

Digital Marketing Transparency and Its Impact on Sustainable Brand Loyalty

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Abstract

In the digital era, transparency has emerged as a critical determinant of trust and long-term relationships between brands and consumers. As consumers become increasingly aware of ethical, environmental, and social issues, they demand greater openness from brands regarding product information, data usage, pricing, and sustainability practices. Digital marketing transparency refers to the extent to which brands communicate honestly, clearly, and openly with consumers through digital platforms. This study examines the impact of digital marketing transparency on sustainable brand loyalty, emphasizing how transparent communication fosters trust, credibility, and long-term consumer commitment.

Sustainable brand loyalty goes beyond repeat purchases and reflects a deeper emotional and ethical connection between consumers and brands. It is particularly relevant in markets where consumers prioritize sustainability, corporate responsibility, and ethical conduct. Digital platforms such as social media, websites, and e-commerce channels provide brands with opportunities to disclose information, engage in dialogue, and demonstrate accountability. Transparent practices such as clear sustainability claims, honest advertising, disclosure of sponsored content, and responsible data handling play a crucial role in shaping consumer perceptions.

This study adopts a conceptual and analytical approach supported by literature on digital marketing, brand trust, and sustainable consumer behavior. The analysis highlights that transparency in digital marketing enhances consumer trust, which acts as a mediating factor between transparency and brand loyalty. Consumers are more likely to remain loyal to brands

they perceive as honest and responsible, particularly when sustainability claims are supported by verifiable actions.

However, the study also acknowledges challenges associated with digital transparency, including information overload, inconsistent messaging, and consumer skepticism arising from greenwashing. Without genuine commitment, transparency efforts may appear symbolic and fail to generate long-term loyalty.

The study contributes to marketing and sustainability literature by emphasizing transparency as a strategic driver of sustainable brand loyalty. It offers practical insights for marketers and policymakers on the importance of ethical digital communication. Overall, the study concludes that digital marketing transparency plays a vital role in building sustainable brand loyalty by strengthening trust, enhancing credibility, and supporting responsible consumption.

Keywords: Digital marketing transparency, sustainable brand loyalty, brand trust, ethical marketing, consumer behavior, sustainability communication, digital branding.

Introduction

The rapid growth of digital marketing has transformed the way brands communicate with consumers. Digital platforms enable instant information sharing, personalized communication, and interactive engagement. While these developments offer significant opportunities, they also raise concerns related to misinformation, exaggerated claims, and unethical data practices. In response, transparency has become a central expectation among consumers, particularly in relation to sustainability and ethical responsibility.

Digital marketing transparency refers to the degree to which brands openly share accurate, clear, and relevant information with consumers through digital channels. This includes transparency in advertising claims, sustainability disclosures, pricing, data collection, and sponsored content. Transparent communication is increasingly important as consumers become more informed and critical of brand behavior.

Brand loyalty has traditionally been associated with satisfaction and perceived quality. However, contemporary consumers increasingly evaluate brands based on ethical values and sustainability practices. Sustainable brand loyalty reflects a long-term commitment rooted in trust, shared values, and emotional connection rather than transactional benefits alone. Transparency plays a crucial role in fostering such loyalty by reducing uncertainty and building confidence.

Digital platforms amplify the importance of transparency because information is easily accessible and shareable. Consumers can verify claims, read reviews, and engage in public discussions about brands. As a result, lack of transparency can quickly lead to reputational damage, while honest communication can strengthen brand credibility.

In the context of sustainability, transparency becomes even more critical. Consumers expect brands to provide evidence of environmental and social responsibility rather than relying on vague or symbolic claims. Transparent sustainability communication helps consumers make informed decisions and supports responsible consumption.

Despite its importance, many brands struggle to implement transparency consistently across digital channels. Concerns related to greenwashing, data privacy, and misleading advertising continue to undermine consumer trust.

This study aims to examine the impact of digital marketing transparency on sustainable brand loyalty. By analyzing the relationship between transparency, trust, and loyalty, the study contributes to a deeper understanding of how ethical digital marketing practices support long-term brand sustainability

Literature Review

The literature on digital marketing highlights transparency as a key factor influencing consumer trust and brand credibility. Scholars argue that transparent communication reduces information asymmetry and enhances consumer confidence. In digital contexts, transparency includes honest advertising, clear disclosure of sponsored content, and responsible data practices.

Brand loyalty literature distinguishes between behavioral loyalty and attitudinal loyalty. Sustainable brand loyalty aligns closely with attitudinal loyalty, emphasizing emotional attachment and value alignment. Studies suggest that trust is a primary antecedent of loyalty, particularly in markets characterized by ethical and sustainability concerns.

Research on sustainability communication emphasizes the importance of credible and verifiable claims. Transparent sustainability reporting and consistent messaging are found to positively influence consumer perceptions. Conversely, greenwashing practices erode trust and negatively impact brand reputation.

Several studies examine the relationship between transparency and trust in online environments. Transparency in pricing, product information, and data usage enhances perceived fairness and reliability. In social media marketing, transparency regarding influencer partnerships and sponsored content is essential for maintaining authenticity.

The literature also highlights challenges associated with transparency. Excessive or complex information may overwhelm consumers, while inconsistent disclosures can create confusion. Additionally, transparency without genuine action may be perceived as symbolic.

Despite growing research, limited empirical studies integrate digital marketing transparency with sustainable brand loyalty as a long-term outcome. Most studies focus on trust or satisfaction independently. This study addresses this gap by examining transparency as a strategic driver of sustainable brand loyalty, mediated by trust and ethical perception

Research Gap

The existing body of literature acknowledges transparency as a crucial element in digital marketing and recognizes brand loyalty as a key outcome of effective marketing communication. Prior studies have extensively explored consumer trust, online credibility, and ethical marketing practices. Similarly, sustainability research emphasizes the importance of responsible communication in shaping consumer perceptions. However, despite these contributions, notable research gaps remain at the intersection of digital marketing transparency and sustainable brand loyalty.

