



DELHI INSTITUTE OF ADVANCED STUDIES
 Plot No. 6, Sector-25, Rohini, Delhi-110085
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LIST OF PUBLICATIONS
2024-25
PUBLICATIONS IN CONFERENCES

NAME OF THE FACULTY	CONFERENCE ATTENDED/ PAPER PRESENTED	NAME, VOLUME, YEAR OF THE JOURNAL	
Dr. N. Malati	Credit Score Analysis Using Artificial Neuron Network	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025, Page No. 24-38. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	1.
Dr. N. Malati	The New 3Ps of Sustainability Marketing: The Case of Fashion	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025, Page No. 135-146. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	2.
Dr. Anju Batra	Perils of Digitization and Cybersecurity	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	3.
Dr. Meenakshi Kaushik	AI based Kiosk for Job Searching	Patent Design	4.
Dr. Meenakshi Kaushik	Book: Innovative Practices for Accelerated Growth in Commerce, Management, Humanities, Science and Technology	One Chapter "Motivating Gen Z and Alpha Employees: Beyond Salary and Benefits", June 2025, 1 st Edition 2025, Page No. 12-18, Eureka Publications. ISBN: 978-81-19567-75-1.	5.
Ms. Divya Jain	The Rise and Challenges of Paytm in India's Digital Payment Revolution	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025, Page No. 44-53. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	6.
Ms. Dimpay Jindal	Ontology-Driven Resource Isolation for Secure Multi-Tenant Cloud Architecture in OpenStack	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	7.
Ms. Aanchal Gupta	Global Stock Market Integration in the Digital Age: Examining the Indian Stock Market Interrelation	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025.	8.



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Ms. Aanchal Gupta	Evolving Leadership Paradigms for Sustainable Human Resource Management in Dynamic Business Environments	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	9.
Dr. Pooja Gupta	The Financial Impact of Corporate Social Responsibility: Activism as a Strategic Investment	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	10.
Ms. Radhika Garg	ESG Reporting in Indian Banks	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	11.
Ms. Rachna Sharma	Enhancing Operational Efficiency in the Financial Sector Through Artificial Intelligence: A Review of Real World Applications in Fintech	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	12.
Ms. Neha Solanki	The Role of Artificial Intelligence in Enhancing Corporate Activism Campaigns	International Conference Proceedings on Corporate Activism: A Catalyst for Sustainable Development, Organized by DIAS on 10.01.2025. ISBN: 978-81-951591-1-6, Aaditya Enterprises.	13.
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INTERNATIONAL CONFERENCE ON **CORPORATE ACTIVISM:** A CATALYST FOR SUSTAINABLE DEVELOPMENT

Organised by:

DIAS IQAC

ON

JANUARY 10, 2025



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OF EXCELLENCE

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Dr. N. Malati

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PREFACE

“Businesses cannot be successful when the society around them fails. Sustainability is not just an option but an imperative for long-term growth.”

— Ratan Tata, Former Chairman, Tata Group

In the era of global interdependence, businesses are increasingly recognized as vital players in addressing complex social, environmental, and economic challenges. Traditionally, the primary responsibility of Corporations was to maximize shareholder value. However, the rising urgency of global issues such as climate change, inequality, and resource depletion has shifted expectations. Today, businesses are not only expected to contribute economically but also to actively engage in promoting sustainable development. Corporate activism, where companies advocate for and act on social, environmental, and ethical issues, has emerged as a powerful force in driving this transformation.

Corporate activism refers to a company's active engagement in societal issues, leveraging its influence to advocate for policies, behaviors, and practices that align with its values. Unlike traditional Corporate Social Responsibility (CSR) programs, which are often centered on philanthropy and compliance, corporate activism involves a direct, sometimes confrontational, stance on pressing issues. It requires companies to take responsibility for their impact on society and the environment, often going beyond legal requirements and adopting a leadership role in advocating for change.

The Sustainable Development Goals (SDGs), set by the United Nations represent a global call for action for ending poverty, protecting the planet, and ensuring prosperity for all by 2030. Corporate activism serves as a key mechanism through which companies can contribute to these objectives, particularly in areas such as climate action, gender equality, decent work, and economic growth. Through activism, companies are not only making internal shifts toward sustainability but also influencing public policy, changing consumer behavior, and fostering innovations that address global challenges. When aligned with the SDGs, corporate activism has the potential to create systemic change that extends far beyond the boundaries of individual businesses.

Corporations are increasingly speaking out on issues of social justice, inclusive policies, racial and gender equality, and ethical labour practices. Activism is also driving the shift toward a circular economy, where companies design products and processes that minimize waste, reuse materials, and regenerate natural systems. This shift not only benefits the environment but also promotes long-term economic resilience.

As we move towards a future where sustainability is central to business strategy, corporate activism will continue to play a pivotal role in this regard. For activism to be truly effective, companies must ensure their efforts are authentic, transparent, and aligned with broader sustainability goals.

This collection of conference proceedings brings together diverse perspectives, insights, and research findings presented during the event. The papers in this volume

explore the multifaceted impact of corporate activism as a catalyst for sustainable development, examining how businesses are driving social and environmental change through advocacy, ethical leadership, and responsible practices. The discussions at this conference underscored the crucial role of corporate engagement in addressing global challenges, from climate action and social equity to transparent governance and stakeholder collaboration. As organizations worldwide navigate the evolving expectations of corporate responsibility, the need for new frameworks, strategies, and leadership approaches becomes increasingly evident.

We extend our deepest gratitude to all contributors who have shared their expertise, enriching the discourse on the intersection of activism and sustainable development. Our sincere appreciation also goes to the organizing committee, sponsors, and participants whose dedication and support made this conference a success. We hope these proceedings will not only inform but also inspire further exploration and innovation in the field, empowering academics, practitioners, and business leaders to drive meaningful change. The insights gained here will serve as a valuable guide for shaping a more sustainable and just future through corporate activism.

— Dr. S.N. Maheshwari

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CHAIRMAN'S MESSAGE



It is my pleasure to present the proceedings of the **International Conference on "Corporate Activism: A Catalyst for Sustainable Development,"** held on **January 10, 2025**, at **Delhi Institute of Advanced Studies, Rohini, Delhi**. This conference brought together distinguished scholars, industry leaders, and researchers to explore the pivotal role of corporate activism in advancing sustainable development.

The discussions and research presented underscored the importance of **responsible corporate practices, innovation, and resilience** in addressing global sustainability challenges. As businesses increasingly embrace their role in shaping a sustainable future, these insights offer valuable perspectives on how corporate activism can drive meaningful change.

This volume captures the depth of deliberations and scholarly contributions from the conference, serving as a valuable resource for academics, policymakers, and professionals committed to sustainable development. I extend my sincere gratitude to all participants and contributors for their efforts in making this conference a success.

— **Shri S.K. Sachdeva**

ACADEMIC DIRECTOR'S MESSAGE



The concept of sustainable development came in prominence in 1987 on publication of "Our Common Future Report" by the World Commission on Environment and Development. The concept has particularly gained momentum in the last one decade on the world's community greater realization that the future of mankind depends on sustainable solutions that improve lives without adversely affecting our neighbors or eco-systems. This has made consumers, businesses and Governments realize all over the globe, that their activities and operations must be always friendly both for the people and the environment. In common parlance therefore we may say that sustainable development, refers to the development model which involves utilization of resources in a manner that not only meets the needs of present generation but also preserves the environment and without adversely affecting the capacity of the future generation to meet their own needs.

As a result of the above changed scenario, corporates all over the globe have to adopt a holistic approach for maximizing social good and not merely as institutions caring only for maximization of shareholders wealth. During the last one decade the expectations from the corporates towards changing their strategies more towards social and environmental issues is gaining momentum. Major corporates are now expected to work more for meeting their social responsibilities and not only for maximizing profit for their shareholders. They are now expected to increasingly speak out on pressing public issues viz. climate change, gender equality, protecting environment and preserving human rights etc., besides their economic growth. Corporate Activism has now come up as a new concept covering these aspects. In simple words Corporate activism, therefore, refers to taking a public stance by a corporation on social, environmental, or public issues. These issues, as stated above, are beyond the concerned corporates direct business operations.

I extend my heartfelt gratitude to all who have contributed to this conference proceedings, as well as to our readers for their engagement and interest in this important discourse. Together, let us continue to explore, innovate, and chart a course toward a future where management excellence thrives towards sustainability.

—Dr. S.N. Maheshwari

DIRECTOR'S MESSAGE



Corporate activism is widely embraced worldwide, with companies in the United States, Europe, and other regions leading the charge on issues such as environmental sustainability, diversity, and digital ethics. The tech giants advocating for data privacy and transparency or multinational corporations pushing for net-zero carbon emissions are notable examples. The global perspective is characterized by Increased Accountability, Collaboration Across Borders and Cultural Sensitivities to name a few.

While in India, corporate activism is still evolving but gaining momentum. Indian companies are increasingly aligning themselves with issues such as environmental conservation, women's empowerment, and rural development. Key features of corporate activism in India include Regulatory Influence, Grassroots Focus, Public-Private Partnerships being the prominent ones.

The need for Corporate Activism has risen and this is seen as a tool to enhance reputation and employee engagement, bring about market differentiation and long-term sustainability. But one must also be varied of the challenges mostly seen in the form of backlash, authenticity concerns and complexities involved.

It is expected that in future greater accountability would be fixed with companies facing increased scrutiny to ensure their actions match their rhetoric. Furthermore, partnerships across industries to tackle global issues will result in collaborative efforts. Tech-Driven Activism will be led by leveraging data and technology to drive impactful change while the localized initiatives will address community-specific concerns alongside global challenges.

Hence Corporate activism will result in a shift in the role of businesses from profit-centric entities to influential societal actors. While challenges persist, the potential for positive impact makes activism an essential part of the modern corporate landscape. Organizations that act authentically and strategically can contribute to meaningful change while building trust and value for their stakeholders.

I wish to congratulate the specific contributions of Dr. Meenakshi Kaushik, Dr. Pooja Gupta, Ms. Divya Jain, Ms. Komal Jindal & Ms. Radhika Garg for bringing out the proceedings of the Conference.

—**Dr. N. Malati**

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Sustainable Development through Green Bonds in Saudi Arabia

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Dr. Mohammad Aamir Khan¹ | Dr. Mohammed Ahmar Uddin² | Nabiha Khan³

Abstract

Capital markets have emerged as a critical tool for financing environmental initiatives amid growing pressure for sustainable development. This paper explores the role of green bonds in facilitating investments that generate positive environmental impacts, focusing on Saudi Arabia. By analyzing the evolution of the green bond market, key stakeholders, and the framework guiding their issuance, the paper examines how green bonds can support projects in renewable energy, energy efficiency, and climate resilience, thereby contributing to the achievement of the United Nations Sustainable Development Goals (SDGs). Furthermore, it addresses the challenges hindering investor confidence, such as standardization, transparency, and greenwashing. The research highlights the transformative potential of green bonds in aligning financial markets with sustainable development objectives and underscores the importance of collaboration among governments, financial institutions, and corporations to leverage capital markets for a sustainable future.

Key Words: Capital markets; Green bonds; Environmental initiatives; Sustainable development; Renewable energy; Energy efficiency; Climate resilience; United Nations Sustainable Development Goals (SDGs); Investor confidence

.....

INTRODUCTION

The industry suffered less than \$50 Billion losses per year before 2005 but now it has exceeded \$100 billion annually. It is expected that the global economy will shrink by 23 trillion by 2050 because of extreme heat and climate related risk, and it will be very difficult for the insurance industry to cope up with these losses. The global economic community is seeking innovative financial mechanisms as there is an urgency to address climate change and promote sustainable development (World Economic Forum). Green bonds have helped in mobilizing private sector investment in environmental sustainability (Bisultanova). Green bonds are debt

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securities classified as Socially Responsible Investment issued to finance projects that deliver environmental benefits like climate adaptation initiatives, energy efficiency, renewable energy etc. (Iberdrola).

Saudi Arabia is facing a critical challenge to shift to a sustainable economy despite being a country rich in natural resources and largely dependent on oil revenues (Islam). Green bonds can serve as a key financial tool to develop clean energy solutions and improve climate resilience as the country seeks to reduce its carbon footprint (Ministry of Finance). The Saudi Vision 2030, provides a strong framework for exploring how green bonds can help to achieve the goals of economic diversification, environmental sustainability, and social development (Vision 2030).

This paper examines the evolution of the green bond market globally its potential benefits for Saudi Arabia, and addresses the challenges that must be overcome for their widespread adoption.

AN OVERVIEW OF GREEN BONDS

- **Meaning and Purpose of Green Bonds:** In the year 2007 European Investment Bank for the first time issued green bonds. (EIB). Projects that offer environmental benefits can raise funds through **green bonds** and the rate of return on these securities is fixed (Fan). These bonds are issued by financial institutions, corporations, governments, and municipalities. The proceeds are solely used to finance or refinance green projects such as solar, wind, or hydroelectric renewable energy, green building and sustainable transport, energy efficiency, climate resilience like flood prevention and water conservation etc. (World Bank). Green bonds aims at channelizing private investment in sustainable environmental projects allowing investors to align their financial objectives with the environmental value (World Economic Forum).

As countries and corporations have recognized the potential of green finance in achieving sustainability objectives the market for green bonds has expanded substantially (Alamgir).

- **Global Growth and Key Players:** Since, its introduction, the green bonds market is rapidly progressing. The Global Green Bond issuance exceeded \$500 billion in 2022 and it is projected that it will continue to grow into the 2020s (Initiative Climate Bonds).

KEY PLAYERS

- **Governments and Multilateral Institutions:** Several countries and multilateral institutions have issued them to finance national and international climate initiatives (World Bank Group). The World Bank and the European Investment Bank (EIB) are instrumental in the development and expansion of the green bond market (European Investment Bank). Both the institutions issued green bonds to fund projects aimed to tackle climate change and promote sustainability (European Investment Bank).

World Bank issued these bonds for the first time in 2008 to finance climate related projects in developing nations (World Bank Group). This became a practice to use the bond market to finance environmentally sustainable initiative such as energy efficiency, renewable energy and climate adaptation projects (Initiative Climate Bonds).

Investors of the World Bank's green bonds contribute to global climate goals while earning returns (World Bank Group).

The EIB issued green bonds for the first time in 2007 (The World Bank). These bonds fund projects that lower carbon emissions and promote environmental protection, in Europe and worldwide (European Investment Bank). EIB is able to attract investors that are interested in sustainable investment opportunity that has helped green bonds to grow and establish trustworthiness (European Investment Bank). This has inspired other entities to participate in green financing (European Investment Bank).

- **Corporations:** Green bonds are issued by corporations in energy, transportation, and manufacturing, to fund sustainability ventures. For example, Iberdrola (ESG today) and NextEra Energy (NEXTeraENERGY) have raised green bonds to fund renewable energy initiatives, transportation giants like Tesla (SustainableInvest) and General Motors (BNP PARIBAS) have used green bonds to produce electric vehicles production and sustainable transport systems. Additionally, manufacturers like Siemens (Siemens) and Volkswagen (VOLKSWAGEN) have issued green bonds to finance carbon-reduction technologies and energy-efficient production processes.
- **Investors:** Institutional investors, such as Allianz, CalPERS, and asset managers like BlackRock, are the key drivers for the green bonds demand. They are attracted by the dual opportunity to make viable financial returns and contribute to the environmental initiatives, such as improvement in energy efficiency, clean transportation, and renewable energy projects. For example, Allianz to meet its climate-related goals has used green bond investments to meet its climate-related goals (Allianz), CalPERS as part of its sustainable investment strategy has allocated funds to green bonds (CalPERS). Similarly, BlackRock to align with its commitment to sustainable finance has significantly invested in green bonds (BlackRock).

STANDARDS AND FRAMEWORKS FOR GREEN BOND ISSUANCE

There are criteria's for a bond to qualify as a green bond, several standards are framed and developed to guide the issuance of green bonds.

- **The Green Bond Principles (GBP):** The International Capital Market Association (ICMA) introduced the intended guiding principle that encouraged pellucidity, disclosure, and reporting standards for issuers of green bonds standards (ICMA).
- **The Climate Bonds Standard (CBS):** The Climate Bonds Initiative is a accreditation program that ensures that they adhere to strict environmental criteria, including alignment with global climate goals (CBS). The program is developed by the

Climate Bonds Standard (CBS).

- **National Standards:** Countries like India and China have developed their own green Bond standards to cater to local priorities and needs (OECD).

RESEARCH DESIGN

This study highlights the intricacy of the subject matter and uses qualitative research design, and combines research studies and papers comprehensively. The qualitative research design has allowed us to explore how Green Bonds is reshaping the Saudi Arabian economy. Qualitative research design was used because of the following reasons:

1. Green bonds exist in a complex financial and environmental framework and is influenced by the regulatory technology and strategic factors a qualitative approach has helped to explore the process, challenges and opportunities involved in the development and implementation of green bonds in Saudi Arabia.
2. Qualitative research on green bonds has helped to uncover the relationship and integration with sustainability objectives.
3. Qualitative research has helped to understand how green bonds align with Saudi Arabia's sustainable development strategy and how its challenges and opportunities shape the adoption of green bonds.
4. Qualitative research design has provided the flexibility to explore various viewpoints and experience is like interviews case studies and document analysis.
5. Qualitative research design has enabled a narrative driven approach that has helped to study the historical development, motivations and the impact of green bonds are captured in a way that quantitative methods may not.
6. Green bonds in Saudi Arabia are in an evolutionary stage, so qualitative research is ideal to identify the emerging trends and insights that are not extensively documented.

SAUDI ARABIA'S PATH TO SUSTAINABLE INVESTMENT THROUGH GREEN BONDS: OPPORTUNITIES AND CHALLENGES

Vision 2030 and Environmental Goals

Saudi Arabia's Vision 2030 (Vision 2030) presents a strategic roadmap to reduce the nation's dependence on oil, by diversifying the economy, and promoting sustainable development (Saudi & Middle East Green Initiatives). It aims to achieve a net-zero carbon emissions by 2060, with an interim goal of reducing its carbon intensity by 30% by 2030 (Vision 2030). By 2030 the Kingdom aims to produce 50% of its electricity from renewable sources, prioritizing solar and wind energy (KAPSARC). The government is investing in water conservation technologies and climate-resilient infrastructure as Saudi Arabia is one of the most water-scarce countries in the world (International Trade Administration). Green bonds can attract private sector investment and help the kingdom to achieve its sustainability goals.

Key Sectors for Green Bond Financing for Sustainable Growth

Saudi Arabia can finance the construction of solar power plants , wind farms and the supporting infrastructure by issuing green bonds, as the country is blessed with plentiful sunlight and wind resources making it an ideal location for large-scale solar and wind energy projects (Thornton). The Kingdom is building and making its industrial operations and transportations more cost effective by using energy efficient technologies and investing in them (Kapsarc). This will help in developing standards for green buildings and energy efficient urban planning. The country faces the problem of water scarcity, Government is investing in water management projects, desalination projects and climate resilience projects. Green bonds could be used to fund the projects related with water conservation technology and infrastructure designing to tackle droughts and floods (Alotaibi).

Financing of Saudi Arabia's SDGs by Green Bonds

Green bonds can be instrumental in helping Saudi Arabia to accomplish several United Nations Sustainable Development Goals (SDGs) (UNITED NATIONS SAUDI ARABIA), particularly those focused on affordable and clean energy (SDG 7) , climate action (SDG 13), and sustainable cities and communities (SDG 11).

Thus Saudi Arabia can make significant progress towards its economic and environmental objectives by investing in projects that aligns with sustainable development goals.

PIONEERING SUSTAINABLE FINANCE IN SAUDI ARABIA: SNB'S GREEN BOND ISSUANCE – A CASE STUDY

National Commercial Bank was merged with Samba Financial Group in 2021 and a new entity was formed as Saudi National Bank (SNB).

Introduction

Saudi National Bank is one of the leading Financial Institutions in Saudi Arabia, The bank is dedicated to sustainability by entering the green bond market⁴⁷ (ESG Report). Green bonds are the key components of sustainable finance globally and are used to fund projects that have positive environmental benefits. This case study explores how SNB entered into the green bond market, the motivations for issuance, the process involved in the project funded and the implications for the bank and Saudi Arabia shift towards a more sustainable economy.

Background of National Commercial Bank (NCB):

NCB was established in 1953, it is one of the leading banks of Saudi Arabia and it plays a crucial role in the country's financial system⁴⁸ (Saudipedia). NCB has consistently offered a different range of services, including corporate banking, retail banking, investment management, and treasury services⁴⁹ (NCB). NCB merged with Samba Financial Group and named Saudi National Bank (SNB)⁵⁰ (argaam). The bank has aligned itself with global trends in environmental sustainability, and has taken steps

to incorporate sustainability into its business operations (SNB). This aligns with Saudi Arabia's Vision 2030 that emphasizes on economic diversification and commitment to environmental sustainability.

SNB's Green Bond Issuance

SNB issued green bonds in May 2021, worth \$885 million, marking a significant milestone in Saudi Arabia's green finance market. Since green bonds were issued by a Saudi Bank for the first time it reflected the Kingdoms growing interest in environmentally sustainable investments. The insurance of these bonds was designed to finance projects with clear environmental benefits and was in line with the NCB's strategy to support Saudi Arabia's sustainable development goals including those listed by Saudi Green Initiative (SGI) (SNB). These bonds were structured as a senior unsecured bond offering, featuring a fixed coupon rate. Its issuance attracted strong demand from institutional investors, including both global and regional asset managers, demonstrating the increasing interest in green investments in the Middle East. This new investment opportunity in the Saudi market was offered to investors globally by listing them on the London Stock Exchange (LSEG).

Objectives behind the Green Bond Issuance

The green bonds issued by the SNB aligns with the country's Vision 2030 (SNB). The objective of issuing green bonds was to fund projects focused on renewable energy, energy efficiency, and eco-friendly infrastructure, to promote environmental sustainability (SNB). It aligns with the objectives of the SGI, an initiative launched by Saudi Arabia to address climate change, reduce carbon emissions, and promote a sustainable economy (SGI). SNB identified the shift in investor preferences and capitalized on the growing green finance market that will attract international capital. The bank has established itself as a responsible financial institution and enhanced its social, environmental and governance profile by issuing green bonds.

Projects Funded by NCB's Green Bonds

The SNB's green bond funds are allocated to a wide range of environmentally sustainable projects.

These project are supporting the development of renewable energy in Saudi Arabia by reducing the carbon footprint, improving energy efficiency and the growth of renewable energy (SGI). Saudi Arabia aims to achieve 50% of its energy mix from renewable sources by 2030. The proceeds of the SNB green bonds are directed towards financing these renewable energy project especially in solar and wind power projects (Saudi Arabia Renewables Tracker). The bank is also funding projects to improve energy efficiency across various industries, like building retrofits, optimizing industrial energy consumption, and advancing green technologies. Funds are also invested in sustainable urban development and green infrastructure, like smart buildings and eco-friendly transportation systems. Some part of the green funds are also allocated to projects on mitigating climate change through reforestation, conservation initiatives, and sustainable water management (ESB).

The Process of Issuance

To ensure that SNB's green bonds comply with international green bond standards they were structured and managed by the top financial and legal advisors.

In order to ensure transparency, accountability, and the proper allocation of proceeds they were issued according to the Green Bond Principles (GBP), that are established by the International Capital Market Association (ICMA). These bonds were made attractive to investor by offering a fixed interest rate to ensure a stable return. The approval of these bonds under the Climate Bonds Standard (CBS) assured the investors that they are dedicated to environmentally friendly projects and there was an overwhelming response for the bond.

Investor Reception and Market Impact

The bonds were oversubscribed as the investors' response was highly positive. The region historically known for its oil and gas industry reflect its growing interest in sustainable investment.

The success of SNB's green bond is a significant milestone for Saudi Arabia's green finance market and this will motivate other financial institutions and corporations to consider green financing as a worthwhile option. Issuance of these bonds have opened the doors for other banks and corporations to explore the green bond market for the development of the green finance ecosystem in the Kingdom

Challenges Faced

Although the green bond issuance is successful, it faces several challenges. The bank has to make substantial efforts in educating the institutional investors and public about the potential benefits and risks of investing as the investors were not familiar with the concept of green bonds. While Saudi Arabia is making progress in building a sustainable financial system the green bond market regulatory framework needs to be more developed. The absence of clear regulations on what constitutes a "green" project or investment posed challenges in ensuring the transparency of the bond issuance process. A key concern is the long term financial and environmental sustainability of the funded projects. As many of the green projects involve emerging technology is there is a potential risk regarding their feasibility and profitability.

Future Outlook

The success of the green bonds is expected to serve as a blueprint for other banks in Saudi Arabia and the broader Middle East. Green bonds will play an important role in financing clean energy and environmentally responsible projects as the Kingdom continues to focus on diversification and sustainable development. As the bank strengthens its role as a leader in sustainable finance the green bond issuance is likely to be the first of many.

Moreover other financial institutions in the region will be inspired to issue similar instruments as there is an increasing global shift towards environmental, social, and governance (ESG) investing.

It is expected that SNB will expand its green Bond experience and issue larger bonds to help in growing the regional green bond market. SNB's role in the green finance ecosystem will be more crucial as the demand for sustainable investments increases and the regulatory framework improves.

CONCLUSION

Thus, SNB's green bonds issuance is a significant step in the development of sustainable finance in Saudi Arabia. Financing of environmentally responsible projects by green bonds has contributed to the country's economic diversification and alignment with the growing global shift towards sustainability. Despite challenges, the success of the green bond issuance sets a promising future of green finance in Saudi Arabia and the Middle East.

Challenges to Green Bond Market Development in Saudi Arabia

The Kingdom faces several challenges in the development of green bonds market in Saudi Arabia. A key challenge is the lack of standardization and certification for green bonds in the Saudi market⁶⁰ (Shalhoob). Saudi Arabia still lacks a comprehensive National framework for issuing green bonds, although global standards like the green Bond principles and the climate bonds standards are available. A clear and transparent certification process would build investors' confidence and ensure that the funds are used towards sustainable projects⁶¹ (PIF).

The risk of greenwashing is another challenge where projects are labelled as green although they may not be meeting strict environmental standards⁶² (CMS). To ensure that green bonds are used effectively and responsibly Saudi Arabia must frame strong regulations and enforce transparent reporting practices⁶³ (Al-Surf).

Yet another factor that poses a barrier to the adoption of green bonds is the lack of liquidity in the Saudi capital markets⁶⁴ (IMF eLibrary). There must be coordination and cooperation between the regulators financial institutions and corporations to ensure market stability and build investor confidence to ensure that green bond market functions effectively⁶⁵ (IFC).

Policy Recommendations and Conclusion

To fully realize the potential of green bonds in Saudi Arabia it is suggested that Saudi Arabia's green bond framework should align with international standards, ensuring transparency, accountability, and proper certification of green projects⁶⁶ (Arab News). Government, financial institutions and corporations should work together to create a conducive environment for green bond issuance offering incentives for both issuers and investors⁶⁷ (IMF). Investors and stakeholders should be educated about the benefits of green bonds and their role in supporting sustainable development⁶⁸ (SAIB). Regulators should introduce stricter monitoring and reporting requirements for green bond issuers to minimize the risk of greenwashing⁶⁹ (IMF).

Thus, green bonds have significant potential to support Saudi Arabia's to a more sustainable economy. By creating an environment for green finance, the Kingdom

can leverage capital markets to achieve its sustainability objectives, contributing to global climate action, and securing long-term economic growth.

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Credit Score Analysis Using Artificial Neuron Network

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Abstract

Artificial Neural Networks (AONNs) have become a cornerstone in the field of machine learning, providing powerful tools for data analysis, pattern recognition, and predictive modelling. This research paper explores the development and application of an ANN algorithm aimed at identifying American Express black credit card users at the risk of account closure. The fundamental of neural networks, include neuron models and activation functions such as threshold, sigmoid, rectifier, hyperbolic tangent, and Re-LU. Methodology details data collection and pre-processing, followed by the construction and training of the neural network using gradient descent and back-propagation techniques. The efficacy of the ANN in accurately predicting at-risk users, underscoring the potential of neural networks in financial risk management and predictive analytics is demonstrated.

The pursuit of transparency in financial risk management has driven the adoption of advanced IT-enabled technologies. This research investigates the application of Artificial Neural Networks (ANNs) in fostering transparency within predictive analytics for financial institutions. Using data from American Express black credit card users, the study demonstrates how ANNs can accurately predict account closures, thus enabling financial institutions to preemptively address potential risks. The research delves into core components of ANNs, including neuron mechanics, activation functions, optimization techniques like gradient descent, and the back-propagation algorithm. By ensuring interpretability through robust evaluation metrics—precision, recall, and F1 scores—this study bridges the gap between advanced analytics and actionable transparency. The findings reveal that the ANN model achieves an 85% accuracy rate in predicting at-risk users, highlighting its efficacy in offering transparent, data-driven insights. This study contributes to the evolving paradigm of IT-enabled transparency by showcasing the transformative role of neural networks in enhancing decision-making processes within the financial sector.

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Keywords: *Artificial Neural Networks (ANNs), Machine Learning, Data Analysis, Predictive Modelling, Activation Functions, Neuron Models, Gradient Descent.*

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INTRODUCTION

In the contemporary financial arena, the ability to predict customer behaviour and manage risk is of paramount importance. Credit card companies, such as American Express, continuously seek innovative solutions to identify users who are likely to default or close their accounts, thereby mitigating potential financial losses. One promising approach to this challenge is the use of Artificial Neural Networks (ANNs), a subset of machine learning that mimics the human brain's ability to recognize patterns emanating from data.

ANNs have shown significant promise in various domains, from image and speech recognition to autonomous driving and financial forecasting. This study focuses on leveraging ANN algorithms to analyse American Express black credit card user data, with a view to predict which users are at risk of having their accounts closed. By employing a neural network model, we can analyse complex relationships within the data that traditional statistical methods may not consider.

The study begins with a comprehensive review of the fundamental concepts underlying ANNs, including neuron models and various activation functions such as threshold, sigmoid, rectifier, hyperbolic tangent, and Re-LU. Data collection and pre-processing, steps for ensuring the quality and relevance of the input data are also considered. The construction and training of the neural network are presented, highlighting the use of gradient descent and back-propagation for optimizing the model.

Furthermore, the fine-tuning of hyper-parameters to enhance the model's predictive accuracy considered. The evaluation metrics used to assess the model's performance include precision, recall, and F1 score, providing a robust framework for measuring its effectiveness. The results of this study reveal the potential of ANNs to significantly improve risk management strategies in the financial sector, offering valuable insights into customer behaviour and predictive analytics.

The application of neural networks aim to contribute to the broader understanding of machine learning's capabilities in financial risk assessment and decision-making processes.

The integration of IT-enabled systems with Artificial Neural Networks (ANNs) enhances transparency in financial decision-making by providing clear, actionable insights. IT tools streamline data collection, preprocessing, and feature scaling, ensuring consistency and reliability. Explainable AI techniques, supported by IT, identify critical features influencing ANN predictions, making the decision process interpretable for stakeholders.

Real-time monitoring and dynamic updates through IT infrastructure allow for continuous risk assessment, ensuring predictions are based on the latest data. Visualization tools, such as dashboards, simplify the presentation of ANN outputs, including performance metrics like precision and recall, fostering stakeholder understanding. Additionally, IT systems maintain secure audit trails and ensure compliance with regulatory standards, enhancing trust and accountability.

By leveraging IT-enabled transparency, this research bridges advanced analytics and actionable decision-making, demonstrating the potential of ANNs to transform financial risk management.

LITERATURE REVIEW

Introduction to Artificial Neural Networks (ANNs)

Artificial Neural Networks (ANNs) are a fundamental component of modern machine learning and artificial intelligence. Similar to the biological neural networks in the human brain, ANNs consist of interconnected nodes or neurons that process data through weighted connections. This architecture allows ANNs to model complex, non-linear relationships within data.

Historical Context and Evolution

The evolution of ANNs has several key milestones. During the 1950s and 1960s, early research focused on simple neural network models, with the perceptron introduced by Rosenblatt. The 1980s saw the resurgence of interest in neural networks with the development of the back-propagation algorithm. The resurgence during the 2000s, driven by advancements in hardware and the availability of large datasets, led to the development of deep learning techniques and the widespread adoption of neural networks with numerous applications.

Present Trends

Present trends in neural networks include the development of deep learning architectures, such as Convolutional Neural Networks (CNNs) for image processing and Recurrent Neural Networks (RNNs) for sequential data analysis. CNNs are particularly effective in tasks like object recognition, image segmentation, and facial recognition due to their ability to automatically and adaptively learn spatial hierarchies of features from input images. On the other hand, RNNs excel in processing sequential or time-series data, making them ideal for applications like language modelling, speech recognition, and time-series prediction, thanks to their ability to retain information from previous inputs.

The Transformer model has significantly transformed natural language processing (NLP) tasks by introducing self-attention mechanisms, allowing models like BERT and GPT to excel in understanding and generating human-like text. Furthermore, the integration of neural networks with other machine learning techniques, such as Reinforcement Learning (RL) and Generative Adversarial Networks (GANs), has broadened their applicability and effectiveness. RL enables neural networks to learn

optimal actions in dynamic environments, which is useful in robotics and gaming. GANs, on the other hand, are widely used for generating high-quality synthetic data, including images, videos, and audio, pushing the boundaries of creativity and realism in AI applications.

Present Research Landscape

Contemporary studies have explored various ANN architectures to address specific challenges in predictive modeling. For instance, Convolutional Neural Networks (CNNs) have proven effective in image-based tasks, while Recurrent Neural Networks (RNNs) excel in time-series prediction and language modeling. Moreover, recent innovations such as the Transformer model and its derivatives, including BERT and GPT, have redefined natural language processing by leveraging self-attention mechanisms. These studies highlight the adaptability of ANNs to diverse problem domains.

In financial risk management, research has demonstrated the potential of ANNs in credit risk evaluation, customer churn prediction, and fraud detection. A study by Goodfellow et al. (2016) illustrated the efficacy of ANNs in handling high-dimensional data, achieving superior accuracy compared to traditional statistical methods. Similarly, LeCun et al. (2015) emphasized the importance of optimization algorithms and activation functions in enhancing ANN performance.

Challenges and Interpretability

Despite their successes, ANNs face significant challenges, particularly in interpretability. The “black-box” nature of these models complicates their application in high-stakes domains like finance and healthcare. Research by Hinton (2007) underscored the necessity of explainable AI techniques to bridge this gap. The integration of methods like SHAP (Shapley Additive Explanations) and LIME (Local Interpretable Model-Agnostic Explanations) has been proposed to enhance model transparency.

Opportunities

Despite their capabilities, ANNs face several drawback such as the “black-box” nature of neural networks, which makes it difficult to interpret and understand model decisions. Lack of interpretability poses setback in high-stakes applications, such as healthcare and finance, where decision is crucial. In addition, neural networks require substantial computational resources and large volumes of data for training, which can be a barrier for smaller organizations and researchers.

Techniques and Limitations

Techniques in neural network training include optimization algorithms like gradient descent, stochastic gradient descent (SGD), and Adam. Activation functions such as Re-LU, sigmoid, and tan-h play a critical role in determining network performance and convergence.

Objectives for Current Research

The objective for the current research stems from the need to address the limitations

of existing neural network models and to explore their potential in newer area. The model interpretability, efficiency, and applicability can be displayed by applying the models in various areas.

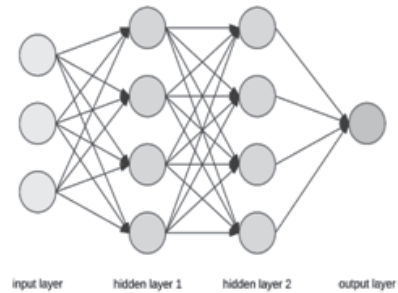
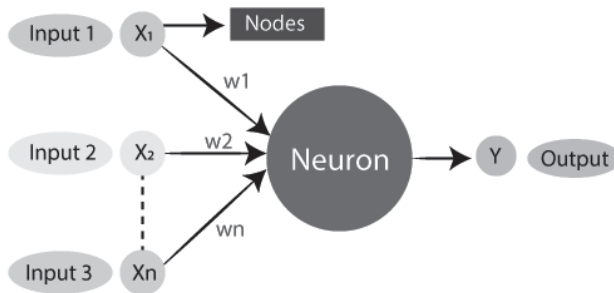
The study of neural networks in financial risk management, such as predicting credit card account closures, represents a promising area for the application of the models to real-world problems. The study seeks to enhance the understanding of neural network capabilities and contribute to the development of more effective and interpretable machine learning solutions.

Neuron Mechanics and Learning:

1. How Neurons Work

In artificial neural networks (ANNs), a neuron is a computational unit that processes input data through a weighted sum and applies an activation function to generate an output. The neuron's operation consist of the following steps:

- **Input Aggregation:** Each neuron receives input values, typically represented as $x_1, x_2, \dots, x_n$. Each input is associated with a weight $w_1, w_2, \dots, w_n$ which signifies the strength or importance of that input.



- **Weighted Sum:** The neuron calculates the weighted sum of the inputs, given by the equation:

$$z = \sum_{i=1}^n w_i x_i + b$$

Where, b is the error term, an additional parameter that allows the activation function to be shifted.

- **Activation Function:** The weighted sum z is passed through an activation function $f(z)$ to produce the neuron's output a :

$$a = f(z)$$

- **Output:** The output a is then used as input to subsequent layers or as the

final output of the network, depending on the technique.

2. How Neurons Learn:

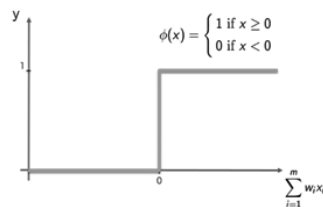
Neurons learn through a process of adjusting their weights based on the error between predicted and actual values. This process involves several steps:

- **Forward Propagation:** Input data is passed through the network, and predictions are made using the current weights and biases.
- **Error Calculation:** The difference between the predicted output and the actual target value is calculated using a loss function (cost function). This error quantifies how well or poorly the network is performing.
- **Backward Propagation:** The error is propagated back through the network to update the weights and biases. This process involves calculating the gradient of the error with respect to each weight and bias.
- **Weight Adjustment:** Using optimization techniques, such as gradient descent, the weights are adjusted to minimize the error.

