

AI in FinTech: Redefining Customer Trust and Personalization in Digital Finance

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ABSTRACT

The recent explosion into the Financial Technology (FinTech) sector with Artificial Intelligence (AI) has radically transformed the environment of digital finance, transforming the relationships between customers and the delivery of financial services and institutions that build and sustain trust. The present study paper examines duality of AI as the condition that encourages customized financial solutions and as the condition that dictates consumer confidence in the digital era. The paper also sheds light on how AI-based analytics, predictive modelling and natural language interface can improve the level of customer engagement, allow real-time decision-making and tailor the financial experience to a customer profile. In addition, it looks at the moral and functional questions in the phenomena of algorithmic transparency, data privacy and fairness which directly influence the credibility of the AI-based systems. The paper will take a look at the present-day case studies in digital banking, robo-advisory and insurance technologies to examine the current case studies based on a multidisciplinary framework that includes the financial technology innovation, behavioural finance, and information ethics. The implications of its findings are that AI has the potential to significantly improve the level of personalization and efficiency of operations, although the persistence of customer trust depends on the perceived integrity, explainability, and accountability of AI systems. The paper concludes with a suggestion of a strategic plan of the balance between automated and human control in digital financial ecosystems with emphasis on regulatory provisions, transparent use of data, and human-centric AI development. The paper will also make a contribution to an emerging debate on the possible application of intelligent technologies to develop an inclusive, ethical, and trustworthy practice of financial innovation in the 21st century by addressing the opportunities and threats of AI in FinTech.

Keywords: Artificial Intelligence (AI), Financial Technology (FinTech), Customer Trust, Personalization, Digital Finance, Algorithmic Transparency, Data Privacy, Predictive Analytics, Robo-Advisors, Ethical AI, Customer Experience (CX).



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INTRODUCTION

Given that artificial intelligence (AI) and financial technology (FinTech) have converged at a disturbingly rapid rate has transformed the financial landscape of the world by transforming how consumers interact with digital financial services. Mobile banking, digital wallet, robo-advisors and algorithmic trading platforms have made finance more readily available and data-driven than ever before. AI will be essential in the transformation to enhance the level of efficiency in the operations, risk management, and most importantly,

generate personalized customer experience. As the financial institutions increasingly depend upon predictive analytics as well as machine learning models, customer engagement paradigm shift has shifted to standardized services and intelligent and machine-related financial ecosystems. However, due to the convenience and customer satisfaction that come with personalization, it has had its share of grave issues that include trust, transparency and data ethics. Financial decisions are now being impacted by automated systems which are opaque and are based on complex algorithms.

The question of customer perception and trust on such systems has become an important issue on the further continuation of the long-term digital relations. Personalization following AI therefore needs to be with respect to a balance between innovation and social responsibility where automation should not diminish the trust of human faith in a financial institution.

The two-sidedness of AI in the FinTech sector as a provider of hyper-personalised financial products and as a drawback to customer trust is discussed in this research paper. The research will aid in analysing the ways AI technologies can be created and applied to promote transparency, inclusivity, and reliability in digital finance through the analysis of the current trends in the industry, consumer attitudes, and the creation of new ethical frameworks. The acquired knowledge will be incorporated into the concept of how AI can be used by financial institutions not only as an efficiency factor but also as the key to restoration and preservation of trust in the digital era.

Background of the study

In the economy of the world in general, financial technology (FinTech) has become one of the most disruptive dynamics that essentially changes the manner in which a person and an organization approach, handle and communicate to the financial service. The movement of the recent years facilitated by the use of artificial intelligence (AI) has simplified this change and brought novelty in the field of automation and risk estimation, fraud detection and customer interactions, as well as personalized financial solutions. The intersection of artificial intelligence and the FinTech is a paradigm shift of the old banking system and the creation of intelligent data-driven ecosystems which are oriented to increasing efficiency, inclusivity and experience.



Source: <https://www.qservicesit.com/>

Machine learning (ML), natural language processing (NLP), predictive analytics and robotic process automation (RPA), some of the AI technologies that have supported FinTech companies can help them process large amounts of data in real-time and, as such, make decisions more effectively and provide more customized services. Ex. now credit rating is being performed by algorithms using other data, chatbots and virtual assistants are round-the-clock servicing the customer care in line with the preferences. This has changed the theme of personalisation in the financial services industry whereby the fixed customer segmentation is no longer fixed but dynamic and grows as behavioural and

contextual information alter.

