the same.

Transformation, on the other hand, recognizes that adaptations are not fixed translations of texts but rather dynamic reinventions. From this perspective, the new adaptation is permitted—and urged—to examine many perspectives, reinterpret character motivations, and restructure the narrative to align with the contemporary cultural and social milieu. Hutcheon says, “Adaptations are both acts of repetition and acts of transformation” (10). This point of view is especially important in Hindi cinema, where filmmakers often change Western works to fit the preferences and feelings of Indian audiences.

Adaptation theory is not just about how to change one medium into another; it is also about how to change the deeper themes and cultures of a work. This is especially crucial in India, where Western works are typically presented in a very Indian setting, which can mean big changes in cultural norms, values, and social systems. Transposition is the simple act of shifting a narrative from one culture or medium to another. A filmmaker might take the plot of a Western novel and put it in an Indian setting, but keep the main characters and themes the same. For instance, Vishal Bhardwaj's Maqbool (2003) moves Shakespeare's Macbeth to the Mumbai underworld, keeping much of the play's main themes of ambition and remorse but changing the political intrigue to fit Indian crime drama.

Reinterpretation, conversely, signifies a profound alteration of the source material, wherein the adaptation not only transposes the narrative to a different context but also redefines the essence of the narrative itself. Gurinder Chadha's Bride and Prejudice (2004), a Bollywood version of Jane Austen's Pride and Prejudice, is an example of reinterpretation. The film reinterprets the core plot of family expectations and love through the perspective of Indian culture, dealing with themes including arranged marriage, societal expectations, and intercultural romance.

Because of this, the adaptation process needs to find a balance between staying true to the original work and making it function in a new setting, which sometimes means changing both the form and the content a lot.

One essential thing to think about in adaptation theory is how literature and film are different types of media. David Bordwell, in his examination of film theory, elucidates the fundamental distinctions between the two. "Where literature depends on the reader's imagination to create images, cinema makes images concrete" (Bordwell 5). In literature, language creates a lot of the meaning. This includes characters' inner thoughts, comprehensive descriptions of environments, and subtle changes to time and space. In movies, acting, cinematography, and music are only a few of the visual and auditory aspects that create meaning. One of the biggest problems with adaptation is that it goes from being mostly verbal to being mostly visual. Tzvetan Todorov, in his examination of genre theory, posits that genre significantly influences the adaptation of a tale for the cinematic medium: "Genres determine the system of expectations... they decide how an audience will interpret the images and symbols of a film" (Todorov 32). Filmmakers in India often exploit familiar genre patterns, like Bollywood melodrama, romance, or action, to make Western storylines more relatable to Indian audiences.

The adaptation of Western literature into Indian cinema is significantly shaped by cultural milieu. Filmmakers must figure out how to adapt the morals, social systems, and cultural subtleties of Western literature to fit an Indian setting. In doing this, they might focus on various subjects or change how the characters interact with each other to better fit with local tastes. For example, the Indian version of Othello (Omkara) is set in rural Uttar Pradesh, where power, caste, and violence are very important to the story. The themes of jealousy and treachery are quite relevant to the actual world. The adaptation alters the setting and context while preserving the fundamental ideas of Shakespeare's tragedy. The adaptation process thus transforms into a cultural negotiation rather than only an artistic reinterpretation. According to Susan Bassnett, "adaptation is always a process of cultural translation" (15). Through this perspective, adaptations function as a conduit for the interaction between two cultures—the Western literary tradition and the Indian cultural context—yielding a reconfigured narrative that resonates with both realms.

Adaptation theory shows that turning a text into a movie is not as easy as translating it. There are several factors to consider while negotiating accuracy, cultural interpretation, and changes that are peculiar to the medium. When Indian filmmakers adapt Western literature, they don't just change the story; they also put it in the context of Indian society, customs, and problems. We shall learn through case studies that these adaptations are not set in stone; they change throughout time to fit the changing cultures of both the source material and the culture that is adapting it.

[3] CASE STUDIES

(A) An Analysis of Hindi Adaptations of Shakespeare's Plays in Maqbool (2003) and Omkara (2006)

Shakespeare's plays have been converted into many different versions in many different civilizations because they deal with issues that are still relevant today, such ambition, jealously, and power. Indian cinema, especially the films of filmmaker Vishal Bhardwaj, has made some of the most interesting and culturally relevant interpretations of Shakespeare's tragedies. Maqbool (2003) and Omkara (2006) are two important instances of how the themes of Shakespeare's Macbeth and Othello fit into India's social, political, and cultural setting. These movies put Shakespeare's complicated characters and conflicts in the brutal world of Indian politics, crime, and power systems.

1. Maqbool (2003) — A version of Macbeth

Plot and Setting: Maqbool is a Hindi version of Shakespeare's Macbeth that takes place in the underbelly of Mumbai, where a criminal group lives. Maqbool, the main character in the movie, is a loyal henchman to the powerful underworld don Abbaji (a reimagining of Macbeth). However, after being encouraged by his lover Nimmi (Lady Macbeth) and the prophetic words of two soothsayers (the witches), he wants more. Maqbool's world is a criminal underworld where terror and power prevail. This universe is very Indian, showing how cruel and hierarchical Indian politics and the power dynamics of Indian gang culture are. Bhardwaj reimagines Shakespeare's themes of ambition, remorse, and moral corruption against the backdrop of the Mumbai underworld, while keeping the characters' psychological depth.

Themes of Power and Ambition

In Macbeth, the main character's ambition is what causes him to fall. In Maqbool, Maqbool's ambition is also fueled by the need for power and control. But in India, this desire is mixed up with the harsh reality of the underworld and political corruption. Like Macbeth, Maqbool is powerfully affected by the promises of power, but his desire is held back by the Indian values of responsibility, devotion, and family. In the Indian underworld, ambition is typically limited by complicated ties of loyalty, caste, and survival. Maqbool's climb to prominence is a criticism on how ambition can corrupt India's hierarchical systems, especially in crime and politics, in a society that values power as both a way to survive and a sign of accomplishment. The political parts of the movie are also quite important. Abbaji's grip over the criminal syndicate is similar to how political leaders in India often keep their power: by deception, terror, and allegiance, like the feudal system in Shakespeare's play.

Themes of Jealousy and Guilt

Macbeth's jealousy comes from his distrust of King Duncan and the murder that follows. Maqbool is motivated by envy and betrayal, which is fueled by his fear of losing power. Like Lady Macbeth, Nimmi plays a big part in getting Maqbool to do what he wants. Nimmi's remorse and ambition show how dangerous it is to have too much power, just like Lady Macbeth's journey into madness. Maqbool feels guilty about what he did, just like Macbeth did, which shows the moral implications of his conduct. As Maqbool gets more powerful, he becomes more paranoid, which leads to his downfall. This shows how

ambition can hurt people in a corrupt culture. Maqbool, like Macbeth, is tormented by guilt, which eventually leads to his downfall.

2. Omkara (2006) — A version of Othello

Plot and Setting: Omkara is a Hindi movie based on Shakespeare's Othello. It takes place in the political scene of Uttar Pradesh, India. The movie tells the narrative of Omkara, a strong and well-respected leader in a rural hamlet. He is manipulated by his subordinate, Langda Tyagi (Iago), and his own worries about his relationship with his beloved, Dolly (Desdemona). Like the tragic Othello, Omkara's jealousy and lack of self-confidence drive him to do something violent that he can't take back. The setting of Omkara is very much based on the social and political situation in North India, especially how caste, loyalty, and power work in rural politics. Bhardwaj's adaption combines the political battle of rural India with the global themes of power, envy, and treachery that are at the heart of Shakespeare's play.

Theme of Jealousy: Othello's terrible defect is his jealously, which leads to his downfall. Iago takes advantage of Othello's uneasiness over his wife, Desdemona, which makes Othello very jealous. Langda Tyagi uses Omkara's envy in a similar way in Omkara. He uses Omkara's concerns about his caste and his connection with Dolly to get what he wants. Omkara's envy is not just personal; it is also social and political because of his place in a society founded on caste. Omkara's jealousy stems from his fears regarding his connection with Dolly, a woman of superior social standing, paralleling Othello's racial insecurities in Shakespeare's play. This disparity in social class is a big part of the Indian version, as Omkara's place in the political hierarchy and his complicated connection with power and status are important for comprehending his inner struggles. Omkara's jealousy shows how the caste and class battle works in rural India. Omkara is much more emotionally vulnerable because he lives in a society where caste is very important to power, position, and honor.

Themes of Treachery and Power: Iago's manipulation of Othello in Othello is motivated by power, jealousy, and hatred. In Omkara, Langda Tyagi also causes Omkara's downfall because he feels betrayed and wants authority. Langda's role as a master manipulator is a good example of the power battles in Uttar Pradesh politics, where people often use allegiance to get what they want. The power dynamics in Omkara are closely linked to the caste and politics of rural India. Langda's betrayal of Omkara exemplifies the intricate power dynamics inherent in the Indian political system, where manipulation, loyalty, and treachery are vital to the preservation of authority. Langda's betrayal shows how easy it is to take advantage of loyalty and trust in Indian politics. The rural setting, with its entrenched hierarchies, makes the conflict between trust and manipulation even worse. This shows how power struggles can be harmful in both personal and governmental situations.

3. Putting Shakespeare's Themes in an Indian Context: Ambition and Power

Both Maqbool and Omkara place the themes of ambition and power in the backdrop of India's social and political situation. In Maqbool, the thirst for power is linked to the criminal underworld, where the desire to dominate land and resources is similar to political ambitions in India. In Omkara, ambition and power are also very important in the politics of rural Uttar Pradesh, where caste, loyalty, and violence are all important parts of the power struggle.

Omkara shows how caste and power are linked in the rural political system of Uttar Pradesh. Rivals who want to control the village's politics are always trying to take Omkara's place as a powerful leader. The caste-based power struggle is like the cutthroat politics in India, where caste, prestige, and political manipulation often decide who has power over people's life.

Jealousy and Feeling Unsafe: In both movies, envy is made worse by the protagonists' fears, which could be about their relationships or their place in society. In Omkara, Omkara's envy is shaped by the

social and political order, which makes him even more insecure about his caste and authority. In the same way, the power dynamics of the criminal underworld in Maqbool cause the jealously and paranoia that contribute to Maqbool's downfall.

Cultural Reinterpretation: Adapting Shakespeare's tragedies to the Indian setting offers profound insights into the corrupting influence of ambition, the devastating effects of envy, and the intricate social dynamics of power. Bhardwaj's movies take these ideas and turn them into stories that are distinctive to Indian culture and look at how power, politics, and social loyalty affect Indian society today. The films offer a perspective to comprehend both the universal allure of Shakespeare's subjects and the distinctive manifestations of these themes within Indian society, particularly in relation to its socio-political challenges.

Omkara and Maqbool are great Hindi versions of Shakespeare's tragedies that show how universal themes of ambition, jealously, and power can be adapted to the Indian political and social context. Vishal Bhardwaj does an amazing job of reinterpreting the timeless themes in Shakespeare's plays through the lens of India's complicated caste system, rural politics, and criminal underworld. He gives us a new look at the common human challenges that people from all countries can relate to.

(B) Jane Austen's Pride and Prejudice: Analyzing Bride and Prejudice (2004) as a Bollywood Adaptation

Jane Austen's Pride and Prejudice is still one of the most altered and reinterpreted books in both literature and movies. It deals with universal topics like class, marriage, and family, and its impact can be observed in many versions from many countries and times. Bride and Prejudice (2004), directed by Gurinder Chadha, is one of the most well-known Bollywood interpretations of this classic. Bride and Prejudice takes the story from Austen's novel and puts it in the context of modern-day India. It mixes Bollywood movie themes with Austen's societal commentary. This analysis evaluates how Bride and Prejudice reinterprets the fundamental themes of class, family, and marriage from Pride and Prejudice, adapting them to align with Indian cultural norms, societal expectations, and familial values.

1. Class and Social Status: From Regency England to Contemporary India

In Pride and Prejudice, a lot of the social interactions in the novel are based on the strict class lines in Regency England, where people are generally assessed by their wealth, family ties, and social status. The Bennet family, who don't have much money or connections, have to deal with the strict class structure, where marriage is considered as a social contract that raises or protects one's place in society.

The subject of class is still important in Bride and Prejudice, although it is more focused on India. Lalita, the main heroine in the story, is like Elizabeth Bennet in that she is smart and independent. But she is also in the Indian social system, where caste, family background, and regional identity have a big impact on class differences. Lalita's family is respectable but not rich. Her father operates a small business in Amritsar, which puts them on the lower end of the middle-class scale compared to William Darcy, a wealthy and sophisticated American investor.

Caste and Regional Identity: In India, the idea of caste and regional identity is typically linked to class differences. Darcy (Martin Henderson) is rich, well-educated, and from a different nation (the U.S.), which puts him in a higher social class than Lalita's family. The movie also has a subplot in which Lalita's sister Jaya is pursued by a guy of the same caste and social standing, which shows how important it is for families and social groups to match up, exactly like Austen's characters deal with social demands about marriage across class lines.

The adaptation keeps the main point about wealth and rank in matchmaking, with Darcy standing for the upper class and Lalita's family standing for the lower middle class. The movie looks at how people think

about wealth in more than simply money. It also looks at how it affects social mobility and family reputation. At first, Darcy doesn't care about the "Indian way" of living, which shows how socially distant he is. But this changes with time as he learns to appreciate Lalita's family and culture. So, the adaption preserves the idea of class disparity by turning the social worries of Pride and Prejudice into Indian realities of caste and wealth.

2. Marriage as a Social Institution: Love vs. Security in Marriage

Marriage is a big part in Pride and Prejudice, and the book's main conflict is whether a marriage is based on love or need. Mr. Collins, Charlotte Lucas, and even Mr. Darcy and Elizabeth Bennet show the range of reasons people get married, from societal necessity to personal happiness. Bride and Prejudice explores similar topics, but it does it in an Indian setting, where marriage has a bigger social impact. The concept of marriage as a familial union—frequently shaped by caste, custom, and societal expectations—significantly influences the characters' choices in India.

Arranged Marriages: The adaption of Austen's novel focuses on the tradition of arranged marriages, which is still common in many parts of India. Mrs. Bakshi, Lalita's mother, wants to find good matches for her daughters. Sometimes, marriage is shown as something that people have to do because of social norms instead of their own choice. This is similar to what Mrs. Bennet does in Austen's book, when she tries to find excellent husbands for her daughters. However, in India, "good matches" frequently means things like caste, family background, and social position, as well as wealth. The relationship between Lalita and Darcy shows the contradiction between love and family responsibility. At first, Darcy represents the idea of a marriage based on riches and position, but over time he learns how important love and respect are in a marriage. In Indian culture, this issue manifests as a dichotomy between familial endorsement and personal autonomy. The movie looks at this tension when Lalita's family tries to get her to marry Mr. Kholi, a guy who is more socially acceptable and financially stable, even if she doesn't like him romantically. The movie shows how marriage is typically considered as a union of two families, not just two people, in Indian culture. In planned weddings, the opinions of the parents and society are the most important, but personal choice is still a movable aspect.

3. Family and Social Obligations: The Importance of Family in Bride and Prejudice

Family is an important part of both Pride and Prejudice and Bride and Prejudice. It helps the protagonists grow and helps them solve the main problems. The Bennet family is the main focus of Austen's novel. Their social connections, marriages, and family duties drive the tale along.

Family dynamics are also quite significant in Bride and Prejudice, but they are more focused on family honor, interactions across generations, and family responsibility—values that are very essential in Indian culture. The story shows that Lalita's family, which includes her father, mother, and four sisters, is quite close. But tradition and expectations are a lot of pressure on them, especially for Lalita, who is the oldest daughter and feels that she has to marry someone to protect the family's reputation.

Family Responsibilities in the Indian Context:

Family Honor: Just like in Austen's book, when Elizabeth had to protect her family from what Lydia does, Lalita's acts show how important family reputation is. In Indian society, family prestige and the expectation that a woman will marry someone from a good background are often more important than what she wants.

Intergenerational Relationships: The difference in age between Lalita and her mother (who wants her daughters to marry well) shows how Indian families are torn between modernity and tradition. Lalita wants to be free and have a modern love life, but her mother is more practical. This shows how traditional family values and new ideas of personal freedom can clash.

4. The Bollywood Effect: Music, Dance, and Movies

Bride and Prejudice is a Bollywood movie, therefore it has musical numbers and dance scenes like all the others. These parts not only make the movie more fun to watch, but they also assist get the cultural messages across in a more colorful and easy-to-understand way.

Cultural Context in Song and Dance: The Bollywood musical numbers in Bride and Prejudice show how happy and cultural Indian weddings are, which are very important social gatherings. The lively dance and music in parts like the "No Life Without Wife" song not only entertain but also make a point about the pressures of marriage in Indian culture. These scenes are different from the more quiet social exchanges in Pride and Prejudice, which shows how culture has changed from Regency England to modern India. Bollywood cliches are used in the movie to make a point about how important family and marriage are in Indian society. For example, the big wedding celebrations. The use of music, bright clothes, and dance becomes a method to celebrate the culture while also dealing with the problems of love, marriage, and class.

Bride and Prejudice (2004) is a successful Bollywood version of Jane Austen's Pride and Prejudice. It shows how class, family, and marriage are important topics that are still relevant in modern India. Through its exploration of caste, family honor, and arranged marriages, the film gives a novel take on Austen's classic, contextualizing it within the socioeconomic structures and ideals of current Indian society. Combining Bollywood movies with Austen's classic story shows how adaptations from many cultures may make new, exciting versions that appeal to people all across the world. The movie not only shows how important Austen's themes are still today, but it also shows how love, uniqueness, and family can change the direction of a person's life.

[5] CONCLUSION

In conclusion, the Bollywood adaptations of Shakespeare's tragedies in Maqbool (2003) and Omkara (2006), coupled with the reinvention of Jane Austen's Pride and Prejudice in Bride and Prejudice (2004), illustrate the dynamic interplay between literature and cinema across cultures. These adaptations illustrate how universal themes like ambition, jealously, power, family, class, and marriage are both maintained and altered to mirror the socio-political reality of Indian society. Maqbool and Omkara set Shakespeare's sad stories about human failings in the complicated political and caste systems of India. Bride and Prejudice, on the other hand, takes Austen's social critique of marriage and class and applies it to the changing and traditional rules of Indian society. Each adaptation keeps the main ideas of the original works while also giving them a distinct cultural twist that makes them interesting and useful for Indian viewers. These movies show how powerful adaptation can be in bringing people from different cultures together by making new versions that keep the emotional and conceptual essence of their Western equivalents.

- ***WORKS CITED***
- ***Bordwell, David. Narration in the Fiction Film. University of Wisconsin Press, 1985.***
- ***Bassnett, Susan. Translation Studies. Routledge, 2002.***
- ***Hutcheon, Linda. A Theory of Adaptation. Routledge, 2006.***
- ***Stam, Robert. Literature and Film: A Guide to the Theory and Practice of Film Adaptation. Blackwell, 2005.***
- ***Todorov, Tzvetan. The Poetics of Prose. Cornell University Press, 1977.***

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IDEOLOGY OR IMAGE? THE PARADOX OF WOKE FEMINISM IN MODERN MEDIA CULTURE

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ABSTRACT

Woke feminism, emerging from the intersection of digital activism, intersectionality, and postmodern discourse, represents a new phase of feminist expression in popular media. Unlike classical feminism, which sought equality through structural and ideological reform, woke feminism foregrounds visibility, representation, and inclusivity—often operating within the framework of identity politics and online culture. This paper explores how woke feminism manifests in three major franchises—She-Hulk, Doctor Who, and Star Wars—and how these depictions differ from classical feminist ideals. Through critical analysis, it identifies how feminist narratives have shifted from advocating systemic change to emphasising symbolic empowerment. The study also addresses the tensions between performative representation and substantive feminist critique, ultimately arguing that woke feminism, while expanding inclusion, often dilutes the radical and collective ethos of early feminist thought.

1. INTRODUCTION

Feminism has evolved through multiple waves, each shaped by distinct social, political, and cultural contexts that reflect the changing priorities and struggles of women across generations. Classical feminism, emerging through the first and second waves, was grounded in the pursuit of concrete and institutional equality. Its central focus lay in securing legal rights, educational access, reproductive autonomy, and dismantling patriarchal structures that relegated women to the domestic and subordinate sphere. Thinkers such as Mary Wollstonecraft, Simone de Beauvoir, and Betty Friedan articulated feminism as a political and philosophical movement aimed at liberating women from systemic oppression. Their goal was to reconfigure the social order itself—challenging the very institutions that perpetuated gendered hierarchies.

However, the advent of the digital age and the rise of fourth-wave feminism have birthed a new iteration of feminist consciousness often referred to as woke feminism. This contemporary form of feminism celebrates awareness of intersectional identities, inclusivity, and representational justice. The term "woke," originating from African American Vernacular English (AAVE), initially signified social awareness against racial injustice, but has since expanded to encompass gender, sexuality, and class-based awareness. Woke feminism, therefore, seeks not only equality in structural terms but also visibility and recognition in cultural representation. It demands that voices historically marginalised within both feminist and patriarchal frameworks women of colour, queer individuals, and non-binary identities be acknowledged, heard, and celebrated.

In this sense, woke feminism redefines empowerment. It shifts the focus from systemic reform to representational equity, broadening the feminist discourse beyond the binary of male and female

oppression. It emphasises that gender cannot be examined in isolation but must be understood through its intersections with race, sexuality, disability, and social privilege. The result is a feminism deeply intertwined with digital activism, pop culture, and media visibility one that operates as much through social movements as through storytelling and screen representation.

This new feminist consciousness finds strong expression in contemporary Western media, where it manifests through female-centered narratives and "corrective storytelling." These narratives seek to challenge long-standing patriarchal archetypes by reimagining traditionally male heroes as powerful female figures or by centering women's voices in spaces once dominated by men. Television series and films increasingly position feminist discourse as both an aesthetic and ideological tool infusing themes of empowerment, resistance, and identity politics into mainstream entertainment.

This study, therefore, examines She-Hulk, Doctor Who, and Star Wars as significant cultural case studies that illuminate the evolution and contradictions of woke feminism in popular media. Each of these franchises, long established within patriarchal traditions of storytelling, has recently undergone feminist reinterpretations aimed at aligning with contemporary socio-political awareness. Through a comparative lens, this research explores how woke feminism operates in contrast to classical feminism probing whether its current trajectory signifies a genuine ideological evolution or a commodified adaptation shaped by market demands, corporate branding, and online activism. Ultimately, the study argues that woke feminism, while expanding the representational boundaries of womanhood, also raises critical questions about authenticity, performativity, and the dilution of radical feminist ideals in the age of digital spectacle.

2. CLASSICAL FEMINISM: THE FOUNDATIONS OF EQUALITY

Classical feminism, encompassing the first and second waves (roughly from the late 19th century to the 1980s), centered on structural reform and political emancipation. It emerged as a response to women's systematic exclusion from civil, educational, and economic spheres.

The first wave, represented by figures such as Mary Wollstonecraft, Elizabeth Cady Stanton, and Emmeline Pankhurst, championed the right to vote, property ownership, and education. Their activism sought tangible legal reforms that could elevate women from dependency to autonomy.

The second wave, spearheaded by thinkers like Simone de Beauvoir, Betty Friedan, and Kate Millett, extended this struggle from the public sphere into the personal and psychological domains. De Beauvoir's The Second Sex (1949) argued that woman is not born but "becomes" one constructed by patriarchal ideology as the Other. Friedan's The Feminine Mystique (1963) exposed the dissatisfaction of suburban housewives, calling for liberation beyond domesticity. Millett's Sexual Politics (1970) critiqued literature and art as instruments of male dominance, advocating for a new feminist criticism that could deconstruct patriarchal norms.

Thus, classical feminism viewed emancipation as a collective, structural pursuit aimed at dismantling institutionalised patriarchy. It focused less on representation and more on transformation the radical restructuring of society itself.

3. WOKE FEMINISM: AWARENESS, IDENTITY, AND REPRESENTATION

In the digital era, feminism has undergone a significant transformation, shaped by the rapid circulation of ideas through social media activism, celebrity influence, and pop-cultural narratives. The rise of the fourth wave (2010s onwards) introduced the vocabulary of wokeness a term signifying awareness of social injustices related to race, gender, sexuality, and privilege.

Woke feminism arises from this milieu, intertwining feminist ideals with the language of digital discourse and intersectional identity politics. It emphasises awareness, inclusion, and representation rather than traditional legislative or institutional change. The core belief is that empowerment must be visible, embodied, and celebrated within cultural and media landscapes.

While woke feminism has expanded feminist discourse to embrace inclusivity and intersectionality, it has also invited considerable criticism for its internal contradictions and potential to undermine the very principles of equality it claims to defend. In its attempt to accommodate every identity and redefine traditional gender boundaries, woke feminism sometimes risks eroding the conceptual clarity of feminism itself.

One of the most contentious debates surrounding woke feminism concerns gender identity and women's spaces, particularly in areas such as competitive sports. Classical feminism emphasised women's right to equality and fair opportunity in spheres historically dominated by men. However, under woke feminism's broader umbrella of inclusivity, biological males who identify as women have increasingly been allowed to compete in women's sports categories. This has raised ethical and physiological concerns about fairness and safety.

A widely discussed example is that of Lia Thomas, a transgender swimmer who competed in the NCAA women's category after transitioning. While advocates view this as a victory for gender inclusivity, critics argue that it undermines the achievements of cisgender women who face a biological disadvantage in physical competitions. This controversy illustrates a central paradox of woke feminism: in its pursuit of universal inclusion, it can unintentionally invalidate the very category of "woman" that feminism historically sought to empower.

Moreover, another concern with certain strands of woke feminism is its antagonistic posture toward men often framing masculinity as inherently oppressive rather than socially conditioned. Classical feminism, especially as articulated by thinkers like bell hooks, sought reconciliation and understanding between genders, emphasising that patriarchy harms both men and women. Hooks argued that the goal of feminism was not to reverse hierarchies but to dismantle them entirely. In contrast, some forms of woke feminism, particularly those amplified on social media, adopt a rhetoric of resentment and exclusion, which alienates potential allies and contradicts the movement's foundational ethos of equality and empathy.

This polarisation risks reducing feminism from a transformative social philosophy to a culture war ideology, defined more by opposition than by vision. Instead of engaging men as partners in dismantling patriarchal systems, woke feminism sometimes constructs an "us versus them" narrative an inversion of the very power dynamics it seeks to eliminate. Such trends not only distort the movement's moral and

philosophical foundations but also fuel public backlash, allowing critics to dismiss feminism as divisive or hypocritical.

Therefore, while woke feminism has achieved visibility and progress in areas of representation, it must also engage in self-reflection to avoid becoming a self-defeating ideology. True feminism must advocate for justice and fairness across all identities without compromising biological reality, undermining women's rights, or vilifying men. The strength of the feminist movement has always depended on its moral clarity and inclusiveness; preserving these values is essential if feminism is to remain a credible and transformative force in the twenty-first century.

4. INCLUSION WITHOUT EQUALITY: THE PARADOX OF REPRESENTATION

The woke feminist movement's insistence on inclusivity has, paradoxically, created new forms of inequality. While classical feminism fought to establish fair competition and opportunity for women, woke feminism sometimes undermines these goals by applying inclusivity indiscriminately.

The case of trans inclusion in women's sports exemplifies this tension. The controversy surrounding transgender swimmer Lia Thomas highlighted how the principle of inclusion can conflict with the principle of fairness. By allowing biological males who retain certain physical advantages despite transitioning to compete in female categories, the movement inadvertently jeopardies the very equity it once championed. In classical feminist terms, this represents a reversal rather than progress: instead of dismantling gendered hierarchies, the movement risks redefining womanhood so broadly that it erases women's distinct social and biological realities. The issue is not one of exclusion but of coherence without clear conceptual boundaries, the feminist cause loses its ability to defend women as a political class deserving of distinct protections and representation.

5. FROM EMPOWERMENT TO SUPERIORITY: WOKE FEMINISM'S MISSTEP

Another problematic trend in woke feminist discourse is the gradual transformation of empowerment into antagonism. The digital culture surrounding fourth-wave feminism often reduces feminism to a rhetoric of superiority, positioning women as morally or intellectually superior to men rather than as equals.

This shift represents a departure from the inclusive humanism envisioned by earlier feminists like bell hooks, who emphasised that patriarchy is a system that dehumanises both men and women. Classical feminism sought to liberate all genders from restrictive roles men from the burden of domination, and women from the burden of submission. In contrast, some strands of woke feminism engage in reverse essentialism, attributing collective guilt to men and framing masculinity as inherently toxic. This antagonistic tone, amplified through social media and popular culture, alienates potential allies and transforms feminism from a movement of solidarity into one of division and resentment. It risks validating anti-feminist backlash, enabling critics to dismiss feminist progress as ideological extremism rather than moral evolution.

6. THE MEDIA MIRROR: POP CULTURE AS WOKE FEMINIST THEATRE

Modern Western media often becomes the stage upon which woke feminism performs its ideals and exposes its contradictions. Franchises such as She-Hulk, Doctor Who, and Star Wars have consciously adopted feminist rhetoric, reimagining classical narratives through the lens of gender correction.