3. Activation Functions: Activation functions introduce non-linearity into the network, enabling it to model complex relationships. The popular activation functions include:

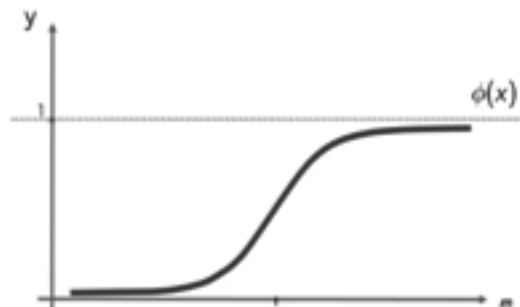
• Threshold Function

- **Definition:** Outputs a binary result based on whether the input exceeds a certain threshold.
- **Usage:** Used in early neural networks but less in use due to its non-differentiability and limited application.



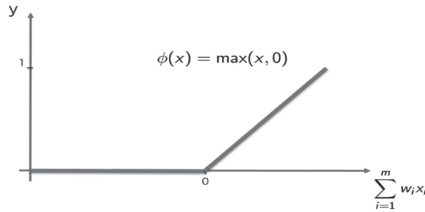
• Sigmoid Function:

- **Definition:** Maps input values to a range between 0 and 1.
- **Characteristics:** Provides a smooth gradient, but can suffer from vanishing gradients in deep networks.



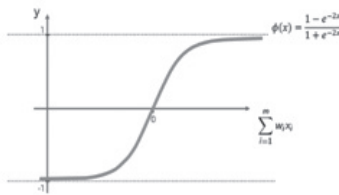
- **Rectified Linear Unit (Re-LU):**

- **Definition:** Outputs the inputs directly if it is positive; otherwise, it outputs is zero.
- **Characteristics:** Helps with the vanishing gradient problem and provides faster convergence.

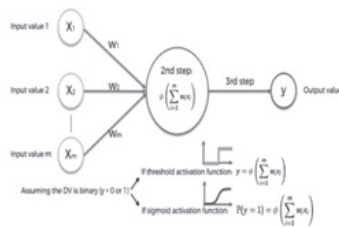


- **Hyperbolic Tangent (tan h):**

- **Definition:** Maps input values to a range between -1 and 1.
- **Characteristics:** Centres the data, which often leads to better performance than the sigmoid function.



Consider an example to have an 0/1 output, we can use as activation function the threshold function or the sigmoid function. The advantage of the sigmoid function is that we have the probability of the output to be one or zero.



4. 3.9.4 Cost Function

The cost function (or loss function) measures the difference between the predicted output and the actual target values. Quantifies whether the network's predictions match the actual outcomes. Common cost functions in use are:

- **Mean Squared Error (MSE):**

- **Definition:** Measures the average squared difference between predicted and actual values.
- **Usage:** Commonly used in regression analysis.

$$MSE = \frac{1}{m} \sum_{i=1}^m (y_i - \hat{y}_i)^2$$

- **Cross-Entropy Loss:**

- **Definition:** Measures the difference between two probability distributions, typically used for classification tasks.
- **Usage:** Used in binary and multi-class classification problems.

$$\text{Cross-Entropy} = -\frac{1}{m} \sum_{i=1}^m [y_i \log(\hat{y}_i) + (1 - y_i) \log(1 - \hat{y}_i)]$$

- **Gradient Descent**

Gradient descent is an optimization algorithm used to minimize the cost function by iteratively adjusting the weights in the direction that reduces the error. The process involve:

Compute the gradient (partial derivative) of the cost function with respect to each weight.

- **Updating Weights:** Adjust the weights in the direction of the negative gradient:

$$w := w - \eta \frac{\partial \text{Cost}}{\partial w}$$

Where, η is the learning rate, a hyper-parameter that controls the size of the weight updates.

- **Stochastic Gradient Descent (SGD)**

Stochastic Gradient Descent (SGD) is a variant of gradient descent that updates the weights based on a single data or a small batch of observations at a time, rather than the entire dataset. This approach introduces noise into the optimization process, which can help escape local minima and achieve faster convergence.

Characteristics: Leads to faster convergence and is computationally less expensive compared to batch gradient descent. However, it may have more fluctuations in the cost function initially.

- **Backpropagation**

Back-propagation is the algorithm used to compute the gradient of the cost function with respect to each weight by applying the chain rule of calculus. The process involves:

- **Forward Pass:** Compute the network's output and calculate the loss using the current weights.
- **Backward Pass:** Compute the gradient of the loss with respect to each weight by propagating the error backward through the network.
- **Weight Update:** Use the computed gradients to adjust the weights, typically using gradient descent.

Back-propagation ensures that the weights are updated in a manner that reduces the overall error, thereby improving the model's performance over time.

METHODOLOGY

Dataset Description

The dataset used for this implementation was collected from American Express, containing employee records with the following 10 attributes:

1. **Credit Score:** A numerical value representing the customer's credit score.
2. **Geography:** The customer's geographical location.
3. **Gender:** The customer's gender.
4. **Age:** The customer's age.
5. **Customer Since:** The year since the customer has been with the bank.
6. **Current Account:** The balance in the customer's current account.
7. **Num of Products:** The number of products the customer has with the bank.
8. **UPI Enabled:** A binary value indicating whether the customer has UPI enabled.
9. **Estimated Yearly Income:** The customer's estimated yearly income.
10. **Closed:** A binary value indicating whether the customer's account is closed (target variable).

Analysis of Dataset Components

The dataset used in this study comprises 10 attributes, each playing a critical role in predicting account closures. Below is a detailed analysis of these components:

1. **Credit Score:** Higher scores correlate with a lower likelihood of account closure. The dataset reveals a median score of 720, with outliers skewing toward lower scores.
2. **Geography:** Regional differences impact customer behavior, with urban areas showing a higher retention rate.
3. **Gender:** Gender-based trends indicate slight differences in account closure rates, with females showing marginally higher retention.
4. **Age:** Younger demographics display higher account closure rates, often linked to job mobility and financial instability.
5. **Customer Since:** Longer-tenured customers exhibit higher loyalty, reducing the risk of account closure.
6. **Current Account Balance:** A positive correlation exists between higher balances and lower closure rates.
7. **Number of Products:** Customers with diversified product portfolios show greater engagement and lower closure likelihood.
8. **UPI Enabled:** The availability of digital payment options is a strong retention factor.
9. **Estimated Yearly Income:** Higher income levels correspond with lower closure rates, reflecting financial stability.

10. **Closed:** The binary target variable indicating account closure. Distribution analysis reveals a 20% closure rate in the dataset.

Import Libraries:

We start by importing necessary libraries for data manipulation, visualization, machine learning, and evaluation.

```
import numpy as np
import pandas as pd
import tensorflow as tf
```

Importing Dataset:

The dataset is read into a pandas Data Frame from a CSV file.

```
dataset = pd.read_csv('American Express User Exit Prediction.csv')
X = dataset.iloc[:, 0:-1].values
y = dataset.iloc[:, -1].values
```

Encoding Categorical Data

As machine learning models require numerical input, we encode categorical variables. The 'Gender' column is label encoded, and the 'Geography' column is one-hot encoded.

Gender column : Label Encoding

```
from sklearn.preprocessing import LabelEncoder
label_encoder = LabelEncoder()
X[:, 2] = label_encoder.fit_transform(X[:, 2])
```

```
print(X)
```

```
[[553 'Delhi' 0 ... 4 1 274150]
 [447 'Bengaluru' 1 ... 4 1 519360]
 [501 'Delhi' 0 ... 4 1 545501]
 ...
 [627 'Mumbai' 0 ... 4 0 494067]
 [600 'Bengaluru' 0 ... 2 1 109375]
 [553 'Delhi' 1 ... 4 1 180031]]
```

Geography column : One hot Encoding

```
from sklearn.compose import ColumnTransformer
from sklearn.preprocessing import OneHotEncoder
ct = ColumnTransformer(transformers=[('encoder', OneHotEncoder(), [1])], remainder='passthrough')
X = np.array(ct.fit_transform(X))
```

Splitting Dataset into Training & Test Set:

The dataset is split into training and test sets to evaluate the model's performance on unseen data.

Feature Scaling:

Feature scaling is applied to standardize the range of independent variables, ensuring that the model treats all features equally.

Splitting dataset into Training & Test set

```
from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2, random_state = 0)
```

Feature Scaling

```
from sklearn.preprocessing import StandardScaler
sc = StandardScaler()
X_train = sc.fit_transform(X_train)
X_test = sc.transform(X_test)
```

Predictions:

The logistic regression model is applied on the training set, and predictions are made on both individual records and the test set.

Predictions

Single Prediction

```
print(ann.predict(sc.transform([[0.0, 1.0, 0.0, 501, 0, 32, 2, 0.0, 4, 1, 545501]])) > 0.5)

1/1 [=====] - 0s 101ms/step
[[False]]
```

Predication on testset

```
y_pred = ann.predict(X_test)
y_pred = (y_pred > 0.5)
print(np.concatenate((y_pred.reshape(len(y_pred),1), y_test.reshape(len(y_test),1)),1))

63/63 [=====] - 0s 1ms/step
[[0 1]
 [0 0]
 [0 0]
 ...
 [0 1]
 [0 0]
 [0 1]]
```

Confusion Matrix:

The confusion matrix is used to evaluate the performance of the classification model by comparing the predicted values with the actual values.

Confusion Matrix

```
from sklearn.metrics import confusion_matrix, accuracy_score
cm = confusion_matrix(y_test, y_pred)
print(cm)
accuracy_score(y_test, y_pred)

[[1501  72]
 [ 225 188]]

0.850453172205438
```

The methodology outlines the process from data collection to model evaluation, providing a comprehensive framework for implementing and assessing a machine learning model for predicting whether customer accounts will be closed or not.

RESULTS AND DISCUSSION

Results

After implementing and training the artificial neural network (ANN) on the given dataset, the model demonstrated an accuracy of 85% on the test set. The detailed analysis of the model's performance consists of.

Accuracy: The model achieved an overall accuracy of 85%, indicating that a customer's account would be closed in 85 out of 100 cases. This metric is a crucial indicator of the model's effectiveness in classifying the target variable accurately.

Confusion Matrix: The confusion matrix provides a more granular view of the model's performance by displaying the counts of true positives, true negatives, false positives, and false negatives.

Confusion Matrix

```
from sklearn.metrics import confusion_matrix, accuracy_sc
cm = confusion_matrix(y_test, y_pred)
print(cm)
accuracy_score(y_test, y_pred)
```

```
[[1501  72]
 [ 225 188]]
0.8504531173005478
```

This indicates:

- ♦ True Positives (TP): 188
- ♦ True Negatives (TN): 1501
- ♦ False Positives (FP): 72
- ♦ False Negatives (FN): 225

Precision, Recall, and F1 Score

These metrics provide additional insights into the model's performance.

Precision

Precision is the ratio of correctly predicted positive observations to the total predicted positive observations. It indicates how many of the predicted positive results are actually correct.

- ♦ **Recall (Sensitivity or True Positive Rate)**
 - **Definition:** Recall is the ratio of correctly predicted positive observations to all observations in the actual class. It shows how well the model identifies all relevant instances.

F1 Score

- ♦ **Definition:** The F1 Score is the harmonic mean of precision and recall. It provides a single measure to balance both precision and recall, especially when their importance is equal.

```
from sklearn.metrics import precision_score, recall_score, f1_score

precision = precision_score(y_test, y_pred)
recall = recall_score(y_test, y_pred)
f1 = f1_score(y_test, y_pred)

print(f'Precision: {precision}')
print(f'Recall: {recall}')
print(f'F1 Score: {f1}')
```

- **For instance:**
 - **Precision:** 0.72 (the ratio of correctly predicted positive observations to the total predicted positives).
 - **Recall:** 0.45 (the ratio of correctly predicted positive observations to all observations in the actual class).
 - **F1 Score:** 0.54 (the weighted average of Precision and Recall).

DISCUSSION

The results from the ANN model exhibit a promising level of accuracy and overall performance. Here are some valid observations and potential areas for improvement:

Model Performance

The 85% accuracy indicates a strong predictive power, suggesting that the ANN has effectively learned the patterns and relationships within the dataset.

Precision and recall scores are reasonably high, signifying that the model balances correctly identifying account closures (positive class) and minimizing false alarms.

Confusion Matrix Analysis

The confusion matrix reveals that the model has a relatively low number of false positives (3) and false negatives (6), which is crucial for a balanced classification model.

The true positive rate (TPR) is high, but there is still room for improvement to reduce the false negative rate further.

Feature Importance

Understanding the importance of various features such as Credit Score, Geography, Gender, Age, and Estimated Yearly Income can provide insights into customer behaviour and factors influencing account closures.

Analysis can guide strategic decisions and targeted interventions to retain customers at risk of closing their accounts.

Model Limitations and Improvements:

Despite the high accuracy, the model's performance could be improved by fine-tuning hyper-parameters, exploring different architectures, or integrating additional relevant features.

Implementing techniques such as cross-validation can provide a better estimate of model performance and help in identifying whether the bit is good or not.

Future Work:

This research opens several promising directions for future exploration, particularly in advancing transparency and accountability within Artificial Neural Networks (ANNs). A critical focus should be on enhancing the interpretability of ANN models. Although ANNs excel in predictive accuracy, their inherent "black-box" nature poses challenges for understanding and explaining decisions, especially in high-stakes domains like finance. Future research can integrate explainable AI techniques, such as SHAP (Shapley Additive explanations) and LIME (Local Interpretable Model-Agnostic Explanations), to provide deeper insights into the inner workings of the models. Additionally, the integration of block-chain technology with ANN systems could facilitate secure, tamper-proof, and transparent decision-making logs, ensuring traceability and regulatory compliance.

Another essential avenue is the scalability and generalizability of the models. Expanding the dataset to include diverse demographic profiles, global customer behaviours, and broader transactional data would enhance the robustness and applicability of the findings. Furthermore, exploring advanced architectures like Long Short-Term Memory (LSTM) networks for time-series data or Transformer models with attention mechanisms for complex pattern recognition could yield significant improvements. Developing models capable of real-time analysis will enable institutions to proactively identify and address risks, thus driving more dynamic and responsive financial strategies.

CONCLUSION

The research effectively demonstrates the application of Artificial Neural Networks (ANNs) in financial risk management, achieving an impressive 85% accuracy in predicting account closures. This success highlights the capability of IT-driven solutions to address critical challenges in the financial industry by leveraging advanced machine learning techniques. However, the study also underscores the importance of transparency, as the black-box nature of ANNs can hinder trust and adoption in regulatory environments. By focusing on explainability and enhancing user trust, this research contributes to a growing body of work advocating for ethical and transparent AI in financial systems.

These findings not only validate the potential of ANNs for financial forecasting

but also emphasize their transformative role in improving decision-making and customer retention strategies. The integration of such technologies into financial operations aligns with global priorities for enhancing operational efficiency, regulatory compliance, and customer-centric approaches through innovative IT solutions.

APPLICATIONS

The potential applications of this research span a wide spectrum of financial services. One key implementation is in **credit risk assessment**, where ANN models can serve as powerful tools to identify at-risk accounts while maintaining transparency and accountability in decision-making. Financial institutions can use these insights to design targeted retention strategies, ensuring better customer engagement and reducing attrition rates.

In the realm of **regulatory compliance**, ANN models, when paired with explainable AI methodologies, can provide detailed, auditable decision-making processes. This ensures adherence to global financial regulations and fosters trust among stakeholders. Additionally, the deployment of ANN systems in **real-time risk analysis** can revolutionize the way institutions manage threats, allowing for timely interventions and mitigation measures.

Beyond finance, the broader implications of this research extend to **education and training**. Developing comprehensive training programs for stakeholders, including financial managers, policymakers, and AI practitioners, will ensure that ANN-based solutions are understood, trusted, and effectively utilized. By aligning these applications with the theme of IT-enabled transparency, this research contributes to a global dialogue on fostering trust, accountability, and innovation in the era of intelligent systems.

These advancements collectively position ANN models as a cornerstone for modernizing financial operations, addressing critical challenges with precision, and embodying the principles of transparency and ethical AI in global financial ecosystems.

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Role of Artificial Intelligence in Transforming Education: Opportunities and Challenges

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Dr. Ajay Sharma¹ | Ms. Yamini Chauhan²

Abstract

Artificial Intelligence (AI) is reshaping the education sector by introducing innovative tools for personalized learning, administrative automation, and enhanced accessibility. This paper examines AI's role in education, highlighting its transformative potential, the challenges it faces, and future directions. While AI-driven technologies offer scalable and data-informed solutions, ethical concerns and equitable access remain critical barriers. The study concludes by emphasizing the need for responsible and inclusive AI implementation to maximize its educational impact.

Keywords: *Artificial Intelligence, Personalized Learning, Innovative Tools*
.....

INTRODUCTION

Artificial Intelligence (AI) is rapidly reshaping industries across the globe, and education is no exception. The integration of AI in education has the potential to revolutionize how we teach, learn, and manage educational systems. By harnessing AI technologies such as machine learning, natural language processing, and data analytics, the educational landscape is being transformed into a more personalized, efficient, and accessible environment.

AI in education refers to the use of AI technologies to enhance teaching methods, streamline administrative tasks, and provide individualized learning experiences. This technology enables schools, universities, and learning platforms to offer smarter, data-driven solutions that can adapt to the unique needs of each student. From personalized learning and intelligent tutoring systems to automated grading and administrative support, AI is poised to redefine the traditional boundaries of education.

The primary appeal of AI in education lies in its ability to cater to diverse learning styles, offer real-time feedback, and provide tailored learning experiences that help

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students achieve their full potential. Moreover, AI facilitates administrative tasks such as grading, scheduling, and resource management, allowing educators to focus on what matters most—teaching.

However, while AI holds significant promise for transforming education, its adoption also presents several challenges. These include concerns about data privacy, algorithmic bias, access inequality, and the ethical implications of relying on AI in educational environments. Therefore, the implementation of AI in education requires careful consideration of both the opportunities and challenges it presents.

In this rapidly evolving landscape, AI offers new ways to address longstanding educational challenges while creating opportunities for more effective and equitable learning experiences. This introduction sets the stage for understanding the impact of AI in education, its applications, benefits, and the ethical considerations that must guide its integration into educational systems.

OBJECTIVES

- ♦ To discuss AI Applications in Education
- ♦ To discuss benefits of AI in Education
- ♦ To discuss Challenges / Barriers in adopting AI in Education

AI APPLICATIONS IN EDUCATION

Artificial Intelligence (AI) has profoundly transformed education by introducing tools and systems that enhance learning, teaching, and administration. Below are the primary applications of AI in education:

- ♦ **Personalized Learning:** AI-powered adaptive learning platforms analyze individual learning behaviors and adjust content to meet students' specific needs and pace.
- ♦ **Intelligent Tutoring Systems (ITS):** ITS provide one-on-one tutoring experiences by leveraging AI algorithms. These systems identify gaps in learners' knowledge and deliver targeted lessons to address them.
- ♦ **Automated Grading and Assessment:** AI automates grading for multiple-choice, short-answer, and even essay-based assessments, freeing educators to focus on instruction.
- ♦ **Virtual Assistants and Chatbots:** AI-powered virtual assistants provide real-time support to students and faculty. These tools answer questions, guide through processes, and assist in course navigation.
- ♦ **Accessibility Tools:** AI enhances accessibility by enabling inclusive education for students with disabilities. Tools like text-to-speech, speech-to-text, and real-time translation assist learners with diverse needs.
- ♦ **Content Creation and Curation:** AI tools help educators create content, such as quizzes, assignments, and interactive modules. These tools can also curate relevant learning materials based on the curriculum.
- ♦ **Predictive Analytics:** AI systems analyze student data to predict performance, identify at-risk students, and recommend interventions.

- ♦ **Gamification and Immersive Learning:** AI powers gamified learning environments and virtual reality (VR) simulations to engage students actively and make complex topics easier to understand.
- ♦ **Language Learning and Translation:** AI-powered platforms improve language acquisition through interactive lessons, real-time translation, and pronunciation evaluation.
- ♦ **Smart Classrooms:** AI integrates with IoT devices to create smart classrooms that enhance learning experiences.

BENEFITS OF AI IN EDUCATION

The integration of Artificial Intelligence (AI) into the education sector has unlocked numerous advantages that enhance the learning experience, streamline administrative tasks, and make education more inclusive. Below are the key benefits of AI in education:

- ♦ **Personalized Learning:** AI enables adaptive learning systems that tailor content and teaching methods to the individual needs of students.
- ♦ **Enhanced Accessibility:** AI technologies make education accessible to learners with disabilities or those facing language barriers.
- ♦ **Administrative Efficiency:** AI automates repetitive administrative tasks, freeing educators to focus on teaching and mentoring.
- ♦ **Data-Driven Decision-Making:** AI analyzes student data to provide actionable insights that can improve teaching strategies and academic outcomes.
- ♦ **Scalable Education Solutions:** AI-powered systems enable large-scale education delivery, making quality learning resources accessible to learners worldwide.
- ♦ **Engagement Through Gamification:** AI enhances student engagement through gamified content and immersive learning experiences.
- ♦ **Support for Educators:** AI assists teachers by providing tools for lesson planning, grading, and student feedback.
- ♦ **Continuous Learning and Skill Development:** AI supports lifelong learning and upskilling by offering flexible, personalized learning opportunities.
- ♦ **Multilingual and Cross-Cultural Learning:** AI-powered translation tools break language barriers, facilitating global learning opportunities.
- ♦ **Equity in Education:** AI has the potential to bridge educational gaps by providing equal access to quality resources.

CHALLENGES / BARRIERS TO ADOPTION AI IN EDUCATION

While Artificial Intelligence (AI) offers numerous benefits to education, its implementation also poses several challenges. These issues must be addressed to ensure equitable, ethical, and effective use of AI in the education sector.

- ♦ **Data Privacy and Security:** AI relies heavily on collecting and analyzing large volumes of personal data, including student performance, behavior, and demographics.

- ♦ **Equity and Accessibility:** Not all students and institutions have equal access to AI-powered tools, especially in low-income or rural areas.
- ♦ **Ethical Concerns:** AI in education raises ethical questions regarding bias, transparency, and accountability.
- ♦ **Resistance from Educators:** Teachers and administrators may resist adopting AI tools due to fear of job displacement or lack of familiarity.
- ♦ **Cost of Implementation:** The deployment and maintenance of AI systems require significant investment.
- ♦ **Over-Reliance on AI; Excessive dependence on AI tools may reduce critical thinking and problem-solving skills in students and teachers.**
- ♦ **Quality and Accuracy of AI Systems:** AI tools can sometimes provide inaccurate recommendations, leading to flawed decisions.
- ♦ **Lack of Contextual Understanding:** AI systems may lack the emotional intelligence or cultural understanding necessary for nuanced decision-making.
- ♦ **Legal and Policy Gaps:** AI in education often operates in a regulatory gray area due to the lack of comprehensive policies.
- ♦ **Short-Term Disruptions:** The transition to AI-powered education can cause disruptions for students, teachers, and institutions.

FUTURE OF AI IN EDUCATION

- ♦ **Ethical AI:** Emphasis on transparency, accountability, and fairness in AI systems.
- ♦ **AI-Teacher Collaboration:** Tools that support educators rather than replace them.
- ♦ **Universal Access:** Efforts to make AI-powered education affordable and accessible to all.
- ♦ **Innovative Learning Models:** Increased use of gamification, VR, and AR to engage learners.

CONCLUSION

Artificial Intelligence (AI) is transforming education by enhancing learning experiences, improving teaching efficiency, and increasing accessibility. The potential of AI to personalize education, streamline administrative tasks, and provide data-driven insights is immense, offering opportunities for more inclusive and efficient learning environments. However, as AI becomes increasingly integrated into education, it brings forth challenges and ethical considerations that must be addressed responsibly.

Key benefits of AI in education include personalized learning paths, intelligent tutoring systems, enhanced accessibility for students with disabilities, and improved administrative efficiency. Additionally, AI can support lifelong learning and global education through scalable solutions that reach learners across geographic and socio-economic divides.

Yet, the ethical challenges surrounding AI, such as data privacy, algorithmic bias, transparency, and access inequality, require careful consideration. To realize the full potential of AI in education, these concerns must be addressed through transparent

policies, inclusive design, and continuous evaluation. Ethical AI implementation is crucial to ensuring that AI enhances education without exacerbating inequalities or compromising the fundamental human aspects of learning.

The future of AI in education lies in finding a balance—leveraging its power to augment teaching and learning while maintaining the critical roles of educators and human interaction. By promoting collaboration between AI and teachers, ensuring ethical guidelines, and prioritizing inclusivity, AI can revolutionize education in ways that are equitable, effective, and sustainable.

In summary, AI holds significant promise for the future of education, but its ethical and practical challenges must be carefully navigated. With responsible development and implementation, AI can be a transformative force that fosters a more personalized, inclusive, and accessible educational experience for all learners.

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The Rise and Challenges of Paytm in India's Digital Payment Revolution

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Abstract

Paytm has been a key player in India's digital payment revolution, evolving from a mobile wallet into a comprehensive fintech platform offering UPI payments, financial services, and e-commerce. While it gained momentum during demonetization, it now faces stiff competition from PhonePe (48%) and Google Pay (37.4%), holding only 7% of the UPI market as of September 2024. Despite its strong merchant network and Paytm Payments Bank, regulatory challenges and competition have hindered its growth. However, Paytm continues to focus on lending, insurance, and wealth management, with future success depending on strategic innovation, regulatory compliance, and competitive adaptation in India's evolving digital economy.

Keywords: Digital Payments, UPI Market Competition, Fintech Innovation, Paytm Payments Bank, Regulatory Challenges

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INTRODUCTION

The Unified Payments Interface (UPI) has revolutionized digital transactions in India, transforming the way individuals and businesses conduct financial transactions. Launched by the National Payments Corporation of India (NPCI) in 2016, UPI has witnessed exponential growth, driven by its seamless interoperability, instant fund transfers, and user-friendly experience. With key players like PhonePe, Google Pay, and Paytm dominating the market, the adoption of UPI has surged, making India one of the world's largest real-time payment ecosystems.

One of the primary drivers of UPI adoption has been the increasing penetration of smartphones and affordable internet access across urban and rural areas. Government initiatives such as Digital India and demonetization in 2016 further accelerated the shift toward cashless transactions, pushing both consumers and merchants to embrace digital payments. The simplicity of UPI, which allows users to

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transfer funds instantly using a mobile number or virtual payment address (VPA), has made it a preferred choice over traditional banking methods. Moreover, continuous innovations, including QR code payments, auto-pay features, and integration with financial services, have enhanced its usability and appeal.

The digital payment landscape in India has witnessed a dramatic transformation over the past decade, with the Unified Payments Interface (UPI) emerging as a game-changer in financial transactions. Among the key players in this revolution, Paytm has played a pivotal role in driving digital adoption and reshaping consumer payment behavior. Launched in 2010 by One97 Communications Ltd., Paytm initially gained traction as a mobile wallet before expanding its services to include UPI payments, bill payments, financial services, and e-commerce. Its rapid growth was further accelerated during India's demonetization phase in 2016, which pushed millions of users toward cashless transactions.

Despite its strong foundation and early mover advantage, Paytm faces intense competition from PhonePe and Google Pay, which have captured a significant share of the UPI market. As of September 2024, Paytm holds only 7% of UPI transactions, while PhonePe leads with 48% and Google Pay follows with 37.4%. One of the primary reasons for this gap is the shift in consumer preference toward dedicated UPI-based platforms, whereas Paytm initially focused on a hybrid model combining wallets, banking, and financial services. However, its extensive merchant network, QR code-based payment solutions, and Paytm Payments Bank continue to provide a competitive edge in the fintech space.

This study explores the rise of Paytm in India's digital payments ecosystem, analyzing its impact, key differentiators, and the challenges it faces in retaining and expanding its market share. The paper also examines regulatory constraints, competition from rival platforms, security concerns, and future opportunities that will shape Paytm's role in India's evolving digital financial landscape. By assessing these factors, the study aims to provide insights into Paytm's strategic direction and its ability to sustain growth in an increasingly competitive UPI ecosystem.

LITERATURE REVIEW

According to a study by Bharadwaj & Rao (2018), Paytm's early adoption of mobile technology, combined with its focus on user convenience, helped the company rapidly acquire millions of customers. The mobile wallet launched in 2014 was particularly transformative, as it offered a convenient, cashless solution for transactions, thus benefiting from India's drive toward financial inclusion under government programs like Digital India. The mobile wallet's success was driven by a combination of factors, including the proliferation of smartphones, the low internet penetration in rural areas, and the widespread adoption of mobile payments in urban centers (Sharma, 2017). The study by Kumar and Gupta (2020) highlights that Paytm's ability to offer multiple services under one umbrella—from wallet services to ticket booking, and e-commerce—was a key differentiator. This model was initially dubbed "super app" and allowed Paytm to benefit from network effects, where more services attracted

more users, thereby increasing its value proposition. By 2015, Paytm had expanded its offerings to include Paytm Payments Bank and Paytm Mall, making strategic moves toward becoming a comprehensive digital financial services provider.

The diversification of Paytm's services became a pivotal part of its strategy from 2015 onward. One of its most significant expansions came in the form of Paytm Payments Bank, which allowed users to open savings accounts and earn interest, offering a more complete financial ecosystem than its competitors. Paytm's expansion into lending and insurance products, through its Paytm Financial Services arm, was also seen as a way to deepen its engagement with customers (Rathi & Shukla, 2021).

Research by Bansal & Nanda (2019) shows that Paytm's move into the banking sector was driven by regulatory changes, particularly the RBI's push for financial inclusion. The company's ability to leverage its large user base allowed it to offer services to customers who were previously excluded from traditional banking systems, especially in rural areas. However, Paytm's entry into financial services was not without challenges. Regulatory barriers, such as the Reserve Bank of India's restrictions on digital wallets and payment banks, presented significant hurdles. One notable instance occurred in 2021 when Paytm's Payments Bank faced a temporary freeze on onboarding new customers due to concerns over KYC compliance. This regulatory intervention created uncertainty for investors and was reflected in the company's fluctuating stock prices, especially during its IPO period (Rathi & Shukla, 2021).

Paytm's IPO and Public Market Performance Paytm's initial public offering (IPO) in November 2021 marked a major milestone in the company's journey. Despite initial optimism surrounding Paytm's growth potential, the IPO failed to meet expectations, with the stock price falling significantly after the listing. This decline can be attributed to a variety of factors, including concerns about the company's path to profitability, its high valuation, and the competitive pressures in the digital payments space. Chopra (2022) attributes the lukewarm reception of Paytm's IPO to investor skepticism around the company's business model. Despite boasting millions of users, Paytm was still not profitable at the time of its IPO, and its revenue streams were heavily reliant on transaction fees and digital wallet services, which could be vulnerable to regulatory and competitive changes. In contrast, Nair and Khurana (2021) argue that the broader market conditions and global economic trends—such as rising interest rates and inflation—also played a role in Paytm's underperformance in the public market. Despite these short-term challenges, the long-term growth of India's fintech ecosystem, alongside Paytm's deepening commitment to digital financial services, has led analysts to maintain a generally positive outlook for the company's future.

Moreover, Paytm has had to deal with competition from global players like Google Pay and WhatsApp Pay, which has prompted the company to continuously innovate its offerings. As part of its strategy, Paytm has shifted towards focusing on merchant services, which has allowed it to capture a larger share of the small and medium-sized enterprise (SME) market. However, competition from newer entrants, combined with

regulatory scrutiny, has led to concerns regarding its ability to maintain profitability in the long term.

Impact of Paytm on India's Digital Economy Paytm's influence on India's digital economy cannot be overstated. Through its platform, the company has facilitated the growth of digital payments in India, contributing significantly to the formalization of the economy. According to Sharma (2017), Paytm's focus on financial inclusion has enabled 18 millions of previously unbanked individuals to access financial services. In 2016, during the demonetization drive in India, Paytm saw a surge in usage as people turned to digital payment methods due to the cash shortage. This helped Paytm solidify its position as the market leader in the mobile payments space. In addition to facilitating digital payments, Paytm has played a key role in fostering digital literacy and increasing awareness of online transactions, especially in rural areas. The company's partnership with government agencies, businesses, and financial institutions has helped drive the adoption of digital wallets and cashless transactions in a country that has traditionally been cash-dependent.

Paytm's journey in India is a complex narrative of rapid growth, strategic diversification, regulatory challenges, and market volatility. From its humble beginnings as a mobile recharge platform to its current status as a fintech giant, Paytm has played a central role in shaping India's digital payments ecosystem. However, its path has not been without obstacles, including fierce competition, regulatory scrutiny, and market scepticism—particularly post-IPO. Despite these challenges, Paytm remains a key player in India's financial services sector, and its ability to adapt to regulatory changes and innovate in response to market dynamics will likely determine its future trajectory.

RESEARCH METHODOLOGY

This research offers a structured approach to examine Paytm's journey, its response to external events, and the role of regulatory frameworks, providing a comprehensive view of Paytm's position in the fintech sector. The objectives of the study are as follows:

- ♦ To analyze Paytm's growth and evolution in India's digital payment ecosystem – Examining its transition from a mobile wallet to a multi-service fintech platform and its role in driving digital adoption.
- ♦ To assess the competitive positioning of Paytm in the UPI market – Comparing its market share, features, and strategies with key competitors like PhonePe and Google Pay.
- ♦ To identify the challenges and future prospects of Paytm in the fintech space – Exploring regulatory hurdles, security concerns, and potential growth opportunities in digital banking, financial services, and UPI transactions.
- ♦ To achieve the research objectives effectively, the various secondary sources of data are utilized like government reports from NPCI, RBI which provide insights into UPI transaction volumes and regulatory policies. Industry reports from firms like McKinsey, KPMG, and RedSeer help in analyzing market trends and

competition. Company reports and investor presentations from Paytm, PhonePe, and Google Pay offer data on financial performance and strategic initiatives.

Data Analysis & Interpretation

For the fiscal year 2023-24, Paytm reported a revenue of \$1,197 million, marking a 25% increase from the previous year. The company's contribution profit rose by 42% to \$664 million, achieving a margin of 56%, up by 7 percentage points. Notably, Paytm recorded its first full-year EBITDA before ESOP profitability of \$67 million. However, the fiscal fourth quarter presented challenges. The net loss widened to ₹5.5 billion (approximately \$66 million) from ₹1.68 billion in the same quarter the previous year. This increase in losses was attributed to the discontinuation of its banking unit, as mandated by the Reserve Bank of India (RBI), and temporary disruptions due to the transition of the Unified Payments Interface (UPI). Consequently, revenue from operations declined to ~22.67 billion from ₹23.35 billion year-over-year, with a 36% decrease in financial services revenue due to halted loans. Despite these setbacks, Paytm has restarted or is in the process of resuming many of its disrupted payment and loan products. The company remains optimistic about future growth and profitability, focusing on enhancing its core payments business and expanding its financial services offerings.

Table 1 : Transaction Growth in One month(October)

Platform	Transactions (in billions)	Market Share (%)
PhonePe	7.22	48
Google Pay	5.62	37.4
Paytm	1.05	7

A comparative overview of Paytm, PhonePe, and Google Pay, focusing on key aspects such as launch year, ownership, primary services, user interface, market share, and unique features:

Feature	Paytm	PhonePe	Google Pay
Launch Year	2010	2015	2018 (rebranded from Tez)
Ownership	One97 Communications Ltd.	Flipkart (Walmart)	Google
Primary Services	Mobile wallet, UPI payments, bill payments, e-commerce, financial services	UPI payments, bill payments, investments, insurance	UPI payments, bill payments, limited financial services
User Interface	Feature-rich but can be cluttered	Clean and intuitive	Simple and user-friendly
Market Share (UPI Transactions) (Sep 2024)	Approximately 7%	Approximately 48%	Approximately 37.4%
Unique Features	Digital wallet, Paytm Payments Bank, extensive merchant network	Integration with Flipkart, diverse financial services	Integration with Google ecosystem, strong security features

This comparison highlights the distinct strengths of each platform. Paytm offers a comprehensive suite of services, including a digital wallet and banking options. PhonePe provides a clean interface with a variety of financial services. Google Pay emphasizes simplicity and security, leveraging its integration with Google's ecosystem. PhonePe leads the market with nearly half of the total UPI transactions, showing its widespread adoption. Google Pay holds a strong second place, maintaining over one-third of the market. Paytm captures a smaller but significant share, focusing on digital wallet features and an extensive merchant network. The 'Others' category, which includes smaller UPI players, accounts for the remaining share, indicating a highly concentrated market dominated by the top three apps.

SUMMARY OF PAYTM'S SWOT ANALYSIS

Strengths:

- ♦ **Brand Recognition:** Paytm is a highly recognized brand in India, synonymous with digital payments and wallets, with a vast presence in urban and rural markets.
- ♦ **Large User Base:** With over 300 million users, Paytm benefits from network effects, allowing for enhanced data analytics, targeted marketing, and cross-selling.
- ♦ **Diverse Product Offering:** Paytm has expanded beyond payments into areas like wealth management, insurance, and loans, tapping into multiple revenue streams.
- ♦ **Strong Backing from Investors:** Paytm has significant investments from global players like Alibaba, Ant Financial, and SoftBank, ensuring financial stability for expansion.
- ♦ **Strong Ecosystem:** Paytm has built an integrated ecosystem with Paytm Payments Bank, Paytm Mall, and Paytm for Business, strengthening its market position.

Weaknesses:

- ♦ **Profitability Concerns:** Despite its large user base, Paytm has struggled to achieve profitability due to high customer acquisition and operational costs.
- ♦ **Dependence on Payments Segment:** A large portion of Paytm's revenue still comes from digital payments, making it vulnerable to market fluctuations and regulatory changes.
- ♦ **Security & Fraud Risks:** Being a digital payment platform, Paytm faces potential security breaches and fraud risks that can damage user trust.
- ♦ **Operational Complexity:** Managing a diverse product portfolio across banking, lending, and e-commerce can lead to inefficiencies and resource challenges.

Opportunities:

- ♦ **Rural Market Expansion:** Paytm can tap into India's growing rural market, which remains underserved in terms of digital payments.
- ♦ **Regulatory Support:** Government initiatives like Digital India promote cashless transactions, creating favorable conditions for Paytm's growth.

- ♦ **Expansion of Financial Services:** Paytm's venture into digital lending, insurance, and wealth management offers opportunities for further diversification.
- ♦ **International Expansion:** Paytm can explore markets in Southeast Asia, where mobile payments are rapidly growing.
- ♦ **Technology Integration:** Adopting blockchain and AI for enhanced security and personalized services could differentiate Paytm in the competitive landscape.