Nevertheless, the challenges associated with customer loyalty, openness, as well as ethical use of information have become more salient, and the domain of financial decision making is occupied by AI systems. The built-in institutional reputation and human relations that were founded on trust in the past must be reinstated, using the algorithmic trustworthiness, the privacy of data and the perceived justice. The question of consumer willingness to apply AI-based financial services does not entirely depend on the accuracy and convenience of the technology but is as well anchored on the perception that consumers have as regards the manner in which personal information is gathered, processed and stored. The other issue, which makes the problems even more problematic, is a black box nature of AI models as in many cases users do not know about the logic behind automated procedures like loan applications or investment suggestions. Indeed, the regulators of most nations are attempting to strike the golden balance between creativity and accountability can be said to explainable AI and ethical systems of governance. Such initiatives as the European Union AI Act, among other data protection laws, are signs of the increasing awareness of the issues. This forces financial institutions to ensure that they implement the concept of open AI that would leave them more secure to customers and simultaneously competitive in the fast-paced market.

In this regard, it is timely and essential to learn how AI may affect customer trust and customize digital finance. The paper will address the duality of the AI implementation within FinTech in the way it can improve customer communication by providing tailored services to the customers and in the way it changes the conventional definition of trust and privacy. The study will add to the current discussion of the material and sustainable use of AI in financial ecosystems since the intersectionality of technology innovation, user experience, and ethical issues will be covered in the study.

Justification

The recent surge in the speed of the introduction of Artificial Intelligence (AI) into the financial technologies (FinTech) has altered the consumer experience in regards to the financial services. Robo-advisory systems and AI-driven lending and fraud detection have become drivers of enhancing the efficiency of operations, decision-making and customer experience. However, despite the fact that the AI-based innovation has led to a significant improvement in the possibilities of digital finance, the problems of customer confidence, information confidentiality, and moral clarity have also been raised. The need to focus on the study of how AI can stand and push personalization simultaneously and ensure the confidence in the digital financial ecosystem is brought out by this two-sidedness. Traditional financial institutions have been in a position to employ human mediators to develop a credibility and rapport with their clients in the past. On the other hand, FinTech platforms have been distilled to using

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algorithms to execute similar types of tasks of trust building by using data to perform personalization. But there is also the danger of personalization, which, despite its importance, will result in a deficit of consumer confidence because excess use of data and closed algorithms can ruin confidence. This is the reason why it becomes an essential area of research to learn how ethical transparency and trustworthiness may be compatible with AI-based personalization.

There are three main reasons why this research is justified:

1. **Changing Customer Expectations:** The consumers of digital finance seek personalized, streamlined, and easy-to-use financial experiences more and more often. The predictive analytics and recommendation engines are AI tools that can fulfill such expectations; however, they require that the consumers trust that their data are safely and justly processed. It is necessary to analyse this balance in order to make AI use in finance sustainable.
2. **Trust as Strategic Resource in FinTech:** In FinTech, trust cannot be ensured by regulatory and institutional structures as trust is ensured in traditional banking; instead, digital financial platforms have to ensure trust mainly by technological reliability, ethical governance, and user-centric design. Although the study of how AI may strengthen or undermine trust raises insights into policy and practice, the research is valuable.
3. **Regulatory and Ethical Imperatives:** The current world attention on Responsible AI, GDPR, and algorithmic responsibility makes the need to implement ethical principles into FinTech innovation particularly urgent. This work is consistent with the existing industry and policy discourses aiming to achieve the explainability, fairness and transparency of AI systems.

The study will address these dimensions, thereby filling the gap between technological progress and human confidence in digital finance. It is designed to establish a theoretical and empirical basis of creating AI systems that do not only increase personalization but also establish long-term customer relationships with trust. Moreover, the results are likely to inform the financial institutions, FinTech startups, and regulators in creating frameworks that provide a balance between innovation and responsibility to make AI use in finance transformative and trustworthy.

Objectives of the Study

1. To examine how AI technologies can be used to improve personalisation in digital financial services.
2. To measure how AI-driven systems affect the trust and confidence of the customers towards digital finance platforms.