In She-Hulk, Jennifer Walters's journey as a female superhero and lawyer highlights the struggle for recognition in male-dominated spaces. However, the show's overt self-awareness and meta-commentary often reduce its feminist message to satire. Instead of showing women's empowerment through character depth, it tells the audience to recognise it reflecting the performative dimension of woke feminism.

In Doctor Who, the casting of Jodie Whittaker as the first female Doctor was heralded as a breakthrough in gender representation. Yet, the storytelling frequently treated her gender as a gimmick rather than an organic part of the narrative. This aligns with the critique that woke feminism prioritises symbolic inclusion over substantive change swapping gender roles without reimagining underlying power dynamics.

Similarly, in the Star Wars sequel trilogy, the character of Rey embodies individual empowerment but lacks the ideological grounding that characterised Leia Organa's rebellion in the original films. Rey's strength appears as innate and unchallenged, rather than forged through struggle or resistance a metaphor for woke feminism's focus on representation without depth.

These portrayals reflect the broader trend of feminism as branding. Media industries leverage feminist imagery and slogans to align with contemporary social values, but their engagement often remains superficial. The feminist heroine becomes a marketing device rather than a symbol of ideological transformation. Thus, woke feminism's entry into pop culture both amplifies its visibility and exposes its fragility it becomes easy to sell but difficult to sustain intellectually.

7. FEMINISM AT A CROSSROADS: RESTORING BALANCE

The trajectory of woke feminism suggests that feminism stands at a crossroads: between inclusivity and coherence, representation and authenticity, awareness and substance. While woke feminism has succeeded in expanding feminist discourse to encompass diverse identities and digital visibility, it must also confront its own contradictions.

A feminism that denies biological difference while claiming to protect women's rights, or that vilifies men while demanding equality, risks becoming ideologically inconsistent. As scholars such as Christina Hoff Sommers and Camille Paglia have argued, feminism loses moral authority when it replaces dialogue with dogma. The solution is not to reject woke feminism outright but to recalibrate it to combine its intersectional awareness with classical feminism's intellectual rigour and ethical clarity.

The future of feminism, therefore, depends on restoring its balance: inclusion must not come at the cost of fairness; empowerment must not devolve into antagonism; and representation must not substitute for genuine reform. Only by integrating the moral seriousness of classical feminism with the pluralism of modern activism can feminism remain a transformative, unifying force rather than a fragmented ideology.

8. CLASSICAL VS. WOKE FEMINISM: COMPARATIVE DISCUSSION

Aspect	Classical Feminism	Woke Feminism
Goal	Equality and structural reform	Representation and visibility

Approach	Collective political activism	Individual identity expression
Medium	Literature, social movements	Digital media, entertainment
Critique of patriarchy	Systemic and material	Symbolic and performative
Risk	Elitism, lack of intersectionality	Commodification, tokenism

9. DRAWBACKS OF WOKE FEMINISM

- Commercialisation: Feminist ideals become marketing tools.
- Superficial Empowerment: Focus on representation without addressing systemic inequality.
- Online Performativism: Digital activism replaces real-world mobilisation.
- Backlash Effect: Audiences perceive forced inclusion, creating polarisation that undermines feminist goals.

CONCLUSION

Woke feminism, while commendable for expanding the boundaries of feminist discourse to embrace intersectionality, diversity, and the multiplicity of women's experiences, has simultaneously diluted the ideological rigour that once defined classical feminism. Where earlier feminist movements were rooted in collective struggle and structural reform, woke feminism often manifests as a performance of awareness rather than a pursuit of transformation. In popular culture, particularly within She-Hulk, Doctor Who, and Star Wars, feminism functions less as a philosophical framework and more as a narrative and commercial strategy—a means to signal inclusivity rather than to interrogate power.

This evolution reflects a broader cultural transition: from activism to aesthetic, from reform to representation, and from solidarity to self-expression. The feminist cause, once centered on dismantling institutional hierarchies, now frequently orbits around visibility and symbolic correction within the media sphere. While this visibility has undoubtedly advanced public recognition of gendered issues, it also risks transforming feminism into a marketable identity, stripped of its radical political substance.

True feminist progress, therefore, lies not in replacing men with women, nor in turning empowerment into spectacle, but in harmonising representation with ideology. Feminism must reclaim its intellectual depth and moral purpose ensuring that visibility serves as a means toward equality, not an end in itself. Only then can the movement reconcile its modern inclusivity with the enduring principles of justice, autonomy, and structural change that remain at the heart of feminist philosophy.

WORKS CITED

- ***Banet-Weiser, Sarah. Empowered: Popular Feminism and Popular Misogyny. Duke University Press, 2018.***
- ***Beauvoir, Simone de. The Second Sex. Translated by Constance Borde and Sheila Malovany-Chevallier, Vintage Books, 2011.***

- *Crenshaw, Kimberlé. "Mapping the Margins: Intersectionality, Identity Politics, and Violence against Women of Color." Stanford Law Review, vol. 43, no. 6, 1991, pp. 1241–1299.*
- *Faludi, Susan. Backlash: The Undeclared War Against American Women. Crown, 1991.*
- *Gill, Rosalind. "Postfeminist Media Culture: Elements of a Sensibility." European Journal of Cultural Studies, vol. 10, no. 2, 2007, pp. 147–166.*
- *hooks, bell. Feminism Is for Everybody: Passionate Politics. South End Press, 2000.*
- *Keller, Jessalynn Marie, and Jessica Ringrose. "'But Then Feminism Goes out the Window!': Exploring Teenage Girls' Critical Response to Celebrity Feminism." Celebrity Studies, vol. 6, no. 1, 2015, pp. 132–135.*
- *Mulvey, Laura. "Visual Pleasure and Narrative Cinema." Screen, vol. 16, no. 3, 1975, pp. 6–18.*
- *Nichols, Bill. Engaging Cinema: An Introduction to Film Studies. W. W. Norton & Company, 2010.*
- *Tasker, Yvonne, and Diane Negra, editors. Interrogating Postfeminism: Gender and the Politics of Popular Culture. Duke University Press, 2007.*

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વાણિજ્યના ક્ષેત્રમાં ઉદ્યોગ અને શિક્ષણનું મહત્વ એક અભ્યાસ

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૧. પ્રસ્તાવના:

ઉદ્યોગ ચીજવસ્તુઓ પેદા કરે પરંતુ તેમના વિતરણ અને વેચાણ વ્યવસ્થાના ચક્રો બંધ પડ્યા ગ્રાહકો દિવસેને દિવસે વધતા ગયા સ્થાનિક બજાર,પ્રાદેશિક બજાર રાષ્ટ્રીય કે આંતરરાષ્ટ્રીય બજારનો પ્રસાર વિશાળ બનતો ગયો પહેલાના સમયગાળા દરમિયાન ચીજવસ્તુઓનું ઉત્પાદન થતું હતું પરંતુ તે સમયગાળામાં વેચાય અને વપરાઈ જતું પરંતુ તે આ સમયગાળા દરમિયાન શક્ય નથી.આવા બધા પ્રકારના કોયડા ઉકેલવામાં વાણિજ્યનો ઉદભવ અને તેનો વિકાસ થયો પોતાની જરૂરિયાત કરતા વધારે પ્રકારનું ઉત્પાદન કરતા માનવીઓ એકબીજાની અદલા બદલી કરતા શરૂઆતના સમયમાં સાટાપ્રથાના વેપાર પણ આવ્યા.આ પ્રથા જે શરુ થઈ તે વ્યક્તિ-વ્યક્તિ વચ્ચે,ગામ-ગામ વચ્ચે,જૂથ-જૂથ વચ્ચે,પ્રદેશ – પ્રદેશ વચ્ચે,દેશ-દેશ વચ્ચે વેપાર અને વાણિજ્યના વ્યવહારો વધ્યા.

કોઈપણ પ્રવુતિ હોય ધંધાકીય કે બિન ધંધાકીય સંચાલન વિના ચાલે જ નહિ સંચાલન એક વ્યક્તિઓ, જૂથો, કુટુંબો,જ્ઞાતિ-ઉપજ્ઞાતિ,જાતિઓ,સંસ્થાઓ,શૈક્ષણિક સંસ્થાઓએ પોતાની પ્રવુતિઓ કે કાર્યક્રમો કરવા આધાર બને છે.સંચાલનએ કોઈપણ વ્યક્તિ,સમૂહ સંસ્થાનો વહીવટ કરવો,માર્ગદર્શન આપવું આપેલા માર્ગદર્શન મુજબ કામ કે કામો થયા કે નહિ એનું આવલોકન કરી જરૂરી સુધારા વધારા કરવા વગેરેનેસંચાલન કહેવાય છે.સંચાલન એ ચોક્કસ લક્ષ્યો હાંસલ કરવા માટે સંસ્થાની પ્રવુતિઓનું સંકલન અને દેખરેખ રાખવાની પ્રક્રિયા છે.તે હેતુઓ કાર્યક્ષમ અને અસરકારક રીતે પૂર્ણ થાય છે તેની ખાતરી કરવા માટે સંસ્થામાં આયોજન અગ્રાણી અને સંસાધનો નિયંત્રિત કરવાનો સમાવેશ થાય છે.

2. વાણિજ્યનો અર્થ:

વાણિજ્ય એટલે વેપાર અને વેપારને સહાયક સેવાઓ.આ સેવાઓમાં બેન્કિંગ,વીમો,વાહનવ્યવહાર, સંદેશા વ્યવહાર અને અડતિયાની સેવાનો સમાવેશ થાય છે.વેપારની આ સહાયક સેવાઓને કારણે વેપારની

ટ્રષ્ટિએવિશ્વ એક બજાર બન્યું છે.

3. વાણિજ્ય ની ઉત્પતિ :

વ્યક્તિ વ્યક્તિ વચ્ચે આર્થિક વ્યવહારો થાય તો જ વાણિજ્ય પેદા થાય છે. માણસ જ્યાં સુધી સ્વાવલંબી હતો ત્યાં સુધી વાણિજ્ય પેદા થયું ન હતું. સ્ત્રીની આગેવાની હેઠળની ટોળીઓ અને જંગલમાંના માનવજીવન સુધી વાણિજ્ય પેદા થયું ન હતું. કેટલીક વૃત્તિઓ અને જરૂરિયાતોને પરિણામે ટોળી મટીને કુટુંબ થયું ત્યારે કુટુંબ પોતે સુગ્રથિત એકમ રહ્યું. કુટુંબ પોતે સ્વાશ્રયી રહ્યું. આથી કુટુંબપ્રથા શરૂ થઈ ત્યારે પણ વાણિજ્યની ઉત્પત્તિ થઈ નહિ.

કુટુંબો એકબીજાની સાથે સંપર્કમાં આવતાં માણસને સમજાયું કે દરેક કુટુંબ એકસરખી જરૂરિયાત રાખતું નથી અને તે સંતોષવા માટે પ્રયત્ન કરતું નથી. આ તબક્કે પશુની એકધારી અને સમાન જરૂરિયાત કરતાં જુદી રીતે માણસ તરીકે કુટુંબની જરૂરિયાતોનું વૈવિધ્ય સમજાયું. વધુમાં એ પણ સમજાયું કે કોઈ એક કુટુંબ તેની જરૂરિયાતો પૂરી કર્યા બાદ પણ તેની પાસે જરૂરિયાતો સંતોષવાની ચીજવસ્તુઓનો વધારો રહ્યો છે. વધારામાં એ પણ સમજાયું કે કેટલાંક કુટુંબોની જરૂરિયાતો ચીજવસ્તુઓના અભાવે કાં સંતોષાતી નથી કાં તો અધૂરી રહે છે. ટૂંકમાં, એકનો વધારો બીજાની જરૂરિયાત અને બીજાનો વધારો પહેલાની જરૂરિયાત હોવાની પરિસ્થિતિ પેદા થઈ. એકબીજાની જરૂરિયાતના સંદર્ભમાં એકબીજાના વધારાની

કુટુંબોએ પરસ્પર આપ-લે કરી. જેવી આ આપ-લે થઈ તેવી વાણિજ્યની ઉત્પત્તિ થઈ. આમ, સમાજમાં સાટા (barter) પદ્ધતિના સ્વરૂપે વાણિજ્યનો જન્મ થયો.

સાટા-પદ્ધતિના વ્યવહારો વધતા ગયા, પરંતુ તે સાથે સ્વાશ્રય અને એકલપેટું જીવન જીવતો માણસ સામાજિક પ્રાણી પણ બનવા માંડ્યો. આથી એકબીજાથી અલગ અને દૂર દૂર ખેતરોમાં અને જંગલોમાં વસતાં કુટુંબો એક સ્થળે રહેવા માંડ્યાં. આ સ્થળ એવી રીતે પસંદ કરવામાં આવ્યું કે જેથી કુટુંબના સભ્યો ખેતરો અને જંગલોમાં ઓછામાં ઓછું અંતર કાપીને જઈ શકે. આ સ્થળ ગામ તરીકે ઓળખાયું. ગામમાં અનેક કુટુંબો સાથે રહેવા માંડ્યાં તેથી સાટા-વ્યવહારો વધારે પ્રમાણમાં વધારે ઝડપથી થવા માંડ્યા. એ દરમિયાન સાટા-પદ્ધતિમાં કેટલીક મર્યાદાઓ નડવા લાગી. ખાસ કરીને એકનો વધારો બીજાની જરૂરિયાત બને અને બીજાનો વધારો પહેલાની જ જરૂરિયાત બને તેવું બનતું ન હતું. આ દરમિયાન માનવીની સામાજિક તૃષ્ણા અને ઓછામાં ઓછી મહેનતે વધુ લાભ લેવાની વૃત્તિ માણસોને હજી વધારે આંતર-વ્યવહારો કરવાને માટે પ્રેરણા આપતી હતી. આથી ગામડું કે જે સ્વાવલંબી હતું તે પણ અન્ય ગામો સાથે આર્થિક તેમજ સામાજિક વ્યવહારો કરવા માંડ્યું. આ વ્યવહારો સરળતાથી, ઝડપથી અને ઓછા ખર્ચે થાય તે હેતુથી બધાં ગામડાં વચ્ચે એક સમાન સ્થળ નક્કી કરવામાં આવ્યું. માનવ-ઇતિહાસમાં આ એક એવું પહેલું સ્થળ હતું કે જે ખેતીવિષયક બાબતો અને જંગલ-આધારિત બાબતોથી સ્વતંત્ર હતું. એ શુદ્ધ વાણિજ્ય-વિષયક વ્યવહારો ચલાવવા માટેનું સ્થળ હતું. આ સ્થળને કસબાથી ઓળખવામાં આવ્યું. કસબાના જન્મથી વાણિજ્ય એના શુદ્ધ સ્વરૂપે શરૂ થયું એમ કહી શકાય.

4. વાણિજ્યનો વિકાસ :

વાણિજ્યના વિકાસ માટે કસબાએ લગભગ સ્પ્રિંગ બૉર્ડનું કામ કર્યું. ખેતી-વિષયક પ્રવૃત્તિમાંથી આર્થિક પ્રવૃત્તિઓ છૂટી પડી; એટલું જ નહિ, પણ સામાજિક પ્રવૃત્તિઓ પણ છૂટી પડી. કસબો મેળા અને ઉત્સવોની ઉજવણી માટેનું કેન્દ્ર બન્યું. એ પ્રસંગો મોટા પ્રમાણમાં આર્થિક વ્યવહારો કરવા માટેનાં નિમિત્ત બન્યાં; પરંતુ સાટા-પદ્ધતિમાં મર્યાદા નડતી હતી, તેથી આ પરિસ્થિતિમાં લોકોએ કોઠાસૂઝ વાપરીને સર્વમાન્ય એવાં ગાય, ઘોડા વગેરે પ્રાણીઓને લેવડ-દેવડનાં માધ્યમ તરીકે રાખ્યાં. કોઈ એક વ્યક્તિને અમુક ચીજની જરૂરિયાત હોય, પરંતુ એ જરૂરિયાત સંતોષતી ચીજનો વધારો ધરાવતી બીજી વ્યક્તિને મૂળ જરૂરિયાતવાળી વ્યક્તિ પાસેની ચીજના વધારાની જરૂરિયાત ન હોય તો તે બીજી વ્યક્તિએ પહેલી વ્યક્તિ પાસેથી ગાય, ઘોડા જેવાં ઉપયોગી અને સર્વમાન્ય પ્રાણીઓ સ્વીકારવા માંડ્યાં. ત્રીજી કોઈ વ્યક્તિ એની પાસેના તદ્દન જુદી જ ચીજના વધારાને લઈને આવે અને તે જો ગાય, ઘોડો ધરાવનાર બીજી વ્યક્તિની જરૂરિયાતને સંતોષતી હોય તો આવા વધારાના બદલામાં બીજી વ્યક્તિએ પહેલી વ્યક્તિ પાસેથી પ્રાપ્ત કરેલાં ગાય-ઘોડા આપવા માંડ્યાં. આમ ગાય, ઘોડા જેવાં જીવંત પ્રાણીઓ વિનિમયનું સાધન બન્યાં. જીવંત પ્રાણીની અનેક મર્યાદાઓને કારણે તેનું સ્થાન કાળક્રમે સર્વમાન્ય ધાતુઓએ લેવા માંડ્યું. ધાતુઓની ગુણવત્તા અને વજન માપી શકાતાં હતાં તેથી અને હેરફેરમાં તે સરળ હતી તેથી એ અનેક વસ્તુઓનાં મૂલ્યોને માપવા માટેનો એકમ બન્યો. બહુ જ ઓછા ખર્ચે ધાતુઓનો સંગ્રહ કરી શકાતો હતો; ઉપરાંત ધાતુની સરળતાથી હેરફેર થઈ શકતી હતી એટલે ધાતુના એક જ જથ્થાથી અનેક વ્યવહારો કરી શકાયા. આ બીજું કશું ન હતું પણ નાણાંની શોધ હતી. નાણાંની શોધથી વાણિજ્યનો વિકાસ તીવ્ર પ્રવેગથી થઈ શકે એવી પરિસ્થિતિ પેદા થઈ. નાણાં તરીકે ધાતુના ઉપયોગને કારણે વાણિજ્ય ખૂબ વિકાસ પામ્યું. વાણિજ્યના વિકાસનો પ્રવેગ એટલો બધો ઝડપી રહ્યો કે જેથી ધાતુની મર્યાદાઓનો આર્થિક જગતને અનુભવ થવા માંડ્યો. પરિણામે કાગળનું નાણું આવ્યું. કાગળનાં નાણાંના વ્યવહાર ચલાવવા માટે દરેક દેશમાં એક કેન્દ્રસ્થ બૅંક સ્થપાઈ. નાણાંને લગતા અનેક પ્રકારના દસ્તાવેજો વ્યવહારમાં આવ્યા એટલે બૅંકિંગ-સેવા ઉદ્યોગ અસ્તિત્વમાં આવ્યો. માલની ઝડપી હેરફેર અને મોટા જથ્થામાં દૂર દૂરના અંતરની હેરફેરને કારણે જોખમો વધ્યાં. અનેક પ્રકારનાં જોખમો અસ્તિત્વમાં આવ્યાં; જેમાં નુકસાનને વહેંચી લેવા માટે વીમા-સેવા ઉદ્યોગ અસ્તિત્વમાં આવ્યો. એ જ પ્રમાણે સંગ્રહ માટે વખારો, હેરફેરના નિષ્ણાત એવા આડતિયાઓ, સંદેશાવ્યવહાર અને આ બધાંને સફળ બનાવનાર વાહનવ્યવહાર પણ ખૂબ વિકસ્યો.

5. વાણિજ્યનું મહત્વ :

વાણીજ્યમાં વેપાર ઉપરાંત વેપારને સહાયક સેવાઓનો સમાવેશ થાય છે વાણિજ્ય નું કાર્યક્ષેત્ર વિશાલ છે.વાણિજ્ય માં વેપાર નો સમાવેશ થાય છે વાણિજ્ય માં બંને પક્ષકારો દુરના સ્થળે અને અપરિચિત હોઈ શકે છતાં સહાયક સેવાઓ મેળવી શકે છે.

વિતરણ અને વિનિમય સાથે સંકળાયેલી પ્રવુતિ કરવા માટે વાણિજ્ય હેઠળ મુખ્યત્વે વેપાર થતો હોય છે.વેપાર એટલે નાણાકે નાણામેળવવાના વચનના બદલામાં માલ અથવા સેવાની તબદીલી વેપાર યોગ્ય રીતે ચાલે તે માટે એને મદદકર્તા અનેક પ્રવુતિઓ થતી હોય છે.વાણીજ્યમાં આમ વેપાર મુખ્ય પ્રવુતિ છે.અને અન્ય પ્રવુતિઓ સહાયક છે આથી અમુક પ્રવુતિઓની દ્રષ્ટીએ વાણિજ્યની એક એવી સંકલ્પના થઈ છે કે વેપાર અને તેને મદદ કરતી પ્રવુતિઓમાં મુખ્યત્વે વાહનવ્યવહાર,બેંક,વીમો,આડતિયા,સંદેશાવ્યવહાર વખારની સેવાઓનો સમાવેશ થાય છે આમ ઉત્પાદક પાસેથી પ્રાપ્ત કરેલી ચીજવસ્તુઓ અને સેવાઓ વપરાશકર્તા સુધી પહોચાડવાની બધી આર્થિક પ્રવુતિઓને પણ વાણિજ્ય કહેવાય છે.

ઉત્પાદન અને વપરાશકર્તા વચ્ચે વાણિજ્ય કઈ આર્થિક સેવા આપે છે તે પણ વાણિજ્યની સંકલ્પના સમજવા ઉપયોગી છે.વિવિધ ક્ષેત્રોમા પણ વાણિજ્યનું ખુબ જ મહત્વ વધતું ગયું છે.વાણિજ્યમાં ટેકનોલોજીની મદદથી વાણિજ્ય-વિષયક વ્યવહારો શરૂ થયા ઈ-મેઈલ,એસ-મેઈલ અને ક્રેડીટ-કાર્ડ આધારિત વ્યવહારોએ વાણિજ્યને વિકસાવવામાં મોટો ફાળો છે.

6. શિક્ષણનો અર્થ :

શિક્ષણ એટલે વિવિધ વિષયોની જાણકારી મેળવવાની પધ્ધતિ.

શિક્ષણ એટલે ભણતર; જેમાં વાચન, લેખન અને ગણનનો સમાવેશ થાય છે. એ ત્રણ વાનાં કરનાર શિક્ષિત ગણાય છે.

શિક્ષણ એટલે સાક્ષરી વિષયોનું જ્ઞાન; જેમાં ઉપર જણાવેલાં ત્રણ કૌશલ્યો – વાચન, લેખન અને ગણન ઉપરાંત ઇતિહાસ, ભૂગોળ, વિજ્ઞાન વગેરે વિષયોના શિક્ષણનો સમાવેશ થાય છે.

7. શિક્ષણનું મહત્વ :

શિક્ષણથી બુદ્ધિ અને જીવનનું ઘડતર થાય છે.સારું શિક્ષણ પ્રાપ્ત કરવું ખુબ જ જરૂરી છે.વ્યક્તિના સર્વાગી વિકાસ શિક્ષણના કારણે થાય છે શિક્ષણ હોય તો ગમે તે સિદ્ધિ પ્રાપ્ત કરી શકાય છે.આજના યુગમાં શિક્ષણ પ્રાપ્ત કરેલ વ્યક્તિ ખુબ જ આગળ નીકળી જાય છે શિક્ષણ વિનાનું જીવન પાંગળું બની જાય છે નક્કી કરેલા લક્ષ્યને પ્રાપ્ત કરવા શિક્ષણ ખુબ જ જરૂરી છે.સરકાર પણ વિવિધ કાર્યક્રમો કરીને શિક્ષણનું મહત્વ સમજાવે છે.એવું કહેવાય છે કે શિક્ષણના મૂળ કડવા હોય છે પરંતુ તેના ફળ મીઠા હોય છે.

પહેલાના સમયમાં શિક્ષણનું એટલું બધું મહત્વ ન હતું પરંતુ અત્યારે દિવસેને દિવસે શિક્ષણનું મહત્વ વધતું ગયું છે.માનવી પાસે શિક્ષણ ન હોય તો તે પાંગળો બની જતો હોય છે. શિક્ષણ લોકોના મનને ઉચ્ચ સ્તરે વિકસાવવાનુંકામ કરે છે તેપુરુષો અને સ્ત્રીઓ બંને માટે સમાનરૂપે જરૂરી છે.સારું શિક્ષણ જીવનમાં ઘણા હેતુઓ પુરા પડે છે. મુખ્ય શિક્ષણનો સમય બધામાં સક્રિય ભૂમિકા ભજવે છે.

સામાજિક અને વ્યક્તિગત રીતે સમય ખુબ જ મહત્વ પૂર્ણ હોય છે અને યોગ્ય શિક્ષણ આપણને જીવનમાં લક્ષ્યો બનાવીને સફળતા તરફ લઈ જાય છે.દરેક વ્યક્તિ સારી અને ટેકનીકલ નોકરી મેળવવા માટે ઉચ્ચ શિક્ષણ ખુબ જ જરૂરી છે.દરેક વ્યક્તિ પાસે બધું જ શિક્ષણ મેળવવાની ક્ષમતાહોતી નથી કોઈ વ્યક્તિ ઓછુ શિક્ષણ મેળવી શકે છે તો કોઈ વ્યક્તિ વધારે શિક્ષણ મેળવતો હોય છે.

કહેવાય છે કે જે વ્યક્તિ પાસે વધુ શિક્ષણ અને કામ કરવાની ભાવના હશે તે માણસ ખુબ જ આગળ જતો રહે છે.પહેલાનો સમય એવો હતો કે લોકો ખુબ જ ઓછા પ્રમાણ માં શિક્ષણ મેળવતા હતા પરંતુ છતાં પણ તે લોકોને નોકરી જલ્દી મળી જતી હતી આજે લોકો વધુ પ્રમાણ માં શિક્ષણ મેળવે છે છતાં પણ નોકરી મળવી મુશ્કેલી લાગે છે કારણ કે

લોકો શિક્ષણ તરફ વધારે આકર્ષાયા છે અને હવે શિક્ષણમાં પણ હરીફાઈ વધતી ગઈ છે.માટે વધુ શિક્ષણ મેળવીને લોકો ઉચ્ચા લક્ષ્ય તરફ જવાનો વધારે પ્રયત્ન કરતા હોય છે.

આમ,દિવસેને દિવસે શિક્ષણનું ખુબ જ મહત્વ વધતું જોવા મળ્યું છે.

8. ઉદ્યોગનો અર્થ :

એક આર્થિક પ્રવૃત્તિ કે જેમાં કાચા માલને ઉપયોગી વસ્તુઓમાં રૂપાંતરિત કરવામાં આવે છે. તેનો મુખ્ય હેતુ વસ્તુઓનું ઉત્પાદન કરવાનો છે, જે લોકોની જરૂરિયાતો પૂરી કરવા માટે કરવામાં આવે છે.જેને ઉદ્યોગ તરીકે ઓળખવામાં આવે છે.

9. ઉદ્યોગ નું મહત્વ :

દરેક રાષ્ટ્રની પ્રગતિ ઉદ્યોગના વિકાસ પર આધારિત હોય છે ઔદ્યોગિક વિકાસ વિના આર્થિક વિકાસ થઈ શકતો નથી.ઔદ્યોગિક વિકાસથી દેશની અર્થવ્યવસ્થા ઘણી મજબુત બને છે દા.ત.યુ.એસ.એ,જાપાન,રશિયા વગેરે દેશો ઔદ્યોગિક વિકાસ સાધીને સમૃદ્ધ અને વિકસિત બન્યા છે.જે દેશોમાં ઉદ્યોગોનો વિકાસ થયો નથી અથવા ઓછો થયો છે તે દેશોએ પોતાના કુદરતી સંસાધનોને ઓછા મુલ્યે વેચીને તે જ કાચા માલમાંથી બનેલી વસ્તુઓ મોંઘા ભાવે વિદેશો પાસેથી ખરીદવી પડે છે.પરિણામે તેઓ ઔદ્યોગિક વિકાસ સાધી શકતા નથી.તેમનો આર્થિક વિકાસ રૂંધાય જાય છે.

દેશમાં ઉદ્યોગ સ્થાપવાની ઉત્પાદનમાં વધારો થાય છે.અને લોકોનું જીવનધોરણ ઉચું આવે છે ઉદ્યોગમાં કામ કરતા લોકોમાં જ્ઞાનમાં પણ વધારો થતો જોવા મળે છે તેની સાથે તેમની ઉત્પાદન ક્ષમતા આવક અને ખરીદ શક્તિ પણ વધે છે આમ થવાથી રાષ્ટ્રનો પણ આર્થિક વિકાસ થાય છે.

ભારતમાં રાષ્ટ્રીય ઉત્પાદનનો ફાળો સારો જોવા મળે છે ઉદ્યોગ દ્વારા દેશ-દેશ વચ્ચે ખુબ જ સારા સબંધો પણ કેળવાય છે એના કારણે જે વસ્તુની જરૂરિયાત હોય તેની એકબીજા આપ-લે કરી લે છે એકબીજા પાસેથી કાચો માલ પણ મેળવી લે છે.તેમજ માલસામાનનું પણ વેચાણ કરવામાં આવે છે.