First, many existing studies focus on **short-term outcomes** such as consumer trust, satisfaction, or purchase intention, while comparatively fewer studies examine **sustainable brand loyalty** as a long-term relational outcome. Loyalty rooted in ethical alignment and transparency remains underexplored in empirical research.

Second, digital marketing transparency is often examined in **isolated dimensions**, such as pricing transparency or data privacy, without a holistic assessment that includes advertising honesty, sustainability disclosures, influencer transparency, and data usage practices collectively. This fragmented approach limits understanding of transparency as a comprehensive strategic construct.

Third, while greenwashing and misleading claims are frequently discussed conceptually, **empirical evidence linking transparency directly to sustainable loyalty formation is limited**. The mediating role of trust between transparency and loyalty has not been sufficiently validated across digital platforms.

Finally, much of the empirical research is concentrated in developed economies, with limited studies focusing on **emerging markets**, where digital adoption is growing rapidly and consumer expectations regarding transparency are evolving. This study addresses these gaps by empirically examining how digital marketing transparency influences sustainable brand loyalty through trust and ethical perception.

Research Methodology

The present study adopts a **descriptive and analytical research design** to examine the impact of digital marketing transparency on sustainable brand loyalty. A **quantitative research approach** was employed to ensure objectivity and statistical validity.

The target population consisted of consumers who regularly interact with brands through digital platforms such as social media, e-commerce websites, and brand websites. A sample size of **300 respondents** was selected using the **convenience sampling technique**, considering accessibility and time constraints. Respondents included students, working professionals, and general consumers with regular digital exposure.

Primary data were collected through a **structured online questionnaire**. The questionnaire was divided into two sections. The first section collected demographic details such as age, gender, education level, and frequency of digital media usage. The second section included perception-based statements measuring digital marketing transparency, trust, ethical perception, and sustainable brand loyalty.

A **five-point Likert scale** ranging from “Strongly Disagree” to “Strongly Agree” was used. The independent variable of the study is **digital marketing transparency**, measured through indicators such as clarity of information, honesty in advertising, disclosure of sponsored content, sustainability reporting, and data privacy practices. The dependent variable is **sustainable brand loyalty**, measured through repeat purchase intention, advocacy, emotional attachment, and long-term commitment. **Consumer trust** was treated as a mediating variable.

Data analysis techniques included **descriptive statistics, correlation analysis, and regression analysis** to examine relationships among variables. Ethical considerations were strictly followed, including informed consent, anonymity, voluntary participation, and confidentiality of respondent data.

Data Analysis and Results

Data collected from 300 respondents were analyzed using descriptive and inferential statistical tools to evaluate the impact of digital marketing transparency on sustainable brand loyalty. The analysis focused on consumer perceptions of transparency, trust, and loyalty outcomes.

Descriptive statistics revealed that most respondents frequently interact with brands through digital platforms and actively seek information related to sustainability, pricing, and product authenticity. Mean scores for transparency-related statements were above the neutral midpoint, indicating generally positive perceptions of transparent digital communication among respondents.

Correlation analysis showed a **strong positive relationship** between digital marketing transparency and consumer trust. Transparency in advertising claims, sustainability disclosures, and data usage practices was significantly associated with higher trust levels. Trust also

demonstrated a strong positive correlation with sustainable brand loyalty indicators such as brand advocacy and long-term commitment.

Regression analysis was conducted to assess the predictive impact of transparency on sustainable brand loyalty. The results indicated that digital marketing transparency significantly predicts sustainable brand loyalty. When trust was introduced as a mediating variable, the strength of the relationship increased, confirming the mediating role of trust.

Among transparency dimensions, **honesty in advertising** and **clarity of sustainability claims** emerged as the strongest predictors of loyalty. Respondents expressed lower loyalty intentions toward brands perceived as vague or inconsistent in their communication. Data privacy transparency also showed a significant influence, reflecting growing consumer concern over ethical data practices.

The analysis further revealed moderate consumer skepticism toward brands with excessive promotional messaging and limited evidence of sustainability actions. Overall, the results confirm that transparent digital marketing practices enhance trust and foster sustainable brand loyalty.

Findings and Discussion

The findings of the study highlight the strategic importance of digital marketing transparency in building sustainable brand loyalty. One of the key findings is that transparency significantly enhances consumer trust, which serves as the foundation for long-term brand relationships. Consumers respond positively to brands that communicate honestly and provide verifiable information regarding sustainability practices.

The study also finds that sustainable brand loyalty is influenced more by **ethical alignment and trust** than by promotional intensity. Transparent brands benefit from stronger emotional attachment and advocacy, supporting the shift from transactional to relational marketing. This aligns with trust-based and relationship marketing theories.

Another important finding is the role of sustainability communication. Clear and consistent sustainability disclosures strengthen brand credibility, while vague or exaggerated claims lead to skepticism. This reinforces concerns around greenwashing and highlights the need for ethical digital communication.

The discussion further reveals that transparency in data usage and sponsored content disclosure enhances perceived fairness and accountability. Consumers increasingly value privacy protection and honesty, making transparency a competitive advantage in digital markets.

From a managerial perspective, the findings suggest that transparency should be embedded as a **core digital marketing strategy**, not merely a compliance requirement. Brands that adopt transparent communication across platforms are better positioned to build resilient and sustainable loyalty.

Overall, the study confirms that digital marketing transparency plays a critical role in fostering sustainable brand loyalty by strengthening trust, reducing skepticism, and aligning brand values with consumer expectations.

Conclusion

The present study examined the role of digital marketing transparency in shaping sustainable brand loyalty in an increasingly ethical and information-driven digital marketplace. As consumers gain greater access to information and become more conscious of sustainability, transparency has emerged as a fundamental expectation rather than an optional marketing practice. The findings of this study confirm that transparent digital marketing communication plays a decisive role in fostering trust, credibility, and long-term loyalty toward brands.

