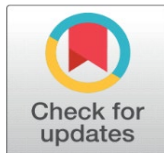
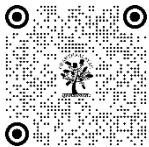


CUSTOMER TRUST AND DATA PRIVACY IN DIGITAL BANKING SERVICES - A STUDY IN CONTEXT OF ARTIFICIAL INTELLIGENCE

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ABSTRACT

This study explores the relationship between customer trust, data privacy, and artificial intelligence (AI) in digital banking services. As banks increasingly utilize AI for automation, fraud detection, and personalized experiences, concerns over privacy, data security, and ethical usage have grown. This research investigates how perceived security features, customer satisfaction, and AI quality influence customer trust. Using data from 206 respondents, analysed through Spearman's Rank Correlation, the results show significant positive relationships between security features, AI quality, customer satisfaction, and trust in digital banking. Customers who perceive stronger security measures and higher-quality AI are more likely to trust digital banking platforms. The study highlights the need for transparency in AI processes and robust security measures to strengthen trust. It urges financial institutions and policymakers to balance AI-driven innovations with ethical data handling and privacy protections to sustain and enhance customer confidence in digital banking.

Keywords: Customer Trust, Data Privacy, Artificial Intelligence (AI), Digital Banking, AI Security, Customer Satisfaction

1. INTRODUCTION

In a time of high-profile data breaches and growing concerns about online privacy, banks that want to succeed in the digital age must gain and retain the trust of their customers. The use of Artificial Intelligence (AI) technology is central to the conversation about trust in digital banking (Nashold, 2020). AI has the ability to completely transform banking operations by providing features like automated customer assistance, fraud detection, and tailored recommendations. But there are additional issues with data privacy, accountability, and transparency that arise with the broad use of AI. Large volumes of client data are analyzed by AI algorithms to provide personalized experiences and insights, raising concerns about algorithmic bias and the ethical implications of data usage. (Tsamados et al., 2021). Furthermore, concerns persist regarding the security of AI systems themselves, as they progressively become more autonomous and susceptible to exploitation by malicious actors (Montasari, 2022). Understanding the several factors that impact consumer trust and their views of data privacy in the context of AI-driven digital banking services is vital given the previously described contextual background. Customer confidence in financial organizations is largely shaped by their attitudes concerning artificial intelligence, their expectations for data security, and their readiness to disclose personal information (Rahman et al., 2023). A multitude of inquiries have been conducted to thoroughly analyze the utilization of

AI within the investment industry, placing significant emphasis on both the potential advantages and the ramifications that its implementation may have on the sector's digital transformation. The exploration of the potential benefits of artificial intelligence in the banking sector was carried out through an exhaustive systematic literature review (SLR), with a specific concentration on the technology's capacity to invigorate efficiency and foster creativity (Farishy, 2023). The application of AI has proven crucial in tackling security concerns and obstacles in the field of digital banking. According to research, there are several issues related to mobile banking payment security (Vishnuvardhan et al., 2021). This demonstrates the many effects of AI in banking, which include security and risk management in addition to operational and customer-focused elements (Roslan et al., 2023). As financial institutions utilize AI to transform their operations and enhance the experiences of their customers, there has been a surge of inquiries surrounding the security of personal data and the preservation of customer trust. This research endeavour aims to extensively explore this complex relationship, with the intention of clarifying the dynamics between customer trust, data privacy, and the growing influence of AI in the domain of digital banking services. The emergence of digital banking services has undoubtedly revolutionized the way individuals manage their finances (Mehdiabadi et al., 2020). With just a simple click or tap, customers are able to access a wide range of banking services, including fund transfers and bill payments, all without physically visiting a traditional bank branch. While this convenience has brought about unprecedented levels of accessibility and efficiency, it has also given rise to concerns regarding the security and privacy of sensitive financial information (Sikder, 2023).