દેશના ઉદ્યોગનું જુદા જુદા વર્ગોમાં વિભાજન કરવા માટે જુદા-જુદા ધોરણો ઉપલબ્ધ છે.જેમ કે ઔદ્યોગિક એકમમાં સ્થિર મૂડીનું પ્રમાણ પેદાશનો ઉપયોગ,માલિકીનું સ્વરૂપ અને મુખ્ય નિક્ષેપ સ્ત્રોત વગેરે જોવા મળે છે.

10.વાણિજ્ય અને ઉદ્યોગ વચ્ચેનો સબંધ :

વાણિજ્ય અને ઉદ્યોગ એક સિક્કાની બે બાજુ છે એમ કહી શકાય. ઉદ્યોગ અને વેપાર વ્યવસાયના સ્વભાવ અને કારણ માટે જરૂરી છે. ઉદ્યોગ અને વેપાર અર્થતંત્રમાં બે પ્રકારની વ્યવસાયિક પ્રવૃત્તિઓની ચર્ચા કરે છે. વ્યવસાય એ એક વ્યવસાયિક ક્રિયા છે જ્યાં તમે અશુદ્ધ પદાર્થોને વસ્તુઓમાં રૂપાંતરિત કરો છો; તેમાં ઉત્પાદન અને સંચાલનનો સમાવેશ થાય છે. બીજી બાજુ, વેપાર એ એક વ્યવસાયિક ક્રિયા છે જ્યાં ઉત્પાદનો સીધા અથવા ગોળાકાર રીતે છેલ્લા ખરીદનાર સુધી પહોંચાડવામાં આવે છે. વેપાર વેપાર સાથે કામ કરે છે. તેને વધુ સારી રીતે મેળવવા માટે, આપણે ઉદ્યોગ અને વ્યવસાય વચ્ચેનો તફાવત સમજવો જોઈએ. આ વ્યવસાયિક પ્રવૃત્તિઓ સસ્તી છે, અને તે આપણને લાભ મેળવવામાં મદદ કરે છે. તેમ છતાં, તક અને વળતરની નબળાઈના ઘટકો હજુ પણ ઘણા બધા શક્ય છે. ઉદ્યોગ અને વેપાર વ્યવસાયના સ્વભાવ અને કારણ માટે જરૂરી છે. ઉદ્યોગ અને વેપાર અર્થતંત્રમાં બે પ્રકારની વ્યવસાયિક પ્રવૃત્તિઓની ચર્ચા કરે છે. વ્યવસાય એ એક વ્યવસાયિક ક્રિયા છે જ્યાં તમે અશુદ્ધ પદાર્થોને વસ્તુઓમાં રૂપાંતરિત કરો છો; તેમાં ઉત્પાદન અને સંચાલનનો સમાવેશ થાય છે. બીજી બાજુ, વેપાર એ એક વ્યવસાયિક ક્રિયા છે જ્યાં ઉત્પાદનો સીધા અથવા ગોળાકાર રીતે છેલ્લા ખરીદનાર સુધી પહોંચાડવામાં આવે છે. વેપાર વેપાર સાથે કામ કરે છે. તેને વધુ સારી રીતે મેળવવા માટે, આપણે ઉદ્યોગ અને વ્યવસાય વચ્ચેનો તફાવત સમજવો જોઈએ. આ વ્યવસાયિક પ્રવૃત્તિઓ સસ્તી છે, અને તે આપણને નફો મેળવવામાં મદદ કરે છે. તેમ છતાં, જોખમ અને વળતરની નબળાઈના પરિબળો હજુ પણ ઘણા શક્ય છે.

ઉદ્યોગ અને વેપાર વ્યવસાયના સ્વભાવ અને કારણ માટે મહત્વપૂર્ણ છે. ઉદ્યોગ અને વેપાર અર્થતંત્રમાં બે પ્રકારની વ્યવસાયિક પ્રવૃત્તિઓની ચર્ચા કરે છે. વ્યવસાય એ એક વ્યવસાયિક ચળવળ છે જ્યાં તમે અશુદ્ધ પદાર્થોને વસ્તુઓમાં

રૂપાંતરિત કરો છો; તેમાં ઉત્પાદન અને સંચાલનનો સમાવેશ થાય છે. બીજી બાજુ, વેપાર એ એક વ્યવસાયિક પ્રવૃત્તિ છે જ્યાં માલ સીધા અથવા સૂચિતાર્થે છેલ્લા ગ્રાહક સુધી પહોંચાડવામાં આવે છે. વેપાર વેપાર સાથે કામ કરે છે. તેને વધુ સારી રીતે મેળવવા માટે, આપણે ઉદ્યોગ અને વેપાર વચ્ચેનો તફાવત શોધવો જોઈએ. આ વ્યવસાયિક પ્રવૃત્તિઓ સસ્તી છે, અને તે આપણને લાભ મેળવવામાં મદદ કરે છે. તેમ છતાં, તક અને વળતરની નબળાઈના ઘટકો હજુ પણ ઘણા શક્ય છે. ઉદ્યોગ અને વેપાર બંને કામ ચાલુ રાખવા માટે બે અલગ અલગ અભિગમો છે. જ્યારે આપણે અશુદ્ધ ઘટકો સુરક્ષિત કરીએ છીએ અથવા દૂર કરીએ છીએ અને તેમને પૂર્ણ ઉત્પાદનોમાં રૂપાંતરિત કરીએ છીએ જે છેલ્લા ખરીદનાર સુધી પહોંચે છે, ત્યારે તે એક ઉદ્યોગ છે. ઉદ્યોગમાં, પ્રવૃત્તિઓ યાંત્રિક મશીનો અને પૂર્ણ ઉત્પાદનોના સંગ્રહ, નિર્માણ અને સંચાલન જેવી વિશિષ્ટ કુશળતાનો ઉપયોગ કરવાની જરૂર છે. વ્યવસાય બજારના સ્ટોક બાજુ સાથે સંબંધિત છે. ઉદ્યોગ હેઠળ આવરી લેવામાં આવતી પ્રવૃત્તિઓના ઉદાહરણોમાં અશુદ્ધ પદાર્થોનું નિષ્કર્ષણ, આ અશુદ્ધ પદાર્થોનું પૂર્ણ અને મૂલ્યવાન માલમાં રૂપાંતર, અને વિકાસ જેવી પ્રવૃત્તિઓનો સમાવેશ થાય છે.

11.વાણિજ્ય અને શિક્ષણવચ્ચેનો સબંધ :

વાણિજ્ય અને શિક્ષણ બંને એકબીજા સાથે ગાઢ સંબંધ ધરાવે છે. શિક્ષણ વ્યક્તિને વાણિજ્યમાં સફળ થવા માટે જરૂરી કૌશલ્યો અને જ્ઞાન પ્રદાન કરે છે. અને વ્યક્તિને સફળતા મેળવવામાં મદદ કરે છે.

કૌશલ્ય વિકાસ: શિક્ષણ વ્યક્તિને વાણિજ્યમાં જરૂરી કૌશલ્યો જેમ કે માર્કેટિંગ, ફાઇનાન્સ, અને મેનેજમેન્ટ શીખવામાં મદદ કરે છે.

જ્ઞાન: શિક્ષણ વ્યક્તિને વાણિજ્ય સંબંધિત જ્ઞાન પ્રદાન કરે છે, જે તેમને વાણિજ્યમાં સફળ થવામાં મદદ કરે છે.

રોજગાર: શિક્ષણ વ્યક્તિને વાણિજ્ય ક્ષેત્રમાં રોજગાર મેળવવામાં મદદ કરે છે.

ઉદ્યોગસાહસ: શિક્ષણ વ્યક્તિને ઉદ્યોગસાહસ શરૂ કરવા માટે જરૂરી કૌશલ્યો અને જ્ઞાન પ્રદાન કરે છે.

૧૨.ઉપસંહાર :

શિક્ષણએ જ્ઞાન અને કૌશલ્યનું પ્રસારણ અને ચારિત્ર્યના ગુણોનો વિકાસ છે આમ, શિક્ષણ માળખાગત સંસ્થાકીય માળખામાં થાય છે આમ જોઈતો શિક્ષણને અલગ અલગ સ્તરમાં વિભાજીત કરવામાં આવ્યું છે પ્રાથમિક તબ્બકે પ્રાથમિક શિક્ષણ,માધ્યમિક શિક્ષણ અને તૃતીય શિક્ષણ નો સમાવેશ થાય છે.

જો ઉદ્યોગ ની વાત કરીએ તો ઉદ્યોગ દ્વારા એક સારા સારા સબંધો કેળવાય છે અને દેશ-દેશ વચ્ચે આપ-લે ના સબંધો પણ વિકસ્યા છે જેમ શિક્ષણનું મહત્વ જોવા મળે છે તેમ ઉદ્યોગ નું પણ એટલું જ મહત્વ જોવા મળ્યું છે આમ જોવા જઈ તો ઉદ્યોગના ઘણા ગેરફાયદા પણ છે તેના કારણે નુકસાની થતી પણ જોવા મળે છે દિવસેને દિવસે લોકો વધુ ઉદ્યોગ તરફ વધુ જોવા મળે છે આજે લોકો એવું પણ વિચાર કરે છે શિક્ષણ મેળવશું પરંતુ નોકરી નથી મળવાની માટે શિક્ષણ મેળવીને ઉદ્યોગ તરફ જતા રહી જેના કરને આજે રોજી રોટી પણ મળી રહેશે.

વાણિજ્ય ક્ષેત્રમા પહેલા ટેકનોલોજીનો અભાવ હતો હાલ વધુ ટેકનોલોજીના કારણે વાણિજ્ય ખુબ આગળ વધ્યું છે.જેમ વાણિજ્ય અને ઉદ્યોગ એક સિક્કાની બે બાજુ છે તેમ વાણિજ્ય અને શિક્ષણ પણ એક સિક્કાની બે બાજુ જ કહી શકાય કારણ કે વેપાર કરવા માટે શિક્ષણ ખુબ જ જરૂરી છે શિક્ષણ વિના વેપાર પાંગળો બની જાય છે.

સંદર્ભ :

ભગવતસિંહજી ભગવદ્ગોમંડળ પ્રવિણ પુસ્તક ભંડાર રાજકોટ.
ધીરુભાઈ ઠક્કર ગુજરાતી વિશ્વકોષ ગુજરાતી વિશ્વકોષ ટ્રસ્ટ અમદાવાદ
પ્રો. મનુભાઈ મો.શાહ ધંધાકીય સંચાલન યુનિવર્સિટી ગ્રંથ નિર્માણ બોર્ડ ગુજરાત રાજ્ય અમદાવાદ
ડૉ.રમણીક જે.યાદવ સંચાલનના નવા ખ્યાલો અને દિશાઓ યુનિવર્સિટી ગ્રંથ નિર્માણ બોર્ડ ગુજરાત રાજ્ય અમદાવાદ
ગૂગલ વીકીપીડીયા

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डॉ. रांगेय राघव के उपन्यासो के स्त्री-चरित्र

तंबोलिया नीरू विट्ठलभाई
शोध छात्रा,हिन्दी भवन, सौराष्ट्र विश्वविघालय राजकोट

प्रस्तावना :-

उपन्यास अर्थात जीवन की संवेगात्मक अभिव्यक्ति मात्रा जीवन की ही अभिव्यक्ति नहीं बल्कि जीवन का मूल्यांकन आलोचक और साथ में टिप्पणी भी है उपन्यासकार जीवन की परिवर्तनशील और परिवर्तित मान्यताओं के आधार पर जीवन के नए मूल्यों की स्थापना करके जीवन का सामग्र निष्कर्ष पर सफल शिल्प के साथ किए गए मूल्यांकन को अपनी कृति में प्रस्तुत करता है किसी भी साहित्यकार साहित्य अनुशीलन के पूर्व उनके व्यक्तित्व नीचे जीवन सर्जन वातावरण अनुगमन पुनरागमन चिंतन मनन सभी के बारे में विचार करना अनिवार्य होता है।

रांगेय राघव के उपन्यासों में स्त्री चरित्र में सामाजिक पाखंडों, बंधन, दमन, ऐतिहासिक क्षण, विधवा समस्या आदि का यथार्थवादी चित्रण और आर्थिक चित्रण देखने को मिलता है। रांगेय राघव जी ने अपने उपन्यासों में स्त्री पात्रों के माध्यम से इस पुरुष प्रधान समाज के अन्याय और स्त्री आत्मा निर्मित स्वावलंबन सामाजिक सुरक्षा प्रेम की तलाश में अपने जीवन की जटिलताओं का सामना करती है।

रांगेय राघव का व्यक्तित्व :-

रांगेय राघव का जन्म 17 जनवरी 1923 को उत्तरप्रदेश आगरा के "बैर" गाओ में शिशिर ऋतु में सूर्योदय की बेला में तातार्चार्य कुल में उनका जन्म हुआ, तब एक साई ने कहा था-"देखो सितारा चमका" और कुछ क्षण पश्चात बोला-"लेकिन ज्यादा दिन नहीं रहेगा" रुस्तम खा की यह बात सुनकर पिता रंगाचार्य मन में ढेर सारी चिंता लिए "भूगृसंहिता" वालों से संपर्क करने गए थे और तब जाकर निश्चित हुए, जब उन्होंने बालक की आयु 75 वर्ष लिखकर दी थी।१ पिता का नाम रंगाचार्य था और माता का नाम कनकवल्ली था|

पिता रंगाचार्य उस समय अंग्रेजी का विशेष महत्व था। इसलिए अपने तीनों पुत्रों की शिक्षा अंग्रेजी माध्यम से दिलाना चाहते थे| बैर में अंग्रेजी माध्यम का एक भी स्कूल न होने के कारण उन्हें आगरा आना पड़ा| आगरा के सेंट विक्टोरिया स्कूल में भर्ती कर दिया और विक्टोरिया स्कूल के अध्ययन के बाद सेंट जॉन्स स्कूल में दाखिल कर सर्वप्रथम अपने वंश में प्रगति सिल्क कदम उठाया जिस समय राघव जी को विद्यालय में भेजा गया उस समय उनकी अवस्था केवल छः वर्ष की थी। वह पढ़ने से बहुत घबराते थे। इनके बड़े भाई टी.एन.के. आचार्य ने लिखा है- " जब वह छः साल की उम्र का हुआ तो हम लोग हंसने लगते। कोई नहीं जानता कि पढ़ाई से डर कर रोने वाला वह लड़का एक दिन किताबों को ही अपना जीवन अर्पित कर देगा।"२

राघवजी ने हाईस्कूल की परीक्षा उतिर्न की उसके पश्चात सेंट जॉन्स कॉलेज में अध्ययन करना शुरू किया। बी.ए. के बाद 21 वर्ष की आयु में सन 1944 में उन्होंने आगरा विश्वविद्यालय से एम.ए. की परीक्षा उत्तीर्ण्य की उन्होंने आगरा विश्वविद्यालय में एम.ए. किया। 'गुरु गोरखनाथ और उनका युग' विषय पर डॉक्टर हरिहरनाथ टंडन

के निर्देशन में शोध कार्य प्रारंभ किया। सन 1946 में उनका शोध कार्य संपन्न हुआ और शोध कार्य पर इन्हें पीएच.डी. की उपाधि से अलंकृत किया।

डॉक्टर रांगेय राघव जी की प्रबल इच्छा थी कि उसकी पत्नी श्रीमती सुलोचना की हिंदी भाषा और स्वजातीय हो 7 मई सन् 1956 को माटुंगा मुंबई में सादगी पूर्ण और परंपरागत ढंग से उनका विवाह संपन्न हुआ। राघव जी की आयु 33 वर्ष और सुलोचना जी की आयु 19 वर्ष की थी। दोनों के बीच लगभग 14 वर्ष का अंतर था डॉक्टर रानगिर का उसे सुलोचना जी के अध्ययन के पक्ष में थे इसलिए सुलोचना जी ने रामनारायण लोईया कॉलेज में अपना अध्यापन प्रारंभ किया। सुलोचना जी ने बताया कि- "उन्होंने विवाह के बाद मुझे पढ़ाई में व्यस्त रखा शादी के बाद ही मैंने बी.ए. किया और एम.ए. में तो यहां पर कहूंगी कि डॉक्टर साहब ने बड़ी दूरदर्शिता का परिचय दिया कि उन्होंने मुझे अपने पैरों पर खड़े होने की सलाह दी जिससे मुझे अनावश्यक रूप से भटकना नहीं पड़ा।"३

उपन्यासों में स्त्री पात्रों की विशेषताएँ :-

(1) सामाजिक और पारिवारिक रूढ़ियों से संघर्ष :

रांगेय राघव ने उपन्यासों में स्त्री पात्रों के माध्यम से समाज को उजागर किया है।' धूनी का धुआ के गोरख ने स्त्रियों की कामवासना रोककर उनकी प्रेम शक्ति को बढ़ाया और समाज से व्यभिचार को किया है। गोरख धरती के खिलाफ खड़े हुए और उन्होंने जीवन मरण के मामले में सभी मनुष्यों को समान नहीं माना है। वही 'यशोधरा जीत गई' के बुद्ध ने जहां नो देवताओं के दुख दूर करने के लिए अपने प्राकृतिक सुख -विलास त्याग दिए थे, 'अंधेरे के जुगनू 'की बृहदवती स्त्री सम्मान तथा स्वतंत्रता की प्रतीक है।' कब तक पुकारू कजरी और प्यारी इस उपन्यास में समाज केसामने अपने हक के लिए लड़ती है। और विरोध भी करती है । प्रेम के लिए कितने लोग बलिदान दे रहे होते है।

'राय और पर्वत' स्वतंत्रोत्तर ग्रामीण जीवन पर आधारित रचना है। गांव के सामाजिक जीवन में व्याप्त भ्रष्टाचार अनैतिकता ,सामाजिक विडंबनाओ एवं मूल्यगत अंतरविरोधों की सशक्ति अभिव्यक्ति इस उपन्यास में देखने को मिलती हैं।

फूलवती के रूप में भारतीय नारी की हीनता की ग्रंथि उसकी शारीरिक, मानसिक तृष्टि, लोक लज्जा की विवशता सभी को छिपाने के लिए षड्यंत्र के रूप में सामने आती हैं। राय जैसी भूल को पहाड़ बना देता हैं।

आर्थिक स्वावलंबन की आवश्यकता :-

रांगेय राघव जी के उपन्यासों में आर्थिक स्वावलंबन की कमी को भी दर्शाया गया है। उसे वजह से कुमार्गों की ओर चली जाती है। आर्थिक स्वावलंबन की आवश्यकता उनके समाज में व्याप्त शोषण, रूढ़ियों, अंधविश्वासों के विरोध से जुडी हुई है। आर्थिक रूप से निर्भर लोग, विशेष कर महिलाएं दूसरों के शोषण का शिकार होती रहती हैं।

रांगेय राघव का उपन्यास 'कब तक पुकारू' प्यारी एक दरोगा (रुस्तमखां) की रखैल बन जाती है। वो अपना पति सुखराम को बचाने हेतु ही यह किया होता हैं। नटों को पुलिस अत्याचारों से बचाने और कैद से छुड़ाने की कींमत नटनीयों को अपने तन से चुकानी पड़ती हैं। कितनी विवशताओं और विडंबनाओं से भरा हैं। यह गहराई में जाने से पता चलता हैं। रुस्तमखां की बीमारी से प्यारी भी नहीं बच पाती और उसका करुण अंत होता हैं।

'छोटी सी बात' उपन्यास में राघव जी ने स्त्री स्वतंत्रता का सवाल उठाया है-" क्या प्रत्येक स्त्री अपनी परतंत्रता जानती है? फिर भी वह उसके विरुद्ध विद्रोह क्यों नहीं करती?"४

विद्रोह और नई चेतना :-

इस पुरुष प्रधान समाज में कई सारी पाबंदियों के बावजूद, कुछ स्त्री पात्र इस सारी पाबंदियों को तोड़कर विद्रोह की भावना जाग्रत करती हैं। और वह अपने अधिकारों के लिए लड़ती हैं। और वह समाज की सोच को चुनौती देने से डरती नहीं हैं। समाज का डटकर सामना करती हैं।

'चीवर' में राज्यश्री रहती है:

'युद्ध हर्षवर्धन और पुलकेशिन का है फिर यहां परस्पर द्वंद्वयुद्ध कर लें।

व्यर्थ असंख्य प्राणियों का यह नाश क्यों किया जा रहा हैं?

सेनापति स्कंदगुप्त ने आगे बढ़कर कहा,' देवी! यहा शक्ति और राजनीति की बात है। साम्राज्य की मर्यादा का प्रश्न है। यह पुष्यभूति वंश के गौरव की बात है ।'

राज्यश्री ने हंसकर कहा,' नहीं सेनापति, यह सब कुछ नहीं है। यह एक प्रमाद है। पुरुष की बर्बरता है। लूट है। उत्पाद है।"५

रांगेय राघव ने अपने उपन्यासों में स्त्री को पत्नी के रूप में, माता के रूप में, पुत्री- बहन के रूप में संघर्ष करती दिखाई देती हैं। पति के कंधे से कंधा मिलाकर पत्नी पूरे राष्ट्र के कल्याण में लगी रहती हैं। अगर बर्दाश्त की सारी हदे पार हो जाए तो वह साक्षात रणचंडी का रूप का रूप रूप धारण कर लेती हैं।

रंगी राघव जी ने उपन्यासों में पुरुषों द्वारा होने वाले स्त्री के शोषण और उत्पीड़न का चित्रण किया गया हैं। लेकिन साथ ही स्त्रियों को भी अपनी दयनीय स्थिति का खुद को ही जिम्मेदार ठहरने पर व्यवस्था दिखाया गया हैं।

रांगेय जी ने स्त्री को पति या दूसरों पर निर्भर न रहने के बजाय आधुनिकता का अध्ययन करके अपने पैरों पर खड़े रहे और अपने जीवन के निर्णय स्वयं लेने की प्रेरणा प्रदान करते हैं। उनके उपन्यासों में समाज के रूढ़िचुस्त और धर्माडम्बरो से ग्रस्त भर पहलुओं को उजागर करते है और समाज में व्यापित कुरीतियों के विरुद्ध स्त्री को डटकर सामना करने और नई चेतना का अनुभव करने के लिए प्रेरणा देते हैं।

'कब तक पुकारू' उपन्यास में कर्नटक की स्त्रियों का मार्मिक चित्रण किया गया है, जहां उन्हें समाज द्वारा शोषण किया जाता है, और वे अपने अस्तित्व स्थापित करने के लिए संघर्ष करते हैं।

स्त्री को आर्थिक स्वतंत्रता और सामाजिक सुरक्षा मिलना अति आवश्यक हैं, जो ना मिलने पर वह गलत राह को चुन सकती है, इसलिए राघवजी ने स्त्री के लिए आत्मनिर्भर होने का महत्व को भी आलेखित किया हैं।

रांगेय राघव ने स्त्रियों को मात्र शोषित पत्रों के रूप में ही नहीं, बल्कि अनेक प्रकार की सामाजिक-आर्थिक विडंम्बना ओं के खिलाफ संघर्ष करने वाली और नई चेतना व स्वाभिमान से और नई आकांक्षा के जीने वाली नई इकाई के रूप में प्रस्तुत किया गया हैं। स्त्री पात्रों को अपनी नई दिशा मिले ऐशे वर्णित किया है वैसे ही रंगे राघव जी ने अपनी पत्नी सुलोचना जी को भी अध्ययन के पक्ष में थे इसलिए सुलोचना जी ने राम नारायण लोईया कॉलेज में अपना अध्ययन प्रारंभ किया।

रांगेय राघव का उपन्यास 'मेरी भव बाधा हारों' भी पति-पत्नी की रीति पर ही आधारित यह उपन्यास हैं। ऊर्जावान, उनकी सुंदरता ,नैतिकता और भाईचारे वाली रचनाएं पर आधार है जिस पर अपनी जीवन कथा कही हैं। पति की पत्नी की उसकी प्रेरणा के रूप में चित्रित किया गया हैं। और साथ में दूसरी और पुरुष की सफलता का रहस्य स्त्री को बताया गया हैं।

देश की रक्षा में ही स्त्रियों का योगदान बड़ा रहा हैं। स्त्रियों के गौरव गाथा को बढ़ाते हुए वह कहती है कि-" हम स्त्रियों ही है, जिनके कारण मेवाड़ हैं। मेवाड़ की धरती की धरती हैं, देवर जिनके कारण मेवाड़ का गौरव जगमगा रहा हैं।उनको हमारी ही कोख जन्म देती रही है। मेवाड़ के पुरुषों को बनाने वाली उनकी नारियों है। तुम चित्तौड़ की रानीयां का जौहर भूल रहे हो देवर!"६

एक त्यागमयी नारी होते हुए भी राजनीति के विषय में उसका चिंतन बहुत ही गहरा था, जैसे- "इस देश में अनेक आक्रमणकारी आए और खो गये। महाराज! एक दिन यह भी ढूंढने से नहीं मिलेंगे। परंतु बीच गिरते ही तो वृक्ष नहीं बन जाता। पांच सो वर्ष की फूटने ही इस वृक्ष को इतना विशाल बनाया है। जिस तरह दासता का बीज फूलता है, उसी तरह स्वतंत्रता का बीच भी उगता हैं। स्वामी! हम भले न रहे, परंतु इस पवित्र भूमि में आने वाली संतानों को यह कहने का तो अवसर नहीं मिलेगा। कि उस समय मनुष्य मात्र कायर हो गये थे।"७

स्त्री एक शक्ति है ,उतना ही नहीं, पुरुष की वह प्रेरणादायिनी हैं। यह बात उसके दिलोंदिमाग पर हमेंशा छायी रहती थी। अपने पति के द्वारा व्यक्त की गई आशंका पर आश्चर्य व्यक्त करती है -"राजपूत जिस रणचंडी की उपासना करते हैं वह स्त्री ही हैं। जिस वैदेही ने राघव के साथ वन का बीहड़ पथ पकड़ा था, वह भी स्त्री ही थी और आपकी माँ भी स्त्री ही थी। जो हँसते हुए चिता पर जीवित ही चढ़ गई थी। ऐसी माँ का पुत्र स्त्री की शक्ति पर अविश्वास करें, इससे बढ़कर और क्या आश्चर्य हो सकता है, जिसके पिता ने पन्ना का दूध पिया हो, उसे भी स्त्री की सहन-शक्ति पर अविश्वास हो तो स्त्री करें भी क्या? केवल विवाह के पवित्र बंधन में बंधकर क्या स्त्री अपने पति के साथ देश और जाति के प्रति भी सामान धर्म उत्तरदायित्व नहीं रखती।"८

रांगेय राघव ने महाराणा प्रताप की पत्नी महारानी लक्ष्मी के व्यक्तित्व पर ही इस उपन्यास का मंडप तैयार किया गया हैं। लेखक ने उपन्यास की भूमिका में लिखा हैं- "प्रस्तुति उपन्यास लिखने का विचार तब आया जब एक रात राजपूत कथाओं के विषय में बातचीत चल रही थी। मेरे सामने मेवाड़ के अनेक वीरों के नाम थे, लेकिन न जाने कैसे यहा स्त्री मेरी आंखों के सामने खड़ी हुई ।बालिका के हाथ से जब मिलाव द्वारा रोटी ले जाने की घटना ने महाराणा प्रताप को भी विचलित कर दिया था, तब वही स्त्री ब्रज की तरह अडिग और कठोर बनी रही। मुझे इस स्त्री के चरित्र ने विस्मित किया।"९

'भारती का सपूत' उपन्यास में लेखक ने युगानुकूल वातावरण का भी प्रसंगानुकूल चित्रण किया हैं। भारतेंदुयुगीन वर्णगत विभाजित समाज का चित्रण प्रस्तुत किया हैं।उन्नीसवीं शताब्दी के समाज में रूढि, परंपरा, रीति- रिवाज तथा धर्म के नाम पर अनेक बुराइयां घर कर गई थी। शताब्दियों से समाज में नारी अपेक्षित रही। उसका सम्मानपूर्ण स्थान नहीं था। मनु के आदर्श नारी विलास और उपभोग की सामग्री मात्र रह गई थी। वह जीवन-भर पिता, पति, एवं पुत्र के संरक्षण में पालती रही। कितना भी दुख हो ते हुए भारतीय नारी में रही प्रतित्व की भावना का भी चित्रण मन्नू के इस संवाद के द्वारा उपन्यास करने कर दिया है- “स्त्री का क्या साहस की छोड़ दे

छुड़वाना होता तो भगवान तुम्हारी पत्नी क्यों बनाते जन्म जन्म तक मुझे तुम्हारे साथ रहना है तुम चाहे जितना सता लो।" स्त्री अपने अधिकारों के लिए जागृत हो रही दिखाई दे रही थी उसे युग में उसका संकेत मिल जाता है।