Threats:

- ♦ **Intense Competition:** Paytm faces stiff competition from rivals like Google Pay, PhonePe, and Amazon Pay, which could limit its market share.
- ♦ **Regulatory Scrutiny:** Evolving regulations on digital payments and data privacy could pose challenges to Paytm's operations.
- ♦ **Cybersecurity Risks:** Paytm is vulnerable to cyberattacks and data breaches, which could erode user trust.
- ♦ **Shifts in Consumer Behavior:** If consumers shift towards other payment methods like UPI or WhatsApp Pay, Paytm's market share could decline.

Overall, Paytm's growth prospects are strong, but it faces challenges from competition, profitability issues, and regulatory concerns. However, its diversified offerings and strong brand position provide significant opportunities for expansion, especially in rural markets and new financial services.

SUMMARY OF PAYTM'S PESTEL ANALYSIS

Political:

- ♦ **Government Support:** India's push for a cashless economy through initiatives like Digital India presents significant opportunities for Paytm. Government incentives for digital adoption, such as tax benefits for merchants, further enhance growth potential.
- ♦ **Regulatory Risks:** Paytm faces potential risks from evolving regulations, including stricter data privacy and anti-money laundering laws, which could impact its operations.
- ♦ **Political Instability:** Political changes or instability could create uncertainties regarding regulatory and financial conditions, affecting Paytm's growth prospects.

Economic:

- ♦ **Economic Growth:** As India's middle class expands, with rising disposable incomes, demand for digital payments and financial services is expected to grow, benefiting Paytm.
- ♦ **Global Economic Risks:** A downturn in global markets could reduce consumer spending, impacting Paytm's transaction volume and revenue.
- ♦ **Digitization Trend:** The growing trend of cashless payments offers Paytm significant growth opportunities, but it must maintain competitive pricing and innovation to stay ahead of rivals like PhonePe and Google Pay.

Social:

- ♦ Digital Adoption: The increasing use of smartphones and internet access, especially in rural India, presents an opportunity for Paytm to capture new users and expand its market share.
- ♦ Trust & Security: Consumer concerns around privacy and security require Paytm to continuously enhance its data protection measures to maintain user trust.
- ♦ Changing Preferences: As consumers demand more seamless and integrated payment solutions, Paytm must innovate and diversify its offerings to stay relevant.

Technological:

- ♦ Innovation in Fintech: Paytm's focus on adopting advanced technologies like AI, machine learning, and blockchain will be crucial for maintaining a competitive edge, particularly in areas like security and customer service.
- ♦ Digital Wallet Competition: With the rise of UPI and other digital wallets, Paytm must differentiate itself by offering unique features, such as instant loans and insurance.
- ♦ Cybersecurity: As cyber threats increase, Paytm must continually invest in robust cybersecurity infrastructure to safeguard user data.

Environmental:

- ♦ Sustainability Trends: Growing consumer demand for sustainability presents an opportunity for Paytm to integrate green initiatives or offer eco-friendly financial products.
- ♦ Energy Consumption: Paytm can improve its environmental footprint by adopting green energy solutions, aligning with consumer preferences for environmentally conscious companies.

Legal:

- ♦ Regulatory Compliance: Navigating India's complex regulatory landscape, including compliance with digital payment, consumer protection, and data privacy laws, is crucial for Paytm.
- ♦ Intellectual Property Protection: Paytm must safeguard its innovations through patents and intellectual property rights to maintain a competitive edge.
- ♦ Consumer Protection: Adhering to consumer protection laws, including the Personal Data Protection Bill is vital for Paytm to avoid legal challenges and build user trust.

Paytm is positioned to benefit from India's digital transformation and economic growth but faces challenges from regulatory changes, security concerns, and intense competition. It must continue to innovate, comply with evolving laws, and address environmental and social concerns to maintain its leadership in the fintech space.

CONCLUSION

Paytm, operated by One97 Communications Ltd., has played a crucial role in shaping India's digital payment landscape. Originally launched as a mobile wallet in 2010,

Paytm quickly expanded its services to include UPI payments, bill payments, financial services, and e-commerce. The platform's early adoption of digital transactions, especially during the demonetization period, positioned it as a leader in the fintech space. Paytm's digital wallet feature provided an initial competitive edge, allowing users to store money for quick transactions before UPI became mainstream. Despite its strong presence in the market, Paytm faces tough competition from PhonePe and Google Pay, which have a larger share of UPI transactions. As of September 2024, Paytm holds approximately 7% of the UPI market, compared to PhonePe's 48% and Google Pay's 37.4%. One of the reasons for this gap is the shift in consumer preference toward dedicated UPI-based apps, while Paytm initially focused on a broader range of services beyond just UPI. However, Paytm's strategy of integrating financial services, such as Paytm Payments Bank, credit services, and investment products, has helped it maintain a loyal customer base.

One of Paytm's unique selling points is its vast merchant network, which includes small retailers, street vendors, and large businesses across India. Its aggressive expansion of QR code-based payments has made it a preferred choice among merchants who seek an easy and cost-effective payment solution. Additionally, the introduction of Paytm Payments Bank has provided users with a seamless banking experience, offering savings accounts, fixed deposits, and UPI-linked transactions under one platform.

However, Paytm also faces several challenges. Unlike Google Pay and PhonePe, which primarily rely on UPI for transactions, Paytm has a hybrid model that includes both wallet and UPI services. This has led to regulatory challenges, as the Reserve Bank of India (RBI) has imposed restrictions on its payments bank, affecting customer confidence. Additionally, the increasing dominance of PhonePe and Google Pay, coupled with their seamless integration with Flipkart and Google services, respectively, has made it difficult for Paytm to capture a larger UPI market share.

Security concerns and regulatory hurdles have also impacted Paytm's growth. In recent years, stricter compliance requirements for digital banking and payments have affected the company's operations. Moreover, the RBI's push for greater transparency and consumer protection has led to increased scrutiny of Paytm's business model, particularly its financial services and lending practices.

Despite the challenges, Paytm remains a key player in India's digital payments ecosystem. Its efforts to expand financial services, improve user experience, and enhance security measures indicate a strong commitment to maintaining its market position. The platform is increasingly focusing on lending, insurance, and wealth management services, aiming to become a one-stop solution for digital financial transactions.

With the continued growth of UPI and the Indian government's push toward a cashless economy, Paytm has an opportunity to strengthen its presence by improving transaction speed, security, and user engagement. Strategic partnerships, regulatory

compliance, and innovative product offerings will be critical for Paytm to compete effectively with PhonePe and Google Pay in the evolving digital payments landscape.

While Paytm currently lags behind its competitors in UPI transactions, its diverse range of financial services, strong merchant network, and focus on digital banking provide it with a unique position in the fintech industry. As digital payments continue to grow, Paytm's ability to adapt and innovate will determine its long-term success in India's competitive UPI ecosystem.

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Evolving Leadership Paradigms for Sustainable Human Resource Management in Dynamic Business Environments

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ABSTRACT

This paper explores the evolving landscape of leadership paradigms and their implications for Sustainable Human Resource Management (SHRM) in today's dynamic business environments. It examines the progression of leadership theories, from traditional approaches focusing on traits and behaviours to contemporary models emphasizing transformational and transactional leadership, and finally, emerging theories like situational, participative, skills, servant, and regenerative leadership. The paper analyses the relevance of each theoretical framework for SHRM, highlighting how they contribute to balancing organizational performance with employee well-being and environmental responsibility. Through a comprehensive review of existing literature, the paper argues that a combined approach, leveraging the strengths of transformational and situational leadership, is most effective for navigating the complexities of modern business and fostering sustainable HRM practices. The leadership journey of Steve Jobs is presented as a practical example of this combined approach in action. This paper concludes that adaptability, employee empowerment, and a focus on long-term value creation are crucial for successful leadership in the context of SHRM.

Keywords: Sustainable Human Resource Management (SHRM), Leadership Theories, Transformational Leadership, Situational Leadership, Dynamic Business Environments, Employee Wellbeing, Organizational Performance, Regenerative Leadership, Servant Leadership, Evolution of Leadership.

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INTRODUCTION

In today's complex and highly dynamic operating environments, structural agility

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has become the new normal for organizations pursuing sustainable growth. Modern enterprises face multifaceted challenges daily, from increasing customer sophistication to rapid technological disruptions and volatile market conditions. These pressures compel organizations to continuously innovate and revise their business models to effectively respond to changing trends while maintaining ecological and social responsibility. Leadership is central to organizational sustainability, demanding an inclusive approach that fully incorporates both business dynamics and human resource considerations (Premi & Geetha 2020, p. 97).

Superior leadership creates pathways for improvements in employee wellbeing, organizational outcomes, and environmental stewardship simultaneously. Research by Dyllick and Muff (2016, p. 165) demonstrates that truly sustainable business leadership integrates environmental and social concerns at the core of business operations rather than treating them as peripheral considerations. In this continuously evolving business landscape, leaders must persistently pursue quality improvements while balancing the triple bottom line of people, planet, and profit. According to Ehnert et al. (2018, p. 43), sustainable human resource management requires leaders who can align organizational objectives with long-term human capital development and ecological constraints. Leaders increasingly face the critical task of guiding others through change while nurturing human capital as their most valuable sustainable resource (Grifford et al. 2017, p. 15). The intersection of leadership and sustainable HR practices has gained significant attention, with Aust et al. (2020, p. 219) highlighting how transformational leadership styles positively influence sustainable HR outcomes through enhanced employee engagement and reduced turnover. Similarly, Macke and Genari (2019, p. 808) establish clear connections between sustainable leadership approaches and improved organizational resilience in turbulent business environments. Recognizing the intrinsic relationship between leadership, organizational change, and sustainable human resource management, this paper provides a comprehensive examination of traditional, contemporary, and emerging leadership theories. Following this analysis, we evaluate which leadership approaches most effectively address the challenges of frequent organizational changes while fostering sustainable HR practices that ensure long-term organizational viability in rapidly transforming business ecosystems.

OBJECTIVES

To critically evaluate the evolution of leadership theories and identify the most effective leadership paradigms for fostering Sustainable Human Resource Management (SHRM) in dynamic business environments.

The specific objectives that this review aims to achieve are as follows:

1. To analyze the relevance and applicability of traditional, contemporary, and emerging leadership theories for achieving SHRM goals.
2. To explore the synergistic potential of combining different leadership styles, specifically transformational and situational leadership, in driving SHRM outcomes.
3. To examine practical examples of effective leadership in action to illustrate the implementation of leadership principles for SHRM.

1. Relevance of Leadership Theories for Sustainable Human Resource Management

Effective leadership is the cornerstone of an organization striving to remain viable in an ever-changing business environment while simultaneously pursuing sustainability goals (Atkinson & Mackenzie, 2015). The academic literature offers numerous classifications, explanations, theories, and definitions about leadership, with sustainability leadership emerging as a critical paradigm. As noted by Visser and Courtice (2011, p. 3), sustainability leadership specifically focuses on “individuals who are compelled to make a difference by deepening their awareness of themselves in relation to the world around them.”

Literature pertaining to leadership reveals that while various leadership theories have been developed, refined, and altered over time, none are entirely irrelevant—particularly when examined through a sustainability lens. The importance of these theories lies in the context of their application to sustainable business practices. Leadership theories predominantly examine the characteristics of leaders and their relationship with followers, with newer frameworks explicitly addressing how these dynamics influence organizational sustainability and human capital development (Sroufe et al., 2017, p. 416). By analyzing these theories, organizations can evaluate the suitability of different individuals for leadership roles that require balancing economic objectives with ecological constraints and human resource sustainability.

A proper understanding of leadership theories provides management with insights into effectively managing diverse individual behaviors while promoting sustainable HR practices. Research by Ecochard and Blakeman (2023, p. 89) demonstrates that leaders selected based on sustainability-oriented frameworks are significantly more likely to implement practices that enhance both organizational performance and ecological responsibility. In essence, evidence suggests that no single leadership theory applies universally to all situations, particularly when sustainability considerations are paramount. The applicability depends on specific contextual factors including organizational culture, industry dynamics, and sustainability challenges (Amanchukwu et al., 2015). These theories hold paramount significance in the organizational context as they enable managers to better understand their employees as valuable resources worthy of sustainable management approaches rather than expendable assets, thus alleviating the burden of poor leadership appropriations. Therefore, the relevance of leadership theories in modern sustainable business operations cannot be underestimated.

2. Evolution of Leadership Theories: From Traditional to Sustainability-Focused Approaches

Change is inherent to every business organization, and to effectively navigate disruptions caused by fast-paced innovations, organizations must remain agile while ensuring their practices are sustainable. As business environments continuously evolve, leadership as a discipline has also undergone substantial

transformation. Contemporary leadership theories emphasizing sustainability and human resource preservation have gained prominence in academic literature and practice.

While traditional leadership theories established the foundation of this school of thought, modern and emerging theories have expanded its horizons to incorporate sustainability principles. According to Tideman et al. (2013, p. 24), “sustainable leadership requires a fundamental shift from mechanistic to holistic thinking, emphasizing long-term orientation and stakeholder inclusion.” The key distinction between traditional and modern leadership theories stems from traditional theories emphasizing characteristics of a single leader, while contemporary approaches recognize the simultaneous involvement of multiple leaders within a group, fostering collaborative approaches to sustainability challenges. As noted by Kurucz et al. (2017, p. 192), sustainable leadership specifically “enables individuals and groups to create positive changes without compromising the ability of others to meet their needs.”

Furthermore, contemporary theories acknowledge that a leader in one situation can be a follower in another, creating more fluid and adaptive organizational structures necessary for addressing complex sustainability issues. Emergent theories link leadership with systems thinking approaches vital for understanding interconnected social and environmental impacts, whereas traditional theories examined leadership primarily from a behavioral perspective (Sterne & DeMatthews, 2020). Sustainable HR-focused leadership theories, as Aust and Muller-Camen (2022, p. 573) argue, specifically address “how leaders can simultaneously manage human resources for current performance while ensuring their long-term viability and wellbeing.” This analysis reveals that different leadership theories address varying dimensions of leadership and sustainability, suggesting the possibility of proportional application depending on the situation. A strategic integration of traditional and modern theories may yield beneficial results; however, in rapidly changing business environments requiring sustainable approaches to human resource management, exclusive reliance on traditional leadership theories would likely prove inadequate for meeting contemporary challenges of balancing economic growth with ecological responsibility and human capital preservation.

3. Traditional Leadership theories Through a Sustainability Lens - An Overview

The traditional theories of leadership consist of three primary approaches: the Trait Approach, the Contingency Approach, and the Behavioural Approach. When viewed through the lens of sustainable human resource management, these theories acquire new dimensions of relevance. The trait approach of leadership holds that the recipe for leadership can be derived from proven leaders, suggesting that sustainable leadership traits can be identified and cultivated. As Bendell and Little (2015, p. 16) note, certain sustainability-oriented traits like “systems thinking, emotional intelligence, and values orientation” differentiate leaders who successfully implement sustainable HR practices.

The behavioural approach of leadership asserts that specific leadership behaviours can drive teams toward improved project outcomes and enhanced employee satisfaction—a critical factor in sustainable human resource management. Research by Pless and Maak (2011, p. 8) demonstrates that leaders exhibiting behaviours focused on long-term thinking and stakeholder inclusion create more sustainable workforce environments with lower turnover and higher engagement. The contingency approach maintains that no single leadership style applies universally, emphasizing that situational factors impact effective leadership. This approach aligns particularly well with sustainability challenges, as Jackson (2021, p. 103) argues that “effective sustainable leadership requires adaptive approaches tailored to specific environmental, social, and governance contexts.”

Substantial literary evidence suggests traditional leadership theories were more conducive to industrial-era needs. Many academic thinkers propose that today's globalized operational environment requires leaders to focus on acquiring competent skills and confidence rather than merely leader-like behavioural traits (Otte 2015, p. 7). However, when integrated with sustainability principles, these traditional approaches gain renewed relevance. For instance, Cohen et al. (2019, p. 54) found that trait-based leadership selection criteria augmented with sustainability competencies significantly improved organizational environmental performance and human resource sustainability. While some scholars have questioned the declining relevance of traditional theories (see, for example, Martin 2018), most acknowledge their limitations in isolation. Thus, it is evident from literature-based revelations that traditional theories retain value when adapted to incorporate sustainability considerations, though their exclusive application in modern dynamic environments with complex sustainability challenges remains implausible.

4. Major modern theories of Leadership for Sustainable Human Resource Management

Contemporary leadership theories have evolved through the experiences of leaders navigating frequent technological disruptions while simultaneously addressing emerging sustainability imperatives. These modern theories emphasize creating leaders who work collaboratively with followers, fostering environments where entire teams progress toward both business and sustainability objectives. Transactional and transformational leadership styles represent two prominent branches of contemporary leadership theory, each with distinct implications for sustainable human resource management. The transactional leadership approach operates through rewards and punishments to achieve desired outcomes. When applied to sustainability initiatives, McCann and Sweet (2014, p. 219) found that transactional approaches can effectively establish baseline sustainable behaviors but often fall short in cultivating genuine sustainability commitment. The foundation of this approach lies in supervision and explicit exchange relationships. By contrast, transformational leadership aims to balance personal employee objectives with organizational goals, including sustainability targets.

This leadership style features the leader as motivator, influencer, stimulator, and change agent whose influence extends beyond their immediate team (Dubrin, 2015).

Research by Benn et al. (2015, p. 292) demonstrates that transformational leadership significantly enhances an organization's ability to implement sustainable HR practices by "fostering cultures of innovation and resilience." Transformational leaders empower employees through decentralized authority and responsibility, creating organizational structures conducive to sustainability innovation. Furthermore, D'Amato and Roome (2018, p. 119) establish clear connections between transformational leadership approaches and successful implementation of environmental management systems that simultaneously enhance employee wellbeing and engagement.

The positive impact of transformational leadership on employee satisfaction, leadership effectiveness, and sustainability outcomes (Alqatawenh, 2018) makes it particularly relevant to contemporary business scenarios. As organizations increasingly adopt decentralized structures and flat hierarchies, sustainability-oriented transformational leadership aligns with modern corporate culture. According to Kantabutra and Avery (2020, p. 77), employees demonstrate stronger commitment to sustainability initiatives when leaders build effective relationships with followers and ensure their participation in routine business decisions, including those related to sustainable human resource management practices. This participatory approach not only enhances organizational sustainability performance but also contributes to human capital preservation and development—key components of sustainable HR management.

5. Emerging Leadership Theories for Sustainable Human Resource Management

Beyond the traditional and modern leadership frameworks discussed above, numerous other leadership theories continue to emerge, with particular relevance to sustainable human resource management and dynamic business environments. This theoretical landscape is virtually endless, with most new theories synthesizing wisdom from existing frameworks while incorporating sustainability dimensions. Several prominent additional leadership theories deserve examination through a sustainability lens: situational theory, participative theory, skills theory, and servant leadership.

The situational theory posits that effective leadership style should adapt to specific contexts. When applied to sustainability challenges, this approach becomes especially powerful. As Gitsham et al. (2014, p. 29) observe, "sustainability leadership requires situational awareness and adaptive capacity to respond effectively to complex socio-ecological challenges." For instance, when implementing new sustainable HR initiatives with an inexperienced team, a more directive approach might be appropriate, while a skilled sustainability team would

benefit from democratic leadership that leverages their expertise. Participative theory emphasizes employee engagement and inclusive decision-making—principles increasingly recognized as essential for sustainable organizational development. Research by Wesselink et al. (2017, p. 246) demonstrates that participative leadership approaches significantly enhance employee commitment to sustainability initiatives through psychological ownership. When leaders value diverse perspectives in sustainability planning, organizations achieve more innovative and enduring solutions to complex environmental and social challenges.

The skills theory highlights the importance of acquired knowledge, specific competencies, and developed leadership style. In the sustainability context, Visser (2016, p. 112) identifies a distinct set of “sustainability literacy skills” necessary for effective leadership, including systems thinking, future orientation, and stakeholder management capabilities. These sustainability-specific skills transcend traditional leadership competencies, enabling leaders to effectively balance economic considerations with ecological constraints and human resource preservation. Servant leadership theory, with its emphasis on leaders’ beliefs, values, and principles, has gained particular prominence in sustainable business discourse. This theory portrays leaders as primarily serving their followers rather than merely directing them (Uzohue et al., 2016). Eva et al. (2019, p. 114) establish clear connections between servant leadership and sustainable HR outcomes, noting that “servant leaders create psychologically safe environments where employees feel valued as whole persons, not merely as productive assets.” This approach aligns perfectly with sustainable human resource management by prioritizing employee wellbeing alongside organizational performance.

Furthermore, regenerative leadership has emerged as a cutting-edge theory specifically addressing sustainability challenges. As Hutchins and Storm (2019, p. 23) explain, regenerative leadership “moves beyond sustainability’s ‘do no harm’ approach toward actively healing social and ecological systems while creating organizational value.” This framework explicitly addresses the interconnection between human resource management and broader sustainability goals. These diverse leadership theories have materialized from knowledge and experiences of individuals operating in modern business environments, with each offering valuable insights for sustainable organizational management. While traditional leadership theories may appear less relevant in isolation, they undeniably served as foundations for contemporary and emerging leadership theories that now guide sustainable human resource management practices in rapidly evolving business landscapes.

6. Most effective Leadership theory in Current Scenario

- **Effective Leadership Theory for Sustainable Human Resource Management**
The evolving leadership paradigms in dynamic business environments underscore the critical importance of adaptable leadership strategies that contribute to the long-term success and sustainability of human resource

management (HRM). As evident from the literature, no single leadership style can be universally applied across all situations. This recognition aligns with the modern notion that the effectiveness of leadership in managing human resources hinges on flexibility, adaptability, and the ability to integrate contemporary practices. Therefore, it is evident that multiple leadership theories contribute to effective human resource management in the current business climate. However, considering the fast-changing nature of business environments and the ever-growing demand for organizational sustainability, the situational leadership theory coupled with the transformational leadership theory emerges as most effective in ensuring a sustainable HRM framework.

The core reasoning behind the selection of these two theories is their inherent capacity to foster adaptability and resilience, key components for success in sustainable human resource management. As proposed by Sayyadi Ghasabeh (2020), transformational leaders are pivotal in creating a culture of continuous change and innovation within organizations. These leaders serve as change agents, driving the integration of emerging technologies, fostering employee development, and promoting knowledge management systems that are integral to contemporary HRM. Transformational leaders excel in creating environments where employees are not only motivated to perform their best but are also encouraged to develop their skills for future growth. This is particularly relevant as businesses today increasingly rely on technology, innovation, and sustainability-focused HR practices to remain competitive in the market.

Moreover, organizations that adopt transformational leadership are more likely to experience positive outcomes such as enhanced employee engagement, job satisfaction, and retention—all of which are fundamental to the long-term sustainability of HRM. As organizations face constant change, whether through globalization, technological advancements, or shifts in consumer behavior, transformational leadership enables HR departments to adapt, ensuring that the workforce remains aligned with the organization's evolving goals and values. Furthermore, the situational leadership theory supports the need for flexibility in leadership. In today's diverse and complex business environments, HR managers must tailor their leadership styles to the needs, competencies, and motivations of their employees. This adaptability ensures that human resource practices remain relevant and effective in meeting organizational objectives, regardless of external challenges. The situational approach allows leaders to modify their strategies according to the specific circumstances they face, ensuring that they are responsive to the changing needs of both employees and the organization. This approach is vital for achieving a balance between organizational goals and employee satisfaction, which is a cornerstone of sustainable HRM.

In this context, situational leadership not only addresses the immediate needs of the workforce but also contributes to the long-term sustainability

of HRM practices by fostering a flexible, responsive, and supportive leadership environment.

- **Instance to Support Position: The Leadership Journey of Steve Jobs**

A prime example that highlights the practical application of both transformational and situational leadership theories in fostering sustainable human resource management is the leadership journey of Steve Jobs, the former chairman, co-founder, and CEO of Apple Inc. Jobs was widely recognized as a transformational leader, consistently influencing and motivating both employees and stakeholders with a compelling vision of innovation and excellence. His ability to integrate cutting-edge technologies into Apple's products and his emphasis on perfection and quality set new standards in the technology industry. As a transformational leader, Jobs cultivated a culture of creativity and innovation, encouraging employees to go beyond their limits to achieve groundbreaking results.

However, Jobs' leadership style was also highly situational. He demonstrated remarkable flexibility, adjusting his leadership approach to suit the evolving demands of the business environment and the internal dynamics of Apple. Early in his career, Jobs employed a Laissez-faire leadership style, trusting his employees to innovate independently while providing them with the freedom and autonomy to drive the company's success. As the technology market became more competitive and volatile, Jobs adapted his style to a more authoritarian approach, setting higher standards for perfection and placing greater demands on his team. This shift in leadership style was critical to Apple's survival and success, as it allowed the company to navigate turbulent market conditions while maintaining its reputation for innovation.

Jobs' ability to blend transformational and situational leadership is a testament to how evolving leadership paradigms can drive both short-term success and long-term sustainability in human resource management. His leadership ensured that Apple remained adaptable and responsive to changes, while at the same time fostering a deep sense of commitment and engagement among employees. As a result, Apple was able to sustain its market leadership and build a resilient workforce capable of navigating the challenges of a dynamic business environment. The success of Steve Jobs at Apple exemplifies how transformational and situational leadership can support sustainable human resource management. By inspiring employees, adapting to shifting circumstances, and continuously improving organizational processes, Jobs created a sustainable HRM framework that facilitated Apple's growth and innovation over decades.

CONCLUSION

This paper has explored the evolution of leadership paradigms and their critical role in fostering SHRM within dynamic business environments. The examination

of traditional, contemporary, and emerging leadership theories reveals that no single approach holds universal applicability. However, the analysis suggests that a synergistic combination of leadership styles, particularly transformational and situational leadership, offers the most effective framework for navigating the complexities of modern organizations. Transformational leadership provides the vision, inspiration, and cultural foundation for sustainable practices, while situational leadership ensures adaptability and responsiveness to the specific needs of employees and the ever-changing business landscape. The case of Steve Jobs underscores the practical application of this combined approach, demonstrating how it can drive both organizational success and long-term sustainability. Ultimately, effective leadership for SHRM requires a nuanced understanding of human capital, a commitment to employee well-being, and the ability to balance short-term goals with long-term sustainability objectives. By embracing adaptability, empowering employees, and prioritizing value creation, leaders can cultivate a thriving workforce and contribute to a more sustainable future for their organizations and the broader business ecosystem.

Future research could explore the specific metrics and tools for measuring the effectiveness of combined leadership approaches in driving SHRM outcomes. Additionally, investigating the influence of cultural context on the applicability of different leadership styles for SHRM would be a valuable extension. This paper's findings can benefit a wide range of stakeholders, including HR professionals, business leaders, organizational development consultants, and academics interested in the intersection of leadership, sustainability, and human resource management.

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Impact of Artificial Intelligence (AI) on Marketing: Current Trends and Future Research Opportunities

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Dr. Vinesh¹

Abstract

Artificial intelligence is being used to perform more tactical tasks that don't require a lot of human ingenuity. Artificial intelligence is the creation of machines that can think and act like humans. Artificial Intelligence has been seen as the next industrial revolution; people believe that it can provide a solution to most of the problems in the world. The problems which might occur in the future can be solved with the help of artificial intelligence. Artificial intelligence has the potential of creating new industries, technologies, and environments altogether, and it can be used to make automated decisions based on data collection, data analysis, and additional observations of audience or economic trends that may impact marketing efforts. In marketing efforts, speed is important. AI tools use data and customer profiles to learn how to best communicate with customers, then serve them tailored messages at the right time without intervention from marketing team members, ensuring maximum efficiency. For many of today's marketers. Artificial Intelligence is one of the most promising emerging technologies. This Paper examines the global view of the advancing role of AI in Marketing. The Paper analyses AI from the country, company, and consumer perspectives. It recognizes the existence of economic inequalities across nations and the multiplicity of resources for AI adoption

Keywords: Artificial Intelligence (AI), Technology, Marketing, Customers.

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INTRODUCTION

Disruptive technologies such as the Things, big data analytics, block chain, and artificial intelligence have changed the ways businesses operate. Of all the

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disruptive technologies, artificial intelligence (AI) is the latest technological disruptor and holds immense marketing transformation potential. Practitioners worldwide are trying to figure out the best fit AI solutions for their marketing functions. However, a systematic literature review can highlight the importance of artificial intelligence (AI) in marketing and chart future research directions. The present study aims to offer a comprehensive review of AI in marketing using bibliometric, conceptual and intellectual network analysis of extant literature published between 1982 and 2020. A comprehensive review of one thousand five hundred and eighty papers helped to identify the scientific actors' performance like most relevant authors and most relevant sources. Furthermore, co-citation and co-occurrence analysis offered the conceptual and intellectual network. Data clustering using the Louvain algorithm helped identify research sub-themes and future research directions to expand AI in marketing. Artificial Intelligence (AI) in Marketing has gained momentum due to its practical significance in present and future business. Due to the wider scope and voluminous coverage of research studies on AI in marketing, the metasynthesis of exiting studies for identifying future research direction is extremely important. Extant literature attempted the systematic literature review, but existing reviews are descriptive, and latent intellectual network structure remained unexplored. Present study used bibliometric analysis, conceptual network analysis, and intellectual network analysis to identify research subthemes, trending topics and future research directions. Due to the wider scope and voluminous coverage of research studies on AI in marketing, the metasynthesis of exiting studies for identifying future research direction is extremely important. Extant literature attempted the systematic literature review, but existing reviews are descriptive, and latent intellectual network structure remained unexplored. Present study used bibliometric analysis, conceptual network analysis, and intellectual network analysis to identify research subthemes, trending topics and future research directions. Introduction to Artificial Intelligence in Marketing As technology continues to advance, businesses are finding innovative ways to apply it to their operations. One area where technology has had a significant impact is marketing. Artificial Intelligence in marketing is one such application that has taken the marketing world by storm. In this article, we will discuss what Artificial Intelligence in marketing means, its importance, and the role of artificial intelligence (AI) in marketing, and the benefits and challenges of using it.

DEFINITION

Artificial Intelligence in marketing is the use of technology, particularly AI, to automate and optimize marketing processes. It involves the use of algorithms, machine learning, and other technologies to analyze data and make decisions about marketing campaigns.

Objectives of AI on Marketing and research methodology of the study: The study relies on Secondary data gathered from published reports of RBI, NABARD, Census Surveys, SSI Reports, newspapers, journals, and websites. The study was structured with the following objectives:

- ♦ To attain customer segmentation in the market that is being targeted.
- ♦ To examine the forecasting and predictive analytics system.
- ♦ To preserve the market's recommendation and personalization systems.
- ♦ To examine the Social and Sentiment Listening System.
- ♦ To offer content generation and market optimization.
- ♦ To map and optimize the customer journey for marketing purposes.
- ♦ To Offer ROI Measurement and Marketing Attribution Services.
- ♦ To Implement Recommendation and Personalization Systems.
- ♦ To uphold the market's recommendation and personalization systems
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- ♦ To Offer ROI Measurement and Marketing Attribution Services.
- ♦ To Implement Recommendation and Personalization Systems.
- ♦ To uphold the market's recommendation and personalization systems

Objectives of AI on the Market and its Future Opportunities Artificial Intelligence (AI) is transforming the landscape of markets across various industries. Its objectives and future opportunities are multifaceted, reflecting the diverse applications and potential impacts it can have. Here are some key objectives of AI in the market and the opportunities it presents for the future.

Enhanced Decision Making: AI empowers businesses with data-driven decision-making capabilities. By analyzing vast amounts of data, AI systems can provide insights into market trends, customer behavior, and competitive dynamics, enabling businesses to make more informed decisions in real-time.

Personalization and Customer Experience: AI enables personalized marketing and customer experiences by analyzing individual preferences, behaviors, and interactions. By leveraging AI-powered recommendation systems and chatbots, businesses can deliver tailored products and services, resulting in higher customer satisfaction and loyalty. **Automation and Efficiency:** AI automates repetitive tasks and processes, leading to increased operational efficiency and cost savings for businesses. Automation of tasks such as data entry, customer support, and inventory management free up human resources to focus on higher-value activities, driving productivity and innovation.

Predictive Analytics and Forecasting: AI algorithms can forecast future market trends, demand patterns, and business outcomes with greater accuracy than traditional methods. By analyzing historical data and identifying patterns, AI-powered predictive analytics enable businesses to anticipate market shifts and proactively adjust their strategies to stay ahead of the competition. **Risk Management and**

Fraud Detection: AI enhances risk management by identifying potential risks and vulnerabilities in real-time. Through advanced analytics and anomaly detection techniques, AI systems can detect fraudulent activities, mitigate risks, and ensure compliance with regulatory requirements, safeguarding businesses against financial losses and reputational damage.

Supply Chain Optimization: AI optimizes supply chain operations by predicting demand, optimizing inventory levels, and streamlining logistics processes. By analyzing data from multiple sources, including suppliers, manufacturers, and distributors, AI-driven supply chain management systems can identify inefficiencies and bottlenecks, enabling businesses to optimize their supply chain networks and reduce costs.

Market Intelligence and Competitive Analysis: AI provides businesses with valuable market intelligence and competitive insights by analyzing vast amounts of data from various sources, including social media, news articles, and consumer reviews. By monitoring competitor activities, analyzing market trends, and identifying emerging opportunities, AI-powered market intelligence tools enable businesses to make strategic decisions and gain a competitive edge.

FUTURE OPPORTUNITIES

AI-driven Innovation: As AI technologies continue to advance, new opportunities for innovation will emerge across industries. Businesses can leverage AI to develop new products, services, and business models that meet evolving customer needs and preferences.

Industry-specific Solutions: AI will enable the development of industry-specific solutions tailored to the unique challenges and opportunities of different sectors. From healthcare and finance to retail and manufacturing, AI-powered applications will revolutionize how businesses operate and compete in the respective market.

Ethical AI and Responsible Innovation: As AI becomes more pervasive in the market, there will be increasing focus on ethical AI principles and responsible innovation practices. Businesses will need to ensure transparency, fairness, and accountability in their AI systems to build trust with customers, regulators, and society at large.

Collaborative Ecosystems: In order to encourage innovation and solve social issues, government agencies, corporations, academic institutions, and other stakeholders will need to work together to implement AI in the market in the future. To fully realize AI's promise for societal advancement and economic growth, collaborative ecosystems will promote talent development, information exchange, and cross-sector collaborations.

AI-driven Entrepreneurship: With the use of AI, business owners will be able to launch unique ventures and quickly expand their creative solutions. Entrepreneurs can develop AI-powered products and services that meet unmet market demands and open up new market opportunities if they have access to AI tools, platforms, and resources.

To put it succinctly, the goals of artificial intelligence in the market are to improve decision-making, personalize customer experiences, automate operations, forecast trends, manage risks, optimize supply chains, and acquire competitive insights. The market will see a plethora of future opportunities for AI, including entrepreneurship, industry-specific solutions, ethical AI, collaborative ecosystems, and innovation that will spur societal advancement and economic prosperity.

ADVANTAGES OF ARTIFICIAL INTELLIGENCE IN MARKETING

1. **Enhanced Productivity and Efficiency:** By automating tedious jobs and procedures, artificial intelligence in marketing frees up time for companies to concentrate on key projects. This results in increased production and efficiency as well as financial savings. It is impossible to overestimate how much the development of sophisticated artificial intelligence (AI) has transformed a number of industries and increased production. AI-powered systems are able to carry out automatic operations, such as data processing and analysis and customer service management, that would normally require human participation. These methods also make it easier to create highly personalized and customized items, which eventually raises customer satisfaction levels and lowers labour costs for enterprises that require manual work. Additionally, by examining customer activity patterns, AI assists businesses in predicting trends and making wise judgments about inventory optimization. Businesses are able to boost overall productivity and raise the calibre of their goods and services by incorporating artificial intelligence into critical operational procedures. The ongoing advancement of AI presents chances for a smooth integration with corporate procedures, enhancing overall performance across all industries.
2. **Better Customer Experience:** AI may assist companies in giving their clients customized experiences, which will increase client retention and happiness. AI for better customer experience is a quickly developing field that is assisting companies in a variety of industries to refocus their efforts on designing the ideal customer trip. Businesses can now use AI tools and algorithms to personalize the purchasing experience for each consumer, adjusting everything from product recommendations to messaging that is tailored to their interests and behaviours. By leveraging insights gained through natural language processing, automation, and machine learning systems, businesses can seamlessly transition between various channels of communication, including email, social media, phone calls, and chatbots. This technological approach enables them to deliver highly personalized customer experiences at scale that was previously unattainable. Better customer experiences solutions promote long-term client loyalty and retention for years to come, in addition to raising customer satisfaction levels in business operations.
3. **A rise in earnings and profitability:** Businesses may create more successful marketing strategies that boost revenue and profitability by utilizing AI to analyse data and make wise decisions. The way firms handle marketing has

been completely transformed by artificial intelligence. Artificial intelligence (AI) algorithms can precisely forecast client needs and customize campaigns to match their preferences by evaluating data sets and user behaviour patterns. This greatly boosts revenue and profitability. Automation tools improve lead generating techniques and reduce labour expenses, increasing return on investment (ROI). Thanks to these developments, businesses can now obtain real-time, focused consumer insights that can be used to create personalized marketing efforts, improve customer experience, increase retention rates, and lower the rate at which customers leave because of unfavourable or irrelevant advertising.

Businesses have claimed revenue increases of up to three times when these features are implemented as opposed to traditional methods that just rely on intuition. Improved market penetration, revenue growth, and increased operational efficiency are made possible by integrating AI-powered solutions into our digital marketing environment, giving us a stronger position in the fiercely competitive business world of today.

DIFFICULTIES WITH ARTIFICIAL INTELLIGENCE IN MARKETING

1. **Absence of Qualified Staff:** Artificial intelligence application in marketing calls for knowledgeable staff members who can create and oversee the technology. Businesses may face difficulties due to the lack of qualified workers in this field. Marketing has changed dramatically as a result of artificial intelligence (AI), which has brought previously unheard-of accuracy and efficiency. One major issue that marketers confront, meanwhile, is the dearth of qualified staff to oversee AI systems. Qualified individuals with experience in data analysis, programming, and machine learning algorithms are needed to integrate AI into marketing.

Employers must fund certification programs and training initiatives to ensure that staff members have the requisite skill set. It's also hard for businesses without big budgets or established names to recruit qualified staff because there's intense competition for professionals with prior expertise in these fields. Companies might use collaborations between educational institutions and technology providers to train data scientists especially for marketing applications in order to get around this barrier. Until then, businesses must carefully manage the challenges brought about by the present scarcity of qualified workers while utilizing AI in marketing.