This study's main goal is to close the gap that now exists between theoretical understanding and real-world application. In doing so, it will provide insights that are both rigorously scholarly and practically applicable. Through an exploration of the complex relationships between consumer trust, data privacy, and artificial intelligence (AI) in the context of digital banking, this study project seeks to provide crucial insights for regulators, legislators, and financial institutions. Banks can adjust their strategies to strengthen customer relationships while reducing associated risks resulting from potential data privacy breaches by identifying the various factors that donate to the founding of trust and confidence in AI-driven banking solutions. Furthermore, policymakers and legislators may utilize this illuminating data to design frameworks that optimally balance advancing innovation and safeguarding the interests of digitally native consumers. This research explains the many digital breakthroughs in the contemporary financial scene that are predominantly driven by AI, in addition to offering a comprehensive and analytical examination of the state of the literature on AI and banking (Fares et al., 2022). Research has also centered on the application of AI in this context and the digital alteration of the financial industry. The influence of using AI was highlighted in a report that described the digital transformation process in the banking industry. This highlights AI's importance in the investment industry's continuous digital transformation and its ability to transform established banking models (Radenković et al., 2023) (Panakaje and K, 2023).

2. LITERATURE REVIEW

Aldboush & Ferdous (2023) explore the ethical implications of integrating big data and AI in the fintech industry, focusing on issues such as bias, discrimination, privacy, and transparency. Their study emphasizes the impact of these concerns on customer trust and proposes strategies to enhance digital trust through corporate digital responsibility (CDR) and strict adherence to data privacy laws. The authors underscore the need for comprehensive measures to protect data and ensure ethical practices, highlighting important areas for future research and providing a detailed analysis of key themes in the fintech sector.

Rahman et al. (2023) investigates the implementation of artificial intelligence (AI) in Malaysia's banking sector, examining both its benefits and challenges. Combining qualitative interviews with banking officials and a quantitative survey of 302 customers, their research highlights AI's role in fraud detection and risk management while addressing regulatory and data security challenges. The study reveals factors influencing customer adoption of AI, such as attitudes, perceived usefulness, risk, trust, and subjective norms. Supported by the Ungku Aziz Centre for Development Studies and published in the *International Journal of Emerging Markets*, this research offers valuable insights for policymakers and identifies key drivers of customer acceptance.

Payne et al. (2021) analyze how AI impacts value co-creation and mobile banking platforms, emphasizing the importance of customer satisfaction with AI-driven digital self-service channels. Their study highlights a shift from relationship-oriented to transaction-oriented value propositions and explores how customers' perceptions of AI, security, and service delivery affect their experiences and business outcomes. The research contributes significantly to

understanding value-in-use perspectives in AI-based mobile banking and provides insights into enhancing customer experiences and business success.

Tiwari et al. (2021) examine the effects of AI and cloud computing on banking services, profitability, and operational advantages. Their research reveals how cloud computing enables banks to introduce new service channels, expedite product launches, meet consumer expectations, and ensure regulatory compliance at reduced costs. The study underscores the flexibility of cloud technology and uses Confirmatory Factor Analysis (CFA) to assess the impact of AI and cloud computing on operational and service benefits in the banking sector.

Payne et al. (2021) offer an in-depth analysis of AI's influence on value perception, client engagement, and company performance within the financial services industry. Their framework explores interactions among fintech companies, financial institutions, and clients, identifying gaps in the literature and suggesting future research areas. The study aims to assist practitioners in developing AI-enabled banking initiatives that foster enhanced customer interactions and co-create value in financial services.

Mogaji et al. (2020) explore AI's impact on digital marketing in the financial services industry, particularly concerning vulnerable consumers. Their research addresses the challenges of integrating AI into digital marketing strategies and emphasizes the importance of understanding ethical and data-related issues. The study advocates for the development of human connections to optimize client engagement and provides a theoretical framework to help stakeholders better serve vulnerable customers in the financial sector.