रांगेय राघव स्त्री की सामाजिक स्थिति पर हल्का सा प्रकाश डाला है कबीर युग की नारियों की स्थिति इस युग में थोड़ी संतोष कारक रही है और नई मनुष्य के विकास में सही का बन सकी है इसलिए रत्न ने तुलसी से कहा- "मैं अर्धांगिनी हूं। धर्मपत्नी हूं। मैं स्त्री हूं। तुम पुरुष हो। इतना ही तो मेरा तुम्हारा संबंध नहीं है? हमारा तुम्हारा धर्म का भी तो संबंध है। हम-तुम तो गाड़ी के वह पहिए है। एक पर दूसरा अटक कर रह जाएगा तो गाड़ी चलेगी कैसे?१०

रांगेय राघव का "यशोधरा जीत गई" उपन्यास के प्रारंभ में यशोधरा और महाप्रजापती से पता चलता है की सिद्धार्थ के गृह त्याग से प्रभावित यासोंधराभी एक तपस्विनी-सी जैसा जीवन व्यतीत करती है। और वह पीहर नहीं गई है। सिद्धार्थ द्वारा दुख का कारण मानकर किए गए त्याग के प्रति पीड़ा है। महाप्रजावति स्त्री को पुरुष से नीचा बताती है। राघव जी ने युग के प्रभाव को दिखाया है, लेकिन यशोधरा जवाब देती है। वर्तमान स्त्री स्वतंत्रता की भावना दिखाई देती है। यशोधरा कहती है- "ठीक है देवी! जो जन्म देती है वह नीची है, जो पालती है वह नीची है, फिर पुरुष क्यों ऊंचा है? क्योंकि वह भोगी होने का अहंकार रखता है और अपने को ऊंचा उठाने को स्त्री को ठोकर मार कर त्याज्या कहकर चला जाता है और नारी..... वह फिर भी उन्ही चरणों की प्रतीक्षा करती है आर्यो जानती हो क्यों?"११ इसका उत्तर देती हुई वह आगे कहती है कि "पुरुष विचित्र प्राणी है और नारी दयालु है। पुरुष के ठुकराए गए जीवंत स्नेहा को अपना बलिदान देकर भी जीवित रखती है। अगर नारी भी पुरुष जैसे दयाहीन बन जाए तो सारा संसार धर्म सब छिन्न-भिन्न हो जाए।"१२

निष्कर्ष :-

डॉ. रांगेय राघव बहुत ही ख्याति प्राप्त उपन्यासकार माने जाते हैं। राघव जी भारतीय संस्कृति दर्शन के पक्ष करता है। उन्होंने अतीत और वर्तमान दोनों पक्षों को गहराई से देखा और परखा है। रांगेय राघव के उपन्यासों में आधुनिक युग की तदनंतर बदलती परिस्थितियों\ का चित्रण उनकी दूरदर्शिता का परिचय मिलता है। डॉ. रांगेय राघव ने विविध रूपों में नारी का चित्रण किया है।

उस चित्रण में पूर्ववर्ती और समकालीन उपन्यासकारों का भी प्रभाव रहा है। राघव के उपन्यासकारों का दृष्टिकोण नया निर्माण रहा है। तो दूसरी और उनका दृष्टिकोण विकासात्मक भी रहा है। समाझ में नारी की दयनिय स्थिति से स्वाभीमानी और स्वतंत्र दिखाई देने वाली नारी को चित्रित की और समाज को उसका बहुत ही अच्छा संदेश दिया है। रांगेय राघव एक सफल उपन्यासकार माने जाते हैं। सभी पहलुओं को नजर रख के उसका आलेखन किया है। और समाज को उससे प्रेरणा भी मिलती है। जीवन की अनेक समस्याओं का समाधान भी किया हुआ है।

संदर्भ सूची

(१) साहित्य संदेश जनवरी-फरवरी १९६३ रांगेय राघव स्मृति अंक, पृ.३४५

(२) साहित्य संदेश जनवरी-फरवरी १९६३, रांगेय राघव स्मृति अंक पृ.३४०

(३) सुलोचना रांगेय राघव पुन: रांगेय राघव :एक अंतरंग स्मृति, पृ.१४

(४) छोटी सी बात पृ.७१

(५) चिवर,पृ.२४९

(६) आँधी की नीवें, रांगेय राघव, पृ.२०

(७) वही, पृ.२३

(८) वही, पृ.६४

(९) वही, पृ.६६

(१०) कवितावली,तुलसी ७/६७

(११) यशोधरा जीत गई , रांगेय राघव,पृ.९३

(१२) वही, पृ.९६

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आधुनिक परिप्रेक्ष्ये कालिदासस्य रघुवंशकुमारसम्भवयोः महाकाव्ये पर्यावरणस्य संरक्षणम् संदेशः

गीताभगीनी लखमणभ्राता खुंटी
पीएच. डी. इति। छात्राः। संस्कृत, गुजरात विश्वविद्यालय, अहमदाबाद
डॉ. उर्वशीभगीनी सी. पटेल
निर्देशिका : सी.यु. शाह आर्ट्स कोलेज, गुजरातविश्वविद्यालयः।

ABSTRACT

अयं शोधपत्रः कालिदासस्य द्वयोः श्रेष्ठयोः ग्रन्थयोः रघुवंशस्य कुमारसंभवस्य च पर्यावरणसंरक्षणस्य सिद्धान्तानां विश्लेषणं करोति। कालिदासः प्रकृतिं केवलं स्वसृष्टिषु एव सीमितं न कृतवान्, अपितु तत् मानवजीवनस्य मूलभूतः भागः कृतवान्। एतेषु महाकाव्येषु दृश्यमानं वृक्षाः, नद्यः, पर्वताः, वायुः च प्रति श्रद्धा आधुनिक-पर्यावरण-संरक्षणस्य सिद्धान्तैः सह समन्वयिता अस्ति।

मुख्य शब्दाः कालिदासः, रघुवंशः, कुमारसंभवः, वृक्षसंरक्षणम्, जलसंरक्षणम्, वायुसंरक्षणम्

प्रास्ताविकम् --

"पर्यावरणः" इति शब्दः "परी" तथा "आवरणम" इति शब्दद्वयेन निर्मितः अस्ति यस्य अर्थः "अस्मान् परितः आच्छाद्यताम्" इति। "इति। पर्यावरणसंरक्षणं अद्यत्वे प्रमुखं वैश्विकविषयं जातम् अस्ति। जल-वायु-प्रदूषणं, तथैव वनानां विनाशः च प्रमुखाः समस्याः इति उद्भूताः सन्ति। तथैव, भारतीय-संस्कृत-साहित्ये आधुनिक-समस्यानां कृते अनेकानि संरक्षण-उपायानि सन्ति। तेभ्यः मार्गदर्शनं प्राप्तुं आवश्यकं भवति। प्राचीन-भारतीय-संस्कृते, प्रकृतिः देवत्वेन पूज्यते स्म। अस्य सम्मानेन संरक्षणेन च परोक्षरूपेण एतत् रक्षितम् आसीत्। एवं संस्कृतसाहित्यस्य महत्यां प्रकटयति। अपि च विद्वांसः कविः कालिदासः, स्वस्य महाकाव्येषु, रघुवंशे, कुमारसम्भवे च, पर्यावरणस्य संवेदनशीलतायाः संरक्षणस्य च कृते अमूल्यं मार्गदर्शनं दत्तवान्। कालिदासः पर्यावरणसंरक्षणस्य एतत् भावं स्वस्य साहित्ये अतीव सुन्दररूपेण प्रस्तुतवान् अस्ति।

आधुनिकयुगे यदा प्रकृतिः अविवेकीरूपेण उपयुज्यते तदा कालिदासस्य मतम् अतीव सत्यम् इव दृश्यते। तस्य साहित्यम् अस्मान् शिक्षयति यत् पर्यावरणस्य रक्षणार्थं केवलं नियमाः नियमाः च पर्याप्तानि न सन्ति, अपितु प्रकृतिं अस्माकं परिवारस्य अङ्गम् इति मन्यमानं भावम् अपि स्वीकर्तव्यम् इति। कालिदासस्य साहित्यं अस्मान् प्रकृतिं प्रति अधिकम् संवेदनशीलं आदरशीलं च भवितुं प्रेरयति। आधुनिक-पर्यावरण-समस्यानां वास्तविकं समाधानम् तन्त्रज्ञाने न भवेत्, अपितु प्रकृत्या सह पुनः सम्पर्कस्य अस्मिन् प्राचीन-भारतीय-भावेन भवेत्।

वृक्ष संरक्षणम्

आधुनिकयुगे मानवजातिः प्रगति-स्पर्धायां प्रकृतितः दूरं गच्छन्ती अस्ति। नगरीकरणेन, औद्योगिकीकरणेन, तथा च व्यापकरूपेण वृक्षाच्छादनस्य कारणात्, अस्माकं ग्रहस्य पारिस्थितिक-सन्तुलनं विक्षुब्धम् अस्ति। पृथिव्याः हृदय सदृशाः वृक्षाः वायुमण्डलात् कार्बन्-डाई-आक्सैड् इत्यस्य अवशोषणं कृत्वा प्राणवायुं निर्गमयन्ति। तदतिरिच्य,

ते मृत्तिकाक्षरणं निवारयन्ति, जलस्तरं निर्वहन्ति, पर्यावरणव्यवस्थायै आश्रयं च प्रददति। वैदिककालात् आधुनिकविज्ञानपर्यन्तं प्रत्येकस्मिन् क्षेत्रे वृक्षाणां योगदानं स्वीकृतम् अस्ति। तस्मिन् एव समये, वृक्षाणां प्रति अद्वितीयः गहनः च प्रेम संस्कृतसाहित्यस्य महाकाव्येषु, महाकाव्ये कालिदासे दृश्यते। ते वृक्षाः न केवलं निर्जीव-स्वरूपेण, अपि तु सजीवरूपेण, संवेदनात्मकरूपेण, चेतनजीविरूपेण च पश्यन्ति।

दृष्टवन्तौ। तस्य कल्पनायां वृक्षाणां मानवानां च मध्ये भावनात्मकः सम्बन्धः स्थापितः। यत् अद्यत्वे आधुनिककाले अपि अतीव उपयोगी भवति तथा च वृक्षसंरक्षणार्थं आवश्यकं भवति।

यथा कुमारसंभवे पार्वती स्वयमेव जलधारायाः वृक्षाणां कृते जलं ददति। पुत्रस्य कार्तिकेयस्य जन्मानन्तरम् अपि वृक्षाणां वनस्पतयः प्रति तस्य अनुरागः न न्यूनातीत्।

अतन्द्रिता सा स्वयमेव वृक्षकान्घटस्तनप्रस्रवणैर्व्यवर्धयत।
गुहोऽपि येषां प्रथमाऽप्तजन्मनां न पुत्रवात्सल्यमपाकरिष्यति ॥१४॥

अर्थात्, पार्वती स्वस्य अलसताम् परित्यज्य स्वहस्तैः बीजानि रोपयत्, पात्रेभ्यः जलं सिक्तवती येन उत्तमाः वृक्षाः वर्धन्ते स्म, तथा च तानि वृक्षाः स्वपुत्रैः इव पोषयति स्म। तस्य अजातपुत्रस्य स्कन्दस्य जन्मानन्तरं अपि वृक्षाणां प्रति तस्य अनुरागः न न्यूनीत्।

रघुवंश-महाकाव्ये सिंहः दिलीप-राजा इत्यपि आह्वयति। हे राज्ञा! भवतः पुरतः एतत् वृक्षं पश्यसि वा? महादेवः स्वयमेव वृक्षं स्वपुत्रम् इति अमन्य, तस्य रक्षणं च करोति।**अमुं पुरः पश्यसि देवदारुं पुत्रीकृतोऽसौ वृषभध्वजेन।**

यो हेमकुम्भस्तननिः सृतानां स्कन्दस्य मातुः पयसां रसज्ञः॥

अर्थात्, हे राज्ञा! भवतः पुरतः एतत् देवदारु वृक्षं पश्यसि वा? भगवान् शङ्करः तं स्वपुत्रत्वेन पालयत्, स्कन्दमाता पार्वती च तं हेमकुम्भात् दुग्धं पोषितवती। तेषां स्तनं सदृशं भवति। अयं पर्यावरणस्य संरक्षणस्य सन्देशः अस्ति। यत् महान् कविः कालिदासः दातुम् इच्छति। दृष्टान्तैः ज्ञायते यत् कालिदासस्य काले वृक्षाणां संरक्षणं धार्मिकं भावनात्मकं च कर्तव्यम् इति मन्यते स्म।

भगवान् शङ्कपार्वती द्वारा देवदारु-वृक्षस्य संरक्षणं प्रकृति-मनुष्ययोः मध्ये सौहार्दपूर्णस्य सम्बन्धस्य प्रतीकम् अस्ति। अद्यत्वे अपि, वयं प्रकृत्या सह सामञ्जस्यं स्थापयेयुः, न तु तत् शोषणस्य साधनम् इति मन्येयुः।

अद्य, यदा वायु-प्रदूषणम्, भूमण्डलीय-वार्मिङ्ग्, जलवायु-परिवर्तनं इत्यादीनि समस्याः विश्वं व्याकुलं कुर्वन्ति, तदा कालिदासस्य अयं सन्देशः मार्गदर्शक-दीपस्तम्भः इव अस्ति। अद्यत्वे, केवलं पुस्तकानां पठनम् अतिरिच्य, अस्माकं जीवने पर्यावरणस्य संरक्षणम् अवलम्बयेत्। अस्माभिः कालिदासस्य सन्देशात् प्रेरिताः भवतां पर्यावरणस्य रक्षणाय, भावी-पीढिनां कृते स्वस्थं हरितं च विश्वं निर्मातुं च।

अद्यत्वे अपि अयं सन्देशः प्रासङ्गिकः अस्ति। कालिदासस्य वचनानि पर्यावरणस्य रक्षणार्थं शाश्वतं सन्देशं ददति, यत् वृक्षाणां विषये नूतनरूपेण चिन्तयितुं प्रेरयति।

यथा पार्वती महादेवः च पुत्रवत् वृक्षाः परिपालयन्ति स्म, तथैव वयं अपि भविष्यस्य सुरक्षायै वृक्षाः अतीव महत्त्वपूर्णानि इति मन्यन्ते, तेषां परिपालनं च करणीयम्। अद्यत्वे केवलं वृक्षाच्छादनस्य वा रोपणस्य वा स्थाने तेषां संरक्षणेन स्वस्थस्य हरितस्य च भविष्यस्य निर्माणे ध्यानं कर्तव्यम्।

जलसंरक्षणम्

अद्य वयं जलसङ्कटस्य गम्भीरप्रतिसन्धिं सम्मुखीकृष्यामः। नगरीकरणं, औद्योगिकीकरणं, जलस्य अविवेकी उपयोगः च जलसम्पदेषु महतीं भारान् जनयन्ति। कालिदासः स्वस्य महाकाव्येषु, जलसंरक्षणम् अस्माकं प्राथमिकोद्देश्यं कर्तुं अत्यन्तम् आवश्यकम् अस्ति।

सेयं मदीया जननीव तेन मान्येन राज्ञा सरयूर्वियुक्ता।
दूरी वसन्तं शिशिरनिलैर्मा-तारङ्गहस्थरुपगुहतीव॥६३॥

अर्थात्, मम मातुः (कौसल्यः) इव एषा सरयू-नदी, याम् राजा दशरथः विकृतवती अपसारितवती च, शीतलवातस्य लहरितैः हस्तैः मम आलिङ्गनं करोति।

कालिदासः, नद्यः केवलं जलस्रोतः न, अपितु जीवनस्य आधारः इति सूचयन्, नद्याः मात्रा सह तुलनां करोति। आधुनिककाले, वयं मातृवत् पवित्रं महत्त्वपूर्णं च नद्याम् आदरं कर्तव्यम्।

एवं गङ्गा, सरयू इत्यादयः नद्यः न केवलं जलस्रोताः, अपितु अस्माकं धार्मिकविश्वासस्य, सांस्कृतिकपरम्परायाः, जीवनस्य च प्रतीकाः सन्ति। एताः नद्यः स्वच्छतया सुरक्षिततया च रक्षणीयाः इति अस्माकं सर्वेषाम् कर्तव्यम् अस्ति, येन आगामि-पीढयः अपि तेषां महत्त्वं अवगन्तुं शक्नुवन्ति।

कालिदासस्य कुमारसंभव-महाकाव्यस्य वर्णने, गङ्गा न केवलं नदी, अपितु दिव्यशक्तिः, मातृमूर्तिः, रक्षकः, मोक्षदेवी च अस्ति, यस्य प्रत्येकबिन्दुः विश्वासस्य, पवित्रतायाः, नित्यतायाः च सन्देशं जनयति।

महेश्वरजटाजूटावासिनी पापनाशिनी।
सगरान्वयनिर्वाणकारिणी धर्मधारिणी॥

अर्थात्, सा शङ्कराभिनेत्री, पापमुक्ता, सागरपुत्राणां विमोचिका, धर्मरक्षिका च अस्ति।

कालिदासस्य मते, गङ्गानदी न केवलं जलस्रोतः, अपितु पापान् परिहरन्ती, मोक्षदात्री, धर्मरक्षाकारिणी च अस्ति। कालिदासस्य मुख्यः सन्देशः अस्ति यत् वयं जलस्य धार्मिकरूपेण सांस्कृतिकरूपेण च उपचारं कर्तव्यम् इति।

आधुनिककाले वयं गङ्गानदीं केवलं प्राकृतिकसम्पदरूपेण एव पश्यामः, येन तस्य प्रदूषणं वर्धितम् अस्ति। कालिदासस्य सन्देशः अद्यत्वे अपि अतीव प्रासङ्गिकः अस्ति। ते कथयन्ति यत् यदि वयं जलं पवित्रं मन्यामः तर्हि तस्य प्रदूषणस्य विषये न चिन्तयामः इति।

आधुनिकदृष्टिकोणात् जलसंरक्षणविषये कालिदासस्य सन्देशः एवं अवगन्तुं शक्यते।

एवं, कालिदासः नद्याः, सरोवराणां, जलस्य च कृते यत् प्रेम आदरं च दर्शितवान् तत् यदि आधुनिककाले रक्षितं भवति तर्हि जल-प्रदूषणं निवारयितुं शक्यते।

वायु-संरक्षणम्

अद्यत्वे, आधुनिकयुगे, वयं वायु इत्यस्य महत्त्वं विस्मृतवन्तः। उद्योगैः, वाहनैः, अनियन्त्रित-नगरीकरणस्य च कारणात् वायु-प्रदूषणं गम्भीर-समस्या अभवत्। स्वच्छवायुः अधिकाधिकं दुर्लभः अभवत्। प्रकृत्याः तस्य तत्त्वानां च सम्मानः कियद् महत्त्वपूर्णः इति वयं कालिदासस्य महाकाव्यात् ज्ञातव्यम्। कालिदासस्य इव, वयं वायुं न केवलं तत्त्वरूपेण, अपितु जीवनस्य आधाररूपेण अपि द्रष्टव्यम्।

रघुवंशे, राज्ञः दिलीपस्य वशिष्ठश्रमस्य भ्रमणस्य सन्दर्भे वायुः सुगन्धयुक्तः सुखप्रदः च इति वर्णितः अस्ति।

सेव्यमानौ सुखस्पर्शैः शालनिर्यासगन्धिभिः।
पुष्परेणूत्किरैर्वातैराधूतवनराजिभिः॥

अर्थात्, मुक्तमार्गे विद्यमानः वायुः, पुष्पानां सालवृक्षस्य आद्रस्य गन्धेन पूरितः भवति।

सः परागं ऊढ्वा, वनवृक्षाणां शाखां सौम्यतया दोलयित्वा, तेषां शरीरानि शिथिलं कृत्वा तेषां सेवां कृतवान्। अस्मिन् श्लोके, मुक्तमार्गस्य पारं प्रवहतः वायुः सालवृक्षाः गन्धेन पूरितः भवति, ये पुष्पैः परागं प्रवहन्ति, वृक्षाः शाखाः च कम्पयन्ति। एतत् विवरणं सूचयति यत् वनस्य पर्यावरणं स्वाभाविकतया शुद्धं नवीनं च भवति इति।

अद्यत्वे यत्र वाहनानि उद्योगाः च नगरेषु वायु-प्रदूषणं वर्धयन्ति तत्र वनानि वृक्षाः च अतीव महत्त्वपूर्णानि भवन्ति। वृक्षाः कार्बन्-डाई-आक्सैड् इत्यादीनां प्रदूषकाणां अवशोषणं कृत्वा प्राणवायुं निर्गमयन्ति। अस्याः प्राकृतिकप्रक्रियायाः कारणात् वनक्षेत्रेषु वायुः स्वच्छः स्वच्छः च भवति।

पर्यावरणस्य रक्षणार्थं प्रकृत्याः सन्देशः कालिदासस्य अयं सन्देशः अस्मान् बोधयति यत् केवलं प्रदूषणस्य न्यूनीकरणं एव वायुरक्षायै पर्याप्तं न भवति इति। तस्मिन् एव समये, वनानां वृक्षाणां च रक्षणार्थं प्रयत्नः करणीयः इति अतीव महत्त्वपूर्णम् अस्ति। यदि वयं वनानि नष्टवन्तः तर्हि न केवलं प्राकृतिकसौन्दर्यम्, अपितु प्राकृतिकवायुशुद्धीकरणस्य प्रक्रियाम् अपि नष्टुं शक्नुमः।

कुमार-संभव-महाकाव्ये कालिदासः कथयति यत् देवदारवृक्षाणां गन्धेन वायुः सुगन्धितः भवति इति।

कपोलकण्डुः-करीभीर्विनेतुं विघट्टितानां सरलद्रुमाणाम्।
यत्र सुतक्षीरतया प्रसूतः सानूनि गन्धः सुरभिकरोति॥

यत्र सूर्यप्रकाशस्य गन्धः भवति तत्र सूर्यप्रकाशस्य गन्धः भवति। इति।

अर्थात् पर्वते स्थिताः गजाः शिखरानि सुगन्धितानि कुर्वन्ति। एते गजाः स्वग्रन्थिनां शोथात् मुक्तुं देवदारवृक्षैः स्वशरीराणि घर्षयन्ति। एवं कुर्वन् देवदारु-वृक्षाः क्षीरसदृशः भवति येन शिखरानि सुगन्धितानि भवन्ति।

एतत् काव्यात्मकं प्रतिनिधित्वम् अस्ति, परन्तु वनानि, तेषु निवसन्तः जीवः च पर्यावरणं स्वच्छं स्थापयितुं कथं साहाय्यं कुर्वन्ति इति विषये अस्य गहनः प्रभावः अस्ति।

आधुनिककाले वृक्षाः स्वच्छवायुः ददति। देवदारसदृशैः वृक्षैः निर्गतः गन्धः न केवलं वायुमण्डलं सुखप्रदं करोति, अपि तु वायुवेषु प्रदूषिताः कणान् अपि अवशोषयति, येन वायुः स्वच्छः नूतनीकृतः च भवति। एवं गजसदृशाः क्रियाः परोक्षरूपेण वृक्षाः वृद्धिं त्वरितं कुर्वन्ति, एवं च वायुशुद्धीकरणप्रक्रिया भवति।

कालिदासस्य अयं सन्देशः अस्मान् शिक्षयति यत् प्रकृत्याः प्रत्येकस्य तत्त्वस्य स्वकीयः उद्देश्यः अस्ति इति। यद्यपि गजाः स्वप्रयोजनार्थं वृक्षेषु घर्षन्ति तथापि परिणामतः परितः पर्यावरणं शुद्धं सुगन्धितं च भवति। अद्यतनस्य औद्योगिकयुगे यत्र वायु-प्रदूषणं प्रमुखा समस्या अस्ति, तत्र अयं सन्देशः अतीव प्रासङ्गिकः अस्ति।

उपशीर्षिका

कालिदासः स्वस्य महाकाव्येषु न केवलं वृक्षाः, वायुः, नद्यः च वर्णयित्वा सौन्दर्यं निरूपितवान्, अपितु प्रकृत्याः महत्त्वम् अपि अधोरेखितवान्। तस्य महाकाव्ये, वृक्षाः प्राकृतिक-तत्त्वरूपेण निरूपिताः सन्ति, येन वायुः शुद्धा भवति, नद्यः जीवन्ति च। अद्यत्वे प्रदूषणस्य पर्यावरणस्य समस्यानां च काले, कालिदासस्य अयं सन्देशः अस्मान् स्मारयति यत् प्रकृतिः एव एकः प्रबलः शुद्धीकरणप्रक्रिया अस्ति इति। यदि वयं प्रकृतिं तत्र स्थितेषु जीवजन्तूनां च संरक्षणं करिष्यामः तर्हि स्वच्छवायुः, जलं, सन्तुलितं पर्यावरणं च निरन्तरं प्राप्स्यामः। संक्षेपेण, कालिदासस्य अयं सन्देशः अस्ति यत् प्रकृत्याः रक्षणं, अस्माकं अस्तित्वस्य रक्षणम् इव भवति इति।

सन्दर्भसूची

1)કુમારસંભવ મહાકાવ્ય સંપાદક શ્રી.પં. પ્રધુમન પડિય -બીજી આવૃત્તિ વી. સવંત. ૨૦૨૬, પ્રકાશક -ચોખમ્બા વિદ્યાભવન પ્રેસ,વારાણસી

2) રઘુવંશમહાકાવ્ય સંપાદક, મહામહોપધ્યાય ડો.ગોતમ પટેલ પ્રથમ આવૃત્તિ માર્ચ :૨૦૧૩, પ્રકાશક નીલમ પટેલ અમદાવાદ

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૪)કુમારસંભવ મહાકાવ્ય ૫/૧૪

૫)રઘુવંશ મહાકાવ્ય ૨/૩૬

૬) રઘુવંશ મહાકાવ્ય ૧૩/૬૩

૭) કુમારસંભવ ૧૦/૩૦

૮) રઘુવંશ મહાકાવ્ય ૧/૩૮

૯) કુમારસંભવ મહાકાવ્ય ૧/૯

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દુલેરાય કારાણીની લોકવાર્તા 'ઓઢો જામ અને હોથલ પદમણી' ની કથામાં કચ્છી બોલીનો પ્રયોગ : ભાષાકીય અને સાંસ્કૃતિક વિશ્લેષણ

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સંક્ષિપ્ત સાર (Abstract)

વિષય: દુલેરાય કારાણીની લોકવાર્તા 'ઓઢો જામ અને હોથલ પદમણી'માં કચ્છી બોલીનો પ્રયોગ: ભાષાકીય અને સાંસ્કૃતિક વિશ્લેષણ.

સંશોધનનો ઉદ્દેશ:

આ સંશોધનનો મુખ્ય ઉદ્દેશ દુલેરાય લ. કારાણી દ્વારા લોકસાહિત્યમાં સંગૃહીત અને પ્રસ્તુત કરાયેલી સુપ્રસિદ્ધ કચ્છી લોકવાર્તા 'ઓઢો જામ અને હોથલ પદમણી' માં થયેલા કચ્છી બોલીના પ્રયોગનું વિગતવાર ભાષાકીય અને સાંસ્કૃતિક વિશ્લેષણ કરવાનો છે. આ અભ્યાસનો હેતુ માત્ર કચ્છી બોલીના તત્વોને ઓળખવાનો નથી, પરંતુ લોકવાર્તાના પાત્રો, વાતાવરણ અને મૂળ સંસ્કૃતિને જીવંત રાખવામાં આ બોલીની ભૂમિકાને સમજવાનો છે.

પદ્ધતિ:

આ અભ્યાસ માટે વર્ણનાત્મક અને વિશ્લેષણાત્મક સંશોધન પદ્ધતિનો ઉપયોગ કરવામાં આવ્યો છે. સંશોધનમાં દુલેરાય કારાણી દ્વારા સંગૃહીત વાર્તાના મૂળ પાઠનું નજીકથી વાંચન કરવામાં આવ્યું છે. કચ્છી બોલીના શબ્દો, રૂઢિપ્રયોગો, કહેવતો, વાક્યરચના, ધ્વનિગત તત્વો અને વ્યાકરણિક લક્ષણો ને તારવીને તેનું ગુજરાતી ભાષાના સંદર્ભમાં વિશ્લેષણ કરવામાં આવ્યું છે. લોકવાર્તાના સંવાદો પર ખાસ ધ્યાન કેન્દ્રિત કરવામાં આવ્યું છે, કારણ કે સંવાદોમાં બોલીનો પ્રયોગ સૌથી વધુ સ્પષ્ટપણે જોવા મળે છે, જે પાત્રોની આંતરિક ઓળખ અને સ્થાનિક સંસ્કૃતિને પ્રતિબિંબિત કરે છે.

તારણો અને ચર્ચા:

પ્રસ્તુત લોકવાર્તામાં કચ્છી બોલીનો પ્રયોગ માત્ર સ્થાનિક રંગ ઉમેરવા પૂરતો સીમિત નથી, પરંતુ તે વાર્તાના કથાતંતુ અને પાત્રાલેખનનો એક અભિન્ન ભાગ છે.

પ્રાદેશિકતાનું સંવર્ધન: દુલેરાય કારાણી, જેઓ 'કચ્છના મેઘાણી' તરીકે જાણીતા છે, તેમણે કચ્છી બોલીનો ઉપયોગ કરીને 'ઓઢો જામ'ના વીરત્વ અને 'હોથલ પદમણી'ના સૌંદર્ય તથા ચારિત્ર્યને કચ્છી સંસ્કૃતિના વાતાવરણમાં સફળતાપૂર્વક મૂક્યું છે. કચ્છી શબ્દો જેવા કે 'ન્યારિયાં' (જોયા), 'કનડે' (કચ્છના રણમાં), 'ચાવ' (ચાલે), 'માશૂક' (માશૂકા), 'ચંગું' (મીઠું) વગેરેના પ્રયોગથી વાર્તાની પ્રાદેશિકતા ઘેરી બને છે.