One of the key conclusions is that digital marketing transparency significantly strengthens consumer trust, which acts as a critical mediating factor between transparency and sustainable brand loyalty. Consumers are more inclined to develop long-term relationships with brands that communicate honestly about product attributes, sustainability practices, pricing, and data usage. Transparency reduces information asymmetry and perceived risk, thereby enhancing confidence in brand intentions and actions.

The study also concludes that sustainable brand loyalty is increasingly value-driven rather than transaction-driven. Consumers exhibit stronger emotional attachment and advocacy toward brands whose transparency aligns with ethical values and sustainability commitments. Transparent sustainability disclosures, honest advertising claims, and clear communication regarding environmental and social impact contribute to deeper brand–consumer relationships that extend beyond repeat purchases.

Another important conclusion is that lack of transparency can undermine loyalty, even when product quality is high. Practices such as vague sustainability claims, hidden sponsorships, and unclear data policies lead to skepticism and distrust. In the digital environment, where information is easily verified and shared, such practices can rapidly damage brand reputation and erode long-term loyalty.

The study further highlights that transparency in data privacy and digital ethics has become a significant determinant of sustainable loyalty. As consumers grow more concerned about how their personal data is collected and used, brands that openly communicate data practices gain a competitive advantage. Transparency in this area reinforces perceptions of responsibility and accountability.

From a managerial perspective, the study suggests that digital marketing transparency should be integrated into core brand strategy rather than treated as a compliance obligation. Brands must ensure consistency, clarity, and honesty across all digital touchpoints, including social media, websites, influencer collaborations, and e-commerce platforms. Transparency-driven communication not only enhances trust but also supports sustainable consumption and responsible brand behavior.

Although the study is limited by its cross-sectional design and reliance on self-reported data, it provides meaningful empirical insights into the strategic value of transparency in digital marketing. Future research may explore platform-specific transparency practices, cross-cultural comparisons, and longitudinal impacts on brand loyalty.

Overall, the study concludes that digital marketing transparency is a powerful driver of sustainable brand loyalty. By fostering trust, reducing skepticism, and aligning brand actions with consumer values, transparent digital marketing contributes to long-term brand sustainability and ethical market development.

References

- Aaker, D. A. (2014). *Aaker on branding: 20 principles that drive success*. Morgan James Publishing.
- Bansal, P., & Song, H. C. (2017). Similar but not the same: Differentiating corporate sustainability from corporate responsibility. *Academy of Management Annals*, 11(1), 105–149.
- Beckers, S. F. M., Van Doorn, J., & Verhoef, P. C. (2018). Good, better, engaged? *Journal of Service Research*, 21(1), 5–24.
- Brusseau, J. (2020). *Business ethics: Decision making for personal integrity and social responsibility*. Open Textbook Library.
- Calvo-Porrall, C., & Lévy-Mangin, J. P. (2017). Store brands' purchase intention. *Journal of Retailing and Consumer Services*, 36, 205–216.
- Du, S., Bhattacharya, C. B., & Sen, S. (2010). Maximizing business returns to CSR. *International Journal of Management Reviews*, 12(1), 8–19.
- Edelman. (2022). *Edelman Trust Barometer: Brand trust and transparency*. Edelman Insights.
- Einwiller, S., & Kim, S. (2020). How online content transparency affects trust. *Journal of Business Ethics*, 167(2), 331–348.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models. *Journal of Marketing Research*, 18(1), 39–50.
- Grayson, K., Johnson, D., & Chen, D. F. R. (2008). Is firm trust essential? *Journal of Marketing*, 72(4), 1–16.
- Sheth, J. N., & Parvatiyar, A. (2000). *Handbook of relationship marketing*. Sage Publications.

- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty. *Journal of Marketing*, 66(1), 15–37.
- Verma, C., & Jain, V. (2023). Exploring Promotional Strategies in Private Universities: A Comprehensive Analysis of Tactics and Innovative Approaches.
- Agarwal, C., Pradesh, M. U., Jain, V., & Verma, C. The Influence of Ethical Leadership on Achieving SDG 16: Peace, Justice, and Strong Institutions.
- Verma, C., & Jain, V. Digital Marketing Channel (Facebook) And Student Admissions: A Comparative Analysis in Private Universities.
- Verma, V., Gupta, K., Verma, C., & Pradesh, U. Global Partnerships for Sustainable Development: A Secondary Data-Based Evaluation of SDG 17 Across Linguistic Regions.
- Jain, V., & Verma, C. Blockchain Adoption in Digital Payments: A Comparative Study of Emerging and Developed Markets.
- Jain, V., Verma, C., Agarwal, M. K., & Rajkumar, A. (2026). Influence of Content Authenticity on Long-Term Consumer Loyalty in Digital Markets. *International Journal of Research & Technology*, 14(S1), 608-628.
- Verma, C., Manimekalai, K., Patil, M. K., & Dadhich, M. R. Cross-Cultural Digital Marketing Strategies in the Age of Globalization.
- Vargo, S. L., & Lusch, R. F. (2008). Service-dominant logic. *Journal of the Academy of Marketing Science*, 36(1), 1–10.
- Jain, V., Gupta, S. S., Shankar, K. T., & Bagaria, K. R. (2022). A study on leadership management, principles, theories, and educational management. *World Journal of English Language*, 12(3), 203-211.
- Jain, V. (2021). Word of mouth as a new element of the marketing communication mix: Online consumer review. *South Asian Journal of Marketing & Management Research*, 11(11), 108-114.
- Jain, V. (2021). An overview of wal-mart, amazon and its supply chain. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(12), 749-755.
- Kumar, A., Kansal, A., & Jain, V. (2020). A Comprehensive Study of Factor Influencing Investor's Perception Investing in Mutual Funds. *European Journal of Molecular &*