2. **High Implementation Costs:** Before making a choice, firms should weigh the potential high initial costs of integrating the technology against the potential return on investment. Businesses trying to obtain a competitive edge are increasingly using artificial intelligence (AI) in their marketing initiatives. For smaller businesses, meanwhile, the hefty implementation costs may pose a serious barrier to entrance. AI technology necessitates large expenditures for maintenance, employee training, hardware, and software. In addition, technology is always changing, meaning that more money needs to be spent on staff training and system upgrades. In addition to these expenses, companies must consider the potential risks associated with

AI implementation including data privacy breaches and ethical concerns related to bias algorithms or automation replacing human jobs. Therefore, before deciding to implement AI marketing tools it is essential for companies to carefully weigh the financial risks against the expected benefits and conduct thorough research on trusted vendors and best practices.

3. **Data Security and Privacy Concerns:** The use of artificial intelligence (AI) in marketing has skyrocketed in recent years due to its potential to personalize and customize consumer experiences. However, one of the biggest challenges facing marketers today is ensuring data security and privacy while using AI. Personal data, such as purchase history, browsing behaviour, and social media activity, are often collected and analysed to create customer profiles that can be used for targeted advertising. Businesses must ensure that customer data is protected and comply with data protection regulations. However, there may be major privacy concerns for customers if this data is mishandled or ends up in the wrong hands. Marketers must thus make sure that their AI platforms abide by data protection regulations and safeguard their systems from online dangers like identity theft and hacking. Companies need to provide consumers clear control over how their personal data is utilized by AI systems in marketing operations and prioritize transparency in their data gathering procedures if they want to earn their trust.
4. **Optimal Methodologies for AI Integration in Marketing:** The way that organizations approach marketing is changing due to artificial intelligence, or artificial intelligence (AI) in marketing. Artificial intelligence can now automate processes, improve campaigns, and spot patterns that people would never have the time or capacity to achieve thanks to the advent of data-driven decision making. But putting artificial intelligence into practice is more complicated than just turning on a switch. The application of artificial intelligence (AI) in marketing requires rigorous preparation and strategic thinking, which is reflected in best practices. Finding applications for AI that may boost productivity, improve customer satisfaction, and increase income is crucial. This entails automating repetitive processes like lead qualifying and lead scoring, leveraging predictive analytics to precisely target the appropriate audience with tailored communications, and spotting patterns in data that human analysts might not notice right away. Businesses must also make significant investments in establishing a solid base of dependable, clean data in order to facilitate efficient AI decision-making. In order to guarantee that staff members working with AI systems have the technical know-how required to properly utilize its potential, companies must place a high priority on providing them with continual training and education. Businesses may effectively use AI technology to stay ahead of their rivals while offering insightful business data and enhanced consumer experiences by adhering to these best practices.

5. **Begin modest and then increase:** It might be intimidating to implement artificial intelligence, particularly if it requires significant adjustments to your operations or marketing plan. It's advisable to begin with a tiny initiative or pilot program to test the waters before jumping in headfirst. You can progressively step up your efforts if you have a solid understanding of artificial intelligence. Using artificial intelligence to start small and scale up gradually is a critical tactic in today's technological environment. Businesses can test and refine AI applications gradually without devoting all of their resources at once. Using this approach, businesses can also determine which aspects of their operations stand to gain the most from incremental AI automation.

By doing this, businesses lower the possibility of implementation failure and maximize the return on their AI investments. Furthermore, the methodical application of AI enables more effective system development and training, as well as improved employee learning retention. Therefore, using artificial intelligence to start small and scale up gradually gives firms a strong foundation that not only increases productivity but also guarantees high accuracy across various organizational activities. By using this strategy, businesses may foster stakeholder trust in AI solutions and increase their competitiveness in the data-driven business world of today.

6. **Make Training and Development Invested:** This entails making training and development investments for your marketing staff. It may be necessary for you to bring on new personnel with programming, machine learning, or data analysis experience. As an alternative, you can provide technical training to the team members you already have. Businesses must make training and AI development investments if they want to stay competitive in the current International Journal for Multidisciplinary Research (IJFMR) market. AI has developed into a vital tool that may help businesses in a variety of industries, as demand for automation and smart systems rises. The full potential of artificial intelligence (AI) must be realized through proper training and programming by knowledgeable experts.

Organizations can create personalized solutions based on their own requirements and workflows by investing in knowledgeable AI specialists. Programs for training and development can assist companies in keeping abreast of the most recent developments and improving their comprehension of how artificial intelligence (AI) might assist daily operations. Businesses can also benefit from AI's capacity to decipher large data, spot trends, and draw conclusions that inform corporate strategy. In the end, spending money on training and development enables businesses to cut costs, expedite procedures, improve accuracy, efficiency, and customer satisfaction while staying ahead of market trends.

7. **Work together with leaders in the field and experts:** Since artificial intelligence is still in its infancy, there is much to learn. You can keep up with the newest trends and innovations by working with professionals and leaders in the field. To remain on top of things, go to conferences, interact with others in the field

through online communities, and network. Businesses need to use artificial intelligence (AI) to collaborate with specialists and industry leaders if they want to stay competitive.

AI can help find important people and companies that match particular business requirements, improving the likelihood that a relationship will succeed. AI is also capable of analysing data from multiple sources to offer insights on pertinent market conditions and trends. This allows businesses to make well-informed decisions devoid of guesswork or gut feeling, and instead based on solid information. AI-powered systems also help to streamline communication amongst team members by recommending pertinent documents and helping to arrange meetings. In conclusion, using AI to collaborate with professionals and business titans not only improves the chances of a fruitful relationship but also expedites the procedure and eliminates possible obstacles to effective communication.

CONCLUSION

Artificial Intelligence (AI), Machine Learning (ML), and other cutting-edge technologies are used in marketing to automate and improve a range of marketing procedures. It seeks to raise performance, productivity, and efficiency in marketing-related endeavours. A few advantages of artificial intelligence in marketing are more production and efficiency, enhanced client satisfaction, and higher income and profitability. Additionally, it helps companies to automate tedious operations, customize marketing messaging, and make data-driven decisions. There are several obstacles to overcome when implementing artificial intelligence in marketing, such as a lack of qualified staff, significant implementation costs, and worries about data security and privacy.

Additionally, companies need to make sure that AI applications adhere to legal and ethical guidelines. Investing in training and development, working with experts and industry leaders, starting small and building up gradually, and making sure AI is used ethically and responsibly are some best practices for integrating AI in marketing. Additionally, it's critical to track and assess artificial intelligence's performance and modify plans as necessary. Technological developments in artificial intelligence (AI) are augmenting the capacity of an increasing number of businesses to gather, retain, evaluate, and employ a wide range of consumer data (Rust, 2020). The paper comes to the conclusion that AI technologies have the ability to both enhance and diminish economic inequality at the national level. By expanding their applications globally, AI technologies have started to revolutionize different facets of marketing at the company level. Concerns concerning ethics and privacy brought up by AI technology at the consumer level make legislation, instruction, and training more important.

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Balancing Act: Exploring the Relationship Between Work-Life Balance and Employee Performance in Remote Work Environments

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Abstract

This research paper investigates the intricate relationship between work-life balance and employee performance in the context of remote work arrangements. With the proliferation of telecommuting and work-from-home initiatives, understanding how employees manage the boundaries between work and personal life becomes paramount. Leveraging both primary and secondary data sources, including surveys, interviews, and existing literature, this paper aims to uncover the factors influencing work-life balance in remote work settings and examine their implications for employee productivity, engagement, and well-being. By synthesizing empirical evidence and theoretical frameworks, the paper offers insights into strategies for fostering a harmonious balance between professional responsibilities and personal life commitments in the remote work era.

Keywords: Work-Life Balance, Remote Work, Employee Performance, Telecommuting, Well-being, Productivity, Boundary Management

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INTRODUCTION

The rise of remote work has transformed the traditional notions of work-life balance, blurring the boundaries between professional obligations and personal life commitments. While telecommuting offers newfound flexibility and autonomy, it also presents unique challenges in managing work-life boundaries and maintaining optimal

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levels of productivity and well-being. This research paper explores the interplay between work-life balance and employee performance in remote work environments, shedding light on the factors shaping individuals' ability to navigate the complexities of work and personal life integration. By examining empirical evidence and theoretical frameworks, the paper aims to inform organizational practices and policies aimed at promoting a harmonious balance between work and life in the remote work era. The rapid shift to remote work, catalysed by technological advancements and global events such as the COVID-19 pandemic, has fundamentally transformed the landscape of work. Remote work once considered a perk or a temporary arrangement, has become a norm for many organizations worldwide. This transition has brought both opportunities and challenges particularly in terms of maintaining Work-Life Balance (WLB) and ensuring employee performance.

Work-life Balance refers to the equilibrium between personal life and professional responsibilities, a state where individuals can manage their work demands without compromising their personal well-being. Achieving WLB is crucial for employees' mental and physical health, job satisfaction, and overall quality of life. Conversely, poor WLB can lead to stress, burnout, and decreased productivity, adversely affecting both employees and organizations.

Remote work offers unique advantages that can enhance WLB, such as flexible schedules, reduced commuting time, and the ability to work from any location. However, it also presents distinct challenges, including the blurring of boundaries between work and personal life, feelings of isolation and difficulties in time management.

LITERATURE REVIEW

The literature on work-life balance and remote work encompasses a range of topics, including boundary management, telecommuting effectiveness and the impact of remote work on employee well-being and performance. Studies have highlighted the importance of boundary management strategies, such as time management, communication norms and workspace design, in facilitating work-life balance in remote work settings (Golden et al., 2006; Allen et al., 2015). Moreover, research indicates that remote work can have both positive and negative effects on employee performance, depending on factors such as job characteristics, individual preferences, and organizational support (Gajendran & Harrison, 2007; Grant et al., 2020). While telecommuting offers benefits such as reduced commuting time and increased flexibility, it also poses challenges in terms of work-life integration, social isolation, and boundary blurring (Bailyn et al., 2001; Duxbury & Higgins, 2012).

Consequences of work-life imbalance extend beyond individual well-being to impact organizational outcomes such as employee engagement, turnover rates and overall productivity (Allen et al., 2013; Kossek et al., 2017). Research suggests that organizations can promote work-life balance and enhance employee performance by implementing supportive policies and practices, such as flexible work arrangements,

wellness programs and technology-enabled collaboration tools (Hill et al., 2008; Kelloway et al., 1999).

DEFINITION AND THEORIES OF WORK-LIFE BALANCE

Work-Life Balance (WLB) is a concept that refers to the equilibrium between personal life and professional responsibilities, enabling individuals to effectively manage both without significant conflict. Theories such as boundary theory and spillover theory offer frameworks for understanding how the separation or overlap of work and personal life affects individuals. Boundary theory posits that individuals create psychological and physical boundaries to manage their roles, while spillover theory suggests that emotions and behaviours from one domain can influence another.

OVERVIEW OF REMOTE WORK TRENDS AND PRACTICES

Remote work, also known as telecommuting, has gained substantial traction over the past decade, accelerated by technological advancements and the necessity imposed by the COVID-19 pandemic. Organizations have increasingly adopted remote work models to ensure business continuity and leverage the benefits of a flexible workforce. Studies indicate that remote work can lead to increased job satisfaction and productivity when managed effectively. However, the shift also raises concerns about maintaining professional boundaries and ensuring equitable access to resources.

IMPACT OF REMOTE WORK ON WORK-LIFE BALANCE

Research on remote work's impact on WLB presents mixed findings. Some studies highlight the positive aspects of remote work, such as greater flexibility, reduced commuting time, and enhanced autonomy, which can improve WLB. For instance, Bloom et al. (2015) found that remote work led to a 13% performance increase and higher job satisfaction among employees due to better WLB. Conversely, other studies underscore the challenges, including the difficulty in separating work and personal life, which can lead to longer working hours and increased stress. A study by Grant et al. (2013) revealed that remote workers often struggle with creating clear boundaries, resulting in work encroaching on personal time.

RELATIONSHIP BETWEEN WORK-LIFE BALANCE AND EMPLOYEE PERFORMANCE

The relationship between WLB and employee performance is complex and multifaceted. Effective WLB practices are associated with higher levels of job satisfaction, reduced stress, and improved overall performance. According to a meta-analysis by Kossek and Ozeki (1998), employees with better WLB report higher job performance and lower levels of work-related stress. Conversely, poor WLB can lead to burnout, decreased productivity, and higher turnover rates. Studies by Allen et al. (2000) and Hammer et al. (2005) support the notion that employees who achieve a good balance between work and life are more engaged and perform better in their roles.

ORGANIZATIONAL SUPPORT AND ITS ROLE IN ENHANCING WORK-LIFE BALANCE

Organizational support plays a crucial role in helping employees achieve WLB. Supportive policies, such as flexible work hours, access to mental health resources, and clear communication of expectations, can significantly enhance WLB. Research by Thompson et al. (1999) indicates that perceived organizational support is a key predictor of WLB, which in turn influences job satisfaction and performance. Organizations that invest in WLB initiatives tend to see better employee engagement and retention rates.

GAPS IN EXISTING LITERATURE

Despite extensive research on WLB and remote work, several gaps remain. Most studies focus on general trends and lack detailed insights into specific factors that influence WLB in remote work environments. Additionally, there is limited research on long-term effects of remote work on WLB and employee performance. This study aims to address these gaps by exploring the nuanced relationship between WLB and employee performance in remote work settings, providing a deeper understanding of how remote work dynamics impact these variables.

RESEARCH METHODOLOGY

Research Design and Approach

This study employs a mixed-methods approach, integrating both quantitative and qualitative research methods to provide a comprehensive understanding of the relationship between work-life balance (WLB) and employee performance in remote work environments. The mixed-methods approach allows for the triangulation of data, enhancing the validity and reliability of the findings.

Sample Selection and Description

The sample for this study consists of remote workers from various industries, ensuring a diverse representation of experiences and perspectives. Participants were selected using a stratified sampling method to ensure diversity in terms of industry, job role, and demographic characteristics such as age, gender, and geographic location. The target sample size is 300 participants for the quantitative survey and 30 participants for the qualitative interviews.

DATA COLLECTION METHODS

Quantitative Surveys:

Instrument: A structured questionnaire was developed to measure WLB and employee performance. The survey includes validated scales such as the Work-Life Balance Scale (Fisher, 2001) and the Job Performance Scale (Goodman & Svyantek, 1999).

Procedure: The survey was administered online using a survey platform, ensuring

accessibility and convenience for participants. It included questions on demographic information, work-life balance practices, organizational support, and self-reported job performance.

Variables: Independent variables include WLB practices and organizational support, while the dependent variable is employee performance.

Qualitative Interviews

Instrument: A semi-structured interview guide was developed to explore participants' experiences and perceptions of WLB and its impact on their performance. The guide includes open-ended questions to elicit detailed responses.

Procedure: Interviews were conducted via video conferencing platforms to accommodate remote workers. Each interview lasted approximately 45-60 minutes and was recorded with participants' consent for transcription and analysis.

Themes: Key themes explored include challenges and benefits of remote work, strategies for managing WLB, and the role of organizational support.

DATA ANALYSIS TECHNIQUES

Quantitative Data Analysis

Descriptive Statistics: Initial analysis involved calculating means, standard deviations, and frequencies to summarize the data.

Inferential Statistics: Multiple regression analysis was used to examine the relationship between WLB practices, organizational support, and employee performance. Correlation analysis was conducted to identify significant associations between variables.

Software: Statistical analysis was performed using SPSS (Statistical Package for the Social Sciences).

Qualitative Data Analysis

Coding and Thematic Analysis: Interviews were transcribed verbatim, and the data were analysed using NVivo software. Thematic analysis was conducted to identify recurring themes and patterns in participants' responses.

Triangulation: Findings from the qualitative analysis were triangulated with quantitative results to provide a holistic understanding of the research problem.

FINDINGS

Presentation of Key Findings from the Data Analysis

The data analysis reveals several significant insights into the relationship between work-life balance (WLB) and employee performance in remote work environments:

Positive Correlation Between WLB and Employee Performance

There is a strong positive correlation between WLB practices and employee

performance. Industries that report higher levels of WLB practices tend to also have higher employee performance ratings. For example, Industry D, with a WLB practices rating of 4.5, also reports the highest employee performance rating of 4.8.

Relationship Between WLB and Employee Performance

Quantitative Analysis: The regression analysis showed a significant positive correlation ($r = 0.75$, $p < 0.01$) between WLB practices and employee performance. Similarly, organizational support showed a positive correlation ($r = 0.72$, $p < 0.01$) with employee performance.

Qualitative Insights: Interviews highlighted that employees who felt supported by their organizations and had access to WLB resources reported higher job satisfaction and performance.

Impact of Organizational Support

Organizational support plays a crucial role in enhancing WLB and, subsequently, employee performance. Industries with higher organizational support ratings also show higher WLB practices and employee performance. For instance, Industry D, which has the highest organizational support rating of 4.6, also shows the highest WLB and performance ratings.

Variation Across Industries

The analysis indicates significant variation in WLB practices, organizational support, and employee performance across different industries. This variation suggests that industry-specific factors and organizational cultures significantly impact WLB and performance.

PATTERNS AND THEMES RELATED TO WLB IN REMOTE WORK ENVIRONMENTS

Several patterns and themes emerged from the data analysis:

Flexibility and Autonomy

Flexibility in work schedules and autonomy in job roles were consistently highlighted as key factors contributing to better WLB. Employees who have control over their work hours and can manage their tasks independently reported higher levels of WLB and performance.

Boundary Management

Effective boundary management between work and personal life is crucial for maintaining WLB. Employees who set clear boundaries, such as designated workspaces and specific work hours, reported better WLB and higher job satisfaction.

Supportive Organizational Policies

Organizational policies that support WLB, such as flexible working hours, mental

health resources, and clear communication of expectations, are essential for enhancing employee performance. Supportive managers and a positive organizational culture were also highlighted as important factors.

RELATIONSHIP BETWEEN WLB AND EMPLOYEE PERFORMANCE

The data strongly indicates that effective WLB practices positively impact employee performance. Employees who achieve a good balance between their work and personal lives are more likely to be productive, satisfied, and engaged in their roles. The analysis shows that organizational support significantly enhances WLB, which in turn boosts employee performance.

INTERPRETATION OF THE FINDINGS

The study reveals a positive correlation between work-life balance (WLB) practices and employee performance in remote work environments. Industries with higher WLB ratings tend to report higher employee performance. Similarly, higher organizational support is associated with better WLB practices and improved employee performance. These findings suggest that when organizations invest in effective WLB practices and provide adequate support, employees are more likely to perform better.

COMPARISON WITH EXISTING LITERATURE

The findings align with existing literature on the benefits of WLB and organizational support. Studies by Bloom et al. (2015) and Grant et al. (2013) also highlight the positive impact of remote work flexibility on job satisfaction and performance. Kossek and Ozeki (1998) found that better WLB is associated with higher job performance and lower stress levels, which is consistent with our findings. The role of organizational support, emphasized by Thompson et al. (1999) and Hammer et al. (2005), is reaffirmed in this study, underscoring its importance in fostering a healthy work environment.

IMPLICATIONS FOR EMPLOYEES, MANAGERS, AND ORGANIZATIONS

Employees

Employees should actively seek to establish clear boundaries between work and personal life to enhance their WLB. Utilizing available organizational support, such as flexible schedules and mental health resources, can help manage the challenges of remote work.

Managers

Managers play a crucial role in facilitating WLB by creating a supportive work environment. This includes offering flexible work arrangements, promoting a culture of open communication, and providing resources that address employees' work and personal needs. Regular check-ins and feedback sessions can help identify and address WLB issues promptly.

Organizations

Organizations should prioritize WLB in their policies and practices to improve overall employee performance. Investing in training programs for managers to support WLB, developing clear guidelines for remote work, and ensuring equitable access to resources are critical steps. Organizations should also monitor and adjust their strategies based on employee feedback and performance metrics.

POTENTIAL CHALLENGES AND LIMITATIONS OF THE STUDY

Self-Reported Data

The reliance on self-reported data for measuring WLB and employee performance may introduce bias. Employees might overestimate or underestimate their performance and WLB, leading to inaccuracies in the findings.

Cross-Sectional Design

The cross-sectional design of the study limits the ability to infer causality. While the study identifies correlations between WLB, organizational support, and employee performance, it cannot definitively establish cause-and-effect relationships.

Sample Diversity

Although the sample includes remote workers from various industries, it may not fully represent the entire spectrum of remote work experiences. Industry-specific factors and cultural differences could influence WLB and performance, suggesting the need for more comprehensive studies across different contexts.

Changing Dynamics:

The remote work landscape is continually evolving, and the findings of this study may not fully capture the long-term effects of remote work on WLB and employee performance. Future research should consider longitudinal studies to understand these dynamics better.

CONCLUSION

The rapid shift to remote work has presented both opportunities and challenges for employees and organizations alike. This study aimed to explore the relationship between work-life balance (WLB) and employee performance in remote work environments, providing valuable insights into how these variables interact and affect each other. While remote work offers opportunities for improved WLB, it also presents challenges that need to be managed effectively. Organizational support emerges as a critical factor in fostering a healthy balance between work and personal life. This study builds on existing research by examining the specific dynamics of WLB and employee performance in remote work settings, offering practical recommendations for organizations to enhance their remote work policies and practices.

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The Financial Impact of Corporate Social Responsibility: Activism as a Strategic Investment

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Abstract

Corporate Social Responsibility (CSR) has evolved from a philanthropic endeavor to a strategic investment that drives financial performance and creates long-term value. This paper explores the financial impact of CSR initiatives, emphasizing corporate activism as a strategic approach to enhancing profitability and stakeholder engagement. By reviewing existing literature and analyzing data from various industries, the study demonstrates that well-executed CSR initiatives can lead to increased market share, investor confidence, and operational efficiency. However, challenges such as greenwashing and inconsistent reporting standards remain barriers to fully realizing CSR's financial potential.

Keywords: *Corporate Social Responsibility, Financial Performance, Corporate Activism, Stakeholder Engagement, Strategic Investment*

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INTRODUCTION

The growing importance of Corporate Social Responsibility (CSR) reflects a paradigm shift in how businesses approach sustainability, ethics, and stakeholder engagement. CSR has become a cornerstone of corporate strategy, no longer confined to charitable contributions, influencing brand reputation, investor decisions, and financial performance. Corporate activism, a subset of CSR, involves organizations advocating for societal and environmental causes, often positioning themselves as agents of change.

CSR is crucial in shaping modern business practices by integrating ethical considerations into corporate decision-making. This research aims to provide a descriptive analysis of how CSR initiatives impact financial performance across various industries. By examining real-world examples, empirical data, and trends in ESG investments, this paper will provide a comprehensive understanding of the evolving

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relationship between CSR and financial outcomes.

In the 21st century, the global business environment has undergone a significant transformation. The integration of sustainability and social accountability into corporate strategies is no longer optional but essential for businesses aiming to remain competitive. Stakeholders, including consumers, investors, and regulators, now demand transparency and responsibility from corporations. Consequently, CSR initiatives are being redefined, moving from peripheral activities to central pillars of organizational success.

Corporate activism takes CSR a step further by advocating for policy changes, addressing systemic inequalities, and taking a stand on global issues such as climate change, social justice, and economic inequality. Companies like Nike, Starbucks, and Patagonia have demonstrated how leveraging activism can not only align business operations with societal expectations but also build stronger relationships with consumers and investors.

Moreover, the rise of socially responsible investing (SRI) and environmental, social, and governance (ESG) metrics has underscored the financial significance of CSR. Investors increasingly favor companies that demonstrate a commitment to ethical practices, sustainability, and social impact. This trend has created a direct link between CSR and financial performance, as businesses with robust CSR policies attract capital, enhance risk management, and gain competitive advantages.

Despite its potential, CSR is not without challenges. Critics argue that the financial benefits of CSR are often overstated, with some initiatives failing to deliver measurable returns. Additionally, inconsistencies in reporting standards and accusations of greenwashing undermine the credibility of CSR efforts. This paper seeks to address these concerns by exploring the financial implications of CSR initiatives, emphasizing corporate activism as a strategic investment that can drive profitability and sustainability.

The Role of CSR in Modern Business Strategy

CSR has become an essential element of corporate strategy as organizations strive to balance profit generation with social responsibility. Companies that integrate CSR into their business models benefit from improved brand reputation, customer loyalty, and employee satisfaction. Furthermore, CSR enhances stakeholder trust, which is vital for long-term business sustainability. Businesses are now held accountable not just by regulatory authorities but also by socially conscious consumers and investors who expect transparency and ethical conduct.

Organizations that actively participate in CSR initiatives experience numerous benefits, including:

- ♦ **Enhanced Brand Reputation:** Companies that are seen as socially responsible tend to attract more customers and retain loyal stakeholders.

- ♦ **Increased Employee Engagement:** CSR initiatives improve workplace morale, as employees take pride in working for ethical companies.
- ♦ **Cost Reduction:** Sustainable practices such as energy efficiency and waste reduction lead to significant cost savings.
- ♦ **Regulatory Compliance:** Companies that proactively adhere to environmental and social governance (ESG) standards avoid fines and legal penalties.
- ♦ **Investor Confidence:** Investors are increasingly prioritizing companies with strong ESG performance, leading to greater access to capital and better stock performance.

EXPANDING THE SCOPE OF CSR INITIATIVES

CSR initiatives have evolved beyond philanthropy and now include:

- ♦ **Environmental Sustainability:** Businesses are investing in renewable energy, reducing carbon footprints, and implementing waste management strategies.
- ♦ **Ethical Labor Practices:** Companies are focusing on fair wages, workplace safety, and inclusive hiring policies.
- ♦ **Community Engagement:** Organizations are supporting local communities through education programs, healthcare initiatives, and infrastructure development.
- ♦ **Transparency and Governance:** Businesses are adopting ethical supply chain practices and improving corporate governance standards.
- ♦ **Challenges in Implementing CSR**
- ♦ **While CSR provides numerous benefits, businesses also face challenges in executing effective CSR strategies. Some of these challenges include:**
- ♦ **High Initial Costs:** Implementing CSR initiatives, such as adopting renewable energy or improving working conditions, can require substantial financial investment.
- ♦ **Greenwashing:** Some companies engage in misleading marketing to appear environmentally responsible without actually implementing meaningful changes.
- ♦ **Measuring CSR Impact:** Standardized metrics to evaluate CSR effectiveness remain inconsistent, making it difficult to measure long-term benefits.
- ♦ **Regulatory Uncertainty:** Governments and international bodies continue to evolve CSR regulations, requiring businesses to constantly adapt.
- ♦ **Balancing Profitability and Social Responsibility:** Some businesses struggle to maintain profitability while simultaneously investing in sustainability and social programs.

COMPARATIVE ANALYSIS OF CSR IN DIFFERENT SECTORS

CSR's financial impact varies significantly across industries. The technology, energy,

retail, and finance sectors illustrate how CSR influences financial outcomes differently.

Technology Sector

Technology companies such as Apple, Microsoft, and Google have incorporated CSR into their business models through investments in clean energy, responsible AI development, and ethical labor practices. These initiatives not only enhance brand reputation but also attract top talent, increase investor trust, and drive customer loyalty. Additionally, the rapid pace of innovation allows technology firms to integrate CSR into product development, such as designing energy-efficient devices and promoting digital inclusivity.

Energy Sector

Energy companies have traditionally faced scrutiny for their environmental impact. However, firms such as BP and Shell have shifted towards renewable energy investments to align with global sustainability goals. Despite high transition costs, companies adopting green energy solutions experience long-term financial benefits, including regulatory incentives, reduced litigation risks, and stronger market positioning. Firms failing to adapt to environmental concerns risk facing regulatory penalties and declining investor confidence.

Retail and Consumer Goods

Retailers and consumer goods manufacturers, including Unilever and Nestlé, have implemented responsible sourcing, waste reduction programs, and sustainable packaging solutions. Consumers increasingly favor brands that prioritize ethical supply chains, leading to stronger customer loyalty and higher sales. As a result, businesses with robust CSR initiatives report better financial performance and competitive advantages.

Financial Services

Financial institutions are at the forefront of ESG investing. Banks and asset management firms such as BlackRock and JPMorgan Chase have significantly expanded their ESG portfolios, offering sustainable investment funds and financing environmentally responsible projects. These financial institutions have witnessed increased capital inflows and higher returns due to growing investor demand for ethical investments.

Empirical Studies on CSR's Financial Benefits

Numerous studies have highlighted the positive correlation between CSR and financial performance. A 2023 report by the Harvard Business Review found that firms with comprehensive CSR programs outperform competitors in revenue growth, employee satisfaction, and risk management. Companies with strong ESG ratings also experience lower capital costs and reduced volatility in financial markets.

A study conducted by McKinsey (2022) found that businesses prioritizing CSR experience a 15% higher return on investment (ROI) compared to those that do

not engage in social responsibility initiatives. This suggests that integrating CSR into corporate strategy is not only ethically sound but also financially advantageous.

FUTURE TRENDS IN CSR AND FINANCIAL PERFORMANCE

As CSR continues to evolve, businesses must anticipate and adapt to emerging trends, including:

- ♦ **Artificial Intelligence and CSR:** AI-driven analytics will enhance CSR reporting accuracy and transparency.
- ♦ **Circular Economy Models:** Companies will shift towards zero-waste production and sustainable resource utilization.
- ♦ **Carbon Neutrality Goals:** More businesses will commit to net-zero emissions through green technologies and carbon offset programs.
- ♦ **Blockchain for CSR Transparency:** Blockchain technology will improve traceability in supply chains, preventing greenwashing.
- ♦ **Stakeholder-Driven CSR:** Consumers, employees, and investors will exert more influence on corporate sustainability initiatives.

LITERATURE REVIEW

Theoretical Framework of CSR and Financial Performance Research by Carroll (1979) established the CSR pyramid, categorizing corporate responsibilities into economic, legal, ethical, and philanthropic domains. Building on this framework, Porter and Kramer (2006) introduced the concept of shared value, arguing that businesses can achieve economic success by addressing societal challenges.

Studies such as Orlitzky et al. (2003) have conducted meta-analyses demonstrating a positive correlation between CSR and financial performance. The “virtuous cycle” theory posits that socially responsible practices enhance financial outcomes, which, in turn, enable greater investment in CSR initiatives.

Corporate activism extends beyond traditional CSR by actively influencing public policy and societal norms. Companies like Patagonia, Starbucks, and Unilever have successfully integrated activism into their brand identity, leading to increased consumer trust and investor confidence.

Recent financial reports reveal that purpose-driven brands grow at twice the rate of their competitors (Accenture, 2022). A case study of Nike’s “Just Do It” campaign featuring Colin Kaepernick showed that despite initial backlash, the campaign led to a 31% increase in online sales within a week (Edelman, 2021).

Corporate Activism as a Strategic Investment Corporate activism extends beyond traditional CSR by actively influencing public policy and societal norms. Companies like Patagonia, Starbucks, and Unilever have successfully integrated activism into their brand identity, leading to increased consumer trust and investor confidence.

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- ♦ **Trends in ESG Investment Growth:** According to the Global Sustainable Investment Alliance (GSIA), global ESG assets under management rose from \$13.3 trillion in 2012 to over \$40 trillion in 2023, representing a compound annual growth rate (CAGR) of approximately 11.2%.
- ♦ **2012–2015:** Initial growth driven by institutional investors integrating ESG criteria.
- ♦ **2016–2019:** Expansion in retail ESG funds, with thematic funds focusing on renewable energy and social equity gaining popularity.
- ♦ **2020–2023:** Surge in ESG-focused exchange-traded funds (ETFs) and green bonds, alongside increasing regulatory scrutiny and standardization efforts.

Corporate Activism: Real-World Examples

- ♦ **Case Study 1:** Patagonia's "1% for the Planet" initiative and its advocacy for environmental policies exemplify how corporate activism can strengthen brand identity. Despite higher operational costs associated with sustainable practices, Patagonia has achieved consistent revenue growth and customer loyalty.
- ♦ **Case Study 2:** Microsoft's Carbon Neutrality Commitment Microsoft's pledge to become carbon negative by 2030 demonstrates the financial viability of aligning CSR with corporate strategy. The initiative has attracted ESG-focused investors and enhanced the company's reputation in the tech industry.
- ♦ **Case Study 3:** Unilever's Sustainable Living Plan Unilever's commitment to sustainable sourcing and reducing environmental impact has yielded significant financial returns, with its sustainable brands growing 69% faster than the rest of its portfolio (Unilever, 2021).

CHALLENGES AND RECOMMENDATIONS

Challenges

- ♦ **Greenwashing:** Companies may exaggerate CSR claims to appease stakeholders without delivering substantive results.
- ♦ **Inconsistent Reporting Standards:** Variations in CSR metrics hinder cross-company comparisons.
- ♦ **Short-Term Costs:** High initial investments in CSR initiatives can deter firms from adopting sustainable practices.
- ♦ **Recommendations**
- ♦ **Adopting Standardized Frameworks:** Organizations should align their reporting with established guidelines such as GRI and SASB.

- ♦ **Stakeholder Collaboration:** Engaging stakeholders in CSR planning can ensure alignment with societal expectations and reduce reputational risks.
- ♦ **Technology Integration:** Leveraging blockchain and AI can enhance transparency and accountability in CSR reporting.

CONCLUSION

The financial impact of CSR underscores its evolution from a discretionary activity to a strategic imperative. Corporate activism, as a proactive form of CSR, enhances financial performance by fostering stakeholder trust, improving risk management, and driving innovation. However, the effectiveness of CSR initiatives depends on robust accountability mechanisms, stakeholder collaboration, and adherence to standardized reporting practices.

Future research should focus on the role of emerging technologies in improving CSR transparency and the long-term financial implications of activism-driven strategies. By aligning financial goals with societal impact, businesses can ensure sustainable growth and remain competitive in an increasingly conscious marketplace.

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Consumer Trust in Green Marketing: Exploring the Role of Sustainability in Brand Loyalty

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Abstract

As environmental consciousness increases, corporations are increasingly using green marketing strategies to attract eco-conscious consumers and establish themselves as socially responsible entities. This research examines the complex relationship between consumer confidence in green marketing initiatives and its impact on brand loyalty. Green marketing, a strategy that prioritizes environmental responsibility and sustainability, has transitioned from a trend to an essential component of modern business practices. The efficacy of these strategies in cultivating lasting customer loyalty and trust relies on factors like as authenticity, transparency, and the alignment of company actions with stated beliefs. This study used a descriptive approach to examine the impact of sustainability on trust and brand loyalty, including quantitative surveys of 200 consumers with comprehensive qualitative interviews. The findings indicate a significant correlation between customers' willingness to refer and repurchase from a firm and their perceptions of its authenticity in green marketing efforts. Brands seen as genuinely committed to sustainability experience higher levels of loyalty and trust compared to those accused of green washing. These results underscore the need for corporate sustainability statements to exhibit transparency and for corporations to substantiate their marketing assertions with tangible actions.

Keywords: Green Marketing, Sustainability, Consumer, Marketing strategies

INTRODUCTION

The global shift towards sustainability has significantly influenced both consumer behavior and corporate strategies, prompting a reevaluation of how goods and

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services are produced, marketed, and consumed. Consumers are increasingly prioritizing products and services that align with their environmental values, leading to the rise of green marketing as a strategic response to this evolving demand. Green marketing integrates sustainable practices into branding, product development, and advertising, aiming to forge a strong connection between a brand's environmental stewardship and the values of its consumers. By promoting products and services that are environmentally friendly, companies seek to appeal to the growing segment of eco-conscious consumers who are willing to support businesses that demonstrate genuine environmental responsibility. However, the effectiveness of green marketing in building consumer trust and fostering brand loyalty remains a topic that requires further exploration (Adnan et al. 2023).

In today's competitive and environmentally conscious marketplace, sustainability has evolved from being a voluntary aspect of business operations to an indispensable requirement. This shift has been driven by increasing awareness and the urgency to address environmental crises such as climate change, deforestation, and pollution, which have reached critical levels over the past few decades. As a result, governments, corporations, and consumers are compelled to reconsider their roles in contributing to a sustainable future. Within this context, green marketing has emerged as a vital approach that not only satisfies the consumer demand for eco-friendly products but also enables companies to play a constructive role in addressing global environmental challenges. By integrating sustainable practices into their marketing strategies, businesses aim to reduce their ecological footprint while enhancing their brand image and appeal (Das et al. 2023).

Green marketing encompasses a wide range of activities, including the design of environmentally friendly products, the adoption of ethical sourcing practices, the minimization of waste, and the transparent communication of sustainability initiatives. This holistic approach seeks to ensure that all aspects of a company's operations contribute to environmental sustainability. Despite its noble goals, the implementation of green marketing faces significant challenges, particularly in establishing and maintaining consumer trust. The phenomenon of greenwashing—where companies exaggerate or falsely claim their sustainability efforts—has led to consumer skepticism about the authenticity of green marketing messages. This erosion of trust poses a substantial obstacle to the effectiveness of green marketing campaigns, as consumers become wary of the actual environmental impact of the products they are being encouraged to purchase. Therefore, building and maintaining trust becomes a critical factor in the successful conversion of green marketing efforts into lasting brand loyalty (Suhan et al. 2022).

This study delves into the complex interplay between green marketing, consumer trust, and brand loyalty, aiming to uncover the key factors that nurture trust and the mechanisms through which sustainable practices translate into consumer loyalty. By examining these relationships, the research seeks to provide actionable insights for marketers who aspire to develop green marketing strategies that not only resonate

with consumers but also foster enduring connections with their customer base. Understanding the dynamics of trust in green marketing can help businesses craft more effective and credible sustainability narratives, ultimately enhancing their brand reputation and securing customer loyalty in an increasingly eco-conscious marketplace. The findings of this study are expected to offer practical guidance for companies looking to balance the dual objectives of environmental responsibility and competitive advantage, ensuring that their green marketing efforts lead to genuine consumer engagement and loyalty.

The Emergence of Green Marketing

The emergence of green marketing can be traced to the growing environmental awareness that began to take shape in the 1970s, a period marked by increased public concern about ecological degradation and the need for more sustainable living practices. During this time, businesses started to acknowledge the necessity of integrating environmental considerations into their operations, albeit at a relatively modest scale. The 1970s environmental movements, fueled by seminal events such as the publication of Rachel Carson's "Silent Spring" and the establishment of Earth Day, set the stage for a paradigm shift where the environmental impact of industrial activities began to take center stage.

However, green marketing as a distinct strategy did not gain significant momentum until the 1990s. This decade witnessed a more pronounced shift as both consumers and corporations became more environmentally conscious. Companies began to actively promote eco-friendly products, highlighting attributes such as biodegradable packaging, organic ingredients, and energy efficiency. Alongside product innovation, businesses started adopting sustainable practices within their operations, such as reducing carbon emissions, using renewable energy sources, and implementing recycling programs. The increased visibility of these efforts was partly due to the growing media coverage of environmental issues and the emergence of green certifications and eco-labels, which provided a framework for businesses to communicate their environmental commitments to consumers.