Khraiss et al. (2020) investigate AI's impact on consumer behavior in online shopping, focusing on the critical aspect of explainability in AI systems. The study examines how AI affects marketing strategies, consumer satisfaction, and business processes, offering a definition of explainability and exploring various AI system types. Through multimodal methods, the research analyzes key terms related to explainability and highlights the need for further studies to address the "black box" issue and improve user confidence in AI technology.

Königstorfer & Thalmann (2020) examine the role of AI in commercial banking, comparing its advantages and disadvantages with traditional information systems. Their literature review and research agenda focus on AI's potential to enhance risk management in lending, payment processing, and fraud detection, as well as improve operational efficiency and client targeting. The study provides a comprehensive framework for further research, particularly in behavioral finance, and underscores AI's impact on core banking functions.

3. OBJECTIVES

- To assess the relationship between perceived security features and customer trust.
- To evaluate the relationship between customer satisfaction and customer trust.
- To understand the relationship between AI quality and customer trust.

4. HYPOTHESIS

Hypothesis 1:

- Null Hypothesis (H0): There is no significant relationship between perceived security features of digital banking services and customer trust.
- Alternate Hypothesis (H1): There is a significant relationship between perceived security features of digital banking services and customer trust.

Hypothesis 2:

- Null Hypothesis (H0): There is no significant relationship between customer satisfaction with digital banking services and customer trust.
- Alternate Hypothesis (H1): There is a significant relationship between customer satisfaction with digital banking services and customer trust.

Hypothesis 3:

- Null Hypothesis (H0): There is no significant relationship between the perceived quality of AI-driven digital banking services and customer trust.

- Alternate Hypothesis (H1): There is a significant relationship between the perceived quality of AI-driven digital banking services and customer trust

5. RESEARCH METHODOLOGY

The study employs a quantitative research approach, combining surveys and statistical analysis to assess relationships between AI, security features, customer satisfaction, and customer trust in digital banking services. Data were collected from 206 respondents, and Spearman's Rank Correlation was used due to the non-normality of the data, as revealed by skewness and kurtosis tests. The reliability of the survey instrument was confirmed through Cronbach's alpha (0.940), indicating strong internal consistency across the items.

6. DATA ANALYSIS AND INTERPRETATION

This section presents the results of the data analysis, focusing on the relationships between perceived security features, customer satisfaction, AI quality, and customer trust in digital banking services. Since the data did not follow a normal distribution, Spearman's Rank Correlation was used to analyze the relationships among the variables. The normality tests showed varying degrees of skewness and kurtosis, further supporting the use of non-parametric methods for analysis.

Normality Analysis:

Table 1 shows the skewness and kurtosis for the survey items. These values indicate deviations from normality, with most items showing moderate left-skewness and leptokurtosis.

Table 1: Normality Analysis and Recommended Tests

Question/Item	Skewness	Kurtosis	Normality Interpretation	Recommended Test
My bank has excellent customer service	-1.14	0.532	Moderately left-skewed, slightly leptokurtic	Spearman's Rank Correlation
I am satisfied with my bank	-1.215	0.983	Moderately left-skewed, leptokurtic	Spearman's Rank Correlation
Banks encourage online account opening	-0.507	-0.532	Slightly left-skewed, platykurtic	Spearman's Rank Correlation
Banks websites provide financial security	-1.263	1.72	Moderately left-skewed, leptokurtic	Spearman's Rank Correlation
Online banking services are trustworthy	-1.281	1.955	Moderately left-skewed, leptokurtic	Spearman's Rank Correlation
AI is the future	-1.058	1.269	Moderately left-skewed, leptokurtic	Spearman's Rank Correlation
Banking services improved after AI	-0.775	-0.371	Slightly left-skewed, nearly normal	Spearman's Rank Correlation

The data for each question/item exhibits varying degrees of skewness and kurtosis. Negative skewness values indicate that responses are generally concentrated towards the higher end of the scale (e.g., agree or strongly agree). The kurtosis values show how the data deviates from a normal distribution: positive kurtosis indicates more extreme values than expected, while negative kurtosis suggests fewer extreme values.