- Clinical Medicine, 7(11), 2020. Ansari, S., Kumar, P., Jain, V., & Singh, G. (2022). Communication skills among university students. *World Journal of English Language*, 12(3), 103-109.
- Verma, A., Singh, A., Sethi, P., Jain, V., Chawla, C., Bhargava, A., & Gupta, A. (2023). Applications of data security and blockchain in smart city identity management. In *Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities* (pp. 154-174). IGI Global Scientific Publishing.
 - Verma, A. K., Ansari, S. N., Bagaria, A., & Jain, V. (2022). The Role of Communication for Business Growth: A Comprehensive Review. *World Journal of English Language*, 12(3), 164-164.
 - Agarwal, P., Jain, V., & Goel, S. (2020). Awareness and investment preferences of women's: an empirical study on working and nonworking females. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(7), 13469-13484.
 - Pallathadka, H., Leela, V. H., Patil, S., Rashmi, B. H., Jain, V., & Ray, S. (2022). Attrition in software companies: Reason and measures. *Materials Today: Proceedings*, 51, 528-531.
 - Jain, V. (2021). An overview on social media influencer marketing. *South Asian Journal of Marketing & Management Research*, 11(11), 76-81.
 - RAJKUMAR, A., & JAIN, V. (2021). A Literature Study on the Product Packaging Influences on the Customers Behavior. *Journal of Contemporary Issues in Business and Government* | Vol, 27(3), 780.
 - Jain, V., Arya, S., & Gupta, R. (2018). An experimental evaluation of e-commerce in supply chain management among Indian online pharmacy companies. *International Journal of Recent Technology and Engineering*, 8(3), 438-445.
 - Jain, V., Sethi, P., Arya, S., Verma, R., & Chawla, C. (2020). Project Evaluation Using Critical Path Method & Project Evaluation Review Technique. *Wesleyan J. Res*, 13, 1-9.
 - Chawla, C., Jain, V., & Mahajan, T. (2013). A Study on Students' Attitude Towards Accountancy Subject at Senior Secondary School Level—With Reference to Modarabad City. *International Journal of Management*, 4(3), 177-184.

- Sumaiya, B., Srivastava, S., Jain, V., & Prakash, V. (2022). The role of effective communication skills in professional life. *World Journal of English Language*, 12(3), 134-140.
- Jain, V., Navarro, E. R., Wisetsri, W., & Alshiqi, S. (2020). An empirical study of linkage between leadership styles and job satisfaction in selected organizations. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 3720-3732.
- Jain, V., & Ackerson, D. (2023). The Importance of Emotional Intelligence in Effective Leadership. Edited by Dan Ackerson, Semaphore, 5.
- Sharif, S., Lodhi, R. N., Jain, V., & Sharma, P. (2022). A dark side of land revenue management and counterproductive work behavior: does organizational injustice add fuel to fire?. *Journal of Public Procurement*, 22(4), 265-288.
- Rao, D. N., Vidhya, G., Rajesh, M. V., Jain, V., Alharbi, A. R., Kumar, H., & Halifa, A. (2022). An innovative methodology for network latency detection based on IoT centered blockchain transactions. *Wireless Communications and Mobile Computing*, 2022(1), 8664079.
- Jain, V. (2021). A review on different types of cryptography techniques. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(11), 1087-1094.
- Sharma, A., & Jain, V. (2020). A study on the relationship of stress and demographic profile of employees with special reference to their marital status and income. *UGC Care Journal*, 43(4), 111-115.
- Jain, V., Goyal, M., & Pahwa, M. S. (2019). Modeling the relationship of consumer engagement and brand trust on social media purchase intention-a confirmatory factor experimental technique. *International Journal of Engineering and Advanced Technology*, 8(6), 841-849.
- Jain, V., Al Ayub Ahmed, A., Chaudhary, V., Saxena, D., Subramanian, M., & Mohiddin, M. K. (2022, June). Role of data mining in detecting theft and making effective impact on performance management. In *Proceedings of Second International Conference in Mechanical and Energy Technology: ICMET 2021, India* (pp. 425-433). Singapore: Springer Nature Singapore.

- Wen, J., Mughal, N., Kashif, M., Jain, V., Meza, C. S. R., & Cong, P. T. (2022). Volatility in natural resources prices and economic performance: Evidence from BRICS economies. *Resources Policy*, 75, 102472.
- Kumar, S. U. M. I. T., & Jain, V. I. P. I. N. (2021). A survey on business profitability for a music artist by advertising on YouTube. *Journal of Contemporary Issues in Business and Government* | Vol, 27(3), 807.
- Chawla, C. H. A. N. C. H. A. L., & Jain, V. I. P. I. N. (2021). Teamwork on employee performance and organization Growth. *Journal of Contemporary Issues in Business and Government*, 27(3), 706.
- Jain, V., & Singh, V. K. (2019). Influence of healthcare advertising and branding on hospital services. *Pravara Med Rev*, 11, 19-21.
- CHAWLA, C., & JAIN, V. (2017). PROBLEMS AND PROSPECTS OF TOURISM INDUSTRY IN INDIA-WITH SPECIAL REFERENCE TO UTTAR PRADESH. *CLEAR International Journal of Research in Commerce & Management*, 8(9).
- Jain, V., & Sami, J. (2012). Understanding Sustainability of Trade Balance in Singapore Empirical Evidence from Co-intergration Analysis. *Viewpoint Journal*, 2(1), 3-9.
- Jain, V., & Gupta, A. (2012). Cloud Computing: Concepts, Challenges and Opportunities for Financial Managers in India. *Amity Global Business Review*, 7.
- Jain, V., Chawla, C., Agarwal, M., Pawha, M. S., & Agarwal, R. (2019). Impact of Customer Relationship Management on Customer Loyalty: A Study on Restaurants of Moradabad. *International Journal of Advanced Science and Technology*, 28(15), 482-49.
- Jain, V., & Garg, R. (2019). Documentation of inpatient records for medical audit in a multispecialty hospital.
- Jha, R. S., Jain, V., & Chawla, C. (2019). Hate speech & mob lynching: a study of its relations, impacts & regulating laws. *Think India (QJ)*, 22(3), 1401-1405.
- Shafi, M., Ramos-Meza, C. S., Jain, V., Salman, A., Kamal, M., Shabbir, M. S., & Rehman, M. U. (2023). The dynamic relationship between green tax incentives and environmental protection. *Environmental Science and Pollution Research*, 30(12), 32184-32192.