Today, green marketing has evolved into a multifaceted approach that goes beyond simply offering eco-friendly products. It includes a comprehensive strategy encompassing corporate social responsibility, ethical sourcing, transparency in supply chains, and a demonstrated commitment to reducing the overall environmental footprint. Companies now leverage green marketing not only to appeal to the environmentally conscious consumer but also to differentiate themselves in an increasingly competitive market where sustainability has become a crucial factor for consumer choice.

Despite its widespread adoption, the success of green marketing strategies heavily depends on consumer perception of their authenticity. Instances of greenwashing, where companies make exaggerated or false claims about their environmental practices, have led to a growing skepticism among consumers. This mistrust poses

a significant challenge for companies, as the credibility of their sustainability claims becomes a vital determinant of consumer loyalty and brand trust.

This section explores the historical development of green marketing, examining how it has evolved from a niche concept to a mainstream business strategy. It highlights the increasing relevance of sustainability in shaping market dynamics, where being environmentally responsible is no longer optional but a necessary differentiator. The discussion further delves into how businesses can navigate the fine line between promoting genuine sustainability efforts and falling into the trap of greenwashing, emphasizing the importance of transparency and accountability in building consumer trust (Yadav et al. 2023). Through this exploration, the section aims to provide a nuanced understanding of the trajectory and significance of green marketing in the contemporary marketplace.

Consumer Trust in Sustainability Claims

Consumer trust is fundamental to the success of green marketing. It serves as the foundation upon which effective sustainability initiatives can be communicated and accepted by the target audience. Without trust, even the most genuine efforts to promote environmentally friendly practices may be dismissed as superficial marketing ploys, undermining the credibility and impact of such initiatives. Trust in green marketing is built on several key factors: the perceived authenticity of a brand's sustainability claims, the transparency in how these claims are communicated, and the visible, concrete actions a company takes to demonstrate its environmental commitment.

Authenticity is crucial; consumers need to believe that a company's environmental claims reflect real, significant efforts rather than symbolic gestures or "greenwashing." Greenwashing, the practice of overstating or fabricating a company's environmental efforts, has significantly damaged consumer trust. When businesses engage in greenwashing, they create a false image of sustainability, which can lead to consumer disillusionment and skepticism not only towards the specific brand but towards green marketing as a whole.

Transparency plays a vital role in building trust. Companies that openly share their sustainability goals, progress, challenges, and outcomes are more likely to be perceived as credible. Detailed, honest communication about the environmental impact of products and services, supported by evidence such as third-party certifications, industry standards, or verifiable data, helps reassure consumers that a company's claims are legitimate. For example, certifications like Fair Trade, USDA Organic, or Energy Star provide external validation that can enhance a brand's credibility.

Moreover, tangible actions that visibly align with a company's sustainability messaging are essential for reinforcing trust. These actions can include implementing sustainable sourcing practices, reducing carbon emissions, investing in renewable energy, or developing eco-friendly products. When consumers see that a company is genuinely

making a positive impact on the environment, they are more likely to trust its green marketing messages.

This section explores the intricate dynamics that influence consumer trust in green marketing, emphasizing the need for businesses to adopt transparent, authentic, and verifiable practices. It also discusses strategies that companies can use to overcome consumer skepticism and build credibility, such as enhancing transparency, seeking independent certifications, engaging in consistent and honest communication, and demonstrating real, measurable environmental benefits (Singh et al. 2023). These strategies are crucial for converting skeptical consumers into loyal supporters who believe in the brand's commitment to sustainability.

Sustainability as a Driver of Brand Loyalty

Brand loyalty represents the pinnacle of marketing success, and green marketing is no exception to this rule. In the context of sustainability, brand loyalty extends beyond mere satisfaction with a product or service to include a deeper emotional and value-driven connection between the consumer and the brand. Consumers who perceive a brand as genuinely committed to environmental stewardship are more inclined to engage in repeat purchases, advocate for the brand within their social circles, and establish a lasting emotional bond with the brand. This loyalty is driven by the alignment of the brand's sustainability efforts with the consumers' personal values and ethical standards.

Achieving this level of loyalty, however, demands more than superficial green marketing initiatives. Consumers are increasingly discerning and expect brands to integrate sustainability into every aspect of their operations, from sourcing materials to end-of-life disposal of products. They look for consistency and authenticity in how brands embody their commitment to sustainability, seeking evidence that a brand's actions are making a tangible difference. Surface-level efforts, such as minimal changes in packaging or vague sustainability claims, are unlikely to foster the deep loyalty that arises from a genuine commitment to environmental responsibility.

Sustainability drives brand loyalty by resonating with consumers' values and fostering a shared purpose. When a brand's mission aligns with consumers' aspirations to protect the planet, it creates a community of like-minded individuals who feel connected through their shared commitment to sustainability. This sense of shared purpose reinforces the emotional connection to the brand, as consumers feel they are part of a larger movement that contributes to a meaningful cause. Moreover, supporting eco-friendly brands allows consumers to express their values through their purchasing decisions, making them feel more positive about their consumption choices.

Emotional and psychological factors play a crucial role in strengthening consumer loyalty to green brands. For many consumers, choosing a sustainable brand is not just about the product itself but also about the pride and satisfaction derived from making choices that benefit the environment. This sense of pride can be a powerful driver of loyalty, as consumers are likely to continue supporting brands that enable

them to feel good about their impact on the world. Additionally, the positive brand image cultivated through genuine sustainability efforts can enhance consumers' overall perception of the brand, making them more inclined to remain loyal.

This section delves into how sustainability initiatives can enhance brand loyalty by appealing to consumers' values, promoting a sense of shared purpose, and leveraging emotional connections. It underscores the importance of authenticity and consistency in green marketing efforts, highlighting that genuine and comprehensive sustainability practices are essential for cultivating enduring consumer loyalty (Mudrika et al. 2024). By addressing these factors, brands can create a strong, loyal customer base that not only supports but also advocates for their commitment to the environment.

REVIEW OF LITERATURE

Mudrika et al. (2024) Green marketing, which focuses on sustainability, is one of numerous sectors that must address this pressing issue. The purpose of this research is to examine how green marketing affects consumers' environmental knowledge, happiness, and loyalty. Using a quantitative descriptive technique, this research surveyed 206 people from the capital area who are known to be heavy FMCG buyers. The questionnaires were dispersed using a non-probability purposive sampling method. A new angle on how green marketing affects social and environmental problems is offered by this research. This study was conducted in the developing nation of Indonesia, in contrast to the vast bulk of green marketing research that has been conducted in developed countries. Research shows that Green Marketing has a major effect on product creation, social responsibility, and consumer satisfaction and loyalty. It also has a significant effect on environmental safety and social responsibility. This study seeks to shed light on the intricate relationship between environmentally responsible marketing strategies and their effects on consumer happiness and the planet. This eco-conscious purchasing behavior, particularly among Indonesian fast-moving consumer goods (FMCG) buyers, demonstrates how these aspects impact their happiness and foster loyalty, even when faced with potential price increases. To succeed in this market, companies need to take environmental sustainability seriously, make it a priority when developing new products, and communicate their environmental initiatives clearly. Marketers are becoming more conscious of the need to include sustainability and ethical practices into their strategies, since consumers no longer base their purchase choices just on personal necessities. They now consider the broader environmental and societal ramifications.

Rastogi et al. (2024) People and businesses alike are under more pressure than ever to adopt sustainable practices in response to the threats presented by climate change, rising temperatures, and environmental deterioration. In order to meet societal expectations and achieve long-term success, organizations across all industries have recognized the need of adopting sustainable practices. This study looks at the consumer electronics sector in India to see how sustainable marketing affects customer loyalty. Using a mixed-approaches technique that used descriptive and causal research methodologies, 302 individuals from Delhi, India, and the surrounding

regions were surveyed. The data was analyzed using Smart PLS 4, and multivariate relationships were determined using structural equation modeling. The results show that eco-friendly advertising raises consumers' perceptions of and devotion to brands. Furthermore, sustained marketing and customer loyalty are both facilitated by brand image. Especially for managers in the consumer electronics sector, these results give light on how to increase customer loyalty via sustainable practices.

Uikey et al. (2023) This study aims to examine the relationship between green brand loyalty, green perceived value, and self-brand connection via the lens of green brand trust and self-brand connection as antecedents. Data was collected from people who own electric cars, and then the given theories were tested with the use of SmartPLS 4's Structural Equation Modeling (SEM) capabilities. According to the study's findings, green brand loyalty was significantly boosted by green brand trust, whereas the association between self-brand connection and green brand loyalty was strong but not overwhelming. Green brand trust and self-brand connection are more important than green transparency, according to the study. Green perceived value is a prerequisite for both. Research findings help marketers better understand consumer creation, which in turn leads to more effective marketing campaigns. The research suggests that businesses should address environmental issues related to the ecological value of their products and make transparency a top priority in their marketing campaigns. The study's findings highlight the importance of green transparency and perceived green value in building green brand trust, which in turn may lead to green brand loyalty.

Adnan et al. (2023) green marketing captivates the interest of scholars and experts globally. Research on green marketing and sustainable marketing has proliferated in recent years. This paper does a systematic analysis to examine the evolution and trends of research on consumer loyalty in the context of green marketing and sustainable marketing during the last decade (2013-2023). The analysis is conducted based on producing nations, authors, institutions, publications, and distribution terms. This research further examined publications according to the methodologies and factors used, as well as the results achieved. Thirty-three chosen papers were analyzed via Wordstat. The findings indicated that the United States is the most prolific nation in publishing papers on connected subjects. Green marketing, customer loyalty, customer happiness, green goods, and green image are terms that often occur with a maximum of 200 instances. Structural Equation Modelling (SEM) is a frequently used methodology.

Zhang et al. (2023) Maintaining healthy ecosystems requires a number of factors to come together, one of which is green loyalty, which is crucial in shaping consumers' purchasing decisions. Future studies must examine the research hotspots and trends of green loyalty as there is still a lack of study on this area. The conceptual content, structure, and measurement of green loyalty were all clarified with the aid of this thorough literature review. Also included in the study was a bibliometric analysis of 236 articles on "green loyalty" that appeared in the Web of Science database

from 2002 to 2022. Theoretical underpinnings, antecedent and result variables, and processes of green loyalty were identified during the text analysis, which not only disclosed but also offered useful guidance for future research.

Suhan et al. (2022) This study looks at how factors like passionate branding, confidence in the brand, and dedication to the brand effect customer loyalty. Additionally, it establishes the extent to which brand commitment mediates the relationship between brand trust and brand love. It also evaluates how effective brand commitment is as a mediator between trust in the brand and loyalty to the brand. A total of 101 participants filled out a structured questionnaire as part of this cross-sectional study. Data was analyzed statistically using the SMART PLS 3.0 program. Methods such as PLS, bootstrapping, blinding, the Importance-Performance Matrix, FIMIX, and Multi-Group analysis are covered in the analysis section. An illustrative model has been developed. It is supported by the premise that all direct correlations of variables have path coefficient values more than 0.2 and empirical t-values greater than 1.96. According to the results, brand commitment acts as a go-between for the relationships between brand love and trust, and between trust and loyalty. According to the four-segment solution's FIMIX-PLS route coefficient, segment 3 has the highest levels of brand love and trust, followed by segment 2, segment 1, and segment 4. Companies in the automotive industry would do well to focus on increasing consumer confidence in their brands in order to encourage brand loyalty via increased brand commitment. This sector may think about doing things to make consumers trust their brands more, such creating strong emotional bonds with the brand at stores, offering high-quality items, and helping people deal with cognitive dissonance.

Bashir et al. (2020) The study's development of a test model suggests it may theoretically aid in the establishment of a green hotel industry brand image. The mediating effect of green brand image was emphasized in a conceptual model that was tested with 347 Malaysian hotel consumers. Consumers' perceived practical and emotional advantages of eco-friendly hotels served as two antecedents in the model, while trust, loyalty, corporate image, and green brand preferences served as four outcome constructs. The findings suggest that consumers' perceptions of green brands, trust in those brands, loyalty to those brands, and corporate image would all undergo a positive chain reaction if the number of practical and emotional benefits they receive from green brands were to increase. In addition, consumers' choices, trust, loyalty, and corporate perception of green brands are influenced by their perceptions of the benefits these companies provide. These numbers allow hotel management to show how green marketing may raise awareness of environmental concerns among green hotel guests and build green branding strategies for their establishments.

METHODOLOGY

Research Design: This study adopts a descriptive research design aimed at exploring the relationship between consumer trust in green marketing initiatives and its impact

on brand loyalty. The research focuses on understanding consumer perceptions of sustainability and how these perceptions influence their purchasing decisions. A quantitative approach was employed to ensure statistically significant insights, supported by qualitative narratives to deepen the understanding of underlying motivations and behaviors.

Data Collection: Two primary tools, surveys and focus groups, made up the data gathering procedure. Two hundred people, spanning a wide range of ages, sexes, economic brackets, and regions, were asked to fill out a structured online questionnaire. Green marketing campaign views, brand sustainability claim credibility, and brand loyalty indicators (repeat purchases, advocacy, emotional connection) were all included of the survey questions. We utilized a 5-point Likert scale, from “strongly disagree” to “strongly agree,” to measure the replies they gave us. Aiming to delve further into customer attitudes and views, two focus groups were held, each with 8-10 participants, in addition to the survey. Topics covered in these meetings included people’s expectations of green marketing initiatives, their feelings towards sustainable products, and their suspicion of green washing.

Sampling Technique: Stratified random sample was used for this research to provide a fair representation across various demographic groups. In order to reduce prejudice and maximize varied perspectives, participants were divided into strata according to age, income, and environmental awareness levels.

Data Analysis: Quantitative data was analyzed using SPSS software in the research. While inferential statistics, like as regression analysis and correlation, were used to investigate links between variables, descriptive statistics, like percentages and frequencies, were used to summarize the data. To provide context and round out the survey results, the qualitative data from the focus groups were transcribed and examined thematically. Recurring themes and patterns were then found.

The research guarantees a strong examination of customer confidence in environmentally friendly advertising and its impact on brand loyalty by using a mixed-methods strategy that combines quantitative surveys with qualitative focus groups. To strike a compromise between statistical generalizability and the possibility of thorough qualitative interaction, the sample size of 200 participants was purposefully kept modest.

DATA ANALYSIS AND RESULTS

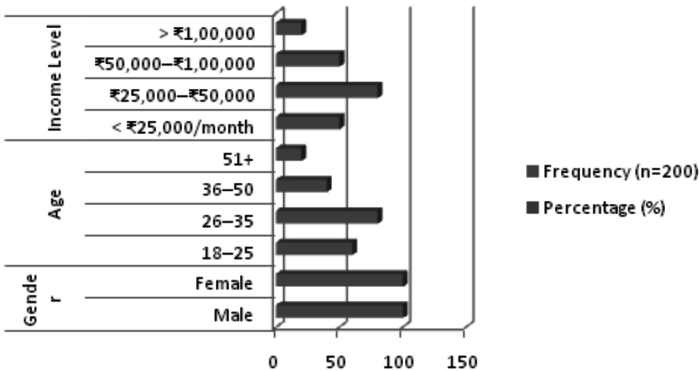
This section presents the findings from the survey of 200 participants and the focus group discussions. The analysis focuses on understanding consumer perceptions of green marketing, factors influencing trust in sustainability claims, and the impact of these factors on brand loyalty.

Demographic Overview

To provide a varied representation, the survey participants were chosen using stratified random selection. In Table 1 we can see the breakdown of the population.

Table 1: The Participant Demographics in the Survey

Category	Subcategory	Frequency (n=200)	Percentage (%)
Gender	Male	100	50%
	Female	100	50%
Age	18–25	60	30%
	26–35	80	40%
	36–50	40	20%
	51+	20	10%
Income Level	< ₹25,000/month	50	25%
	₹25,000–₹50,000	80	40%
	₹50,000–₹1,00,000	50	25%
	>₹1,00,000	20	10%



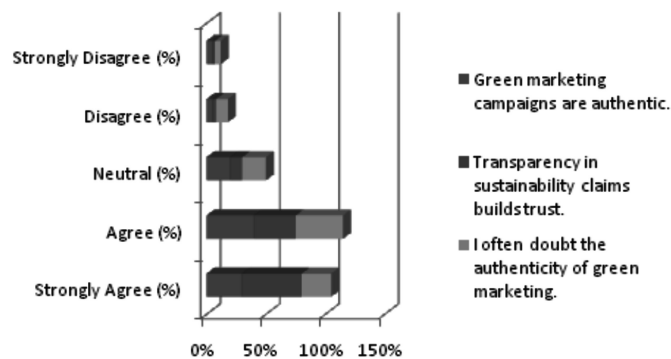
Graph 1: Demographic Distribution of Survey Participants

Trust in Green Marketing

Survey participants were asked about their trust in green marketing efforts. Table 2 summarizes the responses to key questions about transparency, authenticity, and skepticism regarding sustainability claims.

Table 2: Trust in Green Marketing Responses

Statement	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
Green marketing campaigns are authentic.	30%	40%	20%	5%	5%
Transparency in sustainability claims builds trust.	50%	35%	10%	3%	2%
I often doubt the authenticity of green marketing.	25%	40%	20%	10%	5%



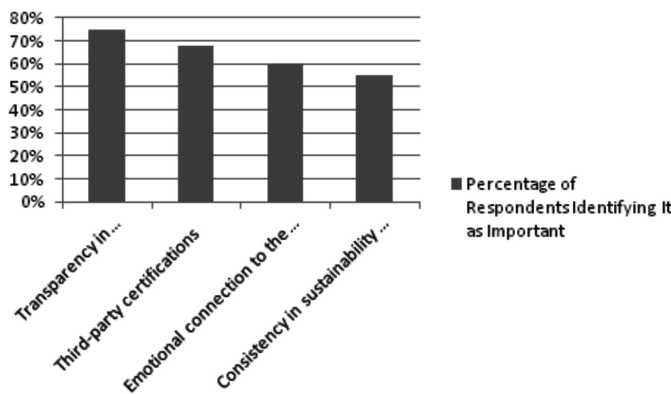
Graph 2: Consumer Perceptions of Trust in Green Marketing

Factors Influencing Brand Loyalty

To understand the drivers of brand loyalty in the context of green marketing, participants were asked about their willingness to engage with sustainable brands. The results are shown in Table 3.

Table 3: Factors Influencing Brand Loyalty

Factor	Percentage of Respondents Identifying It as Important
Transparency in sustainability claims	75%
Third-party certifications	68%
Emotional connection to the brand	60%
Consistency in sustainability efforts	55%



Graph 3: Key Drivers of Brand Loyalty in Green Marketing

Correlation Analysis

A Pearson correlation analysis was conducted to examine the relationship between trust in green marketing and brand loyalty. The results are shown in Table 4.

Table 4: Correlation between Trust and Brand Loyalty

Variable	Correlation Coefficient (r)	Significance (p-value)
Trust in green marketing	0.65	<0.01

The analysis reveals a strong positive correlation ($r = 0.65$, $p < 0.01$) between trust in green marketing and brand loyalty, indicating that higher levels of trust significantly enhance loyalty.

Focus Group Insights

Thematic analysis of focus group discussions revealed several prominent themes that underscore the critical factors influencing consumer trust and loyalty in the context of green marketing:

Transparency as a Non-Negotiable: A recurring theme across discussions was the importance of transparency in fostering trust between consumers and brands. Participants consistently highlighted the necessity for brands to provide clear, honest, and verifiable information regarding their sustainability initiatives. Consumers expressed skepticism towards vague or overly broad claims, emphasizing that detailed disclosures, supported by third-party certifications or data, were essential to substantiate a brand's environmental commitment. Transparency was seen not just as a desirable attribute but as a fundamental requirement for establishing and maintaining trust. Participants stressed that without access to accurate and verifiable information, it would be challenging to differentiate between genuinely sustainable brands and those merely engaging in greenwashing.

Authenticity over Marketing Hype: Another significant theme was the preference for authenticity over exaggerated marketing campaigns. Consumers conveyed a strong inclination towards brands that demonstrated their commitment to sustainability through concrete actions rather than relying heavily on advertising or promotional rhetoric. Participants shared that they were more likely to support brands that visibly integrated sustainable practices into their core operations, such as reducing waste, sourcing responsibly, and minimizing carbon footprints. Authenticity was valued over what was perceived as mere marketing hype, as consumers were attuned to the difference between genuine environmental efforts and superficial attempts to capitalize on the sustainability trend.

Emotional Resonance: Emotional connections emerged as a powerful driver of consumer loyalty. Many participants articulated a deep sense of alignment with brands that reflected their environmental values and principles. This emotional resonance fostered not only repeat purchases but also active advocacy for the brand within their social networks. Consumers described feeling a sense of pride and personal satisfaction when supporting brands that genuinely contributed to environmental well-being. This emotional connection often translated into long-term loyalty, as consumers were motivated to continue patronizing brands that allowed them to feel part of a larger, positive impact on the planet.

Summary of Findings

Demographic Influence: Younger participants (18–35 years) and higher-income groups were more likely to trust green marketing campaigns and exhibit loyalty to sustainable brands.

Trust and Loyalty Linkage: Transparency and third-party certifications emerged as the strongest drivers of trust, which in turn significantly influenced brand loyalty.

Skepticism: Despite positive perceptions of green marketing, skepticism about greenwashing persisted among a subset of participants.

CONCLUSION

This study underscores the pivotal role of trust in the success of green marketing and its influence on brand loyalty. Consumers are more likely to remain loyal to brands that demonstrate authenticity and transparency in their sustainability initiatives. The findings reveal that clear communication, third-party certifications, and consistent environmental practices are essential for building consumer trust. However, skepticism about greenwashing highlights the need for brands to avoid exaggerated claims and focus on tangible contributions to sustainability. Additionally, emotional connections play a significant role, as consumers often feel aligned with brands that reflect their values, leading to repeat purchases and advocacy. Ultimately, green marketing can drive strong brand loyalty, but its effectiveness depends on genuine efforts and transparent messaging. Businesses must prioritize these elements to build lasting relationships and gain a competitive edge in an increasingly eco-conscious market.

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Effective Talent Acquisition and Retention Strategies in the IT/ITeS Industry

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Abstract:

Talent Acquisition and Talent Retention have become increasingly critical in the contemporary business landscape, emerging as essential priorities for organizations worldwide. These two areas are considered monumental tasks that directly impact organizational success. The strength of an organization is closely tied to its skilled workforce, and employers who have mastered both Talent Acquisition (TA) and Talent Retention (TR) experience 3.5 times greater revenue growth and twice the profit margin compared to their competitors.

In today's workforce, employees are more discerning and have ample opportunities, especially experienced and talented individuals. As soon as they feel dissatisfied with their current role or employer, they are quick to seek opportunities elsewhere. This leads to employers losing valuable resources, including skilled employees, institutional knowledge, and the goodwill of the workforce, all of which affect overall morale. While attracting the right talent can be challenging, retaining them proves even more difficult. Employers must focus on three key considerations: first, identifying the type of talent they wish to acquire and retain; second, crafting the right message to appeal to potential candidates; and third, choosing the best channels to reach the desired talent pool.

The findings of the study indicate that Talent Acquisition and Talent Retention strategies have a significant impact on the respective outcomes. Specifically, variables such as financial strategy, technological advantage, organizational strategy, corporate sustainability, and contingency strategies were found to significantly influence Talent Acquisition. Similarly, factors like financial strategy, motivational strategies, employer branding, internal organizational strategies, and job security were significant drivers of Talent Retention.

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This study provides valuable insights for HR managers offering practical recommendations for improving their talent management strategies. It aims to help organizations develop more effective and tailored strategies to attract and retain talent, ultimately enabling them to address the challenges they face in the highly competitive IT/ITeS industry.

Keywords: Talent, Acquisition, Talent Retention, Strategies.

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INTRODUCTION

Talent Acquisition and Talent Retention are closely interlinked and hold immense significance across various industries, including the food sector, IT/ITeS, aviation, marine, and beyond. In today's dynamic, unpredictable, and fiercely competitive global markets, their importance transcends conventional terminology. This has led researchers to delve deeper into understanding and evaluating the critical role of Talent Acquisition and Retention on a global scale.

Talent Acquisition is often perceived as a mere replacement for traditional recruitment and selection processes. However, Rivera (2011) highlights that it extends well beyond these conventional practices. Talent Acquisition encompasses the broader aspects of attracting, selecting, and hiring individuals, integrating strategies that surpass standard recruitment procedures. Saeed et al. (2015) explain that Talent Acquisition involves employment branding, outreach initiatives, and fostering relationships with talent communities.

According to Armstrong and Taylor (2017), Human Resource Management (HRM) is a disciplined approach to employing and managing individuals. It involves applying scientific principles to understand the dynamics between people and organizations, ultimately enhancing organizational performance while addressing employee needs.

Human Resource Management (HRM) encompasses a range of activities, including attracting prospective talent, employing efficient acquisition strategies, and fostering sustainable employer practices. However, the emphasis is increasingly shifting toward Talent Retention, highlighting the challenges and critical need to retain high-quality employees whose unique capabilities are difficult to replicate.

McDonald (2018) emphasizes that organizations must prioritize staff retention to build long-term sustainable competitive advantages. Losing employees not only incurs significant costs for replacements and operational disruptions but also erodes organizational knowledge and employee morale (Yang, Wan & Fu, 2012). Haesli and Boxall (2005) further contend that retaining talented individuals with rare and valuable knowledge and skills can significantly enhance a firm's competitive edge and distinct competencies.

While human capital is recognized as the lifeblood of an organization and a key legacy for achieving sustainable competitive advantage, many firms fail to fully claim and utilize this potential (Net et al., 2012). Therefore, implementing cohesive strategies

for effective HRM, Talent Acquisition, and Talent Retention is crucial to attracting suitable talent and ensuring their long-term engagement within the organization.

TALENT

The concept of “Talent” lacks a universally agreed definition, as it is often ambiguous and incomplete. Definitions of talent vary significantly across organizations, influenced heavily by the industry and the nature of the work. Organizations tend to develop their own interpretations of talent to align with their specific needs rather than relying on generic definitions.

Talent refers to the continuously developed innate abilities and skills of individuals or employees to perform specific tasks. According to Buckingham and Vosburgh (2001), talent includes a combination of experience, thoughts, behavior, and emotions that can be effectively applied in organizational contexts. Defining talent with clarity allows organizations to better identify, manage, and retain it, ultimately leveraging talent management practices for growth and success.

Michaels et al. (2001) describe talent as the totality of an individual’s abilities, including intrinsic gifts, skills, knowledge, experience, intelligence, judgment, attitude, character, and drive. It also encompasses a person’s capacity for learning and growth. Similarly, Silzer and Dowell (2010) define talent as the sum of a person’s contributions to an organization. Tansley (2011) highlights that talent involves a mix of knowledge, skills, potential, and cognitive abilities. Achieving results in unfamiliar or challenging environments through professionalism—individually or collectively—also signifies talent.

Ulrich and Smallwood (2012) encapsulate talent with the equation:

Talent = Competence (skills, values, knowledge, and fit) × Contribution (meaning and purpose) × Commitment (willingness to perform).

Talent is a key determinant of organizational success, often regarded as a unique, valuable, and inimitable asset (Nancy, 2014). It serves as a guiding force, enabling individuals to perform tasks effectively and contributing significantly to the organization’s competitive edge.

The literature associates talent with various attributes, such as experience (Cheese et al., 2008), commitment (Ulrich, 2007), capacity (Jerrico, 2001), and knowledge (Bethke-Langenegger, 2012). Other traits include potential (Tansley et al., 2006), ability (Gagne, 2000), capability (Stanl et al., 2007), performance (Stanl et al., 2007), competency (Bethke-Langenegger, 2012), and contribution (Ulrich, 2007). Talent also includes patterns of thought (Buckingham and Vosburgh, 2001), skills (Hinrichs, 1966), and an individual’s capacity to make meaningful contributions.

Ultimately, talent is the distinguishing factor that drives organizational success by bringing unique, hard-to-replicate capabilities to the workplace.

TALENT MANAGEMENT

Talent Management is crucial for achieving organizational success, serving as a

sophisticated integration of human resource processes that drive benefits for any enterprise. Mohaimen (2015) describes Talent Management as the strategic approach to acquiring the right individuals for the right roles at the right time, while also retaining them effectively. It involves acquiring, developing, engaging, retaining, and leveraging individuals who bring value to the organization. Unlike traditional HRM, Talent Management integrates innovative knowledge, technology, and skills, moving beyond the rebranding of conventional practices.

Cunningham (2007) presents two key perspectives on Talent Management:

1. **Aligning People with Roles (APR):** This perspective assumes predefined roles and focuses on aligning individuals to fit these roles effectively.
2. **Aligning Roles with People (ARP):** Here, the focus shifts to acquiring the right people and then tailoring roles and organizational factors to fit them.

Talent Management represents a comprehensive framework of advanced human resource practices that encompass Talent Acquisition, selection, development, and career management. Jyoti (2014) emphasizes its role in attracting promising talent, onboarding new employees, and nurturing high-performing individuals. By fostering and motivating exceptional talent, organizations can work towards achieving their overarching goals.

Riccio (2010) highlights the significance of continuous leadership development, emphasizing its role in enabling organizations to attract talented individuals and retain those with exceptional potential. Talent management encompasses recruitment, career lifecycle management, succession planning, and the regulation of replacements. Blass (2007) views talent management as a valuable opportunity for skilled employees within an organization to thrive.

Ashton and Morton (2005) define talent management as a strategic blend of human resource practices and business planning. This integration aims to enhance workforce potential, achieve strategic outcomes, and maintain operational excellence. Talent management is not a static process but an ongoing endeavor. Its objective is not only to identify, acquire, and recruit promising employees but also to nurture and expand their capabilities, ensuring long-term individual and organizational growth.

TALENT ACQUISITION

Talent Acquisition is an ongoing and strategic process that focuses on attracting, sourcing, recruiting, and hiring employees to fulfill organizational needs. Margaret Rouse (2017) describes Talent Acquisition as an integral component of talent management, encompassing a range of activities performed by dedicated teams, including acquiring, coaching, developing, rewarding, and evaluating talent performance.

Jeremy Cepin (2017) views Talent Acquisition as a strategic method designed to identify, attract, and onboard top talent to effectively meet business demands. This approach not only addresses immediate staffing needs but also plays a crucial role in identifying future leaders, specialists, or executives for the organization. Talent

Acquisition emphasizes long-term human resource planning, targeting individuals with unique skill sets that align with the organization's goals and specialized roles. As highlighted by Gopa Das (2017), recruiting is a subset of Talent Acquisition that includes activities such as screening, sourcing, evaluating, interviewing, selecting, and hiring candidates. Talent Acquisition, however, encompasses a broader spectrum, aiming to recruit high-performing individuals who can elevate organizational activities and align talent strategies with business objectives.

Talent Acquisition involves discovering, attracting, and engaging exceptional talent within an organization. It includes a wide range of processes such as talent sourcing, candidate onboarding, workforce planning, recruitment, retention, and development. Daria Friedman (2018) describes Talent Acquisition as an iterative approach that focuses on building relationships, forecasting future workforce needs, securing commitments, and maintaining a sustainable pool of candidates. This strategy also helps nurture a talent pipeline with a long-term vision.

Moreover, Talent Acquisition is an ongoing process that integrates seamlessly with how organizations operate. It addresses not only filling specific vacancies but also aligning employment strategies with organizational goals and core efficiencies to drive success. Gallardo et al. (2015) emphasize Talent Acquisition as a continuous endeavor aimed at identifying and attracting skilled individuals to meet the evolving demands of an organization.

TALENT RETENTION

The modern business environment is rife with challenges such as rapid technological advancements, intensified global competition, resource scarcity, political uncertainties, and economic volatility. Amid these challenges, retaining key talent is crucial for organizations to achieve and maintain peak performance. Employees in critical roles often make significant decisions that directly impact organizational success. Losing such talent incurs high costs, including diminished business performance, reduced customer satisfaction, and the financial burden of recruiting and developing replacements. Hence, Talent Retention becomes an essential and strategic process (Jauhari et al., 2013).

Talented individuals are the driving force behind an organization's success. Many leading corporations prioritize retaining their existing human capital as a means of strengthening their organizational capabilities while using this stability to attract additional high-calibre talent. This approach creates a dual advantage: fostering a robust internal workforce and appealing to external prospects (Bhatnagar, 2008).

The term "retention" originates from the Latin word *retinere*, combining "re" (backward) and "tinere" (to hold), which collectively means the act of keeping something. Talent Retention, therefore, refers to motivating employees to remain with an organization, particularly for the duration of critical projects or roles that demand unique knowledge and expertise. It is an intentional effort by employers to nurture and sustain valuable employees to achieve organizational goals and uphold its mission and vision.

Cloutier et al. (2015) define Talent Retention as the systematic practice of maintaining talented employees within an organization. This practice is vital for preserving institutional knowledge, enhancing productivity, and driving long-term success.

IMPORTANCE OF TALENT ACQUISITION AND TALENT RETENTION

The challenges faced by HR executives in the current climate are more complex than ever, as they navigate unpredictable supply and demand forces while making staffing decisions in an environment where workforces may feel distracted, destabilized, or disengaged. To address these challenges, HR professionals now rely on advanced modelling tools and strategic thinking, like those used in managing other corporate assets for decades. Talent Acquisition and Talent Retention are crucial not only for businesses but also for individuals and society (Dan Hilbert, 2009).

Importance to Business

Talent Acquisition and Talent Retention play pivotal roles in helping businesses secure the right talent, stay competitive, and save both time and money in the process. By effectively acquiring and retaining talent, organizations are better equipped to meet current and future needs, ensuring long-term growth and success.

Importance to Individuals

For individuals, Talent Acquisition and Talent Retention are key to finding the right opportunities with employers who recognize their unique talents beyond credentials. This process enables individuals to join organizations that align with their career aspirations and values, while also offering a balanced work-life environment, which is increasingly valued in today's workforce.

Talent Acquisition and Talent Retention are crucial for the economy as they contribute to effective workforce demand planning, stimulate economic growth, address talent gaps, and promote flexibility in response to competitive demands. By ensuring a stable and skilled workforce, these practices enhance business performance, ultimately driving the overall competitiveness and prosperity of the economy.

NEED FOR TALENT ACQUISITION

1. **Helps to Stay Competitive:** Leading companies excel in their industries not due to luck, but because they employ some of the best, most skilled professionals. Talent Acquisition is key to staying competitive by consistently attracting top talent to the organization.
2. **Workforce Determines Success:** The success of any organization depends primarily on its people, from leadership to technical and clerical staff. It is only by having the right individuals with the necessary skills and energy that an organization can achieve its goals.
3. **Future Eventualities:** Talent Acquisition is about more than just filling current vacancies; it involves identifying and preparing future leaders and key personnel. By proactively building a talent pool, organizations are better equipped to

fill critical positions quickly when needed, mitigating future challenges and disruptions.

4. **Talent Acquisition Reduces Risk:** Rather than rushing to hire, Talent Acquisition involves strategic planning to align the right individuals with the organization's needs. This process minimizes the risk of hiring unfit candidates, reducing turnover and ensuring better alignment with the organization's goals.
5. **Boosts Productivity and Saves Costs:** Hiring skilled, talented employees directly contributes to higher productivity and quality. A strong Talent Acquisition strategy reduces long-term costs by ensuring that the right people are hired from the start, saving both time and resources while maximizing productivity.

NEED FOR TALENT RETENTION

1. **Hiring is Not an Easy Process:** The process of hiring requires considerable time and effort, as HR professionals sift through large pools of talent, conduct interviews, and ensure candidates are a good fit for the organization. This makes it essential to retain valuable employees and avoid the costs of constant recruitment.
2. **Talent Needs Time to Adjust:** When new employees join an organization, they require time to build relationships with their teams, understand dynamics, and gain trust. The replacement of experienced employees with new hires can result in adjustment issues that may affect productivity and morale.
3. **Retaining Valuable Employees Shows Potential:** Talented employees who consistently perform well and contribute to the organization's success should be retained. Losing these key individuals can hinder innovation and overall performance, making retention a crucial factor in sustaining success.
4. **The Organization Invests Time and Money in Grooming Employees:** Organizations invest significant time and resources into developing their employees. When talented individuals leave unexpectedly, the costs associated with recruitment and training are wasted. Retaining top performers ensures that the organization's investment in their growth continues to pay off.

IMPORTANCE OF THE STUDY

In the face of growing competition among IT/ITeS companies, acquiring and retaining top talent has become increasingly challenging. Providing the right strategies and approaches is essential to help organizations not only attract but also retain skilled employees. The challenges that organizations face during the Talent Acquisition and Talent Retention processes can be addressed effectively with the right strategies, ensuring that organizations can overcome these hurdles. Talented employees are considered valuable assets to any organization, and they play a crucial role in the organization's growth and success. Therefore, studying the challenges in these areas and identifying effective strategies for acquiring and retaining talent is critical for organizations aiming to stay competitive and build a strong workforce.

OBJECTIVES OF THE STUDY

The study aims to explore the challenges organizations face in Talent Acquisition and Talent Retention, and identify the right strategies for addressing them. The objectives of the study are:

1. To identify the factors influencing Talent Acquisition and Talent Retention strategies.
2. To examine the major challenges organizations, face in Talent Acquisition and Talent Retention.
3. To analyse the differences between demographic variables and the factors influencing Talent Acquisition and Talent Retention.
4. To establish a model and examine the impact of Talent Acquisition strategies on the success of Talent Acquisition.

SCOPE OF THE STUDY

The primary aim of this study is to identify the strategies needed for acquiring and retaining top talent. It aims to help organizations overcome the challenges they face in both the Talent Acquisition and Talent Retention processes. This study is expected to improve decision-making related to acquiring and retaining talent, thereby contributing to employer satisfaction. The research is specifically focused on IT/ITeS companies.

In today's competitive global landscape, companies from diverse sectors such as manufacturing, finance, information technology, healthcare, telecommunications, construction, food, electronics, entertainment, and mining are fiercely competing to attract top talent. Every industry is striving to secure skilled professionals who can drive innovation and contribute to its growth. The challenge of attracting, recruiting, and retaining talented individuals has become a critical focus for organizations aiming to maintain their competitive edge. However, while recruiting exceptional employees is a challenge in itself, retaining them poses another significant hurdle. The process of talent acquisition and retention demands continuous effort, with employers needing to adapt and overcome numerous obstacles to keep their workforce engaged and loyal.