Given these deviations from normality, Spearman's rank correlation is recommended for analyzing the relationships between variables. This non-parametric test is appropriate for ordinal data and does not assume normality, making it suitable for your Likert scale responses.

Reliability Analysis:

Table 2 shows the internal consistency of the survey was assessed using Cronbach’s Alpha. The results indicated excellent reliability, with a Cronbach's alpha value of 0.940.

Table 2: Reliability Statistics

CA	CABSI	NI
0.940	0.936	34

CA- Cronbach's Alpha, CABSI- Cronbach's Alpha Based on Standardized Items, NI- No of Items

The reliability analysis yielded a Cronbach's alpha (CA) of 0.940, indicating excellent internal consistency across the 34 items (NI). The Cronbach's alpha based on standardized items (CABSI) was 0.936, confirming the robustness of the scale. These results suggest that the items consistently measure the intended construct, ensuring the reliability of the data collected.

Hypothesis 1: Relationship Between Perceived Security Features and Customer Trust

The first hypothesis tested the relationship between perceived security features of digital banking services and customer trust. Spearman’s Rank Correlation results in Table 3 show significant positive correlations between various security features and trust.

Table 3: Correlation Matrix Between Perceived Security Features (Independent Variables) and Customer Trust Variables (Dependent Variables)

Dependent Variables (Customer Trust)	Independent Variables (Perceived Security Features)	Spearman's Correlation Coefficient (ρ)	p-value (Sig.)	Sample Size (N)	Result
Customer Trust	Encouragement to open an account through online	0.569**	0	206	Significant (Reject H0)
Banks will never misuse my financial information	Financial security provided by bank websites	0.632**	0	206	Significant (Reject H0)
Banks websites provide financial security and confidentiality	Misuse of financial information	0.403**	0	206	Significant (Reject H0)
Only authorized person can access own account	Authorized access to accounts	0.556**	0	206	Significant (Reject H0)
Online banking is trustworthy	Operational simplicity of online banking	0.467**	0	206	Significant (Reject H0)
I trust my online banking services	Secure fund transfers via bank websites	0.451**	0	206	Significant (Reject H0)
Expect my use of Digital Banking Services will increase	Privacy concerns in internet banking	0.421**	0	206	Significant (Reject H0)

Trust the benefits provided by Digital Banking Services	Encouragement to open an account through online	0.706**	0	206	Significant (Reject H0)
Banking Digital Services will always increase customer interest	Financial security provided by bank websites	0.588**	0	206	Significant (Reject H0)
Banks provide useful tips to use Digital Banking Services	Misuse of financial information	0.415**	0	206	Significant (Reject H0)
Banks website is secure for the fund transfer	Authorized access to accounts	0.365**	0	206	Significant (Reject H0)
Internet banking does not ensure privacy of my account	Privacy concerns in internet banking	-0.288**	0	206	Significant (Reject H0)

The table shows a significant positive relationship between various perceived security features of digital banking services and customer trust variables, supporting the acceptance of the alternate hypothesis (H1) that there is a significant relationship between perceived security features and customer trust.

Key findings indicate moderate to strong positive correlations between security features, such as encouragement to open accounts online ($\rho = 0.569, p < 0.01$), financial security provided by bank websites ($\rho = 0.632, p < 0.01$), authorized access control ($\rho = 0.556, p < 0.01$), and trust in online banking services. These results suggest that as customers perceive stronger security measures in digital banking, their trust in these services increases.

The significant p-values (all $p < 0.01$) for all variables confirm that the relationships are not due to chance, leading to the rejection of the null hypothesis (H0) and the acceptance of the alternate hypothesis (H1). Therefore, perceived security features are crucial determinants of customer trust in digital banking.