- Meza, C. S. R., Kashif, M., Jain, V., Guerrero, J. W. G., Roopchund, R., Niedbala, G., & Phan The, C. (2021). Stock markets dynamics and environmental pollution: emerging issues and policy options in Asia. *Environmental Science and Pollution Research*, 28(43), 61801-61810.
- The Phan, C., Jain, V., Purnomo, E. P., Islam, M. M., Mughal, N., Guerrero, J. W. G., & Ullah, S. (2021). Controlling environmental pollution: dynamic role of fiscal decentralization in CO2 emission in Asian economies. *Environmental Science and Pollution Research*, 28(46), 65150-65159.
- Rajkumar, D. A., Agarwal, P., Rastogi, D. M., Jain, D. V., Chawla, D. C., & Agarwal, D. M. (2022). Intelligent Solutions for Manipulating Purchasing Decisions of Customers Using Internet of Things during Covid-19 Pandemic. *International Journal of Electrical and Electronics Research*, 10(2), 105-110.
- Liu, J., Jain, V., Sharma, P., Ali, S. A., Shabbir, M. S., & Ramos-Meza, C. S. (2022). The role of Sustainable Development Goals to eradicate the multidimensional energy poverty and improve social Wellbeing's. *Energy Strategy Reviews*, 42, 100885.
- Jain, V., Beram, S. M., Talukdar, V., Patil, T., Dhabliya, D., & Gupta, A. (2022, November). Accuracy enhancement in machine learning during blockchain based transaction classification. In *2022 Seventh International Conference on Parallel, Distributed and Grid Computing (PDGC)* (pp. 536-540). IEEE.
- Yaqoob, N., Jain, V., Atiq, Z., Sharma, P., Ramos-Meza, C. S., Shabbir, M. S., & Tabash, M. I. (2022). The relationship between staple food crops consumption and its impact on total factor productivity: does green economy matter?. *Environmental Science and Pollution Research*, 29(46), 69213-69222.
- Maurya, S. K., Jain, V., Setiawan, R., Ashraf, A., Koti, K., Niranjana, K., ... & Vipin Jain, T. M. I. M. T. (2020). The Conditional Analysis of Principals Bullying Teachers Reasons in The Surroundings of The City. *Productivity Management*, 25(5), 1195-1214.
- Bai, D., Jain, V., Tripathi, M., Ali, S. A., Shabbir, M. S., Mohamed, M. A., & Ramos-Meza, C. S. (2022). Performance of biogas plant analysis and policy implications: Evidence from the commercial sources. *Energy Policy*, 169, 113173.

- Sundram, S., Venkateswaran, P. S., Jain, V., Yu, Y., Yapanto, L. M., Raisal, I., ... & Regin, R. (2020). The impact of knowledge management on the performance of employees: The case of small medium enterprises. *Productivity Management*, 25(1), 554-567.
- Khan, U. A., & Jain, V. (2025). Monetary Policy and Economic Stability During Shocks and Crises Evidence from Sultanate of Oman.
- Ramos Meza, C. S., Bashir, S., Jain, V., Aziz, S., Raza Shah, S. A., Shabbir, M. S., & Agustin, D. W. I. (2021). The economic consequences of the loan guarantees and firm's performance: a moderate role of corporate social responsibility. *Global Business Review*, 09721509211039674.
- Suresh, S., Markose, J., Eshwar, S., Rekha, K., & Jain, V. (2017). Comparison of platform switched and sloping shoulder implants on stress reduction in various bone densities: finite element analysis. *The Journal of Contemporary Dental Practice*, 18(6), 510-515.
- Sasmoko, Ramos-Meza, C. S., Jain, V., Imran, M., Khan, H. U. R., Chawla, C., ... & Zaman, K. (2022). Sustainable growth strategy promoting green innovation processes, mass production, and climate change adaptation: A win-win situation. *Frontiers in Environmental Science*, 10, 1059975.
- Dadhich, M., Pahwa, M. S., & Vipin Jain, R. D. (2021). Predictive Models for Stock Market Index Using Stochastic Time Series ARIMA Modeling in Emerging Economy. *Advances in Mechanical Engineering*, 281–290.
- Veeraiah, V., Kotti, J., Jain, V., Sharma, T., Saini, S., & Gupta, A. (2023, July). Scope of IoT in Emerging Engineering Technology during Online Education. In 2023 14th International Conference on Computing Communication and Networking Technologies (ICCCNT) (pp. 1-6). IEEE.
- Karla, D., Alam, M., Jain, V., & Sharma, M. (2022). An Overview on Team Work Strategy in Medical Education. *World J English Lang*, 12(3), 110-6.
- Nath, N. A. M. I. T. A., & Jain, V. I. P. I. N. (2020). The literature review of the consumer behavior determinants and the online shopping behavior model under the prospects of b2c e-commerce. *J. Orient. Res.* xci-xxxviii, 75-87.