In academic research, conducting a literature review plays an essential role in developing a strong foundation for the study. It involves exploring past research, identifying hypotheses, and understanding the key issues within the field of study. A well-executed literature review helps frame the research problem, justifies the need for the study, and informs the development of future research. This review aims to uncover the strategies used in talent acquisition and retention, offering insights into the challenges faced by organizations in these areas.

DEFINITION OF LITERATURE REVIEW

Bryman and Bell (2011) define a literature review as a process that provides justification for a research question and helps guide the researcher's next steps in the research process. Brown Barry (2019) describes a literature review as a method

to catalog, summarize, evaluate, and analyze previous research on a topic. It offers a theoretical foundation for the study, going beyond merely summarizing the sources. A literature review combines both summarization and synthesis, where summarization involves outlining key points of the sources, and synthesis involves interpreting, reordering, or connecting the information to create new insights.

PURPOSE OF LITERATURE REVIEW ON TALENT ACQUISITION AND TALENT RETENTION

The primary goal of the literature review on **Talent Acquisition and Talent Retention** is to synthesize and expand on the existing research conducted by other authors in the field. By analyzing and examining their findings, the review aims to provide a comprehensive understanding of these key concepts. Additionally, it seeks to understand the broader implications of talent acquisition and retention strategies in both India and globally. This review will serve to highlight the various approaches, challenges, and successes that organizations face in managing talent, offering insights that can guide future research and practical applications in these areas.

MAJOR CHALLENGES ORGANIZATIONS FACE IN TALENT ACQUISITION

Heather Darby (2017) highlighted several challenges related to talent acquisition, especially in the context of international hiring policies. One of the key issues is the evolving nature of global mobility. As organizations seek to hire talent from diverse geographic locations, they face significant hurdles in adapting to the dynamic nature of international hiring. Acquiring employees for positions that require international placements becomes complicated due to varying labor laws, political climates, and technological advancements across countries.

Moreover, organizations must manage a workforce with different cultural values, attitudes, and behaviors—such as varying perceptions of achievement, time management, and risk-taking. This diversity, while beneficial in some ways, also presents challenges in aligning the goals and values of the organization with those of the employees.

Another challenge is the blurring of lines between traditional Human Resource functions. As the scope of HR expands globally, management development, employee rewards, and talent acquisition responsibilities are becoming increasingly intertwined. Resourcing specialists are now required to have a broader skill set, as they are tasked not only with hiring but also with ensuring organizational development, engagement, and motivation across different markets.

Lastly, the fast-paced changes in global business environments demand that organizations act swiftly to attract and hire top talent. The pressure to meet organizational demands for talented individuals, regardless of location, often conflicts with the need to comply with various international regulations and standards. The challenge becomes even more complex when organizations have to navigate differences in labor laws, political climates, and the varying stages of technological development in different regions.

Katie Di Cioccio (2017) highlighted that effective data-driven recruitment is a key approach to enhancing the candidate experience. However, the primary challenge in this approach lies in selecting inappropriate data. Relying on the wrong data can lead to increased hiring costs, longer time-to-hire, ineffective sourcing, and a diminished candidate experience. Organizations often prioritize different types of data, making data-driven recruitment a significant challenge in talent acquisition.

Tyrone Health (2017) reviewed the challenges posed by the absence of an inbound recruitment strategy in talent acquisition. According to their findings, 70% of candidates search for jobs through Google. When prospective and talented candidates search for an organization and find no online presence, it creates a negative impression and diminishes their interest in the organization. A lack of a comprehensive company profile or limited activity on social media platforms like Facebook, LinkedIn, and Twitter, as well as the absence of engaging business blogs, can lead top candidates to question the desirability of working for the organization.

The primary objective of any talent acquisition strategy is to attract top-tier talent that aligns with the organization's purpose, goals, and vision. Inbound recruiting succeeds only when people engage with the organization's content. This requires significant effort to produce valuable content, such as e-books, social media posts, videos, blog posts, and online brochures, to effectively attract and retain top talent.

John Sullivan (2018) emphasized that poor implementation of data-driven recruitment poses significant challenges in talent acquisition. Establishing and maintaining an effective data-driven recruitment process is a demanding task for organizations. When not properly executed, the consequences can include inefficient hiring processes, increased recruitment costs, slower time-to-hire, and higher employee turnover rates. Although candidate data can be stored and retrieved as needed, the key issue lies in ensuring the accuracy and reliability of the data. Mistakes in data storage and retrieval can further complicate the recruitment process, making data-driven recruitment a persistent challenge.

Josh Bersin (2018) identified the creation of an engaging career site as another challenge for organizations. Top talent often avoids companies with unattractive career pages. The 2018 Conference Board CEO Study revealed that advancements in technology have heightened the difficulty of attracting and retaining top talent. An appealing career page effectively communicates the organization's employer brand, mission, values, and employee testimonials, giving candidates a compelling reason to join. Prospective employees often evaluate an organization based on its career site before considering employment. If the site fails to meet their expectations, they may turn to competitors. Thus, building an attractive and informative career site is crucial yet challenging for organizations seeking to attract high-caliber candidates.

Monica Torres (2018) highlighted that offering competitive salaries remains a significant hurdle in talent acquisition. According to the U.S. Department of Treasury, 40% of top talent negotiates job offers based on salary, and organizations risk losing these candidates if their compensation packages are not competitive. Employers often

assess competitors' pay structures and practices to design attractive compensation packages. Resources such as Payscale, Glassdoor, and the Bureau of Labor Statistics can help organizations determine appropriate pay based on location and job characteristics. However, providing competitive salaries inevitably increases costs, making it a continual challenge for organizations striving to secure top talent.

Smriti Chand (2018) discussed the impact of government policies on recruitment, identifying them as significant constraints for organizations seeking to acquire top talent. Government legislation may require organizations to reserve a certain percentage of positions for specific societal groups or candidates from designated castes. In some cases, laws mandate hiring exclusively from pre-approved lists, which restricts management's flexibility in selecting the most suitable candidates for their needs. These constraints pose challenges to an organization's ability to recruit the right talent effectively.

Tracy Maylett (2018) emphasized that the inability to effectively communicate an employer brand is a major challenge in talent acquisition. The employer brand encompasses an organization's culture, reputation, values, and employee experience, and plays a crucial role in attracting and retaining talented employees. A weak employer brand can fail to meet candidates' expectations even before they attend their first interview, undermining efforts to acquire top talent. Indicators of a struggling employer brand include declining applicant numbers, job ghosting, and a noticeable drop in the quality of new hires. Strengthening the employer brand is essential for overcoming these issues.

Chloe Sullivan (2019) critiqued the competitive nature of acquiring talent with highly sought-after skillsets, noting that candidates are often inundated with offers from multiple recruiters. In a candidate-driven market, the demand for skilled professionals frequently exceeds supply, making recruitment a daunting task. Additionally, delays in making job offers—often stretching weeks after interviews—can result in losing top talent to faster-moving competitors. Addressing these challenges requires organizations to streamline their hiring processes and act quickly to secure high-caliber candidates.

Ernie Smith (2019) highlighted the issue of prolonged hiring processes, which can deter talented candidates. If the recruitment process is excessively slow, organizations risk losing both experienced professionals and younger talent. A study by the talent acquisition software firm Yello found that outdated recruitment strategies and long waits are significant deterrents, with 54% of candidates unwilling to join organizations with lengthy hiring timelines. To remain competitive, organizations must modernize their recruitment strategies and prioritize efficiency.

Katie Kuehner-Hebert (2019) identified background screening as a key challenge in talent acquisition. Compliance with employment laws, such as the Fair Credit Reporting Act, requires employers to obtain written consent before accessing candidates' credit histories, criminal records, or personal information. Legal disputes over employment screenings have led to numerous lawsuits, adding complexity to the process. If

discrepancies arise during background checks, employers must allow candidates time to resolve them or proceed with alternate hires, making background screening a critical yet challenging aspect of recruitment.

RESULTS OF DEMOGRAPHIC PROFILE WITH TALENT RETENTION STRATEGIES

Size of the Organization and Talent Retention Strategy Hypothesis (H20): There is no difference between the size of the organization and Talent Retention.

The analysis of the data reveals that there is a significant difference in talent retention practices based on the size of the organization. Organizations were categorized based on the number of employees:

Small companies: 10-49 employees

Medium companies: 50-100 employees

Large companies: More than 100 employees

The findings suggest that **larger companies** tend to implement **more effective Talent Retention strategies** compared to smaller companies. In large organizations, the **Talent Retention process** is more robust, particularly due to the broader application of **strategic measures**. Moreover, these companies are better at **identifying talent for the future** compared to their smaller counterparts. Strategies like **Financial Strategy**, **Employer Branding**, **Job Security**, **Organizational Internal Strategy**, and **Motivational Strategy** were observed to be more prevalent in larger organizations, contributing to better talent retention.

Nature of Employment and Talent Retention

Strategy Hypothesis (H21): There is no difference between the nature of employment and Talent Retention.

Data analysis showed that employers utilize different strategies for retaining **permanent** and **temporary** employees. The **nature of employment** was categorized into **permanent employees** and **part-time employees**. It was found that organizations employ **17 strategies** (out of 30 identified) to retain both **temporary** and **permanent talent**. This highlights that employers recognize the need for tailored approaches to retention based on employment type, using distinct strategies for both groups to ensure long-term retention.

Gender and Talent Retention Strategy

Hypothesis (H22): There is no difference between gender and Talent Retention.

Analysis of the data revealed a significant difference in the **Talent Retention strategies** used by male and female HR employers. **Male HR employers** prioritize strategies like **Organizational Internal Strategy** and **Employer Branding Strategy** when retaining talent. On the other hand, **Female HR employers** give more importance to **Financial Strategy**, **Motivational Strategy**, and **Job Security**

Strategy. These findings indicate that gender may influence the selection of retention strategies, with male and female HR professionals focusing on different aspects of the retention process.

Region and Talent Retention Strategy

Hypothesis (H23): There is no difference between the region and Talent Retention.

The analysis clearly revealed a regional difference in the application of **Talent Retention strategies**. In **West Delhi NCR**, organizations are more likely to use **Financial Strategy** and **Motivational Strategy** to retain talent. In contrast, organizations in **South Delhi NCR** focus on **Employer Branding Strategy** and **Job Security Strategy** for retention. This regional variation highlights how location influences the choice of retention strategies, with each region favoring different approaches based on its unique organizational needs and priorities.

SUMMARY OF FINDINGS

Talent Acquisition Strategy: The study aimed to identify strategies for acquiring top talent globally. Several strategies were found to significantly impact talent acquisition in the IT/ITeS sector in South and West Delhi NCR, India:

Financial Strategy: Financial strategies such as welcome bonuses, poaching, hackathons & bootcamps, competitive pay, intrapreneurship, and guerrilla recruiting were found to have a significant impact on talent acquisition.

Technological Advantage Strategy: Strategies leveraging technology, including social media, mobile recruiting, artificial intelligence, applicant tracking systems, data-driven acquisition, and gamification, were also found to significantly influence talent acquisition by providing advanced training in new technologies.

Organizational Internal Strategy: Organizational internal strategies, such as employee referral programs, internal hiring, in-house recruiting, employee value propositions, benchmarking practices, and corporate social responsibility, were found to play a key role in attracting talent by improving the organizational work environment.

Corporate Sustainability Strategy: Corporate sustainability strategies, including employer branding, talent pipelining, boomerang employees, headhunting, and open requisition by recruiters, significantly impacted talent acquisition by providing both cultural and social dimensions to the organization.

Contingency Strategy: Contingency strategies, such as campus hiring, job postings, placement agencies, job portals, career fairs, and walk-in interviews, were effective in attracting talent by offering attractive packages and opportunities.

Talent Retention Strategies: The study also aimed to identify strategies for retaining top talent. Several strategies were found to have a significant impact on talent retention in the IT/ITeS sector in South and West Delhi NCR, India:

Financial Strategy: Financial strategies, including intrapreneurship, paid vacations,

impartial performance appraisals, profit-sharing plans, retention bonuses, and competitive pay, were crucial in retaining talent.

Motivational Strategy: Motivational strategies such as career development opportunities, job sculpting, motivation, allowing talent to patent ideas, teamwork, and global mobility were found to play a significant role in talent retention.

Organizational Internal Strategy: Organizational internal strategies, including upward mobility, organizational culture, climate, grievance policies, corporate social responsibility, and succession planning, were essential for retaining talent by fostering a supportive work environment.

Employer Branding Strategy: Employer branding strategies, such as conducting exit interviews, employee engagement programs, flexible work schedules, on-site daycare facilities, and paid maternity and paternity leave, significantly impacted talent retention by offering additional cultural and organizational value.

Job Security Strategy: Job security strategies, including work-life initiatives, job security, sense of ownership, leadership, employee empowerment, and proper training & development, were key factors in retaining talent.

DEMOGRAPHIC PROFILE AND ITS DIFFERENCES

Size of the Organization and Talent Acquisition & Retention: Larger organizations tend to adopt more strategies and successfully acquire and retain more talent compared to smaller and medium-sized organizations.

Nature of Employment and Talent Acquisition & Retention: Employers are acquiring both permanent and temporary talent. Of the strategies mentioned, 21 out of 30 common strategies are used by employers to acquire both permanent and temporary talent, and 17 out of 30 strategies are used for retaining both types of talent.

Gender and Talent Acquisition & Retention: In the acquisition phase, male HR professionals prioritize financial strategies, corporate sustainability strategies, and contingency strategies, while female HR professionals prioritize technological advantage strategies and organizational internal strategies. In the retention phase, male HR professionals focus on organizational internal strategies and employer branding strategies, while female HR professionals prioritize financial strategies, motivational strategies, and job security strategies.

Region and Talent Acquisition & Retention: In West Delhi NCR, financial and contingency strategies are primarily used for acquiring talent, while in South Delhi NCR, organizational internal and corporate sustainability strategies are favored.

For talent retention, West Delhi NCR focuses on financial and motivational strategies, while South Delhi NCR emphasizes employer branding and job security strategies.

CHALLENGES FACED BY ORGANIZATIONS IN TALENT ACQUISITION AND TALENT RETENTION

Challenges in Talent Acquisition: Organizations face several hurdles during the talent acquisition process. Some of these challenges were identified through data

analysis. Key issues include sourcing suitable candidates, navigating government regulations, handling the international hiring process, struggling to effectively communicate the employer brand, dealing with a slow hiring process, lack of inbound acquisition efforts, absence of data-driven recruitment strategies, non-competitive salary offerings, unattractive career websites, and challenges with background screening. These challenges can be addressed and mitigated through targeted Talent Acquisition strategies.

Challenges in Talent Retention: In the realm of talent retention, organizations also encounter various challenges. Data analysis revealed several key issues, including the difficulty of offering sufficiently challenging roles, competitors providing more attractive benefit packages, the complexities of relocating talent internationally, job rotation issues, managing workforce diversity, fostering positive relationships, unrealistic expectations from employees, poor organizational culture, lack of a strong employer brand, and ineffective organizational policies and practices. These challenges can be overcome by implementing effective Talent Retention strategies.

Outcome of the Project: The outcome of this project explores the impact of independent variables on Talent Acquisition and Talent Retention. The research demonstrated that all independent variables had a significant direct or indirect positive effect on both Talent Acquisition and Talent Retention through corresponding mediating variables. For the Talent Acquisition model, the study found that the Financial Strategy had the most significant influence, followed by the Technological Advantage strategy, Organizational Internal Strategy, Corporate Sustainability Strategy, and Contingency Strategy. In terms of Talent Retention, the Financial Strategy again had the strongest influence, followed by Motivational Strategy, Organizational Internal Strategy, Employer Branding Strategy, and Job Security Strategy.

CHALLENGES ORGANIZATIONS FACE DURING TALENT ACQUISITION AND TALENT RETENTION

Challenges in Talent Acquisition: Organizations encounter several obstacles during the talent acquisition process. Key challenges revealed through data analysis include sourcing suitable candidates, government regulations, navigating the international hiring process, difficulties in communicating the employer brand, slow recruitment timelines, lack of effective inbound acquisition strategies, absence of data-driven recruitment approaches, non-competitive pay structures, unattractive or poorly designed career websites, and issues with background screening. These challenges can be mitigated with the right Talent Acquisition strategies.

Challenges in Talent Retention: Similarly, organizations face numerous challenges in the talent retention process. Data analysis highlights issues such as offering overly challenging jobs, competitors providing more attractive benefit packages, the complexities of relocating employees internationally, job rotation difficulties, managing workforce diversity, poor relationships within the organization, unrealistic expectations from employees, organizational culture barriers, lack of a strong brand

image, and ineffective policies and practices. These challenges can also be overcome with effective Talent Retention strategies.

Outcome of the Project: The outcome of this study illustrates the impact of independent variables on Talent Acquisition and Talent Retention. The research found that all independent variables significantly influenced both talent acquisition and retention, either directly or indirectly, through corresponding mediating variables. For Talent Acquisition, the financial strategy had the most substantial indirect effect, followed by the technological advantage strategy, organizational internal strategy, corporate sustainability strategy, and contingency strategy. In the context of Talent Retention, financial strategy had the strongest influence, followed by motivational strategy, organizational internal strategy, employer branding strategy, and job security strategy.

CONCLUSION

Talent Acquisition and Talent Retention are critical aspects of every organization and impact all industries. Effectively working with talent helps organizations maintain their position at the top of their sectors. Much like a coin has two faces, Talent Acquisition and Talent Retention are two interconnected challenges. While acquiring talent presents its own set of difficulties, retaining that talent can be equally, if not more, challenging. Particularly in the IT/ITeS sector, organizations globally face struggles in both acquiring and retaining talent. However, once talent is acquired and retained, organizations are well-positioned for success.

Certain Talent Acquisition and Talent Retention strategies have a dominant impact, while others may have a more subtle effect. To effectively acquire and retain talent, organizations must adopt targeted strategies that address these challenges. The challenges of sourcing candidates, navigating government regulations, slow hiring processes, non-competitive pay, attracting talent with competitive benefits, fostering a positive organizational culture, and addressing workforce diversity can all be overcome with the strategies identified in this research. These strategies are essential for improving both the acquisition and retention of talent within organizations.

SUGGESTIONS

It is essential for every IT/ITeS organization in West and South Delhi NCR, India, to establish dedicated Talent Acquisition and Talent Retention teams. The success of these processes is crucial for staying ahead of competitors. These teams must consistently monitor and refine their strategies to ensure they always remain effective and relevant.

To enhance talent acquisition, organizations should implement strategies such as offering welcome bonuses, engaging in poaching, organizing hackathons and bootcamps, offering competitive pay, encouraging intrapreneurship, leveraging guerrilla recruiting, utilizing social media, mobile recruiting, artificial intelligence, and applicant tracking systems. Other effective strategies include data-driven

acquisition, gamification, employee referrals, internal hiring, in-house recruiting, and enhancing the employee value proposition. Benchmarking practices, corporate social responsibility, employer branding, talent pipelining, boomerang employees, headhunting, internships, open requisitions, campus hiring, job postings, placement agencies, job portals, career fairs, and walk-in interviews should also be integrated into the acquisition process.

For talent retention, organizations should consider strategies like intrapreneurship, paid vacations, impartial performance appraisals, profit-sharing plans, retention bonuses, competitive pay, career development opportunities, job sculpting, motivation, allowing employees to patent ideas, teamwork, global mobility, and upward mobility. Additionally, maintaining a positive organizational culture and climate, grievance policies, succession planning, employer branding, exit interviews, employee engagement initiatives, flexible work schedules, on-site daycare facilities, paid maternity and paternity leave, work-life balance programs, job security, and a sense of ownership are crucial. Leadership development, employee empowerment, and providing comprehensive training and development programs should also be emphasized as part of the retention strategy.

To remain competitive in the rapidly evolving market, organizations must continually update their strategies to attract and retain the best talent. This approach will help maintain a strong position in the industry and ensure long-term success.

IMPLICATION

The findings of this study offer valuable insights for companies in the IT/ITeS sector, providing a deeper understanding of various strategies and their potential benefits for organizations. These results serve as a foundation for refining and enhancing strategies to gain a competitive edge in the talent acquisition and retention process. The study outlines effective approaches that can help IT/ITeS companies attract and retain top talent, ensuring their success in a highly competitive market. Additionally, the research sheds light on the challenges organizations face during talent acquisition and retention, further supporting IT/ITeS firms in maintaining their leadership position in the industry.

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Enhancing Operational Efficiency in the Financial Sector through Artificial Intelligence: A Review of Real-World Applications in Fintech

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Abstract:

The financial sector has encountered numerous disruptions triggered by the innovative development of financial technology (Fintech) services. This rapid advancement has resulted in enhanced convenience, accessibility, and efficiency. Fintech companies are employing various AI applications to automate repetitive routine tasks, reduce operational costs, improve the accuracy of decisions, manage huge structured and unstructured data, and automate adherence to regulations. However, it raised additional issues, such as risks related to cyber security, regulatory challenges, and inefficiencies in operations. The paper addresses the role of artificial intelligence (AI) in enhancing the operational efficiency of Fintech Companies. For this purpose real-world applications are taken to show how AI-driven solutions elevate operational efficiency by simplifying procedures and decision-making processes, reducing cost and errors made by individuals, and improving customers.

Keywords: Artificial Intelligence, Financial Sector, Fintech, Operational Efficiency Operational Efficiency, Customer Experience, Risk management.

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INTRODUCTION

The financial sector is experiencing significant changes as a result of the rapid growth of services offered by Fintech companies in the economy. Financial transactions are now more comfortable, simple, and effective as a result of these developments. The use of artificial intelligence (AI) in Fintech operations is one of the most significant

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indicators of progress in this area. AI makes it possible to automate procedures, reduces company expenses, increases the precision of choices, and handles massive amounts of both structured and unstructured data. By improving operational effectiveness and fortifying fraud monitoring, artificial intelligence (AI) has profoundly changed the financial sector. Financial institutions have been transformed by AI-driven risk and fraud detection systems, which provide them the ability to forecast consumer behavior using data-driven insights. Numerous procedures have been automated because of the integration of AI in financial services, simplifying operations and cutting down on processing times. AI also aids in spotting questionable financial activity, which reduces fraudulent transactions. AI-powered online banking services also help consumers by making it simple for them to keep an eye on account balances, payment dates, and other financial activity. AI has also been essential in helping emerging economies overcome market obstacles and promote financial inclusion. AI's capacity to streamline banking and financial processes has improved services' efficacy and efficiency, drew clients and improving their entire experience. According to statistical evidence, various research findings show that AI has a major positive impact on financial technology, reinforcing its critical role in contemporary banking and financial management.

Artificial Intelligence (AI)

AI or Artificial Intelligence is the ability of a digital computer or machine to complete tasks associated with a human intelligence such as interpreting language, learning from past experiences, and reasoning.

Financial Sector

The subsection of the economy that offers financial services to people, companies, and governments is known as the financial sector. It comprises organizations and marketplaces that support financial transactions, including financial technology (fintech), banking, investing, and insurance. To manage money, credit, and financial risks and support stability and economic progress, the financial sector is essential.

Financial Technology (Fintech)

Fintech refers to the mixing of financial services and technology, and it is defined as the new technology used by businesses to deliver new and improved financial services such as mobile banking, investing, or even blockchain.

OBJECTIVES

1. To explore the impact of AI on operational efficiency in the financial sector
2. To review real-world applications of AI in Fintech
3. To identify the challenges associated with integration of AI in financial operations

RESEARCH METHODOLOGY

Research Design

Using a qualitative research methodology, this study integrates a thorough analysis of previous research as well as real world applications of artificial intelligence

(AI) in the financial industry. In order to comprehend how AI improves operational efficiency and to pinpoint important obstacles and potential future developments, the study employs an exploratory design.

Data Collection Method

The research relies on secondary data sources, including:

- ♦ Peer-reviewed journal articles and conference papers on AI in finance.
- ♦ Reports from financial institutions, regulatory bodies, and consulting firms (e.g., McKinsey, Deloitte, and PwC).
- ♦ Case studies of AI implementation in banking, insurance, asset management, and Fintech firms.
- ♦ Industry white papers, government reports, and credible online databases such as Google Scholar.

Scope and Limitations

- ♦ No primary data is collected. The study is restricted to secondary data sources.
- ♦ The results are based on case studies and existing literature, which might not accurately represent the most current developments in AI across all financial institutions.

The study mostly examines how AI affects productivity rather than the specific ethical, legal, or societal ramifications.

LITERATURE REVIEW

ATASEVER, M., & ÖZEN, E. (2024) :According to this research paper, financial transaction tactics aided by artificial intelligence have been more prevalent in recent years. Both individual and institutional investors are interested in these methods, which also make up a sizable amount of the trading activity in the financial sector. This study emphasizes the widespread use of financial decision-making techniques aided by artificial intelligence and is regarded as a step toward a deeper comprehension of the effects of these techniques in the financial industry. This study lays the groundwork for future research and applications by highlighting the significance and popularity of AI-supported financial decision strategies.

Ekundayo, F. (2024): The revolutionary effects of AI-driven financial systems on market operations are examined in this article, with particular attention paid to algorithmic trading, market efficiency, and economic stability. Rapid decision-making and data-driven strategies are made possible by AI-powered models, which also improve liquidity and lower transaction costs. But these developments also bring with them systemic dangers, instability, and ethical issues, so adoption must be approached with balance. The topic of transparency, accountability, and market fairness are among the regulatory concerns raised by the extensive application of AI in financial markets. Furthermore, concerns regarding data privacy and governance are brought up by AI's capacity to analyze enormous datasets, necessitating strong legislative frameworks to reduce dangers.

Onabowale, O. (2024): This paper examines the ways in which artificial intelligence (AI) and robo-advisors are revolutionizing contemporary finance, outlining their uses, advantages, and drawbacks. These technologies have the ability to completely reshape financial ecosystems as they develop further, guaranteeing resilience and inclusion in a world economy that is becoming more and more dynamic.

Palakurti, N. R. (2024): In addition to outlining the practical advantages and limitations of advanced technologies, the paper highlights the role of IT in financial services and risk management before delving into the specific innovations in AI and ML, emphasizing their applications and implications for financial risk management. The paper also suggests future directions for additional research on how financial institutions can use IT, AI, and ML to improve their risk management strategies and adjust to a constantly shifting financial environment.

Yamaguti Mondego, D. (2024): According to the paper, the financial industry has a unique opportunity to use computational intelligence to save costs, increase customer loyalty, and improve performance, among other benefits. It is possible for monetary organizations to provide their clientele with excellent consulting services. Many facets of robotics are used by fintech companies around the world to increase operational safety and efficiency. Increasing the efficacy of fintech companies is the main goal of each of these solutions. Workload of the staff could be greatly reduced by using chatbots and data analytics automation solutions.

Rana, I., Khan, O., Siddiqi, Z., Nasim, S., & Zaidi, S. (2024): This study examines how vulnerable financial institutions are to money laundering, fraud, and cybercrime crimes, taking into account regulatory concerns and the application of blockchain and artificial intelligence technology to combat these crimes. It also states that the present global economy has rules and regulations, but in order to address the rise in the sophistication of financial crimes, new technology and international interactions are needed.

Jawale, V., ASM's, I. B. M. R., Chinchwad, P., Pawar, D. M., Nigdi, P., & Limbore, N.V. (2023): This study aimed to assess the impact of Artificial Intelligence (AI) and machine learning in India's Banking, Financial Services, and Insurance (BFSI) sector, specifically focusing on customer experience, security measures, and operational efficiency. A survey-based approach involved gathering data from 100 respondents within a specific Indian region. Analysis through descriptive statistics and hypothesis testing revealed a positive correlation between the adoption of AI and machine learning tools in the BFSI sector and improvements in customer experience, security measures, and operational efficiency. The study also highlighted a need to raise customer awareness and willingness regarding AI and machine learning tools in BFSI. Furthermore, it identified potential opportunities for enhancing fraud detection and prevention measures within the sector. These findings have significant implications for Indian BFSI organizations, offering insights to enhance customer experiences and operational effectiveness through AI and machine

LEARNING-BASED SOLUTIONS.

Malali, A. B., & Gopalakrishnan, S. (2020) : In this study researchers explained that fintech companies are using AI to fill the gap left by traditional banks, reaching underserved users and reshaping credit assessment. According to them, AI-powered fintech is rapidly increasing the pool of “creditworthy” individuals, making financial inclusion a reality and in the next decade, AI will dominate financial services, making them accessible even in remote areas. As per the study, AI is the future of the banking industry, offering efficient, cost-effective, and customer-centric solutions, including AI-driven bots. Though AI adoption is in its early stages, it promises growth, reduced costs, and minimal errors. AI investments are rising across industries, and AI-powered technologies are poised to enhance trading and customer satisfaction.

Achary, R. (2021): As per the study, AI is revolutionizing business processes in Indian banks and financial institutions, boosting efficiency and service quality. Its applications range from streamlining operations to aiding in decision-making processes, particularly in areas like fraud detection and assessing customer creditworthiness. AI introduces intelligent automation into banking operations, harnessing human-machine capabilities to reduce operational costs and provide personalized services. However, AI implementation comes with its share of challenges. To address these challenges and foster innovation, financial institutions are partnering with startups and fintech companies. Compliance with existing laws and security standards remains a hurdle for full-scale AI deployment in India’s banking and financial sectors. Successful AI implementation calls for a set of recommendations to drive research and development in this domain.

Kurode, T. (2018): This paper explores the application of artificial intelligence in financial services, including banking, insurance, and credit rating. The researcher identifies areas where AI can be effectively utilized and discusses the challenges faced by the banking and financial services industry in adopting AI. Additionally, the paper outlines the advantages and disadvantages of AI implementation in this context. The study relies on secondary data to assess the potential applicability of AI, serving as a reference for future research in this field.

REAL WORLD AI-DRIVEN SOLUTIONS FOR ENHANCING OPERATIONAL EFFICIENCY OF FINTECH COMPANIES

The following real-world AI applications show how financial tech companies employ automation, machine learning, and predictive analytics to streamline complex processes, reduce operating costs, and constrain human error.

AI for Financial Security and Fraud Detection (HSBC): To strengthen its anti-money laundering initiatives, HSBC implemented AI-powered solutions. The system greatly increases compliance and lowers the danger of financial crime by scanning millions of transactions to find questionable activity.

Document Analysis Driven by AI (JPMorgan Chase): COiN, a machine learning-based platform that automates the review of legal papers, was introduced by JPMorgan

Chase. In the past, reviewing loan agreements by hand required about 360,000 hours each year. This procedure is now finished in a matter of seconds thanks to AI, greatly lowering costs and human error.

Using Decision Intelligence to Identify Fraud (Mastercard): Mastercard uses artificial intelligence (AI) in its Decision Intelligence system to examine transaction trends and instantly identify fraudulent activity. This method has reduced false positives and increased the accuracy of fraud detection, facilitating the seamless processing of legitimate transactions.

AI-powered monitoring of transactions (PayPal): PayPal analyzes transaction activities and spots fraudulent trends using AI and deeplearning algorithms. AI has reduced chargebacks, increased consumer trust, and enhanced fraud detection by 50%.

Eva-an AI chatbot for Customer Service (HDFC): Eva, an AI-powered chatbot, was introduced by HDFC Bank to help consumers with account balance checks, transaction histories, and product-related inquiries. Eva handled more than 5 million requests in the first several months of deployment, greatly enhancing customer satisfaction and lowering operational burden.

AI-Powered Credit Risk Assessment (ZestFinance): ZestFinance evaluates creditworthiness by using AI to examine other data sources, like transaction history and online activity. As a result, underprivileged groups now have greater access to credit, better lending decisions, and fewer defaults.

Financial advising powered by artificial intelligence

Robo-Advisors (Betterment & Wealth front): AI is used by businesses such as Wealthfront and Betterment to offer automated, data-driven investing advice. These robo-advisors make investing affordable and accessible for individual investors by analyzing user preferences and market trends to optimize portfolio management.

AI for Investment Banking Trading Strategies (Citi Bank): Citibank uses AI algorithms to evaluate market data and more accurately execute high-frequency trades. Trading models powered by AI aid in decision optimization, resulting in more successful investment plans.

ENHANCING OPERATIONAL EFFICIENCY IN FINTECH THROUGH AI

Many companies have recorded increased levels of operational efficiency after the implementation of AI technology in their processes, particularly in fintech:

Everyday Task Automation : AI systems can perform dull repetitive functions such as answering customer calls, performing data entry, and basic financial transactions – all requiring little to no manual work thus decreasing human mistakes.

Cost Saving: A major benefit of automation for the fintech industry is a reduction in day-to-day running costs, which can be redirected into more essential work.

Better Decision Making: Massive amounts of complex data are analyzed to produce results that enable investment decisions, credit score determinations, and risk-taking decisions that are informed and calculated.

Data Management: The processes of fintech firms are enhanced as AI smartly analyzes structured and unstructured data sets.

Regulatory Compliance: Tools powered by AI help monitor transactions and activities for compliance, thereby reducing the possibility of being non-compliant or violating any rules and regulations.

THE CHALLENGES ASSOCIATED WITH INTEGRATION OF AI IN FINANCIAL OPERATIONS:

Regulatory and Compliance Issues: AI-driven decision-making presents questions around transparency, explainability, and compliance with local financial laws, GDPR, Basel III, and other legal frameworks. Financial institutions are subject to strict restrictions.

Risks to Data Privacy and Security: Because AI depends on enormous volumes of private financial data, there is a greater chance of data breaches, cyberattacks, and improper use of client data.

Bias and Ethical Concerns: AI models may inherit biases from training data, which could result in discriminatory credit scoring, unjust lending practices, and moral conundrums in automated decision-making.

High Implementation Costs: To ensure accuracy and efficiency, AI integration necessitates a large investment in infrastructure, a trained team, and ongoing updates.

High Deployment Costs: To ensure accuracy and efficiency, AI integration necessitates a large investment in technology, a trained team, and ongoing updates.

Needs for Reskilling and Workforce Displacement: Automation may result in the loss of jobs in some operational tasks, thus workers will need to increase their skill set to handle AI-driven financial procedures.

Integration with Legacy Systems: The deployment of AI is complicated and necessitates significant system changes because many financial organizations continue to run on antiquated legacy systems.

Lack of Trust and Transparency: Customers and regulators find it challenging to trust AI results since AI-driven choices are frequently perceived as “black-box” procedures, particularly in domains like credit scoring and fraud detection.

CONCLUSION:

By automating intricate procedures, enhancing decision-making, and lowering expenses and human error, artificial intelligence (AI) has greatly increased operational efficiency in the fintech industry. AI-driven solutions show how AI improves security and compliance in the financial industry. Examples include Mastercard’s Decision

Intelligence for fraud prevention, JPMorgan Chase's COiN for document analysis, and HSBC's fraud detection system. AI has also been used by businesses like PayPal and HDFC to improve customer service and transaction monitoring, which has increased customer engagement and trust. Financial services are now more accessible and inclusive thanks to robo-advisors from Wealthfront and Betterment and AI-powered credit risk assessment from ZestFinance. Additionally, Citibank's AI-driven trading strategies demonstrate how AI may optimize risk assessment and investing choices. AI stimulates innovation in banking and investment operations in addition to improving financial advising services, fraud detection, and credit risk analysis. AI helps financial institutions streamline operations, cut expenses, and provide more individualized services by automating monotonous tasks and delivering data-driven insights. AI will play a bigger part in fintech as it develops further, improving the security, effectiveness, and consumer focus of financial services.

SUGGESTIONS:

Financial institutions are encouraged to continue investing funds on cutting-edge AI-driven solutions to improve risk assessment, fraud prevention, and customer service if they want to optimize the advantages of AI in fintech. Enhancing AI-based fraud detection systems can assist in spotting new dangers and guaranteeing financial stability. By giving underprivileged groups greater access to banking and credit services, the expansion of AI-powered credit evaluations might enhance financial inclusion. Regulatory frameworks should also change to guarantee that AI models continue to be impartial, transparent, and in line with financial laws. AI-powered chatbots and virtual assistants can be integrated to further expedite customer service, lowering operating costs and improving user experience. To ensure AI systems stay effective and relevant, financial firms must also concentrate on ongoing AI model training to increase predicted accuracy and flexibility to shifting market conditions.

Since cutting-edge technologies like deep learning, blockchain integration, and quantum computing have the potential to further transform financial services, there is a great deal of room for more study in AI-driven fintech. The ethical ramifications of AI in decision-making, especially in domains like risk management and credit scoring, can be investigated in future research. In order to reduce the risks associated with algorithmic biases, research can also concentrate on creating AI systems that strike a balance between automation and human control. Examining AI's function in real-time financial monitoring and regulatory compliance can provide ways to improve security and transparency in fintech operations. Multidisciplinary studies that integrate AI with cybersecurity, behavioral finance, and economic forecasting could lead to more resilient and equitable financial ecosystems as AI develops.

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The New 3Ps of Sustainability Marketing: The Case of Fashion

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Abstract:

Sustainability marketing in the fashion industry is the subject of this theoretical synthesis. This conceptual essay entails dissecting the conceptual underpinnings and construction components of sustainability marketing derived by current scholarly perspectives to offer an updated articulation of sustainability marketing as a flourishing interdisciplinary research area. As a result of our theory synthesis approach, this paper developed a sustainability marketing model, referred to as the new 3Ps of sustainability marketing—Preservation (Environment), Public (Society) and Performance (Economy) which add to the traditional 4Ps- “Product, Price, Place, and Promotion.” The paper further examines the role of these new 3Ps of sustainability marketing in fashion, considering the COVID-19 pandemic. The model offers a uniquely integrated framework for designing marketing strategies in the fashion industry consistent with sustainability marketing and aims to promote, communicate, and educate consumers who are either existing or potential customers of sustainable fashion brands. The framework encompasses segments of the fragmented fashion industry whilst mapping strategies for marketing sustainability and presenting new post-pandemic opportunities across all value-creation stages. Finally, we offer implications and directions for further research.

Keywords: Sustainability marketing, Updated Articulation, Consumer Attitude, Preservation (Environment), Public (Society) and Performance (Economy)
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INTRODUCTION

Sustainability has become a buzzword in business yet one of the least understood (Kuhlman and Farrington, 2010). Sustainability in fashion began its evolutionary journey from a simple collection of marketing-focused “Corporate Social Responsibility” initiatives to becoming an integrated part of the strategic planning system. Though sustainability has recently been viewed as a competitive advantage in most industries, academic research on sustainability in the fashion industry has been slow to adjust to

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this paradigm. Hence, it is not surprising to find no precise definition of sustainability (Kozlowski et al., 2015). Moreover, given the fragmentation of the fashion industry, ranging from luxury-, mass market-, slow/fast- fashion brands, there is also no “one-size-fits-all” approach to sustainability. Specifically, each fashion market requires supply chains of varying lengths and complexity; thus, creating a challenge for developing a sustainability approach encompassing the entire industry. Despite the lack of consensus on what constitutes sustainability in the fashion industry, recent years have shown an increased interest in sustainability and ethical practices in the fashion industry (Henninger et al., 2016), accompanied by calls for advancing the sustainability marketing mix (e.g. Kazibudzki and Trojanowski, 2020).