Hypothesis 2: Customer Satisfaction and Customer Trust

The second hypothesis explored the relationship between customer satisfaction and customer trust. Table 4 presents the results, showing significant correlations between satisfaction and trust.

Table 4: Spearman’s Correlation Between Customer Satisfaction and Customer Trust in Digital Banking Services

Customer Trust ↓ (Dependent Variable) / Customer Satisfaction → (Independent Variable)	My bank has excellent customer service	The service at my bank exceeds expectations	I am satisfied with my bank	p-value (1-tailed)
Online banking services are trustworthy	0.586**	0.680**	0.453**	0
I trust my online banking services	0.500**	0.608**	0.367**	0
I expect my use of Digital Banking Services will increase in the future	0.419**	0.411**	0.605**	0
I trust that all my financial information will remain secure	0.389**	0.366**	0.522**	0
Banking Digital Services will always increase customer interest	0.443**	0.405**	0.611**	0
I trust the benefits provided by the Digital Banking Services	0.706**	0.622**	0.588**	0
Banks are providing useful tips to use Digital Banking Services	0.419**	0.352**	0.358**	0

The table shows a Spearman's correlation analysis that provides strong evidence to reject the null hypothesis (H0), which states that there is no significant relationship between customer satisfaction with digital banking services and

customer trust. All correlation coefficients are statistically significant at $p < 0.01$, indicating that these relationships are not due to chance. Therefore, we accept the alternate hypothesis (H1), which asserts a significant positive relationship between customer satisfaction and customer trust in digital banking services.

The strongest correlation ($\rho = 0.706, p < 0.01$) is between the statement "My bank has excellent customer service" and the trust that "I trust the benefits provided by the Digital Banking Services." This suggests that excellent customer service is a key factor in building trust in digital banking. Additionally, moderate to strong correlations ($\rho = 0.352$ to 0.680) across other dimensions of customer satisfaction and customer trust indicate that as satisfaction increases, trust in digital banking services also rises.

In summary, the table's findings support Hypothesis 2 (H1), demonstrating that greater customer satisfaction significantly enhances customer trust in digital banking services. This highlights the importance of improving customer satisfaction to strengthen trust in the digital banking sector.

Hypothesis 3: AI Quality and Customer Trust

The final hypothesis examined the relationship between the perceived quality of AI in banking services and customer trust. Table 5 shows the correlations between AI quality and trust.

Table 5: Relationship Between AI Quality and Customer Trust in Digital Banking Services

AI Quality ↓ (Independent Variable) \ Customer Trust → (Dependent Variable)	Online banking services are trustworthy	I trust my online banking services	I expect my use of digital banking will increase	I trust my financial information is safe	I trust the benefits of digital banking
AI is Secure	0.76	0.605	0.588	0.529	0.507
AI is the Future	0.638	0.611	0.54	0.622	0.495
For some tasks, AI is equal to human work	0.539	0.527	0.635	0.604	0.556
I would be interested in trying AI	0.706	0.73	0.588	0.76	0.73

The correlation matrix indicates a significant relationship between AI quality and customer trust in digital banking services. Strong positive correlations were observed, particularly with AI is Secure and I would be interested in trying AI, both showing a ρ value of 0.760 with trust in financial information safety and trust in online banking services. These results highlight that a higher perceived security and interest in AI are closely linked to increased trust in these crucial aspects. Additionally, moderate correlations ($\rho = 0.495$ to 0.635) with other trust dimensions further reinforce that perceived AI quality has a meaningful impact on customer trust.

These findings provide robust support for the alternate hypothesis (H1), which posits a significant relationship between AI quality and customer trust. The data effectively rejects the null hypothesis (H0), which suggests no such relationship exists. The consistent positive correlations across various aspects of AI quality and customer trust affirm that higher perceived quality of AI-driven digital banking services is associated with increased trust, validating the hypothesis and underscoring the importance of AI quality in enhancing customer trust.