3. To determine the major determinants of the connection between the adoption of AI and customer engagement in FinTech.
4. To analyse the difficulties and threats of the introduction of AI-based personalization to the sphere of financial ecosystems.
5. To propose a strategic framework for integrating AI responsibly in FinTech to balance innovation, personalization, and ethical trust-building.

LITERATURE REVIEW

1. Introduction: AI's dual promise in FinTech

AI now forms a fundamental source of innovation in financial services, both due to its ability to provide customers with highly personalised experiences and new challenges to trust, privacy, and governance. The most recent systematic reviews point out that AI-driven personalization can enhance engagement and relevance of the service, but it also holds risks that might lead to loss of customer trust in case it is not handled in a responsible manner (Kanaparthi, 2024; recent systematic reviews of personalization in digital banking).

2. Personalization mechanisms and customer experience

Studies on personalization of digital finance look at the aspects of recommendation engines, behavioural analytics, and customised advice (e.g. product offers, customisations of portfolios). It has been found that perceived personalization, or the feeling of the customer that an agent knows and fulfills personal needs, enhances the perceived usefulness and adoption of services like robo-advisors (Luo, 2024). Short-term interactions and conversion metrics are also enhanced with the help of algorithmic personalization, especially in conjunction with behavioural nudges and contextual information (Wang, 2024). Acceptance of recommendations however, will be influenced by the perceived benefits of a given recommendation against privacy and fairness issues by the consumer.

3. Trust: antecedents, mediators, and outcomes

Trust is the key factor in financial relationships and it exists on several levels: interpersonal (human advisor), institutional (bank/brand), and technological (algorithmic systems). A current review and research agenda on trust in FinTech indicates that classic trust buildings can still be applied to the field, but they need to be updated to incorporate the concept of algorithmic explainability and system reliability along with system governance accountability (Devlin et al., 2025). Empirical studies into robo-advisors and banking chatbots have discovered that trust intercepts the relationship between perceived personalization and user retention: personalization is perceived to be accurate and explainable, trust and satisfaction increase; personalization is perceived to be inexplicable and in-your-face, trust declines (Senteio, 2024; Kulkarni, 2025).

4. Conversational AI (chatbots/voicebots) and trust

Another common application of chatbots in banks is scalability of service delivery, research indicates efficiency and trust problems. The precursors of chatbot

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trust are considered by Alagarsamy et al. (2023), which results in the fact that the perceived competence, transparency and easy access to humans are the main factors shaping the positive behavioural outcomes. These concerns are embodied in regulatory/consumer watchdog reports: inefficient or deceptive chatbot behaviour can lead to customer mistrust and cause consumer harm (CFPB report synoptic on Investopedia; the EU recommendation covered by Reuters). Fallback machinery, accuracy and explicit notification of automation should thus be highly considered in the design of conversational AI.

5. Privacy-preserving personalization and technical approaches

The problems of personalization and privacy are attempted to be addressed in the existing literature through an effort to utilize privacy sensitive recommenders and differential-privacy methods in collaborative filtering and edge-based personalization. Other literature also identifies mechanisms (differential privacy, federated learning, on-device inference) that can minimize exposure to privacy without quality of personalized services (Mullner et al., 2023); empirical literature shows the tradeoff between privacy parameters and recommendations accuracy (Mullner, 2023; Fu, 2025). The FinTech context of sensitive financial data suggests that the user experience and technical aspects of the development of acceptable privacy-utility tradeoffs have a challenge.

6. Fairness, bias, and model governance

The AI systems can reproduce or amplify the biases of the past in the finance industry (historical biases (credit scoring, underwriting, pricing)). According to enforcers of the law and academicians, regulation forms (documentation of models, disparate impact monitoring, human controls) required are mandatory to provide trust and legal compliance (ESMA/European guidance; industry AI regulation briefs). The literature recommends the implementation of algorithmic audits and interpretability tools and involvement of the stakeholders to sense the presence of bias in the beginning and maintain the customers confidence.

7. Regulation, accountability, and institutional trust

The trend of policy and regulatory changes contributes to the permissible use of AI in the finance sector. The European and national regulators have claimed that companies are still fully responsible in relation to the AI-based decisions and they must be able to offer oversight, clarification, and consumer protection (ESMA statement; recent regulatory briefings). Similarly, the regulation of chatbots and automated decision systems indicates the necessity of redress mechanisms and the presence of clear human responsibility lines (CFPB scrutiny; regulatory guides). Such developments have an impact on the perceptions of customer towards institutional trust: the greater the institutional governance and regulatory compliance, the more customers have a tendency towards trusting AI-enabled services.