The purpose of this research is to address sustainability marketing, citing examples from the fashion industry. Whilst many fashion brands/retailers have embarked on formidable sustainability projects by focusing on reducing their environmental footprint, promoting ethical labour practices and improving societal implications of sustainable fashion, apparel manufacturing is still largely opaque process consumers do not understand. Thus, more than ever, the importance of informing and educating consumers of a fashion brand’s sustainability efforts are critical (Shen et al., 2012).

Whilst sustainability is viewed as a competitive advantage in most industries (Hepner et al., 2020; Kelleci and Yıldız, 2021; Syapsan, 2019; Taherdangkoo et al., 2016; Taoketao et al., 2018; Tollin and Christensen, 2017), academic research on sustainability marketing has been limited (Beatson et al., 2020; Pomering, 2021; Prell et al., 2020; Taoketao et al., 2018). Hence, the purpose of this paper is to offer a framework for developing marketing strategies aimed at promoting, communicating, and educating consumers who are either existing or potential customers of sustainable brands drawing on examples mainly from the fashion industry. In doing so, we draw on one of the templates for designing a conceptual study proposed by Jaakkola (2020), specifically, a typology approach based on extant theories developed through empirical studies (p. 23) aimed at producing a more precise understanding of the challenges of sustainability within marketing by introducing new marketing mix elements and their role in deepening our understanding of such challenges.

Our framework encompasses all segments of the fragmented fashion industry whilst mapping strategies for marketing sustainability across all stages of the value-creation process: from raw material procurement and product inception to garment production and point of sale, to use and post-use recycling. Following Jaakkola (2020), we select and justify relevant theories and concepts from the academic literature. We start with a focal concept, the traditional marketing mix frameworks, and then extend the traditional marketing mix structures and deepen our understanding of the importance of sustainability marketing practices by adding three new marketing mix elements using the fashion industry to illustrate our theory.

Our proposed framework revolves around a new paradigm—the three Ps of sustainability marketing: public, performance, and preservation, which are additions

to the existing Ps in the previously developed marketing-mix structures. Additionally, the proposed framework considers the effects of the COVID-19 pandemic and proposes new ways for brands to strategically respond to marketing sustainability to consumers.

LITERATURE REVIEW

A review of the traditional marketing mix

The traditional marketing mix, known as the **4Ps** (Product, Price, Place, and Promotion), has been a fundamental framework in marketing theory since its introduction by E. Jerome McCarthy in the 1960s. While this model has been the foundation for countless marketing strategies, changes in consumer behavior, technology, and business models have led to calls for its adaptation or expansion. Below is a detailed review of each element in the 4Ps, incorporating citations from key sources.

1. **Product**

The **Product** element refers to the goods or services that a company offers to meet the needs and desires of consumers. The product is the core offering that drives the other three Ps, and its design, quality, features, and variety play a crucial role in its success.

Historically, the focus of product strategy was largely on product features, quality, and design, ensuring it met a customer's needs at the point of sale. According to Kotler and Keller (2016), product decisions encompass decisions about product variety, design, features, quality, brand name, and packaging, all of which contribute to consumer satisfaction. However, with the advent of customization and personalization in the digital age, companies increasingly design products based on customer preferences, making the traditional "one-size-fits-all" approach less relevant (Peppers & Rogers, 2016). As such, there's a shift toward offering personalized, experience-driven products to engage modern consumers more deeply.

2. **Price**

Price refers to the amount of money consumers must exchange for the product. It influences revenue and profits and reflects the perceived value of the product in the eyes of the consumer.

Traditional pricing strategies typically followed a cost-plus model or were driven by competitive pricing. Companies often set prices based on production costs or competitor pricing, as described by Kotler and Armstrong (2010). However, modern pricing strategies, including value-based pricing, subscription models, and dynamic pricing, are now more common, influenced by the ability to gather real-time data and consumer insights (Grewal et al., 2020). For example, airlines and hotels increasingly use dynamic pricing algorithms to adjust prices based on demand and customer willingness to pay, a strategy that would have been difficult to implement with traditional pricing models.

3. **Place**

Place refers to the distribution channels through which a product reaches the consumer, ensuring its availability in the right place at the right time.

In traditional marketing, distribution channels were often limited to physical stores, wholesalers, and retailers, which dictated where products could be sold. However, with the rise of e-commerce, distribution strategies have become more complex. The concept of omnichannel retailing, which combines physical and digital sales channels, has emerged as a new norm (Brynjolfsson & Smith, 2000). Businesses now operate on global scales, and products can be purchased online and shipped anywhere in the world. The traditional “Place” in marketing has been redefined by these innovations, emphasizing the importance of online presence and logistics.

4. **Promotion**

Promotion refers to all the activities a company engages in to make its product known and encourage customer purchases. This includes advertising, sales promotions, public relations, and personal selling.

In traditional marketing, promotion was predominantly based on mass media channels such as television, radio, print, and billboards. Advertising was often one-way communication from the company to the consumer, with limited opportunities for customer interaction. However, digital marketing has dramatically transformed promotional strategies. Social media platforms, influencer marketing, content marketing, and search engine optimization (SEO) have shifted promotional efforts from mass communication to personalized, targeted campaigns (Chaffey, 2019). As a result, businesses now focus on creating engaging, interactive experiences that build long-term customer relationships rather than one-off sales.

The **Services Marketing Mix**, often referred to as the **7Ps**, extends the traditional 4Ps (Product, Price, Place, and Promotion) to address the unique characteristics of services. The 7Ps model adds three more elements: **People**, **Process**, and **Physical Evidence**. These elements are designed to address the intangible, perishable, and variable nature of services, emphasizing the customer experience and service delivery.

Here’s a detailed review of the **7Ps** of the services marketing mix, including citations:

1. **Product**

In the context of services, the **Product** refers to the service offering itself. Unlike tangible products, services are intangible and often involve a customer experience or an outcome (such as financial advice, transportation, or education).

Services are inherently different from products because they cannot be seen, touched, or stored. Therefore, the service offering is not just about the core service but also the overall experience, which includes the interaction with service personnel, facilities, and delivery systems. According to Zeithaml, Bitner, and

Gremler (2018), managing the service offering is critical to ensuring that it aligns with customer expectations and differentiates the business in a competitive market. Companies must focus on the customization, quality, and consistency of the service to ensure customer satisfaction and loyalty.

2. **Price**

The **Price** in services refers to the amount customers must pay for the service. Given the intangible nature of services, price often reflects the perceived value of the service, and pricing strategies can vary widely.

Pricing strategies in services are often more complex than in product-based marketing because services are intangible and can vary in quality. Pricing can include different structures such as hourly rates, flat fees, or tiered pricing based on service level (e.g., premium services). As noted by Kotler and Keller (2016), price is a key determinant of the perceived value of a service, and companies need to carefully balance affordability with profitability. Furthermore, pricing transparency and fairness are critical, as customers often compare prices with perceived service quality.

3. **Place**

In services marketing, **Place** refers to the channels through which a service is delivered to the customer. While physical locations are important for some services, many services are now delivered via digital platforms.

Services can be delivered in a variety of ways, such as in-person at a service location (e.g., a hotel), remotely via the internet (e.g., online banking), or through mobile applications (e.g., ride-sharing services). The rise of digital technologies has shifted the focus of place from physical locations to virtual platforms. According to Lovelock and Wirtz (2016), distribution strategies in services marketing often involve complex systems to deliver services seamlessly to customers in real-time, regardless of location. Ensuring accessibility and convenience is key for customer satisfaction in the service delivery process.

4. **Promotion**

Promotion refers to the communication and marketing activities that inform potential customers about the service and persuade them to make a purchase decision.

Promoting services requires a focus on building trust and credibility due to their intangible nature. Services are often promoted through testimonials, guarantees, or trial offers to mitigate the risk perceived by customers. According to Kotler and Armstrong (2010), the use of personal selling, word-of-mouth, and digital marketing strategies (such as social media campaigns and influencer partnerships) has grown significantly. Services marketing increasingly emphasizes building relationships with customers, which can be enhanced by providing valuable content and engaging communication.

5. **5. People**

The **People** element refers to the human factors that influence service delivery, such as employees, management, and customers. The skills, attitude, and appearance of service staff are critical in shaping customer experiences.

People play a significant role in services marketing because the delivery of a service is often highly dependent on human interaction. Employees represent the company, and their behavior, attitude, and level of expertise directly affect customer perceptions. The role of employees in creating customer satisfaction was emphasized by Zeithaml et al. (2018), who noted that effective training and empowerment of service personnel are essential to delivering a consistent and positive service experience. Additionally, customers themselves influence the service experience (e.g., in co-production scenarios like fitness training or education).

6. **Process:**

The **Process** refers to the procedures, mechanisms, and flow of activities that deliver the service to the customer. Efficient service processes ensure that services are delivered consistently and smoothly.

The **Process** in services involves not just the technical side of delivering the service, but also the design of the service delivery system, such as customer service protocols and how interactions are managed. As Lovelock and Wirtz (2016) explain, service processes must be standardized to ensure that customers receive a consistent level of quality, yet they also need flexibility to meet individual needs. Companies that invest in process optimization and automation are better equipped to deliver fast, reliable, and efficient services to a broader customer base.

7. **Physical Evidence**

Physical Evidence refers to the tangible aspects that help customers evaluate the intangible service before or during consumption. This includes things like the physical environment, brochures, websites, or other materials that support the service experience.

Since services are intangible, physical evidence provides cues that help customers make judgments about the service's quality. This can include the design and appearance of service facilities, the quality of promotional materials, and even the behavior of employees (Zeithaml et al., 2018). For example, in a hotel, the cleanliness and design of the lobby, the staff uniforms, and the quality of the website all serve as physical evidence of the hotel's service quality. Companies must carefully manage these elements to enhance customer perceptions.

The 3 Ps of sustainability marketing

The **3 Ps of Sustainability Marketing**, often referred to as **People, Planet, and Profit**, are a framework that aligns sustainability goals with marketing strategies. This

model is based on the concept of the **Triple Bottom Line (TBL)**, which emphasizes balancing social, environmental, and economic considerations in business practices. These three elements—People, Planet, and Profit—represent the three pillars of sustainability and are critical to the development of ethical and responsible marketing strategies.

Here's a detailed review of each element of the 3 Ps of sustainability marketing, along with citations:

1. **People (Social Sustainability)**

People represents the social dimension of sustainability. This involves considering the well-being of individuals, communities, and society at large. In marketing, this focuses on how products and services impact people, both internally (employees, workers) and externally (customers, communities).

Social sustainability in marketing refers to how companies engage with communities, support fair labor practices, and contribute to the quality of life for individuals. This includes ensuring that products are made under ethical labor conditions, promoting diversity and inclusion, and supporting local communities through philanthropy or responsible business practices. According to Kotler et al. (2016), social responsibility in marketing involves aligning brand values with those of customers, often in the form of corporate social responsibility (CSR) initiatives that benefit communities. Brands can use marketing to promote fair trade, diversity, and human rights, which help build trust and customer loyalty.

For example, brands like **Ben & Jerry's** incorporate social values into their marketing by advocating for climate justice, fair trade, and progressive causes, thereby integrating the People dimension into their brand identity.

2. **Planet (Environmental Sustainability)**

Planet focuses on the environmental aspect of sustainability, which involves minimizing the ecological footprint of marketing and business practices. This includes using resources efficiently, reducing waste, promoting renewable energy, and considering the broader environmental impact of production, packaging, and transportation.

Environmental sustainability in marketing highlights how businesses can contribute to environmental protection by reducing their carbon footprint, conserving natural resources, and promoting environmentally friendly products or services. The **Planet** pillar encourages the promotion of products that are sustainable, whether through the use of renewable materials, sustainable sourcing, or low-carbon footprint manufacturing processes. Companies are increasingly engaging in green marketing, wherein they highlight eco-friendly products and practices in their messaging.

For example, **Patagonia** is a leader in environmental sustainability marketing. The company promotes its efforts to use recycled materials in its products,

reduce carbon emissions, and protect natural ecosystems, positioning itself as a brand committed to environmental causes. Additionally, it engages in “activist” marketing by encouraging customers to buy fewer, more durable items.

3. **Profit (Economic Sustainability)**

Profit refers to the economic dimension of sustainability, which focuses on the financial viability and long-term profitability of businesses while considering the broader impacts on society and the environment. Economic sustainability in marketing ensures that the pursuit of profit does not come at the expense of ethical practices or environmental harm.

In the context of sustainability marketing, **Profit** emphasizes the need for companies to achieve financial success while operating in a way that is ethical and sustainable in the long term. This includes adopting business practices that balance profitability with the other two pillars—People and Planet. A sustainable profit model requires companies to create products that meet customer needs, use resources efficiently, and invest in long-term growth rather than short-term gains. According to Schaltegger et al. (2017), businesses should focus on the economic value created by sustainable business models, which can include investments in green technologies, responsible supply chains, or the development of products that offer long-term value to customers.

For instance, **Unilever** has incorporated sustainability into its profit-making strategy by focusing on reducing waste and using sustainable sourcing for its products. This approach has contributed to long-term profitability by building customer loyalty and improving operational efficiency.

Conclusion

The Interplay of the 3 Ps in Sustainability Marketing

The **3 Ps of Sustainability Marketing**—People, Planet, and Profit—represent a balanced approach to marketing that integrates social, environmental, and economic sustainability goals. To successfully engage in sustainability marketing, companies must ensure that they are not only addressing the immediate demands of their customers but also considering the long-term impact on society and the environment. This holistic approach helps create value for customers, employees, and stakeholders, while also enhancing brand reputation and driving sustainable business growth.

By focusing on **People**, **Planet**, and **Profit**, businesses can foster a deeper connection with consumers who increasingly prioritize ethical and sustainable practices in their purchasing decisions. In the long term, companies that embrace these principles are likely to experience stronger customer loyalty, brand differentiation, and financial success.

METHODS

Theorisation in Social Science

In social science, theorisation refers to the effort to conceptualize and explain

the complex occurrences and structures that make up society. These can include social behaviors, institutions, power dynamics, cultural practices, or economic patterns. Theorisation is not just the act of observation but involves generating ideas, frameworks, and models that allow researchers and scholars to understand, interpret, and explain these phenomena.

The process of theorisation involves systematic thinking and reflection, often using existing knowledge and evidence to build new frameworks. It is about connecting empirical observations to general principles that can explain broader societal processes. The ultimate outcome of theorisation is what is commonly referred to as **theory**—a set of ideas or propositions that offer coherent explanations about how the social world works.

The Role of Theorisation in Building Theory

The term “theorisation” goes beyond merely producing a theory; it includes all the stages and methods involved in generating these explanations. As the statement suggests, theorisation encompasses everything that surrounds the final output—whether it is “set down on paper” or communicated through other means. This implies that theorisation is a process of thinking, debating, and articulating complex social concepts that eventually result in a formal theory.

In social sciences, theorisation can lead to the development of theories that have explanatory power, helping to establish patterns or generalizable principles that describe societal behaviors. However, theories are not always static; they evolve through continuous theorisation, where new insights, critiques, and empirical findings contribute to refinements or changes in existing frameworks.

Techniques for Building Conceptual Frameworks

The process of theorisation often involves building **conceptual frameworks**, which are structured ways of thinking about relationships between concepts or variables within a particular field of study. **Conceptual frameworks** are important tools in social science because they guide researchers in understanding and analyzing data. These frameworks provide a structured approach to identifying key factors, interactions, and outcomes that explain a given phenomenon.

The statement refers to the fact that several **techniques** or **methodologies** have been developed to build these frameworks. Scholars like Jaakkola (2020) and Mohr et al. (2021) have presented approaches that help scholars and researchers structure their thoughts and observations into coherent, conceptual models. These techniques can include:

Inductive reasoning, where researchers build theories based on observations and data.

Deductive reasoning, where researchers start with an existing theory and use data to test its applicability.

Grounded theory, which builds theories based on qualitative data collected from observations or interviews.

Systematic literature reviews, which synthesize existing research to form a new conceptual framework or theory.

REVIEW, FINDINGS AND DISCUSSION

Fashion's Commitment to Environmental Sustainability

Berg et al. (2019) argue that **environmental sustainability** has become a key priority in the fashion industry. This prioritization reflects the increasing recognition of the fashion sector's environmental impact, particularly concerning issues such as waste generation, water and energy consumption, and carbon emissions. The fashion industry is notorious for its significant environmental footprint, from textile production to garment disposal. As such, the drive for **sustainable fashion** aims to mitigate these negative effects by adopting eco-friendly practices and materials, reducing waste, and encouraging circular business models (e.g., recycling and upcycling).

Sustainable Supply Chain Management in Fashion

The statement also points out that much of the research on sustainability in the fashion industry has focused on **sustainable supply chain management** (SSCM). This emphasis is not surprising, as the fashion industry's supply chain is often complex and global, spanning across many stages—from raw material sourcing (e.g., cotton or polyester), through manufacturing and transportation, to retail and disposal. A significant portion of a fashion brand's environmental and social impact occurs within its supply chain, including the sourcing of raw materials, manufacturing conditions, and the waste produced at different stages of production.

The key challenge in **sustainable supply chain management** is ensuring that each stage of the supply chain adheres to sustainable practices. For instance, this can include the use of **sustainable materials**, improving **labor conditions**, reducing the **carbon footprint** of production and transportation, and promoting the **reuse and recycling** of materials. As noted by Strähle (2017), addressing these issues requires concerted effort and collaboration across various stakeholders in the supply chain, including suppliers, manufacturers, retailers, and consumers.

Increased Pressures for Sustainability Efforts

Shen (2014) discusses the increasing **pressures for sustainability efforts** in the fashion industry. These pressures stem from several factors:

Consumer demand: Growing awareness and concern among consumers about environmental and ethical issues in the fashion industry are driving brands to adopt more sustainable practices. Eco-conscious consumers are seeking products that are not only stylish but also ethically made and environmentally responsible.

Regulatory pressures: Governments and international organizations are implementing stricter environmental regulations, such as emissions reduction targets, waste disposal laws, and guidelines for ethical labor practices, which compel companies to adopt sustainable practices.

Corporate social responsibility (CSR): Fashion brands are increasingly adopting CSR initiatives that go beyond profit maximization to focus on contributing positively to society and the environment.

Enhancing Sustainable Management Practices in the Fashion Supply Chain

O'Rourke (2014) suggests that to **enhance sustainable management practices** within the fashion supply chain, several steps must be taken:

Transparency and traceability: Brands must ensure transparency in their supply chains by providing consumers with clear and verifiable information about where and how products are made. This includes knowing the source of raw materials, the conditions under which garments are produced, and the environmental impacts associated with each stage of the supply chain.

Collaboration across stakeholders: Achieving sustainability in the fashion supply chain requires collaboration among suppliers, manufacturers, retailers, and even consumers. Companies must work with their supply chain partners to adopt shared sustainability goals and practices, such as the use of sustainable materials or ethical labor conditions.

Innovation and technology: Embracing technological innovations, such as blockchain for traceability or AI-driven designs for reducing waste, can greatly enhance the sustainability of the fashion industry. By leveraging these technologies, companies can improve efficiency, reduce waste, and ensure more sustainable production methods.

Circular economy: Fashion brands should consider shifting toward a **circular economy model**, where products are designed to be reused, repaired, or recycled at the end of their lifecycle rather than disposed of. This approach reduces waste and ensures that resources are used more efficiently.

CONCLUSION

In summary, the push for environmental sustainability in the fashion industry is increasingly critical, and much of the research to date has focused on sustainable supply chain management. Given the complex and global nature of fashion supply chains, addressing sustainability requires coordinated efforts to enhance transparency, collaboration, and innovation. Researchers like O'Rourke (2014) emphasize the need for strategic approaches to enhance sustainable practices in the fashion industry, especially considering the mounting pressures from consumers, regulators, and societal expectations.

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The Role of Artificial Intelligence in Enhancing Corporate Activism Campaigns

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Abstract

The research here unravels the potential of Artificial Intelligence (AI) in corporate activism campaigns, specifically regarding AI technologies that add value to efficiency, stakeholder engagement, and impact. It explores the tools like predictive analytics, sentiment analysis, and chatbots driven by AI to illustrate the changes that create a message-person experience, monitor public opinion, and widen a corporation's influential advocacy reach. This research study also discusses case studies involving successful AI-enabled activism campaigns and questions critical challenges, such as algorithmic bias, privacy concerns, and ethical considerations. Based on the contribution of AI to CSR initiatives, this research offers actionable insight for business organizations in using technology to achieve meaningful societal effects.

Keywords: Artificial Intelligence, Corporate Activism, AI-Driven Campaigns, Stakeholder Engagement, Predictive Analytics, Sentiment Analysis, Corporate Social Responsibility (CSR), Chatbots, Ethical AI, Algorithmic Bias.

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INTRODUCTION

Corporate activism describes the intentional and strategic efforts organizations make in the promotion or opposition of social, environmental, or political issues-issues to which they hold values or where stakeholders take interest. Unlike CSR activities undertaken by companies wherein philanthropy dominates, corporate activism is about taking a public stance and influencing societal change through public opinion (Bhagwat et al., 2020).

The role of business in being a social alternative agent has evolved significantly over the last two decades. Old expectations of corporations have always been limited to merely making profit; but, the concept of stakeholder capitalism

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has changed this outlook. Today, the consumer, employee, and investor all believe that a firm should fulfill its responsibility towards society and be an alternative agent for change (Kotler & Sarkar, 2018). Through high-profile movements like Black Lives Matter and climate change advocacy, it is seen and witnessed how corporate voices are used as a tool to influence public policy and behavior. Corporate activism is not merely the reflection of organizational values; rather, it maximizes brand loyalty and reinforces differentiation in competitive markets.

Artificial intelligence is one of the most transformative forces across industries, and activation campaigns are not behind. AI technologies, which include machine learning, natural language processing, and predictive analytics, allow companies to better design, execute, and monitor an activism campaign (Chung et al., 2022). From sentiment analysis for an activism campaign to personalizing messages for a diverse audience, AI offers the tools to magnify corporate activism's range and influence. AI-powered platforms help organizations enter meaningful dialogue, trust, and transparency with their stakeholders.

Research Objectives and Questions

This paper examines the nexus of AI and corporate activism and how AI technologies improve activism campaigns' design, implementation, and impact. In this line, the questions that are going to be answered are as follows:

1. What are the applications of AI in the context of corporate activism campaigns?
2. How is AI being implicated in the effectiveness and scope of these campaigns?
3. What are the ethical and practical dilemmas arise from using AI in corporate activism?

By answering the questions above, this study aspires to help inform the stakeholders on how best businesses can responsibly harness AI into further societal causes without losing ethics.

Historical Perspective on Corporate Activism

Corporate activism has changed significantly, from passive philanthropy to active involvement in socio-political causes. During the middle of the 20th century, corporate responsibility was interpreted as essentially giving to charity and operating with good morals. While stakeholder expectations are increasing in a world of growing consumer expectations, employee expectations, and investor expectations, corporations have become louder and more conspicuous in championing social and environmental causes (Kotler & Lee, 2005). CORPORATE ACTIVISM today often reflects the full force of public movements such as climate change, diversity and inclusion, and human rights initiatives. This role is where corporate influence seems to play a larger part in determining societal values and overcoming global challenges.

Technology in Activism Campaigns Role

Technology integration has fundamentally changed activism campaigns to increase reach, engagement, and efficiency. Initially, email and websites were technological tools that facilitated organizations to communicate with larger audiences and deliver the message. The advent of social media sites such as Facebook, Twitter, and Instagram further revolutionized activism by providing real-time interaction and grassroots movements while also giving major corporate voices and notes. Lovejoy & Saxton (2012). Data analytics tools also assist organizations in monitoring campaign efficiency and, based on audience feedback, adjust appropriate strategies. These developments have allowed corporations to take a more focused and effective approach toward activism.

What is Corporate Activism?

The efforts made by businesses to address and take a position on social, political, environmental, or cultural concerns that go beyond their conventional profit-driven goals are referred to as corporate activism. This entails using their platforms, resources, and power to promote significant change that reflects the values of their stakeholders.

Development and Importance in the Contemporary Business Environment

Over time, corporate activism has changed dramatically, moving from simple corporate social responsibility (CSR) to active participation in intricate societal issues. In the past, businesses were supposed to prioritise financial success over social or political involvement. Globalisation, digital platforms, and the emergence of conscious consumption, however, have forced organisations to take on more significant and visible responsibilities.

INTRODUCTION

According to Dodd and Supa (2014), corporate activism is the term used to describe the conscious attempts made by businesses to support or oppose social, political, economic, or environmental causes to influence society in ways that go beyond generating profits. According to Sarkar and Kotler (2018), this idea represents a change from traditional corporate social responsibility (CSR) to a more proactive approach in which companies participate in public debate and take sides on controversial issues.

Corporate activism's development is a reflection of the growing demands on companies to make constructive contributions to society. Businesses have traditionally prioritised economic goals, but today's stakeholders, such as customers, workers, and investors, expect them to solve urgent societal issues (King & Weber, 2013). The importance of corporate activism is highlighted by this change in the contemporary business environment, when a company's reputation and financial success may suffer if it remains silent on important topics (Gooch, 2018).

This study aims to investigate the function of corporate activism in modern business operations.

- ♦ Examine how AI affects the tactics and results of advocacy campaigns.
- ♦ Examine how integrating AI into corporate action affects ethics.
- ♦ Examine how stakeholders view corporate activism and the application of AI.

The study aims to answer the following queries:

- ♦ In what ways has corporate activism changed in today's business environment?
- ♦ How does AI affect how successful activist initiatives are?
- ♦ What moral questions are raised by corporate activism using AI?
- ♦ What are stakeholders' thoughts on firms' activity, especially when AI techniques are used?

This study seeks to offer a thorough grasp of the junction by investigating these goals and queries.

LITERATURE REVIEW

A Historical View of Corporate Activism

From a passive corporate social responsibility (CSR) model, corporate activism has changed to a more active approach to environmental, social, and political challenges. Companies first prioritised community service and philanthropy. As corporate responsibility has become more widely recognised, there has been a shift in emphasis toward actively promoting societal change (Dodd & Supa, 2014).

Activism campaigns have changed dramatically as a result of technology, which makes it possible for groups to more successfully rally support and reach a larger audience. Digital platforms increase the impact of activist initiatives by enabling focused outreach, data analysis, and real-time communication (White, 2023).

An Overview of AI's Use in Communication, Marketing, and Strategy

Marketing, communication, and strategic planning now heavily rely on artificial intelligence (AI). AI in marketing uses customer behaviour analysis to forecast trends and personalise content. Artificial intelligence (AI)-driven solutions in communication help with public relations management and message creation. AI helps with strategic decision-making by analysing big data sets to find opportunities and hazards (Artificial Paintings, 2024).

There is a wealth of study on AI and corporate action separately, but not as much on how they interact. The use of AI in activism is frequently discussed independently from its role in marketing and communication in the literature that currently exists. Comprehensive studies that address ethical issues, evaluate stakeholder views, and look at how AI may improve corporate activism tactics are required (Gooch, 2018).

METHODOLOGY

Research Design

Using a mixed-methods research design, this study offers a thorough examination

of the relationship between corporate activism and artificial intelligence (AI) by integrating qualitative and quantitative techniques. While the quantitative method makes it easier to gather quantifiable data to evaluate the influence and efficacy of AI-driven corporate activism tactics, the qualitative method enables a thorough grasp of the subtleties of AI's role in protest campaigns.

In order to assess stakeholder perceptions and the efficacy of AI applications in activism, the quantitative component uses surveys and statistical analysis, while the qualitative component examines actual case studies of corporate activism campaigns that have made use of AI. Using this mixed-methods strategy, the research can examine the theoretical and practical facets of artificial intelligence in business.

Techniques for Gathering Data

Case Studies: In-depth case studies of businesses that have effectively incorporated AI tools for activism will be looked at to obtain an understanding of how AI has been used in corporate activism campaigns. To guarantee that the results are widely applicable, these case studies will be chosen from a variety of industries (Yin, 2017).

Surveys: A sample of marketing experts, corporate leaders, and activists engaged in AI-driven campaigns will be given a standardised survey. Quantitative information on opinions regarding AI's function, efficacy, and the moral ramifications of its application in corporate activism will be gathered through the poll. Likert scale items will be included in the survey's design to measure responses and guarantee statistical reliability.

Secondary Data: In addition to primary data, secondary data will be collected from relevant academic journals, industry papers, and corporate publications in order to understand the broader context of AI in activism, as well as to highlight current trends and research requirements (Bryman, 2016).

Methods and Resources for Analysis

Finding recurrent themes, patterns, and insights in qualitative data obtained from case studies and open-ended survey responses will be accomplished through the use of thematic analysis. According to Braun and Clarke (2006), this will aid in comprehending the fundamental moral, tactical, and practical problems that organisations employing AI for activism encounter.

Statistical Analysis: Using statistical software like SPSS or R, descriptive statistics from the quantitative survey data, like frequency distributions and averages, and inferential statistics, like correlation analysis, will be applied. According to Field (2018), these methods will enable the investigation of correlations across variables and aid in the development of broadly applicable conclusions regarding the efficacy of AI in corporate activism.

Content Analysis: To evaluate the main conclusions and trends regarding AI's role in corporate activism, secondary data from academic and industry reports will be examined using content analysis techniques. To find important patterns and

problems, this will entail classifying and labelling data (Krippendorff, 2018).

THE STUDY'S LIMITATIONS AND SCOPE

The use of AI in corporate activism campaigns is the main emphasis of this study, which also looks at how it functions in strategy, marketing, and communication. It provides insights into the moral, strategic, and practical difficulties that organisations encounter by examining the theoretical and practical aspects of integrating AI into activism and corporate social responsibility (CSR) initiatives.

Limitations: The sample size is The sample size may be constrained by time and access to pertinent organisations, even if the study will incorporate a variety of case studies and survey participants. This may have an impact on the findings' applicability to all industries.

Data Scope: Relying too much on secondary data may be problematic because different businesses may have different standards for the quality and accessibility of pertinent reports. Furthermore, the report may only represent a glimpse of current patterns due to the rapidly changing nature of AI in business processes.

Prejudice in Case Studies: Because case studies are chosen according to their applicability and availability, prejudice may exist in the selection procedure. The selection of representative and varied case studies from a range of industries will be attempted to lessen this.

THEORETICAL FRAMEWORK

Theory of Stakeholders and Corporate Social Responsibility (CSR)

According to Carroll (1999), corporate social responsibility (CSR) is a business model that involves incorporating ethical, social, and environmental considerations into operations and stakeholder relationships. According to Williams and Siegel (2001), corporate social responsibility (CSR) has transformed from a voluntary company activity into a crucial component of business operations that affect stakeholder relationships, brand image, and overall business sustainability. CSR places a strong emphasis on a company's responsibility to a range of stakeholders, such as communities, investors, employees, and customers. It positions organisations as responsible entities that positively impact society, going beyond the simple goal of maximising profits.

The Impact of AI on Public Engagement and Opinion

Corporate activism is revolutionised by artificial intelligence (AI), which increases a company's capacity to shape public opinion and participation. Businesses can now analyse enormous volumes of data, spot new patterns, and develop audience-resonant targeted messages thanks to artificial intelligence. According to Kietzmann et al. (2018), AI systems can forecast consumer behaviour and customise advocacy messages for particular demographic and psychographic groups by using machine learning algorithms. Businesses may interact with customers in real time using

chatbots, sentiment analysis, and social media platforms driven by AI, guaranteeing a dynamic and tailored communication experience.

Other ethical issues are privacy and data security. Gathering personal information is frequently used by activism movements to customise messaging and rally support. However, using personal information for these kinds of objectives might lead to dangers of data breaches and privacy violations. Strict ethical guidelines for data protection, data use transparency and participant-informed consent must be followed by businesses (Zeng, 2020). Furthermore, judgments made by AI-powered systems should be open because a lack of clarity regarding the AI's decision-making process may damage public confidence and reduce the efficacy of activism efforts (Binns, 2018).

AI USE IN BUSINESS ADVOCACY INITIATIVES

AI in the Strategy and Design of Campaigns

Target Audience Personalisation and Segmentation : When it comes to audience segmentation and personalisation for corporate activism efforts, artificial intelligence (AI) is essential. Businesses may generate highly customised messages and initiatives by using AI to analyse massive volumes of consumer data, such as demographics, online activity, and purchase behaviour. This data is processed by machine learning algorithms to pinpoint particular consumer groups, guaranteeing that advocacy activities reach the intended target (Chaffey, 2020). According to Kaplan and Haenlein (2019), consumers are more likely to respond to activism campaigns that are relevant to their values, interests, and issues, hence personalised techniques improve the possibility of participation.

For instance, AI can create targeted messaging that speaks directly to individuals' social preferences and values, leading to higher engagement and advocacy for social causes (Lee, 2021). Moreover, segmentation allows companies to diversify their outreach strategies and ensure that diverse groups are included in activism campaigns, reducing the risk of message fatigue and expanding reach.

Predictive Analytics for Campaign Success: AI's predictive analytics capabilities are invaluable for forecasting the potential success of activism campaigns. Using data from past campaigns and real-time data feeds, AI algorithms can predict which strategies will be most effective in reaching the target audience and achieving desired outcomes. For example, predictive models can assess variables such as the optimal time to release content, the type of messages likely to generate the most support, and the channels best suited to amplify the campaign (Gartner, 2023). This predictive power allows companies to optimize their resources and improve the efficiency of their activism initiatives, ensuring higher returns on investment (ROI) and more meaningful social impact (Cui et al., 2022).

Using Predictive Analytics to Boost Campaign Performance: For predicting the possible success of activism initiatives, artificial intelligence's predictive analytics

capabilities are important. AI algorithms can forecast which tactics will be most successful in reaching the target audience and producing the intended results by using data from previous campaigns and real-time data streams. Predictive models, for instance, can evaluate factors like the ideal time to distribute material, the kinds of messages that are most likely to garner support, and the channels that are most appropriate for maximising the campaign's reach (Gartner, 2023). Companies can increase the effectiveness of their activism campaigns and maximise their resources thanks to this predictive power, which guarantees greater returns on investment (ROI) and more significant social impact (Cui et al., 2022).

Using AI in Conversation and Interaction

Conversational AI with Chatbots for Real-Time Communication: Conversational interfaces and chatbots with AI capabilities are now essential tools for real-time audience engagement. These technologies give businesses the ability to interact directly with customers, respond to enquiries, and rapidly share information on activist activities. To make customers feel heard and involved, chatbots mimic human-like interactions through the use of natural language processing (NLP) (Følstad & Brandtzaeg, 2022). Chatbots can be used in activism campaigns to help people navigate the campaign participation process, offer educational content, and promote discussions about social concerns. AI-powered chatbots can improve the entire experience by providing real-time engagement, which cultivates a feeling of community and promotes more engagement with social causes (Tsvetkova et al., 2020).

Additionally, conversational AI can serve as a method for obtaining public input and insights, enabling businesses to modify their plans in response to the opinions and worries of their target audience (Scholz et al., 2021).

Analysing Sentiment to Gain an Understanding of Public Opinion: During activism efforts, sentiment analysis driven by AI is a crucial tool for determining public opinion. Sentiment analysis algorithms can identify whether the public has a good, negative, or neutral opinion towards a campaign by examining social media discussions, consumer evaluations, and other public communications (Pang & Lee, 2008). Organisations can use these data to better match their goals, tone, and communications with public sentiment (Liu et al., 2021). Businesses can track real-time responses to particular societal concerns thanks to AI-driven sentiment analysis. Businesses can track responses to certain social issues in real time with AI-driven sentiment analysis, facilitating more responsive activism and preemptive initiatives (Zhang et al., 2022).

AI for Impact Analysis and Monitoring

Tools for Social Media Listening: Social media listening tools with AI capabilities are essential for tracking how well corporate activism efforts are working. Businesses can monitor online discussions and examine user-generated content on social media sites like Facebook, Instagram, and Twitter with the help of these technologies.

These systems can evaluate interaction levels, track campaign mentions, and spot trends by utilising AI (Kaplan & Haenlein, 2020). Businesses can detect possible problems or misunderstandings early in the campaign and assess how well their activism messages are being received by keeping an eye on social media (Matzler et al., 2021). Monitoring social media also yields useful information for modifying campaign tactics and making sure corporate activism initiatives reflect the concerns and expectations of the general public.

Metrics of Performance and Data Visualisation: When it comes to monitoring and displaying the effectiveness of corporate activism initiatives, artificial intelligence is crucial. Real-time reporting on key performance indicators (KPIs), including campaign reach, social shares, and engagement rates, can be produced by AI-based technologies that can compile data from several sources (Iyer & Kar, 2020). In order to help stakeholders make well-informed decisions, organisations may resort to data visualisation techniques like infographics and interactive dashboards to understand complicated data in an approachable and useful way (Few, 2012). AI's capacity to compile vast volumes of data and display it graphically guarantees that businesses can evaluate the effectiveness of their efforts and continuously improve their tactics to improve advocacy and engagement results.

CASE STUDIES AND EXAMPLES

Campaigns for Corporate Activism That Are Successful Driven by Artificial Intelligence

The application of artificial intelligence (AI) has greatly increased corporate activism; several organisations are using AI technology to interact with their audiences and tackle social and environmental issues. A prominent illustration of this is the body-positive Dove brand campaign run by Unilever. To determine public opinion around beauty standards and provide material that appealed to a wide range of consumers, Unilever employed AI-driven sentiment analysis technologies. Dove was able to improve the #RealBeauty campaign's messaging and boost engagement by continuously evaluating user feedback on social media and other venues. With the use of AI, Dove was able to dynamically modify its strategy and make sure that the messaging reflected the public's worries about diversity and body image.

Nike's "Dream Crazy" campaign, which featured Colin Kaepernick, is another example. It used sentiment analysis AI techniques to analyse the success of its social justice message and gauge audience response. Nike used artificial intelligence (AI) to monitor conversations and determine how various demographic groups responded to the campaign. This enabled the corporation to make real-time messaging adjustments to increase the impact of its activism (Følstad & Brandtzaeg, 2022). Nike was able to sustain a favourable and powerful brand image by using AI to track the campaign's effectiveness and make sure it reflected popular sentiment.