7. FINDINGS AND SUGGESTIONS

The study reveals that AI quality, perceived security features, and customer satisfaction are crucial factors that significantly influence customer trust in digital banking services. There is a strong positive correlation between these elements and customer trust, indicating that customers who perceive AI as high-quality, secure, efficient, and reliable are more likely to trust their digital banking platforms. Additionally, robust security measures, such as secure transactions, authorized access, and data confidentiality, are critical in fostering customer trust. High levels of customer

satisfaction with banking services, including excellent service quality and positive experiences, also play a vital role in enhancing trust.

The results highlight that perceived AI quality has a substantial impact on customer trust, reinforcing the importance of reliable and transparent AI systems. Enhanced security features are directly linked to increased customer confidence in digital banking. Similarly, customer satisfaction with service quality positively affects trust, demonstrating that overall positive experiences with digital banking services contribute significantly to building and sustaining customer trust.

Based on these findings, several suggestions can be made to enhance customer trust in digital banking services:

- 1) **Enhance AI Transparency:** Banks should strive to make AI processes more transparent, providing clear information on how AI is utilized, the associated benefits, and the measures taken to protect customer data. This transparency can alleviate concerns about algorithmic bias and ethical AI usage.
- 2) **Strengthen Security Measures:** Financial institutions should continue investing in advanced security technologies, such as multi-factor authentication, encryption, and secure access protocols. Communicating these security features effectively to customers can further enhance their trust in digital banking services.
- 3) **Improve Customer Service Quality:** Banks must focus on elevating overall customer service experiences, as high satisfaction levels are linked to greater trust. Personalized services, efficient problem resolution, and proactive customer engagement can help improve customer satisfaction and, in turn, trust.
- 4) **Develop Regulatory Frameworks:** Policymakers should work on creating comprehensive regulations that ensure the ethical and transparent use of AI in digital banking. These frameworks should balance innovation with robust data privacy protections to secure consumer confidence in AI-driven services.
- 5) **Educate Customers:** Banks should invest in educating customers about the benefits and potential risks associated with AI. Providing clear, accessible information can help demystify AI technology and build greater confidence in AI-driven digital banking services.

8. CONCLUSION

This study underscores the pivotal role that AI plays in shaping customer trust in digital banking services. The results indicate that perceived security features, customer satisfaction, and AI quality are all significant factors in fostering trust. Customers who perceive strong security measures, have positive service experiences, and recognize the value and reliability of AI-driven services are more likely to trust their banks.

However, despite these advantages, concerns about data privacy and ethical use of AI remain pressing. To sustain and grow customer trust, financial institutions must not only focus on improving AI-driven service quality but also ensure transparency in data usage and decision-making processes. Policymakers and regulators have a vital role to play in creating robust frameworks that balance the need for innovation with the protection of consumer rights.

Ultimately, as AI continues to transform digital banking, the institutions that can effectively leverage AI to enhance security, personalization, and customer satisfaction—while maintaining a strong commitment to privacy—will lead the way in fostering deeper trust and loyalty among customers.

CONFLICT OF INTERESTS

None.

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REFERENCES

- Aldboush, H. H., & Ferdous, M. (2023). Building trust in fintech: an analysis of ethical and privacy considerations in the intersection of big data, ai, and customer trust. *International Journal of Financial Studies*, 11(3), 90.

- Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior*, 114, 106548.
- Khrais, L. T. (2020). Role of artificial intelligence in shaping consumer demand in E-commerce. *Future Internet*, 12(12), 226.
- Königstorfer, F., & Thalmann, S. (2020). Applications of Artificial Intelligence in commercial banks—A research agenda for behavioral finance. *Journal of behavioral and experimental finance*, 27, 100352.
- Manser Payne, E. H., Dahl, A. J., & Peltier, J. (2021). Digital servitization value co-creation framework for AI services: a research agenda for digital transformation in financial service ecosystems. *Journal of Research in Interactive Marketing*, 15(2), 200-222.
- Mehdiabadi, A., Tabatabeinasab, M., Spulbar, C., Karbassi Yazdi, A., & Birau, R. (2020). Are we ready for the challenge of Banks 4.0? Designing a roadmap for banking systems in Industry 4.0. *International Journal of Financial Studies*, 8(2), 32.
- Mogaji, E., Soetan, T. O., & Kieu, T. A. (2020). The implications of artificial intelligence on the digital marketing of financial services to vulnerable customers. *Australasian Marketing Journal*, j-ausmj.
- Montasari, R. (2022). Cyber threats and national security: the use and abuse of artificial intelligence. In *Handbook of Security Science* (pp. 679-700). Cham: Springer International Publishing.
- Nashold Jr, D. B. (2020). Trust in Consumer Adoption of artificial intelligence-driven virtual finance assistants: A technology acceptance model perspective (Doctoral dissertation, The University of North Carolina at Charlotte).
- Rahman, M., Ming, T. H., Baigh, T. A., & Sarker, M. (2023). Adoption of artificial intelligence in banking services: an empirical analysis. *International Journal of Emerging Markets*, 18(10), 4270-4300.
- Roslan, F. A. B. M., & Ahmad, N. B. (2023). The rise of AI-powered voice assistants: Analyzing their transformative impact on modern customer service paradigms and consumer expectations. *Quarterly Journal of Emerging Technologies and Innovations*, 8(3), 33-64.
- Sikder, A. S. (2023). Blockchain-Empowered E-commerce: Redefining Trust, Security, and Efficiency in Digital Marketplaces in the Context of Bangladesh.: Blockchain-Empowered E-commerce. *International Journal of Imminent Science & Technology*, 1(1), 216-235.
- Tiwari, S., Bharadwaj, S., & Joshi, S. (2021). A study of impact of cloud computing and artificial intelligence on banking services, profitability and operational benefits. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(6), 1617-1627.
- Tsamados, A., Aggarwal, N., Cows, J., Morley, J., Roberts, H., Taddeo, M., & Floridi, L. (2021). The ethics of algorithms: key problems and solutions. *Ethics, Governance, and Policies in Artificial Intelligence*, 97-123.
- Fares, O. H., Butt, I., & Lee, S. H. M. (2023). Utilization of artificial intelligence in the banking sector: A systematic literature review. *Journal of Financial Services Marketing*, 28(4), 835-852.
- Dsouza, A., & Panakaje, N. (2023). Performance of Startups through Digital Marketing. *International Journal of Case Studies in Business, IT and Education (IJCSBE)*, 7(2), 38-50
- Rokhshad, R., Ducret, M., Chaurasia, A., Karteva, T., Radenkovic, M., Roganovic, J., ... & Schwendicke, F. (2023). Ethical Considerations on Artificial Intelligence in Dentistry: A Framework and Checklist. *Journal of Dentistry*, 104593.
- Nashold Jr, D. B. (2020). Trust in Consumer Adoption of artificial intelligence-driven virtual finance assistants: A technology acceptance model perspective (Doctoral dissertation, The University of North Carolina at Charlotte).
- Chamola, V., Hassija, V., Sulthana, A. R., Ghosh, D., Dhingra, D., & Sikdar, B. (2023). A review of trustworthy and explainable artificial intelligence (XAI). *IEEE Access*.
- Vishnuvardhan, G., Ravi, V., & Mallik, A. R. (2021). Field extraction and logo recognition on Indian bank cheques using convolution neural networks. In *Intelligent Data Engineering and Analytics: Frontiers in Intelligent Computing: Theory and Applications (FICTA 2020)*, Volume 2 (pp. 277-288). Springer Singapore.
- Farishy, R. (2023). The Use of Artificial Intelligence in Banking Industry. *International Journal of Social Service and Research*, 3(7), 1724-1731.