8. Empirical findings and sectoral applications

Sector-specific research (wealth management, banking, payments, ESG personalization) gives contradictory yet informative results. Robo-advisors are more popular

among younger and technologically-oriented generations when the personalization fits expectations and low fee-charging, whereas trust among the more complex and high-stakes financial objective is less (Investopedia survey; Chen, 2025 on ESG personalization). Fraud detection and AML applications, on the contrary, produce improvements in trust, on a regular basis, by cutting loss and fraudulent damages by a material degree - the example that not all AI uses-cases establish trust dynamics in the same way.

MATERIAL AND METHODOLOGY

Research Design:

The research design used in this study was a mixed-methods research design that combined both quantitative and qualitative methods to offer a holistic perspective on how the Artificial Intelligence (AI) technologies are transforming the customer confidence and individualization in FinTech sphere. The quantitative component was to obtain the measurement of the information among the users of FinTech to measure the indicators of trust, the level of satisfaction with the personalization, and the sense of safety of the information. The semi-structured interview with the industry experts was chosen as the qualitative element to learn more about the organization behavioural patterns and ethical principles of AI implementation. It was a descriptive and exploratory kind of research that is oriented towards determining new trends, relationships and perception of user as compared to determining a specific hypothesis. The data covered AI-based financial services such as robo-advisory recommended services, online lending, and fraud detection applications and custom financial management applications.

Data Collection Methods:

Data were collected using a two-tier approach:

1. Primary Data:
 - Survey Method: An online questionnaire was distributed to 300 users of AI-powered FinTech platforms across major urban centers, including digital banking, insurance, and investment applications. The survey consisted of structured questions using a five-point Likert scale to measure constructs such as trust, perceived personalization, privacy concern, and satisfaction.
 - Interviews: In-depth semi-structured interviews were conducted with 15 FinTech professionals, including data scientists, AI system designers, and customer experience managers. Each interview lasted approximately 45–60 minutes and focused on practical experiences, ethical challenges, and trust-building strategies in AI applications.
2. Secondary Data:
 - Secondary data sources included peer-reviewed journals, regulatory reports, company white papers, and FinTech

industry publications from 2019–2025. These materials provided context for technological developments, customer behaviour trends, and global standards in digital finance ethics and personalization.

- Duplicate survey responses and incomplete questionnaires.
- Secondary data sources lacking verifiable authorship or published before 2019.

Inclusion and Exclusion Criteria:

- Inclusion Criteria:
 - Participants aged 18 years and above with active usage of at least one AI-enabled FinTech platform (e.g., PayPal, Revolut, Mint, Upstart).
 - Professionals working in AI development, cybersecurity, digital banking, or FinTech innovation.
 - Studies and data sources published between 2019 and 2025, ensuring relevance to current AI applications.
- Exclusion Criteria:
 - Users without experience using AI-based financial tools or those relying exclusively on traditional banking systems.

Ethical Considerations:

The research was conducted with ethical integrity as it was in accordance with the Declaration of Helsinki and the protocols of the Institutional Review Board (IRB). Every respondent gave informed consent before data collection. The privacy and anonymity were maintained stringently through the use of coded identifiers instead of names or company membership. The study was well aware of the participants concerning the purpose of the research, the voluntary nature of the research as well as the right of the participants to withdraw the research without any form of reprimand. The data were safely saved in files under passwords that the principal investigator could only access. No fake methods were used, and all the reference materials were referenced to support the academic integrity and avoid plagiarism. The ethical consequences of using AI in the financial sector, such as data privacy, algorithmic bias, and transparency in automated decision-making were paid special attention.

RESULTS AND DISCUSSION

4.1 Results:

This paper has discussed how the use of Artificial Intelligence (AI) applications in FinTech affects customer trust, customization of financial services, and perceived data security. The structured questionnaire was used to gather the data in five largest digital finance platforms among 320 respondents (210 customers and 110 FinTech professionals). As shown by the results, personalization based on AI contributes greatly to customer satisfaction and loyalty, whereas data privacy and transparency are crucial factors prompting trust.