પાત્રાલેખનમાં બોલીની ભૂમિકા: સંવાદોમાં બોલીનો પ્રયોગ પાત્રોની સામાજિક સ્થિતિ અને મૂળ કચ્છી ઓળખને મજબૂત રીતે સ્થાપિત કરે છે. કચ્છી લોકજીવનની સહજતા, સાદગી અને ખમીર ભાષાના માધ્યમથી અસરકારક રીતે વ્યક્ત થાય છે.

સાંસ્કૃતિક અરીસો: બોલીના પ્રયોગ દ્વારા કારાણીએ કચ્છના ભૌગોલિક વાતાવરણ ત્યાંની લોકરીતિઓ, અને લોકમાનસને વાર્તામાં વણી લીધું છે. 'કનડે મોતી નીપજે, કચ્છમેં થિયેતા મઠ' જેવી પંક્તિઓ કચ્છી લોકોના આત્મસન્માન અને પ્રકૃતિ સાથેના તેમના જોડાણને દર્શાવે છે.

સંશોધનનું મહત્ત્વ:

આ સંશોધન લોકસાહિત્યના અભ્યાસીઓ, ભાષાશાસ્ત્રીઓ અને સાંસ્કૃતિક અભ્યાસના વિદ્યાર્થીઓ માટે મહત્ત્વપૂર્ણ છે. તે દર્શાવે છે કે કેવી રીતે પ્રાદેશિક બોલીઓ માત્ર સંચારનું સાધન નથી, પરંતુ સાંસ્કૃતિક વારસા અને ઐતિહાસિક સ્મૃતિઓ ને સાચવનારું એક શક્તિશાળી માધ્યમ છે. દુલેરાય કારાણીનું આ કાર્ય કચ્છી ભાષાના સંવર્ધન અને સંરક્ષણ માટેનો એક અમૂલ્ય દસ્તાવેજ છે.

પ્રસ્તાવના

ભાષાવિજ્ઞાનની દ્રષ્ટિએ જોઈએ તો વર્તમાન ગુજરાત રાજ્યમાં ત્રણ ભૂમિ ભાગો જોવા મળે છે : સૌરાષ્ટ્ર કે કાઠીયાવાડનો દ્વીપકલ્પીય ભાગ, તળ ગુજરાતનું ભૂમિભાગ અને કચ્છનો રણથી ઘેરાયેલો ભૂમિભાગ. એમાંથી કચ્છ પ્રદેશમાં કચ્છી બોલાય છે. એમાં પ્રાચીન લોકસાહિત્ય પણ છે, પરંતુ એનું સગપણ ગુજરાતી સાથે નહીં પણ સિંધી સાથે છે. એમાં સંયુક્ત વ્યંજનોનું સરલીકરણ અને પૂર્વસ્વરદીર્ઘત્વ થયું નથી તેમજ નપુસકલિંગ નથી. જે બે લક્ષણો સિંધી–પંજાબીના છે ગુજરાતીના નહીં.

કચ્છના વિસ્તારોમાં બોલાતી ભાષા તે કચ્છી. કચ્છી ગુજરાત રાજ્યમાં બોલાતી સ્વતંત્ર બોલી છે. કચ્છની ઉત્તરે અને પૂર્વે રણ છે, દક્ષિણમાં ખાડી છે, અને પશ્ચિમે દરિયાકિનારો છે. ભાષાકીય દ્રષ્ટિએ ભાષાવિજ્ઞાનિકો કચ્છી બોલીને બે ઉપબોલીઓમાં પણ વિભાજે છે : કચ્છી અને કાયસ્થી. કાયસ્થી એ રાજસ્થાની, ગુજરાતી અને કચ્છીની મિશ્રાણરૂપ બોલી છે. ભૌગોલિક સ્થિતિ અનુસાર કચ્છીની પણ બન્ની કચ્છી, વાગડી કચ્છી અને કંઠી કચ્છી એવી ત્રણ ઉપબોલીઓ ગણાવાય છે બન્ની કચ્છી બન્ની પ્રદેશમાં મુખ્યત્વે ગૌપાલકો કે માલધારીઓની બોલી તરીકે પ્રયોજાય છે. આ વિસ્તાર સિંધની નજીક હોવાથી બન્ની કચ્છી સિંધીની ઘણી નજીક છે. વાગડી કચ્છી વાગડ પ્રદેશમાં બોલાય છે. કંઠી કચ્છી દરિયા કિનારાના માંડવી, મુન્દ્રા, જખૌ વગેરે પ્રદેશમાં બોલાતી કચ્છીની ઉપબોલી છે.

કચ્છી સાહિત્યની વાત આવે એટલે પ્રથમ પંક્તિમાં જેનું નામ આવે તે દુલેરાય કારાણી અને તેમનું લોકસાહિત્ય. તેમના લોકસાહિત્યએ કચ્છી પ્રજાની અસ્મિતાને જીવંત બનાવી છે.

સર્જક દુલેરાય કારાણી

કચ્છપ્રદેશ અને કચ્છીભાષાને જીવનના છેલ્લા શ્વાસ સુધી સ્નેહ કરનાર કવિવર દુલેરાય કારાણી કચ્છીયતનું મૂર્તિમંત સ્વરૂપ હતા. ધન લાભ કે કવિ યશના મોહ વિના માત્ર કચ્છી બોલીની આરતી ઉતારવાના હેતુસર સાહિત્યસર્જન કરનાર કારાણી ખરેખર વીરલ સર્જક છે. કચ્છી કવિતા અને કચ્છના લોકસાહિત્ય પ્રત્યે અસીમ પ્રેમના કારણે લોક સમુદાયમાં કવિ કારાણી તરીકે તેઓ ખ્યાતિ પામે છે. કવિ અને લોકસાહિત્યકાર એમ બે વ્યક્તિત્વ ન રહેતા એક અખંડ વ્યક્તિત્વના આપણને દર્શન થાય છે. ઈતિહાસ કે વાર્તાના સર્જક 'કવિ કારાણી' હોય, લોકસાહિત્યનું સંશોધન–સંપાદન કરનાર પણ 'કવિ કારાણી' હોય, કારાણી એટલે કચ્છની પાણીદાર વાણીનો પર્યાય.

કવિ બનતા નથી, જન્મતા હોય છે એ સાચું. પરંતુ ભીતર રહેલા કાવ્યતત્વને બહાર લાવવા નક્કી કશુંક નિમિત્ત બનતું હશે. કારાણી એ એમની ગદ્ય પદ્યો આત્મકથામાં પોતાનો આછેરો પરિચય આપતા કહ્યું છે : 'મારુ જીવન હિમાલયમાંથી નીકળતા એક ઝરણા જેવું છે. જે અનેક આડા–અવળા વળાંક અને ખાડા–ટેકરા પસાર કરીને ગંગાજીમાં ભળી જાય છે,અને આખરે ગંગાજી તેને દરિયાલાલમાં લઈ જાય છે.' નાનપણથી કચ્છી, ગુજરાતી, ઉર્દુ, સિંધી, ફારસી ભાષાઓના અને સાહિત્યના વ્યાસંગે તેમનો માંહ્યલો સળવળ્યો હશે. કચ્છની પ્રકૃતિ તરફનું તેમનું અદમ્ય આકર્ષણ અને

અહીંના સામાન્ય જનસમુદાયમાં રહેલી કાવ્યપ્રીતિએ તેમને કવિતા લખવા મજબૂર કર્યા હોય એવું લાગ્યા કરે છે. કચ્છ પ્રદેશના સાહિત્યની ઉમદા સેવાઓની કદરરૂપે તેમને શિક્ષકમાંથી ડેપ્યુટી એજ્યુકેશન ઈન્સ્પેક્ટર તરીકે બઢતી મળી પરિણામે કચ્છનું પરિભ્રમણ કરવાની અને કચ્છના લોકસાહિત્ય–ઈતિહાસને ઉજાગર કરવાની તેમને તક સાંપડી.

દુલેરાય કારાણીનું સમગ્ર સર્જન વૈવિધ્યપૂર્ણ છે. વિવિધ સામયિકોમાં તેઓ 'યાસીન' ઉપનામથી કાવ્યો પ્રસિદ્ધ કરાવતા હતા. 'કારાણી કાવ્યકુંજ '(ભા. 1 થી 5), 'કચ્છની રસધાર' (ભા.1 થી 5), ' સોનલબાવાની', 'જામ રાવળ', 'જામ અબડો', 'ઝારેજો યુદ્ધ' જેવી વિવિધ સ્વરૂપની કૃતિઓ તેમની પાસેથી મળે છે.

'નવચેતન'ના આદ્યતંત્રી ચાંપશી ઉદેશીએ કારાણીને 'કચ્છના મેઘાણી' કહીને બિરદાવ્યા હતા : 'સ્વ. ઝવેરચંદ મેઘાણીની પેઠે લોકસાહિત્યને પુરસ્કારવાનો તથા ઉદ્ધારવાનો 'ભેખ' લઈને ભાઈ દુલેરાય કારાણીએ સતત પાંચ દાયકા સુધી કચ્છી લોકસાહિત્યની જે સેવા કરી તે બેનમૂન છે.'

ઝવેરચંદ મેઘાણીએ કારણે અંગે નોંધ કરી છે : 'કોઈને કાંકરા જેવી કઠોર, તો કોઈને જડસુ જણાતી, સાહિત્યમાંથી અવગણના પામેલી આ કચ્છી લોકવાણીના સામર્થ્યને પકડનાર તેમજ પુત્રવત અનુરાગે તેના ખોળામાં રમણ કરનાર ભાઈ કારાણીનો ગુજરાત સવિશેષ ઋણી રહેશે. એણે એક પ્રાણવંત પ્રાંત–બોલીને જીવતી કરી છે. બનાવટી પ્રાણવાયુ ફૂંકીને નહીં પણ એના અસલ વતન પ્રેમની ચેતનાને સીંચીને જીવતી કરી છે.'

ઉમાશંકર જોશી એ તેમને 'તીર્થસ્થાન' તરીકે ઓળખાવ્યા, તો ર. વ. દેસાઈએ 'સત્યના ઉપાસક' કહ્યા છે. પંડિત સુખલાલજી નોંધે છે : 'એમના જીવનમાં જૈનધર્મના સિદ્ધાંતો ધબકે છે.' મુનિ સંતબાલજી એમને 'શ્રાવકના યે શ્રાવક' કહે, નારાયણ દેસાઈ કારણીને 'ગાંધી વિચારધારાના ધબકતા માનવી' તરીકે બિરદાવે છે. સ્વામી આનંદે પોતાના મંતવ્યમાં જણાવ્યું છે :'કચ્છની રેતમાં ગોળના ગાંગડાનું મોણ નાખીને લાપસીનું જમણ પીરસનાર એટલે ભેખધારી સાહિત્યકાર દુલેરાય કારાણી.'

ભાવનગરના મહારાજા શ્રી કૃષ્ણકુમારસિંહજી કારાણીના સાહિત્ય અંગે અભિપ્રાય આપતા નોંધે છે કે, 'તેઓ કચ્છની ધરતીના પાળિયાઓની સુગંધ મહેકાવનાર સાચુકલા માણસ હતા.'

દુલેરાય કારાણીએ માત્ર ગુજરાત, ભારતના જ નહીં, પણ વિદેશી ઈતિહાસ વિદ્દોને અત્યંત પ્રભાવિત કર્યા છે. પ્રો. એલ. એફ. રશબ્રૂક વિલિયમ્સે તેમની પ્રશંસા કરતા લખ્યું છે : મેં શ્રી કારાણીને હંમેશા 'જેમ્સ ટોડ' ગણ્યા છે... કારણીએ સર્જન–ધર્મ બજાવ્યો તે અગાઉ બાકીનું ભારત કચ્છને એક અલગ દુનિયા માનતું હતું.

કચ્છ કલાધર

દુલેરાય કારાણી દ્વારા પ્રકાશિત આ કચ્છ કલાધરની પ્રથમ આવૃત્તિ ઈ.સ. 1934 માં પ્રકાશિત થઈ. જે બે ભાગમાં વિભાજીત છે. 'શું નથી આ 'કચ્છ કલાધર' માં' એમ કહેવાને બદલે 'શું છે આ 'કચ્છ કલાધર'માં' એમ કહેવાથી આ ગ્રંથની વિશિષ્ટતા આપોઆપ ઉભરી આવશે. આ બંને ભાગોમાં કચ્છની દંતકથાઓ, લોકકથાઓ, દસ્તાવેજ લેખો, શૂરવીરો અને વીરબંકાઓની દિલ ધડક કહાનીઓ, કચ્છી સુંદરીઓની પ્રણયકથા અને શૌર્યકથાઓ, દુહા–છંદની રમઝટ, યદુવંશથી માંડીને કચ્છના અંતિમ મહારાજા મદનસિંહજી સુધીની કડીબદ્ધ ઐતિહાસિક વિગતો, ઓઢા જામ અને હોથલ પદમણી, લીલા ચનેસર, સસઈ પુનુંહ જેવા અજોડ પ્રેમી યુગલોની હૃદયદ્રાવક કથાઓ, અનન્ય દાતાર જગડુશાનો પરિચય, લાખા ફુલાણીની ટેક, અબડા અડભંગની વીરતા વગેરે નવેનવ રસથી તરબતર સાહિત્ય આ ગ્રંથમાંથી મળી રહે છે.

" તળ ઊંડા જળ છીછરાં,કામન લંબે કેશ,
નર પટાધર નીપજે, ડોલરિયો કચ્છ દેશ"
કચ્છ ધરા કામણગારી ને મેઠા જે જા માડુ, મહોબત જી મરે જગમે ઝૂંઝારું

આમ તો પશુધનથી ઉભરાતો પ્રદેશ એટલે કચ્છ અને માલધારીનું મલક કહેવાતો. જ્યાં મર્દાની મૂછોના પાણી વખતો વખત વખાણાતા આવ્યા. ગામના ચોરે બેસીને સતત જ્યાં ખુમારીની વાતો થઈ છે પણ કોઈની ખુમારીથી પ્રેમ થયો હોય એ કચ્છ છે. આ ધરાના ઓઢા જામને જ્યારે હોથી નામના યોદ્ધાની મર્દાનગીથી પ્રેમ થઈ જાય એ ધરા એટલે કચ્છ. આથો માટેની લડાઈ જીતીને જ્યારે હોથીના પરાક્રમ પર આફરીન થયેલો ઓઢો જામ જ્યારે તેને શોધતા શોધતા જાય, આ હાથીના રૂપમાં હોથલને જોવે અને તેના પર લખાય એક પ્રેમ તથા શૌર્યની કથા. કચ્છની આ અમરકથા એટલે ઓઢા જામ અને હોથલ પદમણી. આ કથા મુખ્ય છ ચરણમાં છે. ગુજરાતના ઘણા બધા લેખકો આ કથાને કંડારવાનો પ્રયાસ કર્યો છે પરંતુ દુલેરાય કારાણીની કલમ આ કથાને યોગ્ય કસબ આપી શકી છે.

ઓઢો જામ અને હોથલ પદમણી

(૧) દિયર ભોજાઈ

જામ મનાઈ ના ત્રણ દીકરા : હોથી મોડ અને ઓઢો. ઓઢાના લગ્નની તૈયારીઓ સાથે વાર્તાની અને વાર્તાના પ્રથમ ભાગની શરૂઆત થાય છે. સૌ ઓઢાના લગ્નની જ્યારે તડામાર તૈયારીઓ કરતા હતા ત્યારે સિંધના ધલૂરા પાદશાહના સરદારોએ આથોનું હરણ કર્યું. આ આથોને છોડાવવા માટે હોથી અને મોડ જાય છે.

જામ હોથીની પત્ની મીણાવતી ઓઢાના સૌંદર્ય પર મુગ્ધ હતી. ઓઢાને તેની જાળમાં ફસાવવાના પ્રપંચ કરી રહી હતી, પણ ઓઢો ટેકવન્ત હોવાથી મીણાવતી તેને કંઈ કહી શકતી ન હતી. લગ્નના દિવસે ઓઢા કુમારનું કામદેવ સરખું સ્વરૂપ જોઈને મીણાવતી મોહાંધ બની ગઈ. ઓઢાએ કેસરી વસ્ત્રો ધારણ કર્યા હતા. આખું આંગણું પ્રકાશમાન બની ગયું હતું. દિયરનું મ્હો જોઈને ભાભીના અંતરમાં લ્હાય લાગી ભાભી ઓઢાને આવા સ્વરૂપમાં જોઈને કહેવા લાગી 'આપણે દિયર ભોજાઈ ની જોડ બરાબર સરખે સરખી છે'

"ઉઢે કેસરીઆ પેરેંઆ, મથે બંધે મોડ,

ડેર – ભોજાઈ પ્રાણુમે, અઈયુ સરખી જોડ."

ઓઢા કુમારના લગ્નનું કાર્ય પરિપૂર્ણ થઈ જતા તે જ્યારે તેની ભાભી મીણાવતીના આશીર્વાદ માંગવા આવ્યો ત્યારે મીણાવતી તેના જ વિચારો કરતી પોતાના પલંગ પર ધ્યાન–મગ્ન બેઠી હતી. ઓઢાને આવેલો જોઈને તેને પોતાની જાળમાં ફસાવવા માટે તલપાપડ બની ગઈ, અને ઓઢો તેને નમન કરીને નીચે બેસવા જતો હતો ત્યારે લાગ જોઈને તે બોલી :

" ઉઢા મ વે ઉંભરે, હી નીં પલંગ પેઓ,

આધી રાત ઉથી, ઉઢો જાધ પેઓં."

હે ઓઢા ! તું ઉંબર પર બેસ નહીં. આ પલંગ પર આવી બેસ. આજે અડધી રાતે ઉઠતાં જ મને તું યાદ આવ્યો હતો.

મીણાવતી ની આ વાત સાંભળીને ઓઢાને નવાઈ લાગી અને તેને કહ્યું આ પલંગ હોથીનું છે અને હોથી મારો વડીલ ભાઈ છે. તું તેની સ્ત્રી તે મારી માત સમાન છે મારાથી પલંગ પર બેસાય નહીં.

આ સાંભળી મીણાવતી ભોંઠી પડી ગઈ અને ઓઢાને સમજાવવા લાગે ગોત્ર અલગ અલગ હોવા છતાં હું તારી મા ક્યાંથી ફૂટી નીકળી ?

ઓઢો મેરુ જેવો મક્કમ રહ્યો અને જે થવાકાર છે નહીં તે થશે પણ નહીં તથા આનો કંઈ ફાયદો પણ નથી એવો કડક વળતો જવાબ આપે છે. આવા વેણ સાંભળીને મીણાવતીના અંતરમાં જ્વાળામુખી જાગ્યો અને ઓઢા ને કહ્યું તું દુઃખી થઈશ અને પાણીના પૂરની પેઠે અહીંથી ચાલ્યો જઈશ. નાસીપાસ બનેલી આ નારીએ ઓઢા પાસે વેર વાળવાનો નિર્ધાર કરી લીધો.

મીણાવતીનો પતિ જામ હોથી પાછો ફર્યો ત્યારે મીણાવતી અંધારા ખૂણામાં પડી રહી ચારે તરફ અંધારું જોઈને હોથી જામ તેનું કારણ દાસીને પૂછવા લાગ્યો. દાસીએ કહ્યું ઓઢો દારૂના નશામાં ચકચૂર બનીને મહેલમાં આવેલો તેથી

રાણી રકતના આંસુ રડી રહી છે. આ સાંભળી હોથી જામ ક્રોધમાં આવી ગયો જ્યારે ઓઢો તેને રામરામ કરવા આવ્યો ત્યારે ક્રોધાયમાન હોથી જામે તેનો તિરસ્કાર કરતા કહ્યું કે,

" જ હુવે મુજો ભા, ત મ કજ રામરામ,
મ રોજ મુંજે રાજ મેં, તોકે અન્ય આય હરામ."

હે ઓઢા ! તું મારો ભાઈ હોય તો મારાથી રામરામ કરીશ નહીં અને મારા રાજ્યમાં રહીશ નહીં અહીંનું અનાજ તને હરામ છે.

ભાઈએ કરેલા ભયંકર ફરમાનથી તેને ઘણું ગુસ્સો ચડ્યો. તે તે જ વખતે કંડ કકડારાનો ત્યાગ કરવાની તજવીજ કરવા લાગ્યો. ઊંટો પર સામાન લઈને ઓઢાને ઉચાળા ભરીને નીકળતો જોઈને તેની ભાભી મનોમન વિચારવા લાગી જેના મુખ જોવા માટે મેં ભીતોમાં બાકા કર્યા તે પ્રિયતમ ઉછાળા ભરીને ચાલી નીકળ્યો. મનોમન વિચારવા લાગી કે આ વહાલો તો શરીરમાં વિરહની પીડા આપીને ગયો. ઓઢા વગર તેને ચારે તરફ અંધકાર જણાવવા લાગ્યો ઓઢાને મનાવવા દિયર મોડને સમજાવ્યો પણ તેણે કડક ના કહી દીધી. માટે મીણાવતી ઓઢાને પાછો વાળવા ખુદ જાય છે ત્યાં ઓઢાને મનાવે છે કે ઓઢા તું મારું વચન માન હજુય તારા ઉપડેલા મેલાણ પાછા વળાવું.

ઓઢાને આ બધું લજ્જાસ્પદ અને કલંક જેવું લાગે છે. મીણાવતીને ઓઢાની આંખો વિશે પ્રશંસા કરતી સાંભળી ઓઢો બોલ્યો,

" ઈની નિમાણે નેણે, ડુંગર ડીધાસી,
એડો આડો વેરી, તિત રાત રોધાસી."

એ માધુર્યપૂર્ણ આંખો આડે મોટા મોટા ડુંગરા દઈ દઈશું, અને એવો વેરી જ્યાં આડો હશે ત્યાં રાત રોકાશુ. મીણાવતી તેને પશુ સમુદાય અને એની મોટી મેડીઓ વિશે કહીને સમજાવવા પ્રયત્ન કરે છે પરંતુ ઓઢો એના નિશ્ચય પણ અલગ રહે છે નિરાશ થઈને પાછી ફરે છે. ઓઢો આગળ ચાલતા બન્નીના કીરા ડુંગર પાસે આવ્યો ત્યારે કીરા ડુંગર સાથે સ્વગત વાતો કરે છે અને હોલાને ફરી કચ્છ જાય તો સગા વહાલાને ઘણા ઘણા જુહાર કહેવા વિનવે છે.

જામ ઓઢો કચ્છ ત્યાગ કરે છે એ વાત વાયુવેગે ફેલાય છે. લોકો તેને યાચવા આવે છે દરેક યાચકને મન માંગ્યું દાન આપીને પાછા વાળે છે. જ્યારે ઓઢા પાસે એક ભેંસ બાકી રહે છે ત્યારે એક ભાટ–ચારણ એ ભેસની માંગણી કરે છે. ઓઢો ચારણને બીજું કંઈ માંગવા કહે છે પણ એ ચારણને ભેંસ જ જોઈતી હતી. ઓઢો દાતાર હૃદયી હતો તે તેની અંતિમ ભેંસ પણ આપી દે છે. ઓઢા નો વિચાર સિંધ જવાનો હોવાથી તે પોતાના રસા લાસા સાથે વહાણમાં ચઢી બેઠો વહાણ નો પગો છૂટતા તે બોલ્યો :

" જર મથે જહાજ,પેર ન લજે સજણે,
સાણ નંગર ને ખુઆ જ, પગાર છોડે પંધ પ્યા."

વહાણ પાણી ઉપર છે અને હવે અમારો પગ પણ કોઈને શોધ્યો જડે તેમ નથી અને કુવાસ્તંભ તૈયાર થતાં વહાણનો પગો છૂટવાથી અમે પંથે પડ્યા છીએ.

ઓઢો સિંધ બાંભણાસર તરફ ગયો પરંતુ એ સ્થાન તેને યોગ્ય ન જણાતા તે ત્યાંથી તેના સસરા વિશળદેવ વાઘેલા પાસે વાગડના ગેડી ગામે આવી પહોંચ્યો. આ વખતે વિશળદેવ વાઘેલાની આથો ધલૂરા પાદશાહના માણસો હરી ગયેલા હોવાથી રાજવી સસરાની ચિંતા દૂર કરવા ઓઢો ધલૂરા પાદશાહ પાસેથી બદલો લેવા પોતાના માણસો સાથે તરત જ સિંધ તરફ ઉપડી નીકળ્યો.

(૨) હોથલ પદમણી

પૂર્વકાળમાં કચ્છમાં નિગામરા જાતિના રાજપૂતોમાં સરદાર સાંગણ નિગામરો એક પરાક્રમી વીર હતો. તે પુષ્કળ પશુ સમુદાયનો માલિક હતો પરંતુ તેને ત્યાં કોઈ સંતતિ ન હોવાથી તે રાત દિવસ ચિંતામગ્ન રહેતો હતો. એક દિવસ તેને જંગલમાંથી એક નાની ઉંમરની બાલિકાની પ્રાપ્તિ થઈ. તે તેને પોતાની પુત્રીની પેઠે ઉછેરવા લાગ્યો. એ સૌંદર્યવતી હોવાથી

તેનું નામ હોથલ રાખવામાં આવ્યું. જેમ જેમ હોથલ મોટી થતી ગઈ તેમ તેમ તેનું સૌંદર્ય સોળે કળાએ ખીલ્યું. આથી લોકો તેને હોથલ પદમણીના નામે ઓળખવા લાગ્યા.

ધલૂરાના પાદશાહના માણસો જે કચ્છમાં લૂંટ ચલાવી રહ્યા હતા તેમાં સાંગણ નિગામરાની ઘણી આથો તેઓ હરી ગયા હતા. આ બાબતના લીધે મરણ પથારીએ પડેલા સાંગણ નિગામરાના શ્વાસ છુટતા ન હતા. હોથલે પાલક પિતાને ધલૂરાના પાદશાહ સાથે વેર લેવાનો વચન આપ્યો ત્યારે સાંગણના પ્રાણ છૂટ્યા. પિતાની અંતિમ ક્રિયા પૂર્ણ કરી વચનનું પરિપાલન કરવા પુરુષવેશ ધારણ કરી સિંધ બાંભણાસર ચાલવા લાગી. આગળ ચાલતા જ્યાં ઓઢા જામે પોતાની છાવણી જમાવી હતી ત્યાં પહોંચી ગઈ. આ લોકો કોણ છે તેની તપાસ કરવા તે તેમના તરફ ચાલવા લાગી. આ વખતે ઓઢા જામના માણસો દેવતા સળગાવીને તાપતા હતા. પેલા ઘોડેસવાર નવજવાન એ વાત કરવાના બહાને ઓઢા જામના માણસો પાસેથી દેવતા માંગ્યા ત્યારે ઓઢાના માણસે જવાબ આપ્યો કે, દેવતા જોઈતો હોય તો ઘોડા પરથી ઉતરીને લઈ લો. આ નવજવાને એવી યુક્તિથી દેવતામાં તીર ફેંક્યું કે તે જ વખતે એક બળતું લાકડું તેના હાથમાં આવી પડ્યું. જ્યારે ઓઢા જામને આ નવજવાનની અદભુત તિરંદાજીની જાણ થઈ ત્યારે તે તેની પાસે આવી રામરામ કરી નામઠામ પૂછવા લાગ્યો. ઘોડે સવારે ઉત્તરમાં જણાવ્યું કે મારું નામ હોથી છે અને હું ધલૂરા પાદશાહની આથો વાળવા માટે જાઉં છું. ઓઢા જામે સઘળી હકીકત જાણી તેને પોતાની સાથે આવવા જણાવ્યું. એ ખૂબસૂરત યુવાને એવી શરત મૂકી કે જો તેને તમામ લુંટમાંથી અડધો ભાગ મળે તો જ તેમની સાથે આવી શકે. શરત આકરી હતી છતાં ઓઢો નવજવાન તરફ એટલો આકર્ષાઈ ગયો કે તેણે શરતનો સ્વીકાર કર્યો. આ સઘળો કાફલો સિંધ બાંભણાસર તરફ કૂચ કરવા લાગ્યો.

બાંભણાસરની નજીક આવી પહોંચતા ધલૂરા પાદશાહની મોટી આથો ચરતી તેમને જોવા મળી. આથો ચારનાર રબારીઓને બાંધી લઈને તેમને સઘળી આથોને વાળી લીધી. ઉત્તમ પ્રકારની સિંધી સાંઢણીઓ લઈને કાફલો રવાના થયો અહીં સૌથી મોટી મૂંઝવણ એ હતી કે શરત મુજબ આ આથોને અડધા ભાગમાં કઈ રીતે વહેંચવી. ઓઢા જામના માણસોને સર્વ પ્રકારે નિષ્ફળ થતાં જોઈ તે નવયુવાને આથોને વહેંચવાનો પોતાના માથે લીધો આથોની આજુબાજુ ગોળાકારમાં ઘોડાથી એ યુવાને ચક્કર લગાવ્યા એ અને એક ગોળ કુંડાળો બની ગયા પછી વચ્ચેથી નીકળીને આથોને પોતાની અદભુત યુક્તિથી બે ભાગોમાં વહેંચી દીધી.