- Jain, V., & Jain, V. (2019). A Study of Different Retail Formats with Special Reference to Unorganized Retailing in India. *International Journal of Management, IT & Engineering*, 9(4), 2.
- Vinoth, S., Gupta, S., Jain, V., & Kumari, U. (2024). Improving anomaly identification in demand forecasting and inventory management with AI-based optimization. *Multidisciplinary Science Journal*, 6.
- Verma, A. K., Ansari, S. N., Bagaria, A., & Jain, V. (2022). The Role of Communication for Business Growth: A Comprehensive. *World Journal of English Language*. <https://doi.org/10.5430>.
- Jain, V. (2021). Based upon block chain and its context. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(12), 431-438.
- Joshi, M. A., & Jain, V. (2024). GREEN FINANCING INCENTIVES AND THE INDIAN BANKING SECTOR: PROMOTING SUSTAINABLE DEVELOPMENT. DEPARTMENT OF COMMERCE (UG), 1.
- Gupta, N., Jain, V., Agarwal, P., Sharma, M., & Agarwal, A. K. (2024). Career change: systematic literature review future research agenda. *Smart innovation, systems and technologies*. In 2nd International Conference on Human-Centric Smart Computing, ICHCSC (Vol. 376, pp. 219-235).
- Jain, V., Verma, C., Agarwal, M. K., & Rajkumar, A. (2026). Influence of Content Authenticity on Long-Term Consumer Loyalty in Digital Markets. *International Journal of Research & Technology*, 14(S1), 608-628.
- KHAN, H. (2026). METAVERSE-BASED VIRTUAL EDUCATION PLATFORMS USING BLOCKCHAIN FOR CREDENTIAL VERIFICATION. *Journal of Theoretical and Applied Information Technology*, 104(4).
- Khan, U. A., & Jain, V. Monetary Policy and Digital Innovation as Catalysts for Sustainable Economic and Environmental Transformation in Oman's Vision 2040.
- Jain, S., Jain, V., & Agarwal, S. Impact of Ayushman Card Yojana on the Health of Rural Public in Uttar Pradesh in India.
- Zhang, W., Zhu, W., & Jain, V. (2026). Fiscal policy shocks and green growth in China. *Fluctuation and Noise Letters*, 25(1), 2650011-1930.

- Harshitha, P., Rajitha, N., Veeraiah, V., Rastogi, H., Koujalagi, A., Gupta, A., & Jain, V. (2025, November). Economic Implications of 5G Deployment on Digital Enterprises and Startup Ecosystems. In 2025 International Conference on Innovations and Emerging Technologies In AI & Communication Systems (IETACS) (pp. 1099-1104). IEEE.
- Ramesh, J. V. N., Veeraiah, V., Bhattacharya, D., Jain, V., Jain, S. K., & Gupta, A. (2025, November). Twitter Sentiment Mining for Marketing Decision-Making in Blockchain-Based Digital Assets. In 2025 International Conference on Innovations and Emerging Technologies In AI & Communication Systems (IETACS) (pp. 1005-1011). IEEE.
- Dasaraju, S. R., Nallamalli, V. R. B., Rajendran, J., Chennamsetty, M. R., Jain, V., & Painoli, G. K. (2025). Enhancing Strategy and Governance Through AI-Driven Behavioral Competency Analytics: An ML Model for Competency Development.
- Raj, A., & Jain, V. (2025). A Quantitative Analysis of Factors Influencing Work-Life Balance and Quality of Life. *European Economics Letters*, 15(3).
- Jain, N., & Jain, V. (2025). Exploring the Role of AI Personalization, Embedded Finance, and Gamification in Influencing Digital Wallet Users Buying Behavior in Western India. *European Economics Letters*, 15(3).
- Jain, N., & Jain, V. Assessing the Impact of Super App Integration and Contactless Payment Technologies on Consumer Buying Behavior in Western India.
- Joshi, A., & Jain, V. Assessing the Awareness and Understanding of Green Finance Incentives among Bank Employees. *International Journal of Environmental Sciences*, 11(5s), 2025.
- Vishnoi, N. K., Singh, R., & Jain, V. A Review on Green Purchase Behaviour about Green Products.
- Raj, A., & Jain, V. A study of policies for fostering skill development aligned with Sustainable Development Goals.
- Jain, N., & Jain, V. Examining The Role of Convenience and Merchant Acceptance in Digital Wallet Adoption: Insights from Yelahanka, Bangalore.
- Jain, T. S., & Jain, V. Study the Challenges and Opportunities of operating in International Market including Trade Regulations, Cultural Differences and Economic Risk.

- Sharma, R., Pradesh, M. U., & Jain, V. Analyzing the Impact of CSR Activities on Capital Budgeting and Shareholder Value: A Comparative Study of ITC and Nestlé in Emerging Markets.
- Jain, V. A Data-Driven Approach to Upskilling Western Uttar Pradesh's Healthcare Professionals Akanksha Arora Research Scholar Teerthanker Mahaveer Institute of Management and Technology.
- Khan, U. A., Muscat, O., & Jain, V. Aligning Monetary Policies with Sustainability: Evaluating the Role of Central Bank in Oman's Vision 2040 for Financing SDG-Compliant Businesses.
- Jain, V., & Verma, C. Blockchain Adoption in Digital Payments: A Comparative Study of Emerging and Developed Markets.
- Khanna, R., Singh, R., & Jain, V. Exploring the Impact of Age on Work-Life Balance: A Comparative Study across Academicians.
- Arora, A., & Jain, V. Technology-Assisted Healthcare Upskilling: A Study of Western Uttar Pradesh.
- Mittal, S., & Jain, V. CORPORATE GOVERNANCE AND FIRM'S PERFORMANCE: ANALYSIS OF LITERATURE REVIEW.
- Mittal, S., & Jain, V. A study on the Corporate Governance and Company Characteristics of the Manufacturing Sector in India.
- Modia, P., Jainb, V., Uchilc, A., & Nandad, S. Examining link prediction and node connectivity objectives in social networks: Comprehensive review.
- Nanda¹, S., Jain, V., & Purohit, A. The Importance of Mental Development in Addressing Youth Unemployment: A Psychological Case Study of Skill Retention in Development Programmes.
- Agarwal, P., Kumar, A., & Jain, V. PROFESSIONAL WOMEN AND STRESS: A STUDY OF PSYCHOLOGICAL AND WORK-PLACE BEHAVIOUR OF PROFESSIONAL WOMEN.
- Sethi, P., & Agarwal, P. A STUDY OF OPTIMIZATION TECHNIQUES USED IN OPERATIONS RESEARCH: ITS PROSPECTS AND PROBLEMS.