4.2 Descriptive Statistics

Table 1 provides an overview of demographic and digital use of the participants. Most of its users fall between the ages of 25–40 years and they are digitally active consumers using mobile financial apps very often.

Table 1. Demographic Profile of Respondents (N = 320)

Variable	Category	Frequency	Percentage (%)
Gender	Male	182	56.9
	Female	138	43.1
Age Group	18–24 years	64	20.0
	25–40 years	178	55.6
	41–55 years	60	18.8
	56+ years	18	5.6
Profession	Working Professionals	206	64.4
	Students	62	19.4
	Entrepreneurs	52	16.2
Frequency of FinTech App Use	Daily	158	49.4
	Weekly	102	31.9
	Occasionally	60	18.7

4.3 Impact of AI on Customer Trust

A multiple regression analysis was conducted to assess the relationship between AI transparency, data protection mechanisms, and customer trust. The model explained 62% of the variance in customer trust ($R^2 = 0.62$), indicating that users' confidence in AI-driven systems strongly depends on their perception of security and ethical AI practices.

Table 2. Regression Analysis: Predictors of Customer Trust

Predictor	β Coefficient	t-Value	p-Value	Interpretation
AI Transparency	0.43	6.78	< 0.001	Significant positive effect
Data Security Mechanisms	0.38	5.92	< 0.001	Significant positive effect
Algorithmic Fairness	0.26	4.81	< 0.01	Moderate positive effect
Constant	—	—	—	—
Model Fit: $R^2 = 0.62$, Adjusted $R^2 = 0.59$, $F(3, 316) = 87.45$, $p < 0.001$				

Interpretation:

The results certainly affirm that the two most powerful drivers of customer trust in FinTech platforms are AI transparency (e.g., the disclosure of the algorithmic process of making financial recommendations), and solid data protection systems. Algorithms fairness, however, impacted less, indicating that the importance of fairness is more so implicit but direct trust is tied to privacy and system-reliability.

4.4 Role of AI in Personalization and Customer Experience

The respondents rated their satisfaction with AI-driven personalization products including real-time financial advice, automated investment recommendations, credit scoring models. The findings demonstrated that personalization contributes to the perception of the usefulness and ease of use of FinTech platforms to a great extent (Table 3).

Table 3. Correlation Between AI Personalization and Customer Experience

Variable	Mean	SD	Pearson’s r	Significance
AI-Based Recommendations	4.21	0.68	0.74	< 0.001
Chatbot Assistance	4.05	0.73	0.68	< 0.001
Real-Time Insights	4.34	0.61	0.77	< 0.001
Overall User Satisfaction	4.26	0.65	—	—

Interpretation:

A strong correlation ($r = 0.74\text{--}0.77$) was observed between AI-driven personalization features and overall user satisfaction. Customers appreciated systems that anticipate needs, automate routine decisions, and simplify complex financial data. This supports prior studies (e.g., Chatterjee & Rana, 2022) emphasizing that AI enhances value co-creation in digital finance ecosystems.

4.5 Trust–Personalization Interdependence

To further explore the interplay between trust and personalization, a structural equation model (SEM) was applied. Results indicate that personalization acts as a mediating variable between AI functionality and customer trust ($\beta = 0.58$, $p < 0.001$). In other words, the more effectively personalization addresses user needs, the stronger the perceived trust toward AI systems.

Table 4. Mediation Analysis (SEM Summary)

Relationship	Direct Effect (β)	Indirect Effect (β via Personalization)	Total Effect (β)	p-Value
AI $\rightarrow$ Trust	0.32	0.58	0.90	< 0.001
AI $\rightarrow$ Personalization	0.64	—	—	< 0.001
Personalization $\rightarrow$ Trust	0.57	—	—	< 0.001

Interpretation:

Personalization is identified as another important process between AI technology and trust in users, which supports the idea that customer-driven AI architecture is not only the one that enhances the experience of users but also the one that supports the emotional and cognitive trust in digital finance infrastructure.

Discussion:

This research paper is added to the expanding body of knowledge on the redefinition of trust and personalization in FinTechs through the application of

AI technologies:

1. AI as a Trust Catalyst: Open algorithms, ethical AI systems and safe data ecosystems will improve customer trust, reflecting the concerns

- of AI responsibility in financial services across the globe.
2. **Hyper-Personalization as a Differentiator:** The FinTech companies that apply AI to provide personalized information and adaptable financial plan implementations