આ નવયુવાન રાજપુતની સ્ત્રીસુલભ કોમળતા જોઈને ઓઢાને નવાઈ લાગી પણ તે વ્યક્ત કરી ન શક્યો. પોતાના ભાગે આવેલી અડધી આથોને મિત્રતાની નિશાની તરીકે ઓઢાને આપી નવયુવાને વિદાય માટે રજા માંગી. ઓઢાનું આ નવયુવાન પ્રત્યેનું આકર્ષણ વધતું જતું હતું. હોથીને રજા માંગતો જોઈ ઓઢો જડ જેવો બની ગયો. હોથી જતા જતા બોલ્યો, 'ઓઢા જામ ! કોઈક દિવસ યાદ તો કરશો ને !' આ સાંભળીને ઓઢો જામ બોલ્યો, 'વહાલા મિત્ર તમારી મૂર્તિ તો મારા હૃદયમાં એવી સજ્જડ જડાઈ ગઈ છે કે તે જીવનપર્યંત કદી પણ ખસેડી શકાશે નહીં. પરંતુ તમે યાદ કરશો કે કેમ જ તેની શંકા છે.' ત્યારે હોથી બોલ્યો :

"રૂદે મિંઝા રૂઅ, જેની વલા વિસરે,
મરતા લાગે લૂઅ, થર બીબીડી થઈ ભુણા."

જ્યાં સુધી મારામાં જીવ છે ત્યાં સુધી વહાલાઓ વિસરવાના નથી પછી હું થરના રણમાં હોલી થઈને ભટકતી હું તો પણ શું ?

'થર બીબીડી થઈ ભુણા' આ નારીવાચક શબ્દોને ઓઢાજામની શંકા અને વધારે મજબૂત બનાવી દીધી તેણે પહોંચીને આ જ દુઃખો ફરી બોલવા કહ્યું. હોથી એ ચાલાકી થી દુહો ફેરવીને બોલ્યો :

"રૂદે મિંઝા રૂઅ, જેની વલા વિસરે,
મરતા લાગે લૂઅ, થર બાબીડો થ્યો ભુણા."

આટલું બોલતા હોવાથી નામથી પુરુષવેશમાં રહેલી હોથલ પદમણીએ પોતાનો ઘોડો વાયુવેગે દોડાવી મુક્યો.

(૩) ચકાસરની પાળ પર

હોથી ગયો અને તેની સાથે જામ ઓઢાના હૃદયની શાંતિ પણ લેતો ગયો.ઓઢા જામના સઘળા વિચારોનું મધ્યબિંદુ હવે હોથી જ બન્યો હતો. આથી તેનું મન પ્રતિપળે વધુને વધુ ચકડોળે ચડવા લાગ્યો. હોથી વગરનું જીવન તેને ઝેર જેવું જણાવવા લાગ્યું. ઓઢા જામે પોતાના પ્રિય મિત્રને શોધી કાઢવાનો પોતાના મનમાં નિશ્ચય કરી લીધો. તેણે પોતાના માણસો સાથે વિશળદેવ વાઘેલાને સંદેશો મોકલાવી દીધો.

જામ ઓઢો હોથીના ઘોડાના પગ લેતો ઝાપટાબંધ આગળ ચાલવા લાગ્યો. ચકાસર તળાવ પાસે આવ્યો ત્યારે તળાવની પાળ પાસે હોથીના ઘોડાને બાંધેલો જોઈને ઓઢા જામના આનંદના પાર રહ્યો નહીં. તો તળાવના મધ્યભાગમાં એક નવયૌવના પોતાના મસ્તક પરના લાંબા કેશને છુટા મૂકીને પાણીમાં તરી રહી હતી. આ દ્રશ્ય જોઈને ઓઢો મંત્ર–મુગ્ધ થઈ ગયો. ઓઢા જામના ઘોડાને જોઈને હોથલનો ઘોડો હણહણવા લાગ્યો ત્યારે હોથલનું ધ્યાન તે તરફ ખેંચાયું. ઓઢા જામને જોઈને તેને નવાઈ લાગી. ઓઢા જામને મંત્ર–મુગ્ધ બની ગયેલો જોઈને હોથલ પોતાનું આખું શરીર પોતાના લાંબા વાળ વડે ઢાંકી દઈ બહાર આવી. વસ્ત્રો પહેરવા લાગી. હોથલનું સૌંદર્ય જોતાં ઓઢો જામ મૂર્છિત થઈ ગયો અને જમીન પર પટકાઈ પડ્યો. હોથલની સારવારથી ઓઢા જામની મૂર્ચ્છા ઉતરી ગઈ. ઉભય પ્રેમીઓ ચકાસરની પાળે આવેલા એક વિશાળ વડલાની શીતળ છાંયડીમાં વિધવિધ વાર્તાલાપ કરવા લાગ્યા.

(૪) વતનની યાદ

જામ ઓઢો અને હોથલ રાપર તાલુકાના સઈ ગામની નૈઋત્ય એ આવેલા હોથલપરા નામે ડુંગરમાં આવેલા હોથલના ભોયરા પાસે આવી પહોંચ્યા. અહીં જામ ઓઢાએ હોથલ સાથે ગાંધર્વ લગ્ન કર્યા.

"રણની કેઓ માંઢવો, વિછાયા દાડમ દ્રાખ,

ઉઢો હોથલ પેણજે, તેંજી સૂરજ પૂરજ સાખ."

રણમાં માંડવો કરવામાં આવ્યો અને દાડમ દ્રાક્ષ આદીવન ફળો ગોઠવવામાં આવ્યા આ રીતે ઓઢો અને હોથલ પરણે છે તેની હે સૂર્યનારાયણ તમે સાથી પૂરજો.

ઓઢો જામ અને હોથલ નિગામરીના લગ્ન પછી તેમને ત્યાં જખરો અને જેસંગ નામના બે વીર કુમારોના જન્મ થયા. એક દિવસ ઓઢો જામ પોતાના બંને કુંવરો સાથે ડુંગર પર ફરવા ગયો હતો તે વખતે તેના નાના પુત્ર જેસંગ ને એક મોર તરફ પથ્થર ફેંકતો જોઈને ઓઢો જામ બોલ્યો :

" છેલમ છેલા ડુંગરા, ચાવો લગે ચકોર,

વિસાર્યા સાંભરે ડે, સે ન મારજે મોર."

વતન તરફના આ છેલ્લા ડુંગરો જોઈને હૃદયમાં ચકોરની માફક ચાહના લાગે છે જે વિસરાયેલા સ્વજનોને સાંભળી દે એવા મોરને મારીએ નહીં.

એટલામાં મોરે ટહુકાર કરવા માંડ્યા તે જોઈને મોટા કુમાર જખરાએ જામ ઓઢાને પૂછ્યું કે આ મોર શું કહે છે! જખરાનો આ ઉત્તમ પ્રકારનો પ્રશ્ન સાંભળીને ઓઢો બોલ્યો, મયુર એમ કહે છે કે અમે કાંકરી અને દાણા ચણનાર ગિરિવરના મોરલા છીએ ઋતુ આવ્યા છતાં અમે ન બોલીએ તો અમારું હૈયું ફાટી પડે. ઓઢાને વતનની યાદમાં ઝૂરતો જોઈ હોથલ ઓઢાને વતન જવું હોય તો જાય પણ અહીં દુઃખો રડવાનું કોઈ ફાયદો નથી. હોથલને ગુસ્સે થયેલી જોઈને જામ ઓઢાએ તેને સમજાવ્યું કે પુત્રો માટે જન સમુદાયમાં જવું જોઈએ. આ સાંભળીને હોથલ કહેવા લાગી ક, 'તમારા કચ્છમાં ખેર અને બાવળ સિવાય બીજું છે પણ શું?' જામ ઓઢાએ હોથલના પ્રશ્નોનો જવાબ આપતા કચ્છની પ્રશંસા માં જણાવ્યું કે,

"ખેરી બેરી ને બાવરી, પુલ કંઢા ને કખ્ખ,

હોથલ! હલો કચ્છડે, જિત માડુ સવા લખ્ખ."

કચ્છમાં ખેર, બોરડી, બાવળ, ફૂલ, કાંટા અને ખડ છે તો હે પ્રિય હોથલ! ત્યાં માણસો સવા લાખના અર્થાત અમૂલ્ય છે માટે ત્યાં ચાલો.

ઓઢા જામની અતિ સમજાવતી હોથલે કચ્છ ચાલવાની કબુલાત એક શરતે આપી કે જો તે હોથલ પદમણી છે એવી કોઈને પણ જાણ થશે તો એ જ વખતે ત્યાંથી વિદાય થઈ જશે.

(૫) વિયોગ અને સંયોગ

જ્યારે ઓઢો જામ ગોલાયગઢમાં આવતો હોવાની જાણ થઈ ત્યારે સૌના આનંદનો પાર રહ્યો નહીં. મોટા સમૈયા સાથે જામ ઓઢાને ગામમાં લાવવામાં આવ્યો. હોથલ ગામમાં ગુપ્ત રીતે રહેતી હતી. એક દિવસ એના બંને બાળકો બહાર રમતા હતા એને પાડાથી બચાવવા માટે હોથલે પોતાની દિવ્ય શક્તિઓથી બાળકોને બચાવી લીધા. આ વાતની ચર્ચા ઘેર ઘેર થવા લાગી. એક દિવસ ઓઢા જામના મિત્રોએ એને ખૂબ દારૂ પાયો અને આ યુક્તિ દ્વારા ઓઢાએ હોથલ પદમણીની બાતમી આપી દીધી. આ વાતની હોથલ ને જાણ થતા તેને ખોટું લાગ્યું અને શરત મુજબ તેણે ચાર ચિઠ્ઠીઓ દાસીના હાથમાં આપીને પોતે તે જ ક્ષણે અદ્રશ્ય થઈ ગઈ. ચિઠ્ઠીમાં પોતાના જવાના કારણો સાથે હોથલ એ વચન પણ આપ્યું કે કુમારોના લગ્ન પ્રસંગે તેમને પોંખવા આવશે.

હોથલ ને ચાલી ગયેલી જોઈને ઓઢાજામની આંતરવેદનાનનો પાર ન રહ્યો અને તે બાળકની જેમ અશ્રુપાત કરવા લાગ્યો.

" બક્કર મારે જીંય, કાંસાઈ કુટકા કરે,
છાકે અસાં કે તીય, હોથલ હલી નીકરઈ."

કસાઈ બકરાને મારીને જેમ કટકા કરે છે તેમ અમોને કતલ કરીને હોથલ ચાલી નીકળી.

ઓઢાજામને આમ કલ્પના કરતો જોઈને તેનો મોટો કુમાર જકરો સમજાવવા લાગ્યો ત્યારે ઓઢાએ પોતાના હૃદયનું દર્દ તેની પાસે વ્યક્ત કરતા કહ્યું :

" જખરા મન જંપિયા, પણ જંપે નતી રે ઝાર,
મિંઝાની મચ્ચ બરે, તેંજી બાંફ નિકરેતી બાર."

જખરા ! હું મારા મનને ઘણું વાળુ છું પણ હૃદયની જ્વાળા શાંત પડતી નથી મારા મનમાં જે ભડકા બળે તેની બાફ સ્વયં બહાર નીકળી જાય છે.

આવા વેણ સાંભળીને બંને જોરાવર દીકરાઓને ચિંતા થાય છે કે બાપુજી આપ જેવો સમર્થ શૂરવીર પુરુષ આ રીતે કા ઢીલાઢફ લાગે. આ અમારાથી તો જોયું ન જાય. દીકરાઓને માતાએ આપેલો વચન યાદ આવ્યો. દીકરાઓના લગ્ન થાય તો લગ્નમાં મા આવે. બે દીકરાના લગ્નની ધામધૂમથી તૈયારીઓ કરવામાં આવી. લગ્ન ઉલ્લાસ સાથે સંપન્ન થયા. નવી આવનાર બહુ હોથલને પગે લાગી ત્યારે હોથલ બોલી બોલ શું માંગે તે આપો ત્યારે સન્નારીએ કીધું મા અમને આપની સેવા કરવાના સદભાગ્ય સાંપડે એવી તક આપો. હોથલ આ પ્રેમાળ વહુ માટે રોકાઈ ગઈ.

(૬) જખરો અને જેસંગ

જામ ઓઢાનાં બંને કુમારો જખરો અને જેસંગ પણ તેમના પિતાની માફક મહા પરાક્રમી અને પ્રતાપી થયા. આ સમયે સિંધ-નગરસમૈમાં આમ ઉન્નડનાં વંશવાળા બાંભણીયા સમાનો અમલ હતો. એ અરસામાં ધુમલીમાં સિયા જેઠવા અને હલામાણ વચ્ચે આણરાગ ચાલી રહ્યો હતો. સલામાણ અને બાંભણીયા વચ્ચે અતિ ગાઢ સ્નેહ-સંબંધ હોવાથી તે સલામાણને મદદ માટે ધૂમલી પર ચઢી ગયો, અને સીયા જેઠવાને હાર કરીને ધૂમલીની ગાદી પર સલામાણને નિયુક્ત કર્યો. આ સમય દરમિયાન નગર સામેની રાજગાદી ખાલી રહેવાથી બાંભણીયા સમાના દુશ્મનોએ નગર-સમે પર આક્રમણ કરીને તેનો કબજો પોતાને હસ્તક કરી લીધો. બાંભણીયો સમો જ્યારે સીયા જેઠવા પર જીત મેળવીને પાછો ફરતો હતો, ત્યારે તેને આ સમાચાર પ્રાપ્ત થયા. આથી તે સિંધુ જવાને બદલે કચ્છ-ગઢવી તરફ વળ્યો, અને ત્યાંનો કેટલોક પ્રદેશ મોડેના વંશજો પાસેથી છીનવી લીધો. ત્યારબાદ મનાઈના વંશજો કહેર રાજપૂતોનો પ્રદેશ પણ પોતાને હસ્તક કરવા તે તેમના પર ચઢી ગયો. આ વખતે જામ ઓઢાના બે કુંવારો જાખરો અને જસંગ બાંભણીયા સમાનો સામનો કરવા તૈયાર થયા. તેઓ પોતાની ફોજ સાથે બાંભણીયા સમાની સામે આવ્યા અને નારાયણસરના કૈયારા ગામ પાસે પડાવ નાખ્યો.

ઉત્સવ સૈન્યોની જોટો થાતી લડાઈ ચાલવા લાગી. આ યુદ્ધમાં હજારો માણસો કામ આવ્યાં ગયા. જામ જાખરો અને જસંગ બહાદુરીથી લડતાં આખરે વીરગતિને પામ્યા. આ ઉત્સવ વીર પુરુષોની લાશોને કોબસર નામના તળાવની

આથમણી તરફ આ જગસેનાના રોજ પાસે ભૂમિદાસ કરવામાં આવ્યા છે. લોકો આજ પણ તેમને જંગ ઓલિયાના માનવતાથી સંબોધે છે, અને તેમનું પૂજન કરે છે. અહીં દર સાલ મોટો મેળો ભરાય છે અને હજારો માણસો તેમનું દર્શન કરવા આવે છે.

ઓઢો જામ અને હોથલ પદમણીની વાર્તાના દુહામાં આવતી કચ્છી બોલીનો પ્રયોગ

સંસ્કૃતનાં ઉત્તરકાલીન અપભ્રંશોનો વારસો સાચવતી કચ્છી સિંધી ઉપરાંત રાજસ્થાની, પંજાબી, હિંદી, ગુજરાતી જેવી ભારતીય તથા અરબી, ફારસી અને અંગ્રેજી જેવી પરદેશી ભાષાઓથી અસર ઝીલવતી આવી છે. છેલ્લા દોઢેક સૈકાનો બાદ કરતાં, એકાદ હજાર વર્ષોથી વાચિક સ્વરૂપમાં ટકી રહેલી કચ્છીને પોતીકી લાક્ષણિકતાઓ છે.

દુલેરાય કારાણી દ્વારા સંગ્રહિત લોકવાર્તા 'ઓઢો જામ અને હોથલ પદમણી' માત્ર પ્રેમ અને વીરતાની ગાથા નથી, પરંતુ તે કચ્છની કચ્છી બોલીના ભાષાકીય સૌંદર્ય અને સાંસ્કૃતિક ધબકારને રજૂ કરતો અમૂલ્ય દસ્તાવેજ છે. આ કથામાં આવતા દુહા (Doha), જે લોકસાહિત્યનો આત્મા છે, તેમાં કચ્છી બોલીનો પ્રયોગ વાર્તાને વધુ સજીવ, પ્રાદેશિક અને ભાવનાત્મક બનાવે છે. કચ્છી બોલીના ભાષાકીય નિયમો અને દુહાના ઉદાહરણો સાથે વિગતવાર વિશ્લેષણ નીચે મુજબ રજૂ કરેલ છે:

લોકવાર્તાઓના દુહામાં કચ્છી બોલીનો પ્રયોગ થવાથી તે પ્રદેશની તળપદી લઢણ, ભાવનાઓનું સીધું નિરૂપણ અને સાંસ્કૃતિક મૂલ્યોનું વહન કરે છે. દુહામાં ઓછા શબ્દોમાં ઊંડો અર્થ વ્યક્ત કરવાની શક્તિ હોય છે, અને કચ્છી બોલીના જોડાવાથી તેની અસરકારકતા અનેકગણી વધી જાય છે.

૧. કચ્છી બોલીના પાયાના ભાષાકીય નિયમો

કચ્છી બોલી મુખ્યત્વે ઈન્ડો-આર્યન ભાષા પરિવારની સિંધી ભાષા સાથે ગાઢ સંબંધ ધરાવે છે, પરંતુ તે ગુજરાતી અને રાજસ્થાની ભાષાના તત્વો પણ ગ્રહણ કરે છે. દુહામાં તેનો ઉપયોગ સમજવા માટે તેના કેટલાક મુખ્ય નિયમો જાણવા જરૂરી છે:

નિયમ/તત્વ	કચ્છી બોલીનું સ્વરૂપ	ગુજરાતી ભાષાનું સ્વરૂપ	ઉદાહરણ
સર્વનામ	'આં'&'આંય'	'તમે'/'આપ'	આંય કેડો માણું આ (તમે કેવા માણસ છો?)
સર્વનામ	પાણ	'હું'/'પોતે	પાણ ડીઠું. (મેં/પોતે જોયું.)
ક્રિયાપદ	થિયે	થાય છે	તડેં કેડો થિયે? (ત્યારે શું થાય?)
સંબંધક રૂપ	'જો', 'જી', 'જા'	નો, ની, ના	માશૂક જો હથ
પ્રશ્નાર્થ	કેડો 'કે'	કેડો કાર હીંધે?	કેવો બનાવ બનશે?

૨. દુહામાં કચ્છી બોલીના પ્રયોગનું વિશ્લેષણ અને ઉદાહરણ

ઓઢો જામ અને હોથલ પદમણીની કથાના દુહામાં આવતી કચ્છી બોલી નીચે મુજબના મુખ્ય ત્રણ સ્તરે વર્ગીકૃત કરી શકાય:

અ. ધ્વનિગત પરિવર્તન

કચ્છી બોલીમાં ઘણા ગુજરાતી શબ્દોના ધ્વનિઓમાં પરિવર્તન જોવા મળે છે, જે દુહાને તેનું પ્રાદેશિક માળખું આપે છે.

ઉદાહરણ: (ઓઢાની ધીરજ તૂટતાં કહેલો દુહો)

> ચાવ તો માર્યે જિવાડ્યે, મરણું ચંગું માશૂક હથ,

> જીવ જિવાદડણહાર, નેણાં તોજાં નિગામરી.

કચ્છી શબ્દ	ગુજરાતી અનુવાદ	ભાષાકીય નિયમ	વિશ્લેષણ
જિવાડ્ય	જીવાડ, જીવાડજે	'ડ્ય' ધ્વનિનો પ્રયોગ (ગુજરાતી 'ડ' કે 'ડ્ય' ને બદલે)	ક્રિયાપદનું આજ્ઞાર્થ રૂપ.
ચંગું	સારું, મીઠું	ગુજરાતી 'સ' કે 'મ' ને બદલે 'ચ' કે 'ંગ' નો પ્રયોગ	ભાવનાત્મક તીવ્રતા દર્શાવે છે.
હથ	હાથ	શબ્દમાંથી 'આ' સ્વરનો લોપ (સ્વર સંકોચન).	સરળ અને ઝડપી ઉચ્ચારણ.
તોજાં	તારા, તારાં	'તારા' શબ્દનું કચ્છી બહુવચન/સંબંધક રૂપ	સર્વનામનું વિશિષ્ટ રૂપ.

બ. વ્યાકરણગત વિશિષ્ટતા

કચ્છી બોલી તેના સર્વનામ, ક્રિયાપદ અને વિભક્તિના પ્રત્યયોના કારણે ગુજરાતીથી અલગ પડે છે. દુહામાં આ વિશિષ્ટતા ભાવની પ્રબળતા વધારે છે.

ઉદાહરણ: (ઓઢો હોથલની સુંદરતા પર મુગ્ધ થઈને કહે છે)

> કનડે મોતી નીપજે, કચ્છમેં થિયેતા મઠ,

> હોથલ જેડી પદમણી, કચ્છમેં નેણે ન દઠ.

કચ્છી શબ્દ	ગુજરાતી અનુવાદ	ભાષાકીય નિયમ	વિશ્લેષણ
થિયેતા	થાય છે	ક્રિયાપદનું વર્તમાનકાળનું બહુવચનનું રૂપ.	'થાય છે' ને બદલે 'થિયેતા' - સિંધી ભાષાની અસર.
જેડી	જેવી, સરખી	'જેવી' માટે 'જેડી' શબ્દનો તળપદો પ્રયોગ.	સમાનતા દર્શાવવા માટેનું કચ્છી તત્ત્વ.
નેણે ન દઠ	નજરે ન જોઈ	'નેણે' (નેત્રે/આંખે) અને 'દઠ' (જોઈ) - ક્રિયાપદનું ભૂતકાળનું રૂપ.	ભૂતકાળના ક્રિયાપદનું વિશિષ્ટ કચ્છી રૂપ (ગુજરાતીમાં 'જોઈ' કે 'દીઠી')
કચ્છમેં	કચ્છમાં	સપ્તમી વિભક્તિ માટે 'મેં' (અથવા 'અં') પ્રત્યયનો ઉપયોગ.	સ્થળનું નિરૂપણ કરવા માટેનો કચ્છી પ્રત્યય.

ક. શબ્દભંડોળ અને સાંસ્કૃતિક પ્રયોગ

દુહામાં વપરાયેલા કચ્છી શબ્દો માત્ર વાર્તા કહેવા પૂરતા નથી, પરંતુ તે કચ્છની સંસ્કૃતિ, ભૂગોળ અને આંતરિક મૂલ્યોને પણ પ્રદર્શિત કરે છે.

ઉદાહરણ: (કચ્છ અને કનડની તુલના)

> કનડે મોતી નીપજે, કચ્છમેં થિયેતા મઠ,

> હોથલ જેડી પદમણી, કચ્છમેં નેણે ન દઠ.

કચ્છી શબ્દ	સાંસ્કૃતિક અર્થ	વિશ્લેષણ
મઠ	એક પ્રકારનું ભૂંડું કઠોળ	કચ્છની ખેતીની જમીનની વાસ્તવિકતા અને વિનમ્રતાનું પ્રતીક.
પદમણી	શ્રેષ્ઠ અને સુંદર સ્ત્રી (પદ્મિની)	લોકસાહિત્યમાં સ્ત્રી સૌંદર્ય અને શીલનું ઉચ્ચતમ પ્રતીક.

૩. કચ્છી બોલીના પ્રયોગના તારણો

ઓઢો જામ અને હોથલ પદમણીના દુહામાં કચ્છી બોલીનો પ્રયોગ નીચેના મહત્ત્વના તારણો આપે છે:

અ. ભાવનાત્મક તીવ્રતા

દુહામાં કચ્છી બોલીનો ઉપયોગ ભાવનાત્મક તીવ્રતા વધારે છે. પ્રેમ, વિરહ, વીરતા, ટેક અને આક્રોશ જેવા ભાવો કચ્છીના તીક્ષ્ણ અને તળપદા શબ્દો દ્વારા વધુ અસરકારક રીતે વ્યક્ત થાય છે. દા.ત., 'માર્યે જિવાડ્યે' (માર કે જીવાડ)માં રહેલો આત્મસમર્પણનો ભાવ સીધો હૃદયને સ્પર્શે છે.

બ. કથાનું સ્થાનિકીકરણ

કચ્છી બોલીના કારણે આ વાર્તા સ્થાનિક બની રહે છે. વાર્તાના પાત્રો, ભલે ગમે તેટલા મહાન હોય, તેઓ સામાન્ય કચ્છી માણસની જેમ બોલે છે, જેનાથી વાચક કે શ્રોતા તેમની સાથે આત્મિયતા અનુભવે છે. આનાથી લોકવાર્તાની પ્રેરક અને સંગઠનાત્મક શક્તિ વધે છે.

ક. સાંસ્કૃતિક વારસાનું જતન

કચ્છી બોલીના નિયમો અને પ્રયોગ દ્વારા દુલેરાય કારાણીએ આ લોકવાર્તાને સુરક્ષિત કરી છે. આ દુહા કચ્છી ભાષાના અભ્યાસ માટેનું પ્રાથમિક સાહિત્ય બની રહે છે, જે આવનારી પેઢીને તેમની માતૃબોલીની ગરિમા અને તેના નિયમોથી પરિચિત કરાવે છે.

ડ. સિંધી-ગુજરાતી સંસ્કૃતિનું મિલન

કચ્છી બોલીમાં રહેલો સિંધી અને ગુજરાતી ભાષાનો સુમેળ દર્શાવે છે કે કચ્છની સંસ્કૃતિ પડોશી સંસ્કૃતિઓના સમન્વયથી બનેલી છે. દુહામાં આ મિશ્ર ભાષાના તત્વો કચ્છની બહુવિધ ઓળખને મજબૂત કરે છે.

દુલેરાય કારાણી દ્વારા સંગ્રહિત ઓઢો જામ અને હોથલ પદમણીની કથાના દુહામાં કચ્છી બોલીનો પ્રયોગ એ માત્ર ભાષાનો વ્યવહાર નથી, પરંતુ કલા, સંસ્કૃતિ અને જીવનમૂલ્યોનો ત્રિવેણી સંગમ છે. કચ્છી બોલીના વિશિષ્ટ વ્યાકરણ, ધ્વનિ અને શબ્દભંડોળના કારણે આ દુહા અમર બન્યા છે. તેઓ કચ્છી લોકસાહિત્યને એક અનોખો રંગ આપે છે અને કચ્છની પ્રાદેશિક અસ્મિતાને સજીવ રાખે છે. આ લોકવાર્તા કચ્છી બોલીની શક્તિ અને સૌંદર્યનો પ્રબળ પુરાવો છે.

વર્ણમાળામાં પરિવર્તન

કચ્છીની સગવડતા ખાતર ગુજરાતી લિપિને અપનાવી છે. પરંતુ ઉચ્ચારણોની કેટલીક વિશેષતાઓને કારણે વર્ણ-અક્ષરોમાં કેટલાંક પરિવર્તન કર્યા છે.

(૧) કચ્છીમાં વિવૃત એ,ઓ નું પ્રમાણ વિશેષ છે. સાથે મહત્વનું પણ એટલું જ છે. વિવૃતને સ્થાને સંવૃતનો ઉપયોગ થઈ ગયો, તો અર્થભેદ સર્જાય છે.

ઉદાહરણ :

1.**જેંડા** થ્યા સી પાણુ, **તેંડા** ન થેઆ પાણસે

2. મ રોજ મુંજે રાજ મેં, **તોંકે** અન્ય આય હરામ

3. ઉઢે કેસરીઆ **પેંરેંઆ,** મથે બંધે મોડ

૪. અજાઓ ગોતર પાણજો, ક્યાં ફૂટીસ **તોંજી** મા ?

5.બાઈ ઉથી ન્યારે, **પોં પેંર** ભારે

6.આઈ મનાઈજા મકડા, **અયોં** સગા **ત્રેં** ભા

7.ચડી ચકાસર પાર **હલોં** હોથલ કે ન્યારીઉ

(૨) ભ કે ધ જેવાં કઠોર મહાપ્રાણ વર્ણના વિશેષ ઉપયોગને કારણે કચ્છી ઘણાને કઠોર ભાષા લાગે છે. પરંતુ તેની સાથે ઘરોબો કેળવનારને કારાણીના શબ્દોમાં સાકર જેવી મીઠાસ લાગે છે.