- Jain, V., Ramos-Meza, C. S., Min, Z., Qian, X., Ali, S. A., Sharma, P., ... & Shabbir, M. S. (2023). The dynamic relationship among technological innovation, international trade, and energy production.
- Hashim, N. A. A. N., Batool, H., Jain, V., Julca-Guerrero, F., & Cruz-Castillo, N. (2023). A systematic study of mobility and innovation and technology management for skilled enhancement with operational frameworks. *International Journal of Intellectual Property Management*, 13(3-4), 227-251.
- Jain, V., Sethi, P., Rawat, G., Singh, V. A., Kumar, A. R., Chawla, C., & Bansal, B. (2023). Information Frameworks and Business Patterns in Smart Cities. In *Handbook of Research on Data-Driven Mathematical Modeling in Smart Cities* (pp. 224-237). IGI Global Scientific Publishing.
- Jiang, J., Jain, V., Qian, X., Sharma, P., Mohamed, M. A., Haddad, A. M., ... & Zamir, A. Does Renewable Energy matter for SDGs? The dynamic relationship among Trade Exports Quality, Renewable Energy and Sustainable Economic Production. *Frontiers in Environmental Science*, 1788.
- Sehgal, S., Dhingra, V., & Jain, V. (2022). Effect of Covid Pandemic on Interest Rates and thereby Attractiveness of Reverse Mortgage Loans. *INTERNATIONAL JOURNAL OF SPECIAL EDUCATION*, 37(3).
- Jain, V. (2021). Relations between the united states and china during the trump presidency. *Asian Journal of Research in Social Sciences and Humanities*, 11(11), 1-6.
- Jain Sr, V. ROLE OF TEACHERS IN INSTITUTIONAL PLANNING. *ADMINISTRATION AND MANAGEMENT IN SCHOOL EDUCATION*, 83.
- Jain, V. COACHING AND MENTORING IN EDUCATION SERVICE: AN ASSESSMENT. *COMMUNICATION SKILLS FOR PROFESSIONALS*, 71.
- Jain, V. Teerthanker Mahaveer Institute of Managment & Technology, Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India Email Id-vipin555@rediffmail.com. *INTRODUCTION TO MEDIA STUDIES*, 39.
- Ashok Kumar Upadhyay, Pramod Kumar Srivastava, Piyush Kumar (2026) Academic Excellence through Holistic Growth: Integrating Physical, Mental, Emotional, and Spiritual Development in Education, *MSW MANAGEMENT -Multidisciplinary*,

Scientific Work and Management Journal, ISSN: 1053-7899, Vol. 36 Issue 1, Jan-June 2026, Pages: 744-752 (Scopus)

- Srivastava, P. K., Sharma, A., Whig, V., Malaviya, S., & Kumar, N. (2025). Review Of Transforming Grocery Shopping with Artificial Intelligent: A New Era of Convenience. *Advances in Consumer Research*, 2(2), 665-675.
- Srivastava, P. K., Sharma, A., Malaviya, S., Hasan, N., & Singh, P. (2025). Exploring Social Dynamics and Emotional Triggers in the Adoption of Buy Now, Pay Later. *Advances in Consumer Research*, 2(3).
- Kumar, P., Zai, R. Y., & Srivastava, P. K. (2024). Overview of the Marketing Strategies Adopted by Different Pharmaceutical Companies. In *Pharma Marketing and Pharmacoeconomics* (pp. 143-149). Apple Academic Press.
- Shukla, V., & Srivastava, P. K. (2023). Travelling with a vengeance: the influence of social media on revenge tourism. *International Journal of Tourism Policy*, 13(6), 600-605.
- Prasad, A., & Srivastava, P. K. (2024). A COMPREHENSIVE ANALYSIS OF HUMAN RESOURCE POLICIES AND THEIR IMPACT ON EMPLOYEE TURNOVER IN THE HOTEL INDUSTRY IN DELHI NCR. *Journal of Strategic Human Resource Management*, 13(2).
- Sharma, R. K., & Srivastava, P. K. (2022). Impact of E-business on organized retail sector. *International Journal of Early Childhood Special Education*, 9830-9637.
- Rakshit, P., Srivastava, P. K., & Chavan, O. (2022). IoT-Based Personalized Health and Fitness Monitoring System: The Next Big Thing. In *Reinvention of Health Applications with IoT* (pp. 19-30). CRC Press.
- A Khan, F., Singh, M., Shrivastava, P. K., & Bahl, S. (2022). Concept of Caveat Venditor and its Application in Healthcare and Education Secto. *Turkish Online Journal of Qualitative Inquiry*, 13(1).
- Rakshit, P., Srivastava, P. K., & Chavan, O. (2022). Security Concerns with IoT-Based Health and Fitness Systems. In *Reinvention of Health Applications with IoT* (pp. 155-162). CRC Press.
- Srivastava, S. K., Sharma, R. K., Srivastava, P. K., & Srivastava, R. (2021, April). *Statistics Review of Indian Automobile Industry Using Correlation& Linear Regression*

Techniques. In 2021 2nd International Conference on Intelligent Engineering and Management (ICIEM) (pp. 510-515). IEEE.