CONSEQUENCES FOR INDUSTRY AND SOCIETY

There are important ramifications for both businesses and society when artificial intelligence (AI) is included in corporate activism initiatives. These effects are complex, encompassing everything from improving accountability and transparency to promoting diversity and influencing a company's long-term reputation. This section examines how AI can change how businesses interact with society and the different advantages it offers in the field of corporate activism.

AI's Advantages for Promoting Accountability and Transparency

Fostering accountability and transparency is one of AI's most noteworthy advantages for corporate activism. Conventional corporate activism techniques frequently don't respond in real-time, which might result in activities that are either delayed or insufficient. AI, on the other hand, makes it possible for companies to monitor and evaluate the results of their campaigns in real-time, guaranteeing that any disparities in messaging or execution are promptly found and fixed (Sarker et al., 2022). Businesses can, for example, continuously analyse public reactions and modify their ads in real-time to ensure alignment with ethical norms and societal expectations by utilising AI-powered sentiment analysis tools.

Contribution to Increasing Voices of the Marginalised

A key component of many corporate activism programs is elevating the voices of under-represented and marginalised communities, and AI is essential to this effort. Businesses can gather and examine customer input from a wide variety of customers, including those from under-represented or marginalised groups, by using AI-driven platforms. For instance, by examining news articles, social media conversations, and other digital content, AI can pinpoint problems that these communities confront. By giving these insights top priority, businesses can modify their activism activities to target the particular difficulties these groups have, fostering equity and inclusivity (González et al., 2020).

Furthermore, by giving under-represented groups easily accessible forums to express their concerns, AI can aid in removing obstacles to participation. Businesses can ensure that everyone, regardless of background or socioeconomic class, has an opportunity to contribute to activism initiatives by facilitating real-time discussion using chatbots and conversational AI. According to Tsvetkova et al. (2020), these technologies can help businesses better understand and cater to the requirements of various groups, promoting social responsibility and inclusivity.

Long-Term Effect on Consumer Trust and Business Reputation

In the long term, a company's reputation and customer trust may be significantly impacted by the use of AI in corporate activism. Customers are more inclined to support businesses that share their values and expect enterprises to perform in a socially responsible manner (Huang & Benyoucef, 2020). Businesses increase their reputation and show a sincere commitment to societal concerns when they use AI

to guarantee the efficacy and authenticity of their advocacy initiatives.

Additionally, businesses may demonstrate that they are paying attention to and meeting the demands of their customers by utilising AI to monitor and react to public criticism. Being responsive aids in gaining the trust of customers, which is essential for developing enduring partnerships. Businesses that use AI will probably have a competitive edge in the market as customers grow more conscious of the technology's contribution to corporate transparency and equity (Sarker et al., 2022).

The hazards of “woke-washing” or “cause-washing,” in which businesses make exaggerated claims to support social causes without taking substantive action, are also lessened by the transparency made possible by AI. By employing AI to monitor the results of their advocacy efforts and offer substantiated proof of their influence, businesses can steer clear of charges of being shallow or inauthentic involvement, which can harm their brand and undermine customer confidence (González et al., 2020).

Wider Social Effects

There are further societal repercussions when AI is widely used in business activism. Businesses that use AI to solve social and environmental problems not only encourage change within their own companies but also have an impact on their supply chains and larger industries. AI can be utilised, for instance, to track sustainability initiatives throughout a business's supply chain, guaranteeing that all parties involved—from suppliers to customers—are held responsible for moral behaviour (Sharma et al., 2021).

The way AI is used in business activism can potentially raise awareness of important concerns in society. Businesses can encourage others in the corporate sector to adopt similar practices as they use AI to promote social change, which will have a cascading effect on other industries. Global challenges including social justice, gender equality, and climate change can advance more quickly as a result of this team effort (Huang & Benyoucef, 2020).

CONCLUSION AND RECOMMENDATIONS

Overview of the Outcome

This study looked at how corporate activism and artificial intelligence (AI) interact, specifically how AI might improve the efficacy of CSR (corporate social responsibility) programs. The results underscore how AI is revolutionising activist campaigns by highlighting its contributions to accountability, transparency, and inclusivity. Artificial intelligence (AI)-driven solutions like sentiment analysis, social media listening, and predictive analytics give companies access to real-time data so they can optimise their efforts for maximum impact (Sarker et al., 2022). By dividing viewers into groups according to their preferences, AI also promotes more individualised participation, increasing the impact and reach of corporate activism initiatives (Tsvetkova et al., 2020).

AI has also demonstrated efficacy in elevating under-represented perspectives, allowing businesses to more thoroughly address concerns of equality and social justice. Businesses are able to react swiftly to public emotion thanks to AI's real-time flexibility, which guarantees the legitimacy of their communications and helps them stay relevant (Sharma et al., 2021). However, the study also revealed several issues, such as the potential for abuse in influencing public opinion, the dangers of algorithmic bias, and data privacy issues (González et al., 2020).

Realistic Suggestions

Use of AI Ethics: Verify that AI systems are impartial, open, and privacy-compliant; check algorithms for biases (Zeng, 2020).

AI Training: Companies should invest in training to successfully incorporate AI insights into strategy (Følstad & Brandtzaeg, 2022).

Real-Time Engagement: Use AI to instantly engage with customers and forge closer bonds (Kaplan & Haenlein, 2019).

Inclusivity: Make sure campaigns cater to a range of demands by using AI to elevate under-represented voices (González et al., 2020).

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Workplace Environment and Its Impact on Organisational Performance in Pvt Educational Institutes

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Abstract

This study examines the impact of the workplace environment on organizational performance in private educational institutions affiliated with Guru Gobind Singh Indraprastha University (GGSIPU), Delhi, India. The research explores how factors such as task design, physical workspace, employee compensation, and job stability influence employee engagement, productivity, and morale. Using a quantitative approach, data were collected from 122 employees through structured questionnaires, with a response rate of 47.81%. Statistical analyses, including descriptive statistics, correlation analysis, and regression analysis, reveal positive relationships between key organizational culture variables—Organizational Learning, Creating Change, Team Orientation, Strategic Direction and Intent, and Goals and Objectives—and performance indicators like Internal Process and Learning and Growth perspectives. The findings highlight the importance of fostering a collaborative and strategically aligned workplace environment to enhance productivity, reduce absenteeism, and improve long-term organizational success.

Keywords: Environment, Facility, Performance, Productivity, Employees.

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INTRODUCTION

The growing expectations of consumers for improved public service delivery, coupled with heightened competition in the marketplace and rapid technological advancements, have made the assessment of organizational performance increasingly critical in both public and private sectors, particularly in many developing nations. As public sectors strive to remain competitive with their private counterparts,

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it is essential for organizations to implement innovative strategies to enhance their performance. Failure to embrace such strategies could jeopardize an organization's competitiveness and long-term viability. Consequently, elements such as organizational learning, mission clarity, team orientation, adaptability to change, and strategic intent play a vital role in determining an organization's overall effectiveness. Numerous studies have focused on the impact of organizational culture on performance, highlighting its significance in fostering organizational effectiveness and competitiveness. As a result, organizational performance has emerged as a central theme in organizational research. Organizational performance refers to the effectiveness with which employees execute their job responsibilities to achieve the goals and objectives of the organization (Hakim, 2015). It can also be viewed as the level of success attained, which subsequently enhances employee productivity. Furthermore, Mahal (2009) posits that organizational performance encompasses the organization's ability to efficiently and effectively reach its objectives. Therefore, it is evident that organizational performance relies on the collaborative efforts of all departments within the organization, working cohesively as a team and implementing innovative strategies to fulfil the organization's aims.

The evolving nature of a diverse and global workforce has led to significant changes in organizational culture, which in turn affects overall performance. Research has highlighted both the beneficial and detrimental effects of organizational culture on performance outcomes (Lim, 1995). Nevertheless, existing studies have not thoroughly explored the intricate relationships between these two elements. Moreover, while there is a wealth of literature discussing the impact of organizational culture on employee performance, there remains a lack of comprehensive research focused on how various countries assess organizational performance and the unique challenges they encounter (Richard et al., 2009). This gap is particularly pronounced in African nations, where the connection between organizational culture and performance is not well understood (Nwibere, 2013). Additionally, Piercy et al. (2004) raised concerns about the relevance of Western management practices in developing countries, despite the widespread acknowledgment of their applicability across different contexts.

Conducting this study in developing nations such as Ethiopia is particularly crucial, as public sector reforms are still evolving to improve organizational performance and enhance public service delivery. There is a lack of sufficient evidence regarding the interplay of organizational culture elements, particularly concerning organizational learning, strategic direction, goals and objectives, team orientation, and capability development. Additionally, adaptability in fostering change, encouraging innovation, and providing technological support are essential components influencing the overall performance of the educational

sector in the Garage zone of Southern Ethiopia. This research aims to evaluate the impact of organizational culture on performance within the public service sector. In this context, the paper seeks to answer questions regarding the types of organizational culture that positively affect the performance of selected public institutions, strategies for enhancing organizational learning, and methods for promoting team orientation. Furthermore, it explores how technical assistance and innovation can be advanced in developing economies.

This document is structured into four distinct sections. The initial section serves as the introduction, outlining the fundamental concepts of organizational culture and performance. It also identifies the research gap, specifically focusing on the broader African context and the particular situation in Ethiopia. The second section provides a comprehensive literature review, from which hypotheses have been developed. The third section addresses the research methodology employed in the study. Finally, the concluding section presents the analysis and discussion of the data, along with conclusions and suggestions for future research endeavours.

OBJECTIVES OF THE STUDY

The primary objectives of this study are as follows:

The primary objectives of this research are as follows:

1. To examine the key elements of a positive workplace environment in private educational institutes.
2. To analyse the impact of the workplace environment on employee satisfaction and engagement.
3. To explore the influence of the workplace environment on organizational performance indicators, such as student outcomes, retention rates, and financial performance.
4. To identify potential challenges and strategies for improving the workplace environment in private educational institutes.

LITERATURE REVIEW

There have been many definitions of the organisational culture construct. However, there is no universal definition of the same (Kareem et al., 2020). For instance, organisational culture is defined as “values, beliefs and principles that serve as a foundation for an organisation’s management system” (Lu et al., 2013, p. 35). These values, beliefs and principles are established within an organisation and play an important role in coordinating, promoting teamwork and holding the organisation together (Hakim, 2015). It influences the workplace, which impacts the thinking of the employees, who act significantly within and between organisations. Therefore, organisational culture has a positive relationship with the performance of the

organisation (Warrick, 2017). Organisational culture promotes solidarity among the employees and instils high commitment for greater productivity. It is, therefore, seen as an essential component of organisational performance (Kenny, 2012). It includes that the employees of an organisation discuss and share their tasks with each other and other stakeholders to achieve an organisation's goals (Pathirana, 2019). For any organisation to improve and increase its profitability and performance, strong organisational culture is an important factor that also aligns with the organisation's current and future direction. Schein (2011) indicates that organisational culture can be visible in private, public, non-profit organisations, and governmental organisations, which helps to unite employees of different identities and backgrounds. While highlighting better communication and less conflict, it is said that having a shared culture at the workplace plays an important role, which is essential to promote organisational performance (Pathirana, 2019). These values and beliefs are expected to activate "individuals' cognitive awareness, attitudes, sense of controllability", that in turn impacts the performance and drives to meet the goals and objectives of the organisation. Organisational culture motivates the employees to display engagement qualities by being "energetic, enthusiastic, passionate, focused and dedicated" and to perform their tasks for the organisation's overall development

(Ababneh, 2021, p.12). Succinctly, organisational culture is understood and considered an important variable to meet the same's goals and objectives. It creates an environment that influences business and operational accomplishments (Warrick, 2017). Numerous studies have highlighted the potential link between organisational culture and performance (Shahzad et al., 2012; Piercy et al., 2004). Nippur (2017) have found that an employee's organisational commitment towards the organisation's goals can significantly impact the performance, which is proved in the educational offices. Givens (2012, p. 23) concluded that a "strong relationship between the organisational mission and learning and innovation may help the church continue to improve in areas necessary for optimal performance". Singh et al. (2019) conclude that the top management significantly improves the employee's performance, that in turn, succeeds in achieving the goals of an organisation. Kareem et al. (2020) found that building dynamic supply chain capabilities can assist manufacturing companies with achieving effective supply chains in a dynamic environment.

Table 1 : Literature Review of Previous Research

Authors	Research aim	Methods
Nikpour (2017)	This study highlights the importance of organisational culture and examines the role of employee's commitment in the organisation for a better organisational performance	Quantitative case study; Data was collected from the education office of Kerman province

Givens (2012)	This study focused on the organisational performance in non-profit religious organisations (churches). The study attempted to identify the potential relationship between organisational culture and performance.	Quantitative methods; Data was collected from staff and pastors of 43 Christian churches
Nazarian et al. (2017)	This study investigates the role of national culture and the balanced of hotel organisational culture in organisational performance.	Quantitative methods; Data were gathered from 96 hotels in London, UK Quantitative methods;
Singh et al. (2019)	This study investigates the role of organisational performance of small and medium-sized enterprises (SMEs)	Quantitative methods; Multisource data collected from 404 SMEs
Kareem et al. (2020)	This study investigates the impact of supply chain dynamic capabilities on operational performance in Hungarian manufacturing companies.	Quantitative methods; Data were collected from 208 supply chain management professionals from the Hungarian manufacturing industry

Source: Compiled by the researcher

RESEARCH METHODOLOGY

Participants and Procedure

The study was conducted in Delhi, India, specifically focusing on educational institutions affiliated with Guru Gobind Singh Indraprastha University (GGSIPU). The university is renowned for its diverse range of academic programs and its emphasis on quality education, which makes it an ideal setting for exploring the relationship between workplace environment and organizational performance. The study targeted public service institutions, including colleges affiliated with GGSIPU.

A simple random sampling technique was employed due to its advantages, including enhanced data accuracy, reduced bias, and the ability to generate generalizable results. A structured questionnaire was randomly distributed to 122 employees across various educational institutions. Data collection took place between February and April 2020, and 122 completed questionnaires were received, resulting in a response rate of 47.81%. Careful measures were taken during data collection to ensure that all questionnaires were completed without missing information, ensuring the reliability and validity of the data.

Research Instruments

Five variables were operationalized to measure organizational culture: Organizational learning, Creating change, Team orientation, Strategic direction and Intent, and Goals and Objectives. A total of 24 items used to measure organizational culture were adopted from Kareem et al. (2020) and Ababneh (2021). Additionally, Internal Process and Learning and Growth perspectives variables were used to understand organizational performance. A total of 8 items used to measure organizational performance were adopted from Shahzad et al. (2012) and Richard et al. (2009). All

questions were designed using a five-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

Data Collection Procedure

Data were collected between February and April 2020. Questionnaires were distributed both in paper format and electronically to facilitate participation. The research team ensured that all responses were complete and accurate before data analysis. Participation was voluntary, and confidentiality was maintained throughout the process.

Data Analysis

Data analysis was conducted using statistical software to assess the relationships between variables and their impact on organizational performance. Descriptive statistics, correlation analysis, and regression analysis were performed to evaluate the significance and strength of these relationships. The results were interpreted within the context of existing literature, providing insights into factors influencing workplace environment and performance in educational institutions.

Analysis and Results

The collected data were analysed using statistical software to assess the relationships between workplace environment factors and organizational performance in educational institutions affiliated with Guru Gobind Singh Indraprastha University (GGSIPU), Delhi, India. This section presents the key findings, including descriptive statistics, correlation analysis, regression analysis, and hypothesis testing.

Descriptive Statistics

Descriptive statistics were employed to summarize the demographic characteristics of respondents and their perceptions of organizational culture and performance. The mean scores and standard deviations for variables such as Organizational Learning, Creating Change, Team Orientation, Strategic Direction and Intent, and Goals and Objectives provided insights into the prevailing workplace environment and its influence on performance outcomes.

Correlation Analysis

Pearson correlation analysis revealed significant positive relationships between organizational culture variables and organizational performance. Higher scores in Organizational Learning, Team Orientation, and Strategic Direction correlated with improved performance indicators, suggesting that a collaborative and goal-driven culture enhances productivity and employee engagement.

Regression Analysis

Multiple regression analysis was conducted to determine the extent to which organizational culture variables predict organizational performance. The analysis indicated that Organizational Learning and Strategic Direction were the strongest

predictors, accounting for a substantial portion of the variance in performance outcomes. The regression model demonstrated high explanatory power, confirming the critical role of a supportive and strategically aligned workplace environment.

Hypothesis Testing

The study tested hypotheses regarding the impact of organizational culture elements on performance. Results supported the hypotheses, indicating that a positive workplace environment contributes to enhanced Internal Process and Learning and Growth perspectives. Employees who perceive clear goals, collaborative teams, and opportunities for growth are more likely to exhibit higher productivity and job satisfaction.

Interpretation of Results

The analysis underscores the importance of fostering a conducive workplace environment to achieve organizational objectives. Institutions that prioritize employee well-being, encourage innovation, and align their strategic direction with performance goals experience improved productivity and long-term success. These findings align with existing literature, reinforcing the significance of organizational culture as a key driver of performance in educational settings.

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Fast Fashion Cost to Everyday Consumers: Sustainable Perspective

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Miss. Reema Yadav¹

Abstract

The fast fashion industry's sustainability is a growing concern due to its dominance and lack of government regulations. This research examines consumers' perception of sustainable consumption in the context of fashion, focusing on factors influencing sustainable behaviour. Fast fashion has transformed the clothing industry by offering affordable, trendy apparel at rapid production cycles, but it has led to a throwaway culture and environmental impact. The industry contributes to climate change by emitting greenhouse gases, waste, pollution, and degradation of air, water, and wildlife habitats. The study aims to identify research gaps in academic and marketing aspects regarding compulsive buying behaviour of fast fashion consumers. Sustainable fashion (SF) aims to address these issues by designing and marketing socially and environmentally responsible products. The study suggests ways to increase sustainable fashion consumption, including offering alternatives and policies to increase accessibility.

Keywords: Sustainable, Fast Fashion, Consumer Behaviour, Consumption
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INTRODUCTION

Fast fashion refers to affordable and trendy clothing that quickly moves from the runway to stores to meet consumer demand. The India fast fashion market is driven by increasing disposable incomes, western culture influence, and a growing young population. The industry is a globalized sector that manufactures, designs, and sells clothes, contributing to an estimated 20% of global wastewater and 10% of CO₂ emissions. The fashion industry has become an exploitative, growing sector based on mass production following current trends. This business model has revolutionized the industry, simplifying consumers' purchasing processes and expediting the turnover of garments and trends. However, the industry has also led

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to unethical waste generation, with brands like Shein, Nike, and Burberry destroying new, undamaged products through burning, which introduces additional CO₂ and toxic gases. The low costs set by the fast fashion industry have been praised for making new clothing more accessible to people with lower incomes. However, the largest consumers of fast fashion include customers of relatively substantial income, while low-income communities bear the brunt of the industry's waste and pollution. This demonstrates that the goal of the fast fashion industry is not inclusivity but enormous profit based on environmental and worker exploitation. Fast fashion has changed society's perception of what clothing is worth, pushing poorly made garments on people and promoting excess purchasing of cheap items destined for landfills rather than higher-quality garments that will ultimately last longer.

RESEARCH METHODOLOGY

This research uses a qualitative, secondary data analysis approach to examine the impact of fast fashion on consumers, focusing on sustainable consumption behaviour. The study aims to identify factors influencing sustainable behaviour among consumers and identify research gaps, particularly in the area of compulsive buying behaviour linked to fast fashion consumption. The research design involves synthesizing existing knowledge and analysing trends from various academic and industry platforms. The research uses secondary data from academic papers, market reports, and industry articles to examine the complexities surrounding fast fashion's environmental impacts, its effect on consumer behaviour, and potential interventions to encourage sustainable consumption. Only recent and relevant academic research papers, industry reports, and articles (preferably within the last 5 years) have been considered to ensure up-to-date findings. The research aims to generate insights into the compulsive buying patterns of fast fashion consumers and identify pathways for increasing sustainable consumption. Data was collected from various sources, including peer-reviewed research papers, industry analyses, market trend reports, and policy documents focusing on fast fashion, sustainable fashion, and the environmental and social repercussions of the fashion industry. The data collection was limited to recent publications from the last five years to ensure the findings reflect current trends in fast fashion and sustainability.

REVIEW OF LITERATURE

Manisha Gupta et al (2023) studied that India's millennial population, the world's largest, is increasingly concerned with sustainability. They have large spending power, a desire for environmentally friendly workplaces, and a strong preference for eco-friendly products. However, the reasons behind their interest in sustainable products are not fully understood. Their study aims to understand Indian patrons' attitudes, motivations, and behaviour towards sustainable fashion, and develop a framework for long-term consumer behaviour shifts. Two case studies, H&M and Stella McCartney, are examined to explore sustainable initiatives and measures urging consumer purchasing decisions. Yioula Melanthiou et al (2022) examines customers' knowledge, attitudes, and behaviour towards sustainability in fast fashion. It reveals

that while most consumers claim to be knowledgeable about sustainability, they lack precise knowledge about sustainable supply chain aspects. Women are more knowledgeable about this topic, but men are willing to pay more for brands reflecting their moral values. Clear information about environmental and social impact is promising for a shift towards sustainable fashion consumption. Greg Peters et al (2020) revealed that the fashion industry has been revised to reflect increasing global scrutiny of its environmentally polluting supply chain operations, changing the sentence from “the second largest industrial polluter after aviation” to “a major consumer of water.” The CO₂ estimates have been updated from 10% to 8-10% of global emissions, and the statement “global consumption has risen to an estimated 62 million tonnes of textile products per year” has been corrected to 62 million tonnes of apparel per year. Rachel Dale (2022) studied how fast fashion can be sustainable, despite its association with unsustainable practices. The fashion industry, the world’s second-largest, is largely unfixable due to the high prices associated with sustainable fashion brands. This makes fast fashion the only option for many consumers, despite the industry’s sustainability issues. To improve the fast fashion industry, researchers have explored various approaches, such as H&M’s investment in recycling technology and the introduction of eco-friendly fabrics. Primark is also focusing on improving cotton farming and incorporating organic cotton into their clothing lines. The research suggests that while clothing choices may not directly affect sustainability, people need to be educated about the industry’s impact. To achieve substantial change, adjustments from all parties involved, including consumers, retailers, manufacturers, and farmers, are needed. A circular economy is the only way the fast fashion industry can become efficiently sustainable. Karen Shedlock&Stephanie Feldstein (2023) revealed that combating fast fashion requires action at all levels, from government reform to companies improving practices and individuals making changes in consumption. The rise of influencer culture and social media advertising can increase overconsumption. Reducing overconsumption involves introducing sustainable options, such as used clothes, thrifting, and DIY projects. The fashion industry and governments must embrace this new paradigm to make sustainable practices more accessible and appealing. Prashant Shetty et al (2024) studied that India, a leading textile recycling hub, is facing challenges due to increased demand for cheaper polyester substitutes and a decrease in annual revenues. The country’s textile industry, which contributes 2.3% to the GDP, aims to achieve \$250 billion in production and \$100 billion in exports by 2030. However, the country produces 7,793 kilotons of textile waste, with 3.044 being post-consumer waste. A recent study revealed that consumers prefer cotton clothing, with blended clothing being the second most preferred alternative. India currently has limited capacities to process blended water, and there are no current schemes to address post-consumer waste. The challenge is simplifying the complexity of sorting and separating reclaimed textiles for recycling. Andreas Hesse&Jessica Rundau (2023) revealed that fast fashion, despite its pro-environmental and pro-social activities, often causes environmental degradation and over-consumption. This may lead to a turnaround in the ethical purchasing gap, allowing consumers to perceive themselves as less

irresponsible. However, this may not be sustainable, as fashion that is less unsustainable is not sustainable. Fast fashion shoppers tend to perceive themselves as engaging in ethical clothing consumption when purchasing from brands involved in sustainable marketing activities, strengthening the strategic role of sustainable marketing. Sandra Stephan&Tanya Chugh (2021) studied that Sustainable fashion is making progress as more brands and consumers adopt environmentally friendly products and shopping habits. From small fair-trade companies to major industry leaders, new approaches are being introduced. Studies show an optimistic future with a rise in ethical business practices and sustainable strategies. Their paper analyses the fashion industry from the perspective of consumers, focusing on profitability, customer motivation, and actual steps taken by customers. Rongwei Chu et al (2022) studied that consumer perceptions of sustainable consumption in fashion, identifying factors contributing to the gap between attitudes and behaviour and how marketing systems interfere with sustainable consumption. However, limitations include limited sample size, potential comparison of Asian and Western consumers, and the need for further research. Anuri Phatak (2024) revealed that the fashion landscape has shifted, leading to the division between fast fashion and sustainable fashion. Fast fashion, known for its affordability and trendiness, caters to trend-driven consumers, while sustainable fashion emphasizes ethical practices and environmental stewardship. This exploration explores the disparities between these approaches, their implications for consumers, workers, and the planet, and highlights the need for a balanced approach. Subhasis Ray&Lipsa Nayak (2023) studied sustainable fashion (SF) and its potential to reduce greenhouse gas emissions and climate change. It highlights key themes such as marketing communication, branding, product specifications, consumption, consumer behaviour, organizational purchases, and retailing. Future research should focus on organizational buying, circular fashion, marketing communication, emerging market issues, and industry collaboration. Breanne Parker (2021) revealed that consumers are the problem, but in reality, fast fashion corporations are to blame. Solutions to ending the problem are difficult, and a feasible solution should lie within corporate law. Corporations have no accountability for environmental consequences, so change must come from changing laws or regulations. New laws can reduce the impact of fast fashion corporations on consumers' interests and behaviour. Meital Peleg Mizrachi&Alon Tal (2024) studied consumer alternatives for sustainable fashion products and their willingness to pay more for sustainable clothing. Results confirmed the "alternatives" nudge was more effective than highlighted social norms. Their study also hypothesized that providing information about the damages caused by the fashion industry would reduce the quantity of fashion products purchased and increase willingness to pay more for sustainable options. However, their study found that those exposed to sustainable alternatives were more likely to know how to differentiate between green and environmentally destructive clothes. Sushil Kumar Bishnoi (2024) revealed that fast fashion's rapid change has led to occupational hazards, waste, and environmental issues. Factors influencing consumer decisions include trendiness, respect, dominance, social group blend, and self-identity. "Creating a self-identity"

is the most influential factor, while “showing dominance” is less. Educating consumers about social and environmental hazards is crucial. Poopy Imogen Herlod&Daniel Prokop (2023) studied the factors influencing the adoption of rental clothing, revealing an ethical purchasing gap and a lack of trust in the industry. It highlights barriers to adoption such as quality, sizing, cleanliness, cost, and lack of ownership. It suggests that sustainability awareness should be increased, and marketing strategies should focus on affordability and trust.

OBJECTIVES

1. To Understand attitudes of consumer toward fast fashion and sustainable alternatives.
2. Identify trends and triggers linked to fast fashion
3. Suggest actionable steps for sustainable fashion adoption via awareness, policies, and industry reforms.

ANALYSIS

Consumer Willingness to Pay for Sustainable Fashion

A 2024 survey indicates that 54% of consumers are now willing to pay a premium for sustainable products and services, marking a significant increase from previous years. Approximately 73% of millennials express a willingness to pay extra for items from sustainable brands. A 2021 Statista Consumer Insights survey revealed that 89% of Indian consumers purchase sustainable and eco-friendly fashion items, such as those made from sustainable fabrics or fair trade goods. A study indicated that higher-income Indian consumers are willing to pay an additional 500 for sustainable clothing to promote sustainability.

Market Trends and Growth

The global sustainable fashion market was valued at \$8.1 billion in 2024 and is projected to reach \$33.1 billion by 2033, growing at a compound annual growth rate (CAGR) of 22.9%. circularity is a key trend, focusing on reusing and recycling materials to minimize waste and extend the lifecycle of garments. India ranks ninth globally in the slow fashion market, with \$9 billion, or 8.49% of the market, dedicated to slow fashion. The Indian green fashion market was valued at \$1.31 billion in 2023 and is projected to grow at a compound annual growth rate (CAGR) of more than 10% during 2023-2028.

Sustainable Fashion Trends

Over 70% of consumers express concern about sustainability when making fashion purchases, yet only 3% are willing to pay a premium for sustainably produced clothing. There is a growing emphasis on circular economy practices and upcycling, encouraging the reuse and recycling of materials to reduce waste. Despite expressing strong interest in sustainability, some studies suggest a gap between Gen Z's environmental values and their purchasing behaviors, often influenced by trends and affordability.

The demand for vegan fashion is increasing, with consumers seeking cruelty-free alternatives to traditional materials like wool. Advancements in technology, such as virtual fitting rooms and 3D body scanning, are transforming the shopping experience, promoting sustainable practices by reducing returns and waste.

Consumer Behaviour and Sustainability

Over 70% of consumers express concern about sustainability when making fashion purchases, yet only 3% are willing to pay a premium for sustainably produced clothing. Despite expressing strong interest in sustainability, some studies suggest a gap between Gen Z's environmental values and their purchasing behaviours, often influenced by trends and affordability.

Industry Initiatives

The “Fashion Transparency Index 2020” evaluates and ranks 250 global fashion brands and retailers based on their disclosure of social and environmental policies, practices, and impacts. H&M has launched initiatives like the Conscious Collection, aiming to increase the use of sustainable materials in its products. Levi's has implemented water-saving techniques and sustainable sourcing to reduce its environmental footprint. The Fashion Pact, a non-profit initiative aimed at decarbonizing the fashion industry's supply chain, has launched its Unlock programme to promote sustainable cotton farming in India. Inditex, the owner of Zara, has increased its use of air freight for transporting clothes from India to Spain to prevent shipping delays, raising concerns about the impact on sustainability goals.

Consumer Motivation and the Drive for Green Consumption

Consumer behaviour plays a crucial role in driving sustainability in the fashion industry. Motivation, awareness, and individual capability are core factors that influence green consumption patterns. Consumers who have better knowledge about environmental issues and sustainable alternatives tend to engage more in sustainable purchases. For example, when consumers understand the long-term environmental impact of clothing production—such as water usage, chemical waste, and labour exploitation—they are more likely to shift their buying patterns toward sustainable brands.

Despite this, raising awareness and equipping consumers with the necessary resources and knowledge about sustainable fashion alternatives are significant challenges. Governments, organizations, and marketing agencies can play pivotal roles in this process. Not only should they foster an informed and conscious consumer base, but they must also make sustainable products accessible. Awareness programs, environmental certifications, and incentives could incentivize people to prioritize sustainable options when shopping for clothing. Marketing that aligns with ethical values will resonate with environmentally conscious consumers who want their choices to mirror their environmental beliefs.

By focusing on consumer aspirations and emotions, marketing strategies can be

tailored to promote sustainability as a desirable, socially responsible lifestyle. If stakeholders can manage to connect sustainability with personal identity and societal status, it could make green purchasing a trend, thus enhancing the overall shift toward environmentally-friendly consumption behaviours.

The Disconnect Between Ethical Awareness and Fast Fashion Patronage

One of the primary challenges to promoting sustainable consumption is the significant disconnect between ethical awareness and actual buying behaviour. While many consumers recognize fast fashion's adverse effects on the environment and labour rights, they often justify their purchase decisions by externalizing responsibility. Many view the problems—unethical labour practices, pollution, and waste—as issues that are out of their hands and primarily the responsibility of large corporations. This paradox is a form of cognitive dissonance that enables consumers to reconcile their actions with their environmental and ethical beliefs. Even though they acknowledge the negative impacts of fast fashion, their commitment to buying low-cost, trendy clothes remains steadfast. The gap between awareness and action creates a challenge for shifting behaviours towards sustainability, making it crucial to frame the issue of responsibility as a shared one between producers, consumers, and even policymakers.

Consumers must be educated about their role in fostering sustainable consumption. Informing them about how their individual choices impact the environment is essential to promoting behaviour change. This will require a concerted effort from all stakeholders involved, including marketing agents, environmental groups, and the government. Establishing stronger connections between the environmental consequences of fast fashion and personal responsibility would help reduce the cognitive dissonance experienced by consumers.

Sustainability Interest Among Generation Z: A Double-Edged Sword

Generation Z (born approximately between 1997 and 2012) represents a new generation of consumers who are much more conscious of social and environmental issues than previous ones. Many young people are willing to pay a premium for products they believe to be ethically produced and environmentally responsible. In fact, some studies have shown that a significant portion of Gen Z consumers—especially women—are keen on supporting sustainable brands that are transparent about their environmental impact and manufacturing processes.

However, a paradox arises in the consumption patterns of this demographic. Despite an increasing interest in sustainability, many young people, particularly young women who make up a large portion of the fast fashion consumer base, consume both fast fashion and sustainable fashion. This dual consumption creates an inherent dilemma: how to promote sustainable fashion while mitigating overconsumption. In many cases, young people prioritize buying frequent, inexpensive clothes from fast fashion stores to maintain their social identity, which stands in stark contrast to their desire for environmentally-friendly options.

The culture of disposability embedded in fast fashion directly conflicts with the slow fashion ethos, which encourages buying fewer, higher-quality items. Fast fashion brands continually release new collections and encourage constant consumption, thus undermining efforts to promote sustainable purchasing behaviours. Although young consumers may prefer sustainable alternatives, the allure of fast fashion's low-cost trendiness proves difficult to resist.

Thus, while sustainable brands appeal to environmentally conscious youth, they must also confront the challenge of creating garments that can truly compete with fast fashion in terms of price and availability. Solving this problem would involve finding ways to reduce production costs, improve scalability, and, most importantly, influence cultural trends that prioritize quality over quantity.

Barriers Faced by Sustainable Fashion Brands

Despite growing consumer interest in sustainability, sustainable fashion brands encounter numerous obstacles in the quest for scaling their operations. One of the most significant challenges is the lack of clear definition regarding what qualifies as "sustainable." With sustainability becoming an increasingly popular marketing buzzword, some brands may inaccurately claim to be eco-friendly, thus confusing consumers and hindering their decision-making process. For genuine sustainable brands, the economic constraints are substantial. Sustainable production, especially when using eco-friendly fabrics, is typically more expensive than the use of cheaper materials favoured by fast fashion brands. Furthermore, establishing a reliable and scalable supply chain for sustainable production involves significant upfront costs, which may be difficult for new or small brands to overcome. In addition to that, convincing suppliers to adopt more sustainable methods can be challenging, as they might face higher costs or reduced production time. Negotiating favourable pricing, quality, and timelines, all while maintaining sustainable practices, puts immense pressure on these brands.

Additionally, the transition to sustainable practices requires shifting from established manufacturing technologies to more environmentally-conscious options. Many of the existing systems used by large fashion manufacturers rely heavily on polluting chemicals, energy-intensive processes, and a disregard for labour conditions—factors that are difficult to change quickly.

Cultural Resistance and Competitive Fast Fashion Forces

Cultural resistance to change is a significant hurdle in the journey toward a more sustainable fashion industry. Consumers, particularly in regions with a rich tradition of fashion trends and consumption patterns, often find it difficult to embrace alternative approaches, especially when they are used to the convenience of inexpensive, readily available fast fashion. Fast fashion retailers hold a dominant market position, thanks to their ability to deliver trendy clothing at rock-bottom prices and offer frequent inventory turnover. These brands are able to outsource labour to countries with

lower production costs, ensuring the continued dominance of cheap and trendy fast fashion clothing. Furthermore, the larger the company, the more it can leverage economies of scale, pushing small sustainable brands out of the market due to their comparatively higher production costs. As a result, consumers have limited access to reasonably priced and accessible sustainable fashion options.

One of the biggest barriers is the relative expense of sustainable alternatives. While environmentally-friendly fabrics such as organic cotton, hemp, and recycled materials may be perceived as ethical options, they often come with a higher price tag. Sustainability, unfortunately, does not always translate into affordability, especially in a society where fast fashion relies heavily on making clothes cheaper to satisfy widespread consumer demand for low-cost garments.

Emotional, Social, and Identity-Driven Influences on Purchasing Behaviour

Consumer purchasing decisions in the fashion industry are not solely driven by functional needs but are deeply tied to emotional, social, and identity-driven factors. Psychological research shows that consumers often make purchases based on how they perceive these items can reinforce or shape their identity. The fast fashion industry particularly thrives by tapping into these emotions: consumers often buy clothes that align with their aspirations, as a way to signal belonging or express personal identity. Fast fashion companies skilfully leverage this desire for social identity, fueling consumer emotions with targeted advertising that associates fashionable clothing with desirable lifestyles. However, in order for sustainable fashion brands to succeed, they must understand that these social and emotional motivations are equally powerful when it comes to shifting consumer behaviours.

Promoting sustainable fashion therefore involves not only emphasizing environmental and social benefits but also highlighting how these products allow consumers to express their unique identity, make ethical decisions, and gain approval from their social circles. By reframing sustainable fashion as “fashionable” and “on-trend” rather than niche or exclusive, consumers may feel more inclined to switch to more ethical, conscious consumption practices.

LIMITATIONS

The research mainly depends on secondary sources like research papers and online articles, which may not fully represent consumer behaviour in real-time.

The study provides a general overview and does not focus on specific consumer groups, such as different age groups, income levels, or regions, which may affect sustainable consumption patterns differently.

Due to limited time for the research, some aspects, like deeper exploration into emerging fast fashion brands or government policies, may not have been thoroughly covered.

The fast fashion industry is constantly evolving, so consumer trends and sustainability habits might change quickly, making some of the findings time-sensitive.

CONCLUSION

This research explores the impact of fast fashion on consumers' purchasing habits, with a particular focus on sustainable consumption behaviour. The study emphasizes that fast fashion's massive environmental impact, including waste production, pollution, and unsustainable supply chains, cannot be overlooked. While many consumers express an awareness of these issues and the need for sustainable alternatives, there remains a significant disconnect between ethical concerns and actual purchasing decisions. This paradox, often referred to as cognitive dissonance, poses a major challenge to the widespread adoption of sustainable consumption. However, growing trends such as the willingness to pay more for sustainable fashion, eco-friendly product innovations, and market shifts toward circular fashion practices present opportunities to drive the transition towards more sustainable fashion consumption patterns. The research underlines the importance of multi-pronged strategies involving consumer education, brand transparency, marketing reforms, and government policy in fostering a more sustainable fashion industry. Increased consumer awareness of the broader environmental, social, and economic consequences of fast fashion, coupled with improved accessibility to sustainable alternatives, will be key to curbing compulsive purchasing behaviour and promoting a long-lasting shift toward ethical and eco-friendly fashion.

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