ઉદાહરણ :

1.ઈની નિમાણે નેણે, ડુંગર **ડીધાસી,**

એડો આડો વેરી, તિત રાત **રોધાસી**

2. ઉઢેજી **ઓલાધમેં**, તરંધો તેજો નાં

ઉપસંહાર

આ કથા કચ્છના વીર પુરુષ ઓઢો જામ અને પરમ સૌંદર્યની પ્રતિમા હોથલ પદમણીના અનન્ય પ્રેમ અને વિરહની ગાથા છે. કારાણીએ આ કથાને કચ્છી બોલીના તળપદા શબ્દો, રૂઢિપ્રયોગો અને લઢણ સાથે રજૂ કરીને તેને પ્રાદેશિક ઓળખ આપી છે. તેમનું કાર્ય માત્ર વાર્તા કહેવા પૂરતું સીમિત નથી, પરંતુ તે બોલીના માધ્યમથી કચ્છના ઈતિહાસ, સામાજિક મૂલ્યો, રીત-રિવાજો અને જીવનશૈલીને વાચકો સમક્ષ સચોટ રીતે પ્રસ્તુત કરે છે. કચ્છી બોલીનો આ પ્રયોગ કથાના પાત્રોને વાસ્તવિકતા અને સજીવતા બક્ષે છે.

કચ્છી ભાષામાં સિન્ધી, ગુજરાતી અને રાજસ્થાની ભાષાની અસર જોવા મળે છે, જે કચ્છના ભૌગોલિક અને સાંસ્કૃતિક મિશ્રણને કારણે છે. કારાણીએ આ મિશ્રણનો કુશળતાપૂર્વક ઉપયોગ કરીને કથાને વધુ સમૃદ્ધ બનાવી છે. આ વિશ્લેષણ સ્પષ્ટ કરે છે કે કચ્છી બોલીના પ્રયોગથી લોકવાર્તાનું સાંસ્કૃતિક મૂલ્ય અને લોકમાનસ પરની અસર અનેકગણી વધી જાય છે.

મુખ્ય તારણો

દુલેરાય કારાણીની 'ઓઢોજામ અને હોથલ પદમણીની કથા'માં કચ્છી બોલીના પ્રયોગના ભાષાકીય અને સાંસ્કૃતિક વિશ્લેષણના મુખ્ય તારણો નીચે મુજબ છે:

૧. ભાષાકીય તારણો

બોલીની સચોટ રજૂઆત: કારાણીએ કથામાં કચ્છી બોલીના મૂળ સ્વરૂપ, તેના ધ્વનિઓ અને શબ્દભંડોળનો સચોટ ઉપયોગ કર્યો છે. આનાથી કચ્છી ભાષાની વિશિષ્ટતા જળવાઈ રહે છે, જે તેને ગુજરાતી અને સિન્ધીથી અલગ પાડે છે.

સહજ પ્રવાહ: બોલીનો પ્રયોગ કૃત્રિમ ન લાગતા એકદમ સહજ અને પ્રવાહી છે, જેનાથી વાર્તાનું કથન લોકકથાના મૌખિક સ્વરૂપની નજીક પહોંચે છે.

શબ્દભંડોળનું વૈવિધ્ય: કથામાં વપરાયેલા કચ્છી શબ્દો, જેમ કે પશુપાલન, ખેતી, દરિયાઈ જીવન અને સ્થાનિક સંબંધોને લગતા શબ્દો, કચ્છના વ્યાવહારિક જીવનને પ્રદર્શિત કરે છે. ઉદાહરણ તરીકે, 'મલક' (પ્રદેશ), 'પાણ' (પોતે), 'કેડો' (કેવો), 'નિંજો' (તેનો) જેવા શબ્દો બોલીની આગવી છાપ ઊભી કરે છે.

મિશ્ર ભાષા પ્રભાવ: કચ્છી બોલી પર રહેલા સિન્ધી અને રાજસ્થાની પ્રભાવનું નિરૂપણ સ્પષ્ટ થાય છે, જે કચ્છની સરહદી ભૂમિકાને કારણે પેદા થયેલી સાંસ્કૃતિક આપ-લે દર્શાવે છે. કારાણીએ આ મિશ્રણને કથાના સૌંદર્યમાં પરિવર્તિત કર્યું છે.

૨. સાંસ્કૃતિક તારણો

કચ્છી સંસ્કૃતિનું પ્રતિબિંબ: કથા માત્ર પ્રેમની જ વાત નથી, પરંતુ તે કચ્છની વીરતા, ટેક, ખાનદાની, મહેમાનગતિ અને સ્ત્રીના સન્માનના મૂલ્યોને ઉજાગર કરે છે. કચ્છી બોલીમાં વ્યક્ત થયેલા સંવાદો આ મૂલ્યોને વધુ ધારદાર બનાવે છે. લોકજીવન સાથે જોડાણ: બોલીના પ્રયોગથી કથા કચ્છના સામાન્ય લોકજીવન સાથે સીધો સેતુ રચે છે. કચ્છી બોલનાર વ્યક્તિને આ કથા વાંચતી વખતે કે સાંભળતી વખતે પોતીકાપણું અને ઊંડો ભાવનાત્મક સંતોષ મળે છે.

મૌખિક પરંપરાનું લેખિત સ્વરૂપ: કારાણીએ આ લોકવાર્તાને લેખિત સ્વરૂપ આપીને, કચ્છી બોલીની મૌખિક પરંપરાને લુપ્ત થતી અટકાવી છે. આ કાર્યથી આવનારી પેઢીઓ માટે બોલી અને સંસ્કૃતિના અભ્યાસનો સ્ત્રોત તૈયાર થયો છે.

આઈડેન્ટિટીનું જતન: કચ્છી બોલીનો પ્રયોગ એ કચ્છની પ્રાદેશિક ઓળખ (Regional Identity) અને અસ્મિતાનું જતન કરવાનું સબળ માધ્યમ છે. આ કૃતિ સાબિત કરે છે કે સ્થાનિક બોલી સાહિત્યસર્જનમાં રાષ્ટ્રભાષા જેટલું જ મહત્ત્વ અને સક્ષમતા ધરાવે છે.

નીતિમત્તા અને માનવ સંબંધો: કથામાં રહેલા નીતિમત્તાના સવાલો અને પ્રેમ, વીરતા, કર્તવ્ય જેવા માનવ સંબંધોની ગહનતાને કચ્છી બોલીના ઉષ્માપૂર્ણ અને બળકટ શબ્દોના કારણે વધુ ઊંડાણ પ્રાપ્ત થાય છે. ઓઢો અને હોથલના પાત્રોની ભાવનાઓ બોલીના માધ્યમથી અસરકારક રીતે રજૂ થાય છે.

અંતિમ નિષ્કર્ષ

દુલેરાય કારાણી દ્વારા 'ઓઢોજામ અને હોથલ પદમણીની કથા'માં કચ્છી બોલીનો પ્રયોગ એ માત્ર એક શૈલીગત પસંદગી નહોતી, પરંતુ તે કચ્છી સંસ્કૃતિ અને લોકમાનસને શાશ્વત સ્વરૂપ આપવાનો એક સુનિયોજિત પ્રયાસ હતો. કારાણીનું આ યોગદાન કચ્છી ભાષાને સાહિત્યિક દરજ્જો અપાવવામાં અને લોકવાર્તાઓને ચિરંજીવ બનાવવામાં પાયાનો પથ્થર સાબિત થયું છે.

તેમની કલમે કચ્છી બોલીના ભાષાકીય સૌંદર્યને ઉજાગર કર્યું છે અને સાબિત કર્યું છે કે પ્રાદેશિક બોલીઓ માત્ર સંચારનું સાધન નથી, પરંતુ તે પ્રદેશના આત્મા અને અસ્મિતાનું પ્રતીક છે. આ કથા દ્વારા કારાણીએ ગુજરાત અને વિશ્વના ફલક પર કચ્છની એક આગવી અને ગૌરવશાળી ઓળખ સ્થાપિત કરી છે.

સંદર્ભ સાહિત્ય

કચ્છ કલાધર ભાગ ૨ – દુલેરાય કારાણી (વર્ષ ૨૦૦૫ ની આવૃત્તિ)

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MEMORY AS A PSYCHOLOGICAL WEIGHT OF PAST IN THE DIASPORIC NARRATIVES OF JHUMPA LAHIRI'S THE NAMESAKE ,ROHINTON MISTRY'S A FINE BALANCE AND SALMAN RUSHDIES'S MIDNIGHT'S CHILDREN

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ABSTRACT
Memory often plays a complex and sometimes contradictory role, in the world of diasporic literature. It can help preserve cultural identity, it also becomes a heavy psychological weight for characters, shaping their experiences. This paper explores how Jhumpa Lahiri, Rohinton Mistry, and Salman Rushdie delineate memory not as a comforting refuge but rather as a force that diminish their protagonists' sense of self. Using insights from trauma theory, postmemory, and narrative psychology, this study shows how past events haunt the characters and prevent them from achieving emotional healing. In The Namesake, Gogol Ganguli struggles under the burden of inherited memory; in A Fine Balance, the characters are trapped by memories of caste violence and social trauma; and in Midnight's Children, Saleem Sinai's fractured recollections reflect a nation in turmoil. Together, these texts reveal that in diasporic and postcolonial contexts, memory can become a source of ongoing conflict and pain rather than resolution.

KEYWORDS: MEMORY, DIASPORA, TRAUMA, PAST MEMORY, POST-COLONIAL, DISPLACEMENT, IDENTITY, PSYCHOLOGY

INTRODUCTION
The term 'diaspora' is a Greek word meaning "a scattering [of seeds]". In English it refers to the movement of any group of people who share a common ethnic identity and were either forced to leave or left their homeland of their own accord. The group, then settled in places which were often far removed from its previous settlement. The first mention of a 'diaspora' occurs as a result of exile in the Bible in Deuteronomy 28:25 "thou shalt be a dispersion in all kingdoms of the earth". 'Diaspora' began to be seen as a movement of Jews specifically who were exiled by the Babylonians from Israel in 607 BC and at other times too. They are referred to as the Jewish Diaspora. Another mass exodus took place when Africans were exported to the West as slaves. These dislocations were forced evictions of people from their homelands. After the Second World War, migration became voluntary and a global phenomenon. By 1950s, the word 'diaspora' came into usage in the English language when people in significant numbers left their homelands to settle in foreign countries.

Unlike the Jews who faced religious persecution in their homeland and were forced to leave their country, the Indians who left their country to settle elsewhere did so voluntarily. They went abroad for higher education or better economic prospects. Some of them went as employees of their British masters, still others like women left their country because of marriage. The writings of the Indian Diaspora have received a great deal of attention and critical acclaim. Writers such as Kiran Desai, Salman Rushdie, Rohinton Mistry, Jhumpa Lahiri - to name a few - have been recipients of international literary awards.

The experience of diaspora involves far more than geographic displacement; it is a profound psychological and cultural rupture. Central to this rupture is memory, which acts as a double-edged sword: on the one hand, memory helps maintain a connection to cultural roots; on the other, it burdens the psyche with unresolved pain and alienation. This study examines how memory operates as a psychological burden in Jhumpa Lahiri's The Namesake, Rohinton Mistry's A Fine Balance, and Salman Rushdie's Midnight's Children.

Drawing on trauma theory, postmemory, and narrative psychology, the analysis reveals that memory in these novels is not a comforting refuge but an intrusive force that fragments identity and thwarts emotional closure. These authors illustrate how diasporic memory can entangle individuals in cycles of trauma, undermining the possibility of reconciliation with the past or the present.

LITERATURE REVIEW

Memory and trauma have been extensively studied in postcolonial and diasporic literature. Marianne Hirsch's concept of postmemory explains how descendants of trauma survivors inherit memories that feel as immediate as firsthand experience, shaping their identities profoundly (Hirsch 22). Cathy Caruth's trauma theory reveals how trauma disrupts narrative time, causing past events to return involuntarily and fragment identity (Caruth 4). Bessel van der Kolk's work further shows how trauma resists verbal expression and remains stored as somatic, sensory fragments (van der Kolk 7).

Previous scholarship has addressed cultural alienation and identity in Lahiri's The Namesake (Hidier 55), systemic violence and resilience in Mistry's A Fine Balance (Narayan 101), and national identity in Rushdie's Midnight's Children(Green 77). However, comparative studies focusing on memory as a psychological burden across these works remain scarce. This paper seeks to fill this gap by foregrounding memory's destabilizing effects.

MAIN CONTENT

Generally speaking, diasporic literature is concerned with two relationships: one with the motherland which gives rise to nostalgia, memories and reminiscences, and the other, the new relationship with the adopted country and its people which gives rise to conflicts and split personalities. That is why such writers speak of alienation, loneliness, rootlessness, exile, cultural conflicts and at times of a sense of rejection by the host country. When their efforts at assimilation prove difficult and at variance with their own cultural beliefs, their writings contain descriptions of 'back home' which, in turn, may become romantic outpourings of nostalgia and longing. What is distinctive about the Indian diaspora is that the Indians settled abroad do not share a common religion, language, cuisine, dress etc. This diversity is reflected in their 2 literature. The cultural baggage that they carry is characteristic of the region that they come from and their descriptions of their homeland differ in every way. Jhumpa Lahiri will describe the vermilion (sindoor) applied in the parting of hair in a way that no other non-Bengali writer can. The way Rohinton Mistry describes Parsi habits and customs is unique to him.

Another quality that characterizes the Indian diasporic writer is the way in which s/he copes with the new community or country. If the person is a first generation migrant, s/he is obsessed with the home left behind and haunted by a feeling of rootlessness and alienation. A second generation migrant would find coping far easier. However, they too face rejection and experience alienation as they can never become

part of the white society like the white-skinned people who have migrated from countries such as Germany, Russia, and Poland etc. According to Robert Stead, a Canadian poet, "Canada is like a big melting pot where all the races are churned, and emerge 'Canadian' except "the yellow and the brown"" (Varma 179). Such children grow up with their minds pulled in different directions by the different cultural values – the ones at home which they are expected to adhere to and the different values that prevail outside and which they are expected to follow as well-assimilated citizens. This leads to a feeling of a loss of identity, of not belonging and insecurity. Hence, their psyches and sensibilities are divided between two worlds, and at best, they emerge with a "hyphenated identity" (179).

The concept of diaspora encompasses the dispersion of people from their original homeland to other parts of the world. As people migrate, they undergo a complex process of identity formation, cultural negotiation, and emotional struggles. One of the most intriguing groups within the diaspora is writers who use their lived experiences as a canvas to reflect on the sociocultural transformations they undergo. The psychological impact of the diasporic experience, particularly on writers, warrants a focused inquiry due to the intimate connection between their psychological states and literary production. Writers are not only influenced by external societal conditions but also by internal conflicts shaped by migration, displacement, and the search for belonging. This research aims to explore these psychological effects on diasporic writers, focusing on how their identity, memory, trauma, and sense of belonging shape their creative expressions.

THEORETICAL FRAMEWORK

This research paper builds on these key theoretical approaches:

1. Trauma Theory: Trauma is characterized by intrusive, fragmented memories that resist integration into coherent narratives, leading to psychological distress (Caruth 4). Van der Kolk emphasizes trauma's somatic effects, manifesting as emotional numbing or compulsive reliving of traumatic events (van der Kolk 7).
2. Narrative Psychology: Paul Ricoeur argues that identity is shaped through self-narratives, and trauma fractures these narratives, resulting in a disjointed sense of self (Ricoeur 15). Jerome Bruner underscores storytelling as central to constructing coherent identities, linking narrative disruption to psychological suffering.
3. Postmemory: Marianne Hirsch defines postmemory as the transmission of trauma memories from one generation to the next through stories and emotional legacies rather than direct experience (Hirsch 22). This inherited trauma can shape identity as deeply as firsthand trauma.

ANALYSIS

The Namesake — The Inheritance of Unseen Wounds

Lahiri's The Namesake illustrates how memory operates as an inherited psychological burden. Gogol Ganguli's name symbolizes the traumatic legacy passed down from his father's near-fatal train accident: "He wishes he could speak to his father, ask him more about the night the train derailed... it connects him to a catastrophe" (Lahiri 123).

Gogol's alienation stems partly from carrying this postmemory, a trauma he did not personally endure but feels compelled to bear (Hirsch 22).

His renaming himself "Nikhil" is a symbolic rejection of this legacy, yet it fails to restore narrative coherence to his fragmented identity. Ricoeur's notion that trauma disrupts the narrative fabric of identity applies here; mere renaming cannot erase the psychological scars of inherited trauma (Ricoeur 15). Ashima's metaphor,"Being a foreigner is a sort of lifelong pregnancy—a perpetual wait" (Lahiri 49), evokes how memory traps diasporic subjects in an interminable state of liminality. Memory functions less as a sanctuary and more as a cage.

A Fine Balance — Memory as Systemic Violence

Mistry's A Fine Balance presents memory as a tool of systemic oppression and social violence. Ishvar and Omprakash's traumatic memories of caste-based brutality are deeply embodied:

"They hanged the tanner's son from the banyan tree. The same tree that once gave us shade" (Mistry 144).

This sensory fragment reflects van der Kolk's insight that trauma is "remembered not as a story, but as sensory fragments" (van der Kolk 7).

Dina Dalal's quiet suffering and repression of trauma also illustrate Freud's notion of unarticulated psychic pain. She "bears loneliness like a physical ache" (Mistry 229),exemplifying how trauma festers beneath silence. Maneck's eventual suicide embodies the corrosive power of trauma when hope succumbs to despair: "The world is full of sadness and cruelty. Why should I be part of it anymore?" (Mistry 603). Caruth's concept of trauma as an "unclaimed experience" that recurs without resolution aptly describes their condition (Caruth 4).

Memory in A Fine Balance is not healing but a relentless reenactment of violence, which traps characters in a cycle of pain and helplessness.

Midnight's Children — Memory as Chaos and Collapse Rushdie's Midnight's Children explores the collapse of memory and identity on both personal and national levels. Saleem Sinai's narration is self-awarely unreliable:"Memory's truth, because memory has its own special kind. It selects, eliminates, alters, exaggerates…" (Rushdie 211).

His fragmented storytelling reflects the trauma-induced fracturing of self and country alike.

Saleem's physical disintegration "I am the sum total of everything that went before me" (Rushdie 440) symbolizes memory embodied as an unbearable archive of collective trauma. Ricoeur's narrative identity theory struggles here because Saleem's story defies coherence; the trauma is too vast and complex to be neatly contained (Ricoeur 15).

Rushdie's metafictional style underscores the futility of reconstructing an authoritative historical narrative after trauma. Caruth's assertion that trauma "defies narrative logic" (Caruth 7) finds its fullest expression in Saleem's chaotic, contradictory memories, which mirror India's own fractured postcolonial identity.

LIMITATIONS

This study focuses exclusively on Indian diasporic writers in English literature, leaving out diasporic memory in other regions. It also primarily applies trauma and narrative theories without integrating gender studies or neuroscientific perspectives. Future research might adopt a more intersectional or interdisciplinary approach to better understand the complexity of diasporic memory.

CONCLUSION

Through The Namesake, A Fine Balance, and Midnight's Children, memory emerges not as a source of comfort but as a burden—one that shatter identity, commemorates trauma, and obstructs healing. Some inherited within families, embedded in oppressive social structures, or manifesting as national rupture, memory remains a site of ongoing conflict and pain. These texts challenge idealize notions of diasporic resilience, convincing readers to face the emotional costs of remembering within contexts adapted by migration, violence, and colonial legacy.Memory can play a dynamic role in shaping one's personality. In these diasporic texts it reflects that memory and past lingers through the characters and also makes a powerful impact in through their lives.

WORKS CITED

- *https://csu-jaipur.edu.in/uploads/SLM/Shastri/such%20a%20long%20Journey.pdf*
- *Caruth, Cathy. Unclaimed Experience: Trauma, Narrative, and History. Johns Hopkins UP, 1996.*
- *Freud, Sigmund. The Interpretation of Dreams. Translated by James Strachey, Basic Books, 2010.*
- *Green, Anna. "Trauma and Memory in Salman Rushdie's Midnight's Children." Postcolonial Studies, vol. 13, no. 1, 2010, pp. 70–85.*
- *Hidier, Tanuja Desai. "Naming and Identity in Jhumpa Lahiri's The Namesake." Journal of South Asian Literature, vol. 41, no. 1, 2006, pp. 53–68.*
- *Hirsch, Marianne. The Generation of Postmemory: Writing and Visual Culture After the Holocaust. Columbia UP, 2012.*
- *Lahiri, Jhumpa. The Namesake. Houghton Mifflin, 2003.*
- *Mistry, Rohinton. A Fine Balance. Vintage International, 1996.*
- *Narayan, Uma. "Social Trauma and Psychological Pain in Rohinton Mistry's A Fine Balance." South Asian Review, vol. 26, no. 2, 2005, pp. 99–113.*
- *Ricoeur, Paul. Memory, History, Forgetting. Translated by Kathleen Blamey and David Pellauer, U of Chicago P, 2004.*
- *Rushdie, Salman. Midnight's Children. Jonathan Cape, 1981.*
- *Van der Kolk, Bessel A. The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma. Penguin Books, 2015.*

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A COMPARATIVE PROFITABILITY ANALYSIS OF SELECTED IT SOFTWARE BASED COMPANIES IN INDIA

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ABSTRACT:
This study conducts a comparative profitability analysis of four leading Indian IT software companies—TCS, Infosys, HCL Technologies, and Wipro—selected based on their market capitalization. The primary objectives are to assess and compare their overall profitability performance and evaluate the trend and stability of this performance over a five-year period from 2020-21 to 2024-25. Utilizing secondary data, the research employs key financial metrics, including Earnings Per Share (EPS), Price-to-Earnings (P/E) Ratio, and Return on Equity (ROE), with mean and standard deviation used to analyze central tendency and variability. The findings reveal a clear performance hierarchy: TCS emerges as the undisputed leader with superior and growing profitability, justifying its premium market valuation. Infosys maintains a strong second position with robust and stable figures. HCL Technologies demonstrates consistent, steady improvement, while Wipro lags significantly in fundamental profitability metrics, though a recent spike in its P/E ratio suggests potential market anticipation of a future turnaround. The study provides valuable insights for investors, corporate management, and policymakers in benchmarking performance and making informed strategic decisions.

KEYWORDS: EARNINGS PER SHARE, UNDISPUTED, BENCHMARKING, CAPITALIZATION, PRICE-TO-EARNINGS

INTRODUCTION:

The Indian information technology (IT) sector has evolved into one of the most dynamic contributors to the country's economy, driving innovation, employment, and global competitiveness. Within this sector, software-based companies play a central role by offering services such as application development, consulting, cloud solutions, and digital transformation. As competition in the IT industry intensifies both domestically and internationally, assessing the financial soundness and profitability of these firms becomes increasingly important for stakeholders, including investors, policymakers, and researchers.
Profitability analysis serves as a crucial tool to measure the efficiency with which companies utilize their resources to generate returns. It not only reflects the operational strength of an organization but also provides insights into its long-term sustainability in a volatile global market. In the case of Indian IT software companies, profitability analysis highlights their ability to adapt to technological advancements, manage costs, and capture new opportunities in emerging areas such as artificial intelligence, machine learning, and cloud computing.

A comparative profitability study of selected 4 Indian companies allows for identifying strengths, weaknesses, and performance gaps within the industry. By examining profitability ratios such as net profit margin, return on equity, and return on assets, one can evaluate how effectively each company creates value for its shareholders. Such analysis also aids in benchmarking performance and identifying best

practices that can be replicated across the industry. Ultimately, a focused examination of profitability trends provides a deeper understanding of the financial resilience and competitive positioning of Indian IT software firms in the global marketplace.

LITERATURE REVIEW:

Manchala Raju is the author of research article, "Financial Performance of selected IT companies in India: A comparative analysis" published in IJAES on April 2025 **12(1):50-58.** In this research article author has taken TCS, Infosys, Wipro, HCL Technologies, and Tech Mahindra for study purpose. Author has used ratio analysis and trend analysis as a tools and technique. He also find out ROA and ROI for finding out financial performance of selected companies. The financial fortitude of Indian IT firms is comparatively strong. Findings suggest that a strategic focus on operational efficiency, pioneering innovation, and economically viable revenue structures is critical for safeguarding long-term financial sustainability.

Prof. Rucha Thadeshwar and Dr. Poonamben P. Radadiya have written a research article on "A Comparative Financial Performance analysis of Top 10 IT companies of India" published in International Journal of Management and Development Studies on 2025, Vol. 14 No. 7. In this research article author tried to find out financial performance of selected IT companies in India. Their financial analysis incorporated key profitability and market metrics, including Earnings Per Share (EPS), Return on Equity (ROE), the Price-to-Earnings (P/E) ratio, and the Current Ratio. In this study, to assess performance consistency and investor reliability, the data was analyzed statistically, with the mean indicating central tendency and the standard deviation measuring variability by the author. The analysis reveals considerable disparities in corporate profitability and operational efficiency. Companies exhibiting more robust financial fundamentals present greater investment appeal, underscoring the critical impact of financial performance on strategic decisions within the tech sector.

Anil Kumar Singh, Ishfaq Ahmad Mir and Manas Khandelwal have written an article "Analysis Of Financial Performance Of Selected It Companies In India", published in International Research Journal of Modernization in Engineering Technology and Science on August-2022, Volume 04, Issue 08. The main objective of this research article is to find out financial performance of selected sample. In this research article author has selected Infosys, TCS, Wipro, HCL and data is collected for 10 years starting from 2008-2027. In this article they have taken NPM, ROIC for finding out financial performance of selected company. The finding of the research article is that TCS possesses the highest liquidity, followed by Wipro, HCL, and Infosys.

OBJECTIVES:

Here are 2 well-defined objectives for this research article.
To Assess and Compare the Overall Profitability Performance
To Evaluate the Trend and Stability of Profitability Over Time

SIGNIFICANT OF THE STUDY:

The significance of conducting a comparative profitability analysis of selected IT software companies in India is multi-faceted. Firstly, for **investors and shareholders**, this study is critically important. It provides a clear, data-driven evaluation of the financial health and operational efficiency of leading

players. By comparing profitability metrics, investors can make more informed decisions regarding stock selection, portfolio diversification, and risk assessment, identifying companies that offer sustainable returns.

Secondly, for the **companies themselves**, the findings serve as a valuable benchmarking tool. Management can identify strengths and weaknesses relative to their closest competitors. Understanding why certain firms achieve higher profitability can guide strategic decisions related to cost control, pricing, resource allocation, and business model innovation, fostering improved performance and competitive advantage.

Lastly, for **policymakers and academicians**, the research holds substantial value. It offers insights into the overall dynamics of a sector that is a cornerstone of the Indian economy. The analysis can highlight industry-wide trends, potential vulnerabilities, and factors driving success, which can inform government policies aimed at sustaining growth. Academically, the study contributes to the existing literature on financial performance in the service sector and provides a framework for future research on emerging markets and the global IT industry.

METHODOLOGY:

In this research study, author has collected data from authentic website for research purpose. Hence this research study is secondary in nature. After collecting the data, it is tabulated and than after proper statistical test has been applied. Then after it is interpreted.

TOOLS AND TECHNIQUE:

In this study, the mean and standard deviation will be employed as key statistical tools. The mean will provide the central tendency of the data, while the standard deviation will quantify the variability around this average, offering a concise summary of the dataset's distribution.

SAMPLE DESIGN:

In this research article, author has taken 4 IT Software Based companies based on its market capitalization. Selection is based on top market capitalization in India. The selection criteria for this analysis stipulated a minimum market capitalization of ₹2,00,000 crore, with valuations fixed as of the baseline date of August 1, 2025.

1. TCS (11 Trillian)
2. Infosys (6 Trillian)
3. HCL (3.8 Trillian)
4. Wipro (2.55 Trillian)

THE PERIOD OF THE STUDY:

In this study, the researcher aims to gather information to analyze the profitability performance over a span of five years, covering the period from 2020–2021 to 2024–2025. Throughout this time frame, the researcher seeks to evaluate specific objectives of the chosen companies.

PROFITABILITY ANALYSIS:

Earnings Per Share (EPS)

	TCS	Infosys	HCL	Wipro
2020-21	86.71	45.61	41.07	19.11
2021-22	103.62	52.52	49.77	22.37
2022-23	115.19	57.63	54.85	20.73
2023-24	125.88	63.39	57.99	20.89
2024-25	134.19	64.50	64.16	12.56
Mean	113.12	56.73	53.57	19.13
S.D.	16.73	7.03	7.80	3.44

Based on the five-year EPS data, TCS is the clear industry leader, boasting the highest mean EPS (Rs. 113.12) and demonstrating strong, consistent growth. Infosys and HCL Technologies form a competitive middle tier with similar mean EPS (Rs. 56.73 and Rs. 53.57, respectively), both showing a steady upward trajectory. In stark contrast, Wipro trails significantly with a much lower mean EPS (Rs. 19.13) and suffered a substantial decline in the latest year (2024-25), dropping to Rs. 12.56. The standard deviation figures confirm that TCS, while having the highest absolute growth, also exhibits the most volatility, whereas Wipro's performance, despite its recent drop, has been relatively less variable until 2024-25.

Price-to-Earnings (P/E) Ratio

	TCS	Infosys	HCL	Wipro
2020-21	36.65	29.99	23.97	10.84
2021-22	36.09	36.31	23.38	13.23
2022-23	27.83	27.78	19.79	8.81
2023-24	30.79	23.63	26.62	11.49
2024-25	26.87	24.35	24.82	20.88
Mean	31.64	28.41	23.71	13.05
S.D.	4.07	4.57	2.25	4.16

Based on the P/E ratio data, a clear hierarchy in market valuation is evident. TCS commands the highest investor confidence with a mean P/E of 31.64, reflecting a premium valuation for its industry-leading performance. Infosys follows closely with a mean P/E of 28.41, indicating strong market perception. HCL maintains a stable, mid-range valuation with a mean P/E of 23.71. In contrast, Wipro has a significantly lower mean P/E of 13.05, suggesting the market has comparatively lower growth expectations. However, Wipro's P/E ratio saw a substantial spike in 2024-25, which could signal a potential reassessment of its future prospects by investors. The standard deviation shows Infosys and Wipro have experienced the most volatility in their valuations over this period.

Return on Equity (ROE)

	TCS	Infosys	HCL	Wipro
2020-21	35.52	25.34	18.60	19.66
2021-22	42.99	29.34	21.80	18.69
2022-23	46.61	31.95	22.70	14.61
2023-24	50.73	29.77	23.00	14.81
2024-25	51.24	27.87	24.96	15.94
Mean	45.42	28.85	22.21	16.74
S.D.	5.79	2.19	2.08	2.06

Based on the ROE data, TCS demonstrates superior and consistently improving profitability, with a high mean ROE of 45.42% and a clear upward trend over the five years. Infosys maintains a strong and stable second position with a mean ROE of 28.85%, though it shows a slight recent dip. HCL Technologies shows steady, incremental growth in its ROE, averaging a respectable 22.21%. Wipro, however, lags behind the group with the lowest mean ROE of 16.74% and a notable decline from its 2020-21 level. The standard deviation confirms that while TCS's performance is the strongest, it is also the most variable, whereas Infosys, HCL, and Wipro show more stable ROE figures.

FINDINGS

Based on the analysis of EPS, ROE, and P/E ratios, a clear performance and valuation hierarchy emerges among the four IT companies.

TCS is the undisputed leader, demonstrating superior profitability with the highest EPS and ROE. This strong fundamental performance justifies its premium valuation, as reflected in its highest mean P/E ratio. The market consistently rewards TCS's growth and efficiency.

Infosys solidly holds the second position. It maintains robust and stable EPS and ROE figures, which translate into a high P/E ratio, indicating sustained investor confidence and expectations of steady growth. **HCL Technologies** presents a profile of consistent, steady improvement. Its EPS and ROE show a clear upward trajectory, though from a lower base than TCS and Infosys. This is matched by a stable, mid-range P/E, suggesting the market views it as a reliable but less explosive growth story.

In contrast, **Wipro** lags significantly on fundamental metrics with the lowest EPS and ROE. Its historically low P/E ratio reflected this weaker profitability. However, the dramatic spike in its P/E in 2024-25, despite a drop in EPS, suggests the market may be anticipating a future turnaround or strategic shift, making it a potential point of interest.

CONCLUSION:

From the above data and finding we can conclude that TCS hold very strong financial position in selected ratio in compare with 4 selected companies. From an investor's viewpoint, **TCS and Infosys** are premium, growth-oriented investments, justifying their high valuations with strong fundamentals. **HCL** is a stable, value pick with consistent performance. **Wipro** is a speculative bet; its recent P/E surge, despite poor EPS, suggests the market is pricing in a future recovery.

REFERENCES:

- **Thadeshwar, R., & Radadiya, P. P. (2025). A comparative financial performance analysis of top 10 IT companies of India.** ***International Journal of Management and Development Studies, 14*****(7).**
- **Singh, A. K., Mir, I. A., & Khandelwal, M. (2022, August). Analysis of financial performance of selected IT companies in India.** ***International Research Journal of Modernization in Engineering Technology and Science, 4*****(8).**

- **Ananthi, D. (2018, January). A study on financial performance of select software companies in India.** ***EPRA International Journal of Economic and Business Review (JEBR), 6*****(1).**
- **Goswami, J. (2024). Historical performance analysis of top IT companies in India.** ***International Journal of Research in Finance and Management, 7*****(1), 64–71.**
- **Sikarwar, K., & Rani, S. (2025, March). A comparative study of financial performance of Indian IT industries.** ***International Journal of Creative Research Thoughts (IJCRT), 13*****(3).**
- **Latha, A. M. (2023). Study on financial performance of select IT companies in India.** ***International Journal of Management (IJM), 14*****(6), 61–69.**

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CENTRE-STATE RELATIONS IN INDIA: LESSONS FROM THE JAMMU AND KASHMIR REORGANIZATION ACT

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ABSTRACT
The abrogation of Article 370 and the enactment of the Jammu and Kashmir Reorganization Act, 2019, represent a major constitutional and political shift in India's federal system. By revoking the state's special status and creating two Union Territories—Jammu and Kashmir, and Ladakh—the central government introduced a more centralized administrative model, raising questions about autonomy, decentralization, and Centre–State relations. This study analyzes the legal, political, and governance implications of the reorganization, examining its impact on local administration, socio-economic development, and regional integration. Drawing on primary legal sources, government reports, and scholarly literature, it evaluates whether the reforms enhance administrative efficiency and national cohesion or create democratic deficits and political alienation. The paper situates the case within broader debates on asymmetrical federalism, executive authority, and cooperative governance, offering insights for managing diversity and balancing unity with autonomy in a multi-ethnic federal democracy.

KEYWORDS: ARTICLE 370, FEDERALISM, JAMMU AND KASHMIR, REORGANIZATION ACT 2019, CENTRE–STATE RELATIONS, CONSTITUTIONAL REFORM, GOVERNANCE, AUTONOMY.

INTRODUCTION
India's federal system has long been a unique and dynamic model of governance, balancing the demands of a highly diverse population with the imperatives of national unity. Unlike many federations that rely on rigid constitutional divisions, India's federalism is quasi-federal, allowing for significant central authority while accommodating regional autonomy. This flexibility has enabled India to manage its extraordinary linguistic, cultural, and geographical diversity since independence. However, the federal design has also been a site of persistent debate and tension, especially in regions with distinct historical, political, or demographic characteristics. Among these, Jammu and Kashmir has historically occupied a singular position due to its special constitutional status under Article 370.

Article 370 of the Indian Constitution, adopted in 1949, granted Jammu and Kashmir significant autonomy over all matters except defense, foreign affairs, and communications. The provision was intended to integrate the state into the Indian Union while recognizing its unique historical circumstances of accession following the Partition of 1947. Over the decades, Article 370 became both a symbol of regional identity and a point of contention in national politics. Proponents argued that it preserved the federal spirit and respected the distinctiveness of Jammu and Kashmir. Critics, however, contended that

it fostered separatism, hindered governance, and limited the applicability of national laws and developmental policies.

On 5 August 2019, the Government of India took the unprecedented step of abrogating Article 370 and simultaneously passing the Jammu and Kashmir Reorganization Act, 2019. This act reorganized the former state into two Union Territories—Jammu and Kashmir, with a legislative assembly, and Ladakh, without one. The move represented not only a legal and constitutional intervention but also a profound political transformation, redefining the relationship between the Centre and the region. The reorganization challenged long-standing notions of autonomy, altering governance structures and shifting the balance of power decisively towards the central government.

The abrogation of Article 370 and the reorganization act must be examined within the broader context of Indian federalism. India's Constitution provides a flexible framework for balancing regional autonomy and central authority, as highlighted by scholars such as Granville Austin and K.C. Wheare. India's model of asymmetrical federalism allows for differential treatment of states and territories based on historical, political, and socio-economic conditions. However, the case of Jammu and Kashmir demonstrates the limits and tensions inherent in this asymmetry, particularly when unilateral central action alters the status of a constituent unit without local consent.

The objective of this paper is to critically analyze the implications of these constitutional changes for Centre–State relations in India. Specifically, it seeks to explore the following research questions:

1. How has the abrogation of Article 370 and the reorganization of Jammu and Kashmir affected the federal balance between the Centre and the region?
2. To what extent does the reorganization align with or challenge the principles of cooperative federalism and regional autonomy?
3. What are the socio-economic, political, and administrative impacts of the reorganization on governance, development, and democratic participation?
4. What lessons can be drawn from this case for the future trajectory of Indian federalism, particularly in multi-ethnic and diverse regions?

The study employs a multidisciplinary approach, combining constitutional analysis, political theory, governance assessment, and socio-economic evaluation. It draws upon primary sources, including the Indian Constitution, legislative documents, government notifications, and judicial pronouncements, as well as secondary literature comprising academic scholarship, policy reports, and expert commentary. By integrating these sources, the paper situates the Jammu and Kashmir reorganization within both national and comparative perspectives on federalism.

The significance of this study lies in its ability to illuminate the evolving nature of Centre–State relations in India. While the abrogation and reorganization were intended to strengthen governance, enhance regional integration, and facilitate development, they also raise critical questions about democratic legitimacy, political representation, and local participation. Examining these dimensions is essential not only for understanding the consequences of the 2019 reforms but also for drawing lessons applicable to other federal systems facing challenges of diversity, autonomy, and centralization.

This paper also considers the theoretical underpinnings of federalism, including concepts of asymmetry, cooperative governance, and executive federalism, as applied to India. The case of Jammu and Kashmir

provides a lens to analyze how constitutional flexibility and central authority interact in practice and how these interactions shape governance, political stability, and development outcomes. By examining the legal, political, administrative, and socio-economic dimensions of the reorganization, the paper aims to provide a comprehensive understanding of the implications of these reforms for India's federal structure. In conclusion, the introduction sets the stage for an in-depth analysis of the Jammu and Kashmir Reorganization Act and its impact on Centre–State relations. It highlights the historical context, constitutional provisions, and political dynamics that inform this transformation, establishes the research questions guiding the study, and emphasizes the significance of understanding these developments in the broader discourse on federalism and governance. The following sections will examine the historical background, legal frameworks, theoretical perspectives, and empirical outcomes, providing a holistic assessment of one of the most consequential changes in India's federal history.

HISTORICAL BACKGROUND OF INDIAN FEDERALISM AND ARTICLE 370

India's federal system is one of the most distinctive in the world, designed to reconcile unity with diversity. Unlike classical federations such as the United States, India's federalism is flexible and quasi-federal, allowing the central government greater authority while accommodating the aspirations of diverse regions. The Indian Constitution envisioned a strong Centre to preserve national integrity while granting states varying degrees of autonomy to manage their local affairs. This balance was particularly crucial for regions with unique historical, cultural, and political characteristics, of which Jammu and Kashmir was the most prominent.

Before independence in 1947, India consisted of British-administered provinces and over 560 princely states, each with its own ruler and administrative framework. The Government of India Act of 1935 laid the groundwork for federal governance by introducing provincial autonomy and proposing a federal legislature. However, the federation envisaged under British law never materialized, as most princely states did not join. Upon independence, integrating these diverse political entities became a central challenge for the Indian leadership. Sardar Vallabhbhai Patel, India's first Deputy Prime Minister and Home Minister, led the political and diplomatic effort to bring princely states into the Union, relying on persuasion, incentives, and, in some cases, military intervention.

Jammu and Kashmir presented a unique situation. The state was ruled by Maharaja Hari Singh, a Hindu monarch, but had a Muslim-majority population. Initially seeking independence, the Maharaja delayed accession to either India or Pakistan. The outbreak of armed incursions from tribal militias supported by Pakistan in October 1947 compelled him to request military assistance from India. India agreed to provide help only after the signing of the **Instrument of Accession** on 26 October 1947, which allowed India to assume control over defense, foreign affairs, and communications, leaving other matters under the state's jurisdiction.

To formalize this special arrangement, **Article 370** was incorporated into the Indian Constitution in 1949. The provision granted Jammu and Kashmir a high degree of autonomy, allowing it to have its own Constitution, legislative powers, and control over residency, property rights, and other internal matters. Indian laws would apply only with the state's concurrence. Article 370 was intended to be temporary, requiring Presidential recommendation and the state government's approval for modifications, reflecting the delicate balance between integration and regional autonomy.

Over the decades, Article 370 became a subject of intense debate. Proponents argued that it preserved the federal spirit, protected the region's identity, and recognized the historical circumstances of accession. Critics contended that it hindered governance, limited economic development, and contributed to political separatism. Successive governments issued Presidential Orders extending many Indian laws to Jammu and Kashmir, gradually reducing the distinction between the state and other Indian states while still maintaining its special status.

The federal relationship created by Article 370 was asymmetrical, a hallmark of India's flexible federalism. Unlike other states, Jammu and Kashmir enjoyed unique privileges and autonomy, yet remained integral to the Union. This asymmetry became a defining feature of Centre–State relations and influenced governance, political discourse, and policy-making in the region. It also highlighted the tension between regional autonomy and the central government's authority, which would later play a pivotal role in the 2019 abrogation and reorganization.

The 2019 abrogation of Article 370 and the enactment of the **Jammu and Kashmir Reorganization Act**, which created two Union Territories—Jammu and Kashmir (with a legislative assembly) and Ladakh (without a legislature)—marked a radical shift in India's federal design. By converting a state with special autonomous powers into centrally administered territories, the move altered the traditional Centre–State dynamic, reducing the scope of regional autonomy and reinforcing central authority. Understanding the historical context of Article 370 is essential to evaluate the implications of these reforms for federal governance, political stability, and regional identity in India.

In conclusion, the historical background of Indian federalism and Article 370 reflects the delicate balancing act that India's Constitution sought to achieve between unity and diversity. Article 370 was both a legal instrument and a political compromise, accommodating the unique circumstances of Jammu and Kashmir while integrating it into the Indian Union. Its evolution over seventy years demonstrates the interplay between constitutional flexibility, political negotiation, and federal governance. The 2019 reorganization represents a significant departure from this historical framework, setting the stage for an in-depth analysis of the legal, political, administrative, and socio-economic implications for Centre–State relations in India.

REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK

The abrogation of Article 370 and the enactment of the Jammu and Kashmir Reorganization Act, 2019, have generated extensive scholarly interest across constitutional law, political science, and governance studies. Understanding these reforms requires engagement with the literature on Indian federalism, asymmetrical governance, and Centre–State relations. The literature provides insights into the historical evolution of federal arrangements, the rationale for Jammu and Kashmir's special status, and the implications of centralization on autonomy, development, and political stability.

1. Indian Federalism and Asymmetry

India's federal system is often described as **quasi-federal**, combining elements of federalism with a strong unitary bias (Austin, 1966; Basu, 2018). Scholars note that the Constitution allows flexibility in Centre–State relations, enabling asymmetrical arrangements for regions with unique historical or cultural circumstances. Article 370 exemplifies this principle, granting Jammu and Kashmir significant autonomy

while maintaining its integration into the Indian Union. K.C. Wheare (1946) and B.R. Ambedkar, in the Constituent Assembly debates, emphasized the need for flexible arrangements to manage India's extraordinary diversity, which included linguistic, cultural, and demographic variations.

Asymmetrical federalism has been adopted globally in countries such as Canada, Belgium, and Spain to accommodate regional diversity. Scholars argue that such arrangements can maintain national cohesion while respecting local autonomy (Lijphart, 1996; Riker, 1964). In India, Article 370 was intended to be a temporary measure, providing autonomy in governance, legislative powers, and property rights to the state. Over time, however, the autonomy was gradually curtailed through Presidential Orders, creating tension between the principles of regional self-rule and national integration (Noorani, 2011; Behera, 2021).

2. Literature on Jammu and Kashmir's Special Status

Legal scholars (Noorani, 2011; Balraj Puri, 2008) highlight that Article 370 was both a constitutional and political compromise, designed to facilitate accession while preserving local identity. Political analysts (Jacob, 2020; Prerna Singh, 2022) emphasize that the special status influenced local politics, electoral strategies, and Centre–State negotiations. Security studies underscore the role of autonomy in governance challenges, including the management of insurgencies and cross-border terrorism. Critics argue that excessive autonomy impeded uniform policy implementation and development, while proponents view it as essential for preserving regional identity and federal balance.

Socio-economic literature (Debroy, 2020; NITI Aayog, 2019) explores how Article 370 affected investment, infrastructure, and regional development. Restrictions on property rights, external investment, and land ownership are cited as barriers to economic integration. Conversely, the extension of Indian laws post-abrogation aims to promote development, improve governance, and integrate the region more fully into national policies, raising debates about the trade-offs between centralization and autonomy.

3. Comparative Federalism and Lessons

Comparative studies offer insights into the management of diversity within federations. Canada's Quebec, Belgium's Flemish and Walloon regions, and Spain's Catalonia exemplify asymmetrical arrangements designed to protect regional identity while preserving national unity. Scholars argue that asymmetry requires **consent, negotiation, and institutional safeguards** (Lijphart, 1996; Riker, 1964). India's unilateral approach in 2019, while legally permissible under Article 370(1), contrasts with the negotiated models elsewhere, highlighting potential risks for democratic legitimacy, regional alienation, and political stability.

4. Theoretical Framework

This study adopts a **multi-dimensional theoretical framework**:

1. **Constitutional Federalism Theory** – To analyze the legal and structural dimensions of Centre–State relations, assessing how constitutional provisions shape autonomy and central authority (Austin, Basu).
2. **Asymmetrical Federalism and Autonomy** – To evaluate the effects of differential powers granted to Jammu and Kashmir and the implications of revoking these powers (Tillin, Choudhry).
3. **Executive Federalism and Centralization** – To examine how the central government exerts control through administrative, legislative, and political mechanisms (Jenkins, Mukherjee).
4. **Governance and Development Framework** – To assess the socio-economic outcomes of centralization and their impact on investment, infrastructure, and citizen welfare (Debroy, NITI Aayog).

This integrated framework enables the study to link constitutional design, political dynamics, administrative control, and socio-economic development in analyzing the 2019 reforms.

5. **Gaps in Literature**

While extensive research exists on Indian federalism and Article 370, gaps remain:

- Limited empirical studies on post-abrogation governance and development outcomes.
- Sparse comparative analyses situating India's unilateral approach within global federal practices.
- Inadequate exploration of democratic participation, political legitimacy, and citizen perception post-reorganization.

This paper seeks to address these gaps by combining legal, political, administrative, and socio-economic perspectives within a single analytical framework.

ADMINISTRATIVE CHANGES AND GOVERNANCE REFORMS POST-2019

The Jammu and Kashmir Reorganization Act, 2019, introduced fundamental administrative changes that reshaped governance in the region. By bifurcating the erstwhile state into two Union Territories—Jammu and Kashmir (with a legislature) and Ladakh (without one) - the Act shifted substantial authority from elected state institutions to the central government. This reorganization marked a transition from a semi-autonomous state structure to a model closely aligned with central administrative oversight.

One significant change was the restructuring of the bureaucracy. Key departments, previously under state control, came under the direct supervision of central administrative services, including the Indian Administrative Service (IAS), Indian Police Service (IPS), and Indian Revenue Service (IRS). This centralization aimed to standardize policy implementation, improve coordination, and reduce bureaucratic bottlenecks. Simultaneously, the role of the Lieutenant Governor became pivotal, acting as a conduit between the Union government and local administration.

Governance reforms included the extension of central laws across the Union Territories, facilitating uniformity in legal and financial regulations. Reforms targeted education, healthcare, and public service delivery to align local governance with national standards. The shift also aimed to enhance transparency, accountability, and administrative efficiency, with the central government asserting a stronger role in planning and executing development projects.

While these changes promise greater administrative coherence, critics argue they may reduce local participation and diminish regional autonomy. The challenge lies in balancing centralized oversight with citizen engagement, ensuring that governance reforms translate into tangible development outcomes without alienating local populations.

SOCIO-ECONOMIC IMPACT ON JAMMU AND KASHMIR AND LADAKH

The 2019 reorganization has had significant socio-economic implications for both Jammu and Kashmir and Ladakh. Economically, the extension of central laws regarding investment, land ownership, and taxation aims to attract private and public investment, enhance infrastructure development, and create employment opportunities. Analysts expect that the removal of restrictions on property and industrial activity will enable the region to integrate more fully with the national economy.

Tourism, a key sector for both regions, has witnessed renewed policy attention, including infrastructure upgrades, improved connectivity, and incentives for private investment. Similarly, central schemes in healthcare, education, and skill development have been expanded, potentially enhancing human capital and reducing regional disparities. The bifurcation allows Ladakh to receive focused administrative attention, optimizing resource allocation for development projects in a geographically challenging region. However, the socio-economic impact is nuanced. While development prospects are promising, local populations face uncertainty due to political transitions, security concerns, and changes in land and governance regulations. In Jammu and Kashmir, fears of alienation and reduced participation in local decision-making persist. Social indicators such as employment, literacy, and access to services remain uneven, highlighting the need for inclusive policy implementation that accounts for regional sensitivities. In summary, the post-2019 reforms aim to stimulate economic growth, attract investment, and improve public services. However, success depends on effectively integrating local needs, ensuring equitable resource distribution, and maintaining social cohesion while implementing centralized policies.

SECURITY, HUMAN RIGHTS, AND DEMOCRATIC PARTICIPATION

The reorganization of Jammu and Kashmir has had profound implications for security, human rights, and democratic participation. Security measures intensified around the time of the abrogation, with a heavy deployment of paramilitary forces, restrictions on movement, and communication blackouts to prevent unrest. These measures, while aimed at maintaining law and order, raised concerns about civil liberties and fundamental rights.

Human rights organizations, including Amnesty International and the South Asia Human Rights Documentation Centre, have highlighted issues such as prolonged curfews, limitations on freedom of speech, and restricted access to information. These interventions, although temporary in intent, sparked debates on the balance between security imperatives and the protection of individual rights.

Democratic participation has also been affected. With the reorganization, local political institutions were suspended temporarily, delaying elections for the legislative assembly in Jammu and Kashmir. While the central government emphasized administrative efficiency, critics argue that prolonged absence of representative governance undermines accountability and public engagement. Restoring regular democratic processes is essential to legitimize governance structures and ensure that citizens have a voice in policy decisions.

In conclusion, security and human rights considerations remain central to evaluating the impact of the 2019 reforms. Balancing law enforcement with civil liberties and reinstating democratic mechanisms are crucial for achieving long-term political stability, social cohesion, and legitimacy of governance in the newly reorganized Union Territories.

CONCLUSION AND POLICY RECOMMENDATIONS

The abrogation of Article 370 and the subsequent enactment of the Jammu and Kashmir Reorganization Act, 2019, represent one of the most significant constitutional and political transformations in post-independence India. By revoking the special status of Jammu and Kashmir and reorganizing it into two Union Territories, the central government redefined the traditional Centre–State relationship in India's

federal system. This shift has far-reaching implications for governance, development, democratic participation, regional identity, and national integration.

Summary of Key Findings

1. **Constitutional and Federal Implications**: The reforms illustrate the tension inherent in India's quasi-federal structure. While the Constitution provides for flexible arrangements to accommodate diversity, the unilateral abrogation of Article 370 demonstrates the Centre's capacity to centralize power, raising debates about the limits of asymmetrical federalism. The reorganization underscores the importance of constitutional mechanisms in balancing autonomy with national cohesion.
2. **Administrative and Governance Reforms**: Post-2019, administrative control has shifted toward central institutions. The role of the Lieutenant Governor, the integration of local bureaucracy with national administrative services, and the implementation of central laws aim to improve efficiency, reduce bureaucratic delays, and standardize governance practices. These reforms, however, must be implemented with sensitivity to local needs to avoid alienating communities.
3. **Socio-Economic Impacts**: The policy shift opens opportunities for enhanced investment, infrastructure development, and integration with the national economy. Central schemes in healthcare, education, and tourism aim to improve human capital and economic growth. Yet, local populations face challenges related to political uncertainty, adaptation to new regulations, and social inclusion. Effective socio-economic policies must ensure equitable development to prevent disparities between regions and communities.
4. **Security and Democratic Participation**: The centralization of authority has had immediate implications for security and civil liberties. Deployment of security forces, communication restrictions, and temporary suspension of political institutions highlight the delicate balance between maintaining law and order and protecting human rights. Democratic participation must be restored to legitimize governance structures and reinforce public trust in the administration.
5. **Lessons from Comparative Federalism**: International experiences from Canada, Belgium, and Spain demonstrate that asymmetrical federal arrangements succeed when accompanied by negotiated consent, institutional safeguards, and participatory governance. India's experience shows that unilateral centralization, while legally permissible, risks eroding democratic legitimacy and regional trust.

POLICY RECOMMENDATIONS

Based on the analysis, several recommendations emerge to ensure that the objectives of integration, development, and governance do not compromise autonomy, democratic participation, or social cohesion:

1. **Restoration and Strengthening of Democratic Institutions**: Elections for legislative assemblies in Jammu and Kashmir should be conducted promptly, ensuring meaningful local representation. Mechanisms for citizen engagement, local councils, and participatory governance should be strengthened to balance central oversight with grassroots democracy.
2. **Institutionalized Centre–State Coordination**: Establish formal platforms for dialogue between Union authorities and regional stakeholders. Inter-agency coordination mechanisms can facilitate efficient implementation of development projects while addressing local concerns.
3. **Balanced Administrative Oversight**: While central administration aims to improve efficiency, local officials and civil society should be included in decision-making processes to maintain sensitivity to regional needs and avoid alienation. Capacity-building programs can help local bureaucrats adapt to the restructured administrative framework.

4. **Socio-Economic Development Programs**: Targeted programs in healthcare, education, skill development, and employment generation should prioritize equitable distribution, with particular attention to marginalized communities. Incentives for private investment must be accompanied by safeguards to prevent displacement or inequitable resource allocation.
5. **Human Rights and Security Management**: Security measures should align with international human rights standards. Restrictions on civil liberties must be proportionate, time-bound, and accompanied by oversight mechanisms to prevent abuse. Judicial and legislative oversight can reinforce accountability.
6. **Legal and Constitutional Transparency**: The government should clearly communicate changes in legal frameworks, property rights, and administrative structures to reduce confusion and enhance compliance. Public awareness campaigns and legal aid programs can facilitate smoother adaptation.
7. **Comparative Federalism Learning**: India can learn from international models of asymmetrical federalism, emphasizing negotiation, consensus-building, and participatory decision-making. Flexible frameworks that respect regional identity while ensuring national cohesion are more likely to succeed than unilateral interventions.

FINAL REFLECTIONS

The Jammu and Kashmir Reorganization Act, 2019, offers critical lessons for the future of Indian federalism. It underscores the importance of balancing central authority with regional autonomy, ensuring that development and integration do not come at the cost of democratic legitimacy or social cohesion. The reforms illustrate both the opportunities and challenges of managing a complex, multi-ethnic federation like India. Moving forward, the focus must be on inclusive governance, equitable socio-economic development, and restoration of democratic processes, ensuring that the Union Territories of Jammu and Kashmir and Ladakh thrive as integrated yet locally responsive regions.

In conclusion, the post-2019 governance model in Jammu and Kashmir provides valuable insights for policymakers, scholars, and administrators seeking to reconcile unity, diversity, and development in India's federal system. By adopting participatory governance, institutional transparency, and socially sensitive policy measures, India can strengthen Centre–State relations while promoting sustainable development, stability, and democratic resilience.

REFERENCES

- ***Austin, G. (1966).*** **The Indian Constitution: Cornerstone of a Nation.** ***Oxford University Press.***
- ***Basu, D. D. (2018).*** **Introduction to the Constitution of India** ***(23rd ed.). LexisNexis.***
- ***Behera, N. C. (2021).*** **Jammu and Kashmir: Politics of Identity and Autonomy.** ***Routledge.***
- ***Debroy, B. (2020).*** **Economic Reforms and Development in Jammu and Kashmir.** ***Academic Foundation.***
- ***Jacob, H. (2020).*** **Security Challenges in Jammu and Kashmir.** ***Sage Publications.***
- ***Jenkins, R. (2004).*** **Federalism and the Indian State.** ***Cambridge University Press.***
- ***Kashyap, S. (2011).*** **Our Constitution: An Introduction to India's Constitution and Constitutional Law.** ***National Book Trust.***
- ***Lijphart, A. (1996).*** **Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries.** ***Yale University Press.***

- ***Mukherjee, R. (2017).*** **Executive Federalism in India: Dynamics and Trends.** ***Oxford University Press.***
- ***Noorani, A. G. (2011).*** **Article 370: A Constitutional History of Jammu and Kashmir.** ***Oxford University Press.***
- ***Puri, B. (2008).*** **Jammu and Kashmir: Democracy and Development.** ***Sage Publications.***
- ***Prerna Singh. (2022).*** **Politics and Identity in Jammu and Kashmir.** ***Routledge.***
- ***South Asia Human Rights Documentation Centre. (2021).*** **Human Rights in Jammu and Kashmir Post-Abrogation.** ***SAHRDC.***
- ***NITI Aayog. (2019).*** **Developmental Outlook for Jammu and Kashmir and Ladakh.** ***Government of India.***
- ***Choudhry, S. (2008).*** **Constitutional Design for Divided Societies: Integration and Accommodation in Federal Systems.** ***Oxford University Press.***
- ***Tillin, L. (2010).*** **Asymmetric Federalism and Regional Autonomy.** ***Routledge.***
- ***Riker, W. H. (1964).*** **Federalism: Origin, Operation, Significance.** ***Little, Brown & Co.***