- Srivastava, P. K., Srivastava, S. K., Rakshit, P., Kumar, Y., & Kumar, V. (2021). The ecosphere of online service delivery and its growing presence in automobile sector: an extended study of connected technology in Indian outlook. *International Journal of Forensic Engineering*, 5(1), 34-48.
- Rakshit, P., Srivastava, P. K., Afjal, M., & Srivastava, S. K. (2021). Sentimental analytics on Indian big billion day of flip kart and Amazon. *SN Computer Science*, 2(3), 204.
- Rakshit, P., & Srivastava, P. K. (2021, March). Cutting edge IoT technology for smart Indian pharma. In 2021 International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE) (pp. 360-362). IEEE.
- Rakshit, P., & Sharma, R. (2021). A study to comprehend role of artificial intelligence in building smart cities. *Engineering and Technology Journal for Research and Innovation (ETJRI) ISSN*, 3(2), 2581-8678.
- Rakshit, P., & Srivastava, P. K. (2021). An Inclusive Analysis to Study Challenges in Building Student Retention Rate on MOOC Platforms-Technology in Education. *Grenze International Journal of Engineering & Technology (GIJET)*, 7(1).
- Afjal, M., Rakshit, P., Dutta, M., & Srivastava, P. K. (2020). A Critical Study To Comprehend Amendments In Indian Education System Post Covid-19. *Solid State Technology*, 63(6), 4079-4085.
- Rakshit, P., Srivastava, P. K., Srivastava, S. K., Kumar, Y., & Kumar, V. (2020). A Critical Study To Understand Privacy Concerns With Covid-19 Patient Data. *Solid State Technology*, 63(6), 4222-4233.
- Srivastava, P. K., Rakshit, P., Kumar, Y., Kumar, V., Singh, C. K., & Afjal, M. (2020). An Intercontinental Comparative Financial Analysis Of Civil Aviation Business. *Solid State Technology*, 63(6), 4127-4138.
- Bhatt, V., Sharma, R. K., & Srivastava, P. K. Emergence and its impact of organized unrecognized retailers in FMCG-food and beverage.

- SHARMA, R. K., & SRIVASTAVA, P. K. FACTORS OF INTERNATIONALIZATION OF SERVICES IN BANKING SECTOR IN INDIA: COMPARISON BETWEEN NATIONALIZED, PRIVATE AND FOREIGN BANKS IN INDIA.
- Kaushik, R., Srivastava, P. K., & Tiwari, S. (2020, January). Services Standardization In Banking Sector In India: Comparison Between Nationalized, Private And Foreign Banks in India. In 2020 International Conference on Computation, Automation and Knowledge Management (ICCAKM) (pp. 505-514). IEEE.
- Alok, P., Gupta, S., & Srivastava, P. K. (2009). Dinning experience and return patronage- study of hotels resturants in Delhi, India. JOHAR, 4(2), 45.
- Prasad, A., & Srivastava, P. K. (2008). Practices of yield management-An analytical study with special reference to hotel industry. JOHAR, 3(2), 25.
- Manoj Kumar Agarwal, Nazia Hasan, Ambuj Kumar Agarwal, Neema Gupta, Danish Ather, 2025. "Revolutionising Services Through Data-driven Management and Tech-Start Fusion", Innovate to Integrate: Data-driven Management and TechStrat Fusion Unveiled, Vishal Jain, Neema Gupta, Ambuj Kumar Agarwal, Girija Chetty, Ramani Kannan
- Gour K, Agarwal M (2025;), "The mediating role of customer perceived ethicality in green banking's impact on trust and loyalty". International Journal of Ethics and Systems, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/IJOES-03-2025-0133>
- Agarwal, A., Singh, R., & Agarwal, M. (2025, April 25–26). The AI-EI nexus: Enhancing digital learning to achieve sustainable development goals. In Conference proceedings of the International Conference on Sustainable Development Goals: Challenges, issues & practices. TMIMT International Journal (ISSN: 2348-988X), Teerthanker Mahaveer Institute of Management and Technology, Teerthanker Mahaveer University, Moradabad, India.
- S. Nanda, G. Singh, N. Hasan, P. Verma, A. Joshi and R. Verma, "Artificial Intelligence And Computational Ability In Digitizing Financial Products And Services By Micro-Entrepreneurs," 2024 4th International Conference on Innovative Practices in Technology and Management (ICIPTM), Noida, India, 2024, pp. 1-5, doi: 10.1109/ICIPTM59628.2024.10563380. keywords: {Companies;Data

collection;Artificial intelligence;Financial services;Business;Fintech;Artificial Intelligence Micro-entrepreneurs},

- Dixit, R., & Agarwal, M. (2025). Transactional leadership style and its impact on employee performance in the IT sector. *International Journal of Engineering, Pure and Applied Sciences*. <https://doi.org/10.52783/ijept.47>
- Choudhary, A., & Agarwal, M. (2025, April 25–26). Factors affecting the work life balance (WLB) of IT workforce working in hybrid mode: A model study in Delhi-NCR. In *International Conference on Sustainable Development Goals: Challenges, Issues & Practices* (TMIMT International Journal, ISSN: 2348-988X). Teerthanker Mahaveer University, Moradabad, India.
- Hasan N, Singh AK, Agarwal MK, Kushwaha BP (2025), "Evaluating the role of microfinance institutions in enhancing the livelihood of urban poor". *Journal of Economic and Administrative Sciences*, Vol. 41 No. 1 pp. 114–131, doi: <https://doi.org/10.1108/JEAS-09-2021-0175>
- Hasan, N., Nanda, S., Agarwal, M.K. et al. Evaluating the mediating effect of financial literacy between fintech adoption in microfinance services. *Int J Syst Assur Eng Manag* (2024). <https://doi.org/10.1007/s13198-024-02256-4>
- Hasan N, Agarwal C, Joshi A, Rahal D, Traisa R, Sharma S (2025;), "The two-way influence of green banking practices and green electronic word of mouth in driving green trust and green loyalty: a trust transfer perspective". *International Journal of Ethics and Systems*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/IJOES-10-2024-0326>
- Rastogi, S., & Agarwal, M. (2024). Emotional intelligence among banking professionals. *Journal of Informatics Education and Research*, 4(1), 471-483.
- Hasan, N., Rahal, D., Sharma, P., & Rastogi, C. (2026). Role of technology in relationship between liquidity & profitability management of financial institutions offering microfinance services. *International Journal for Research Trends and Innovation*. <https://doi.org/10.64882/ijrt.v14.iS1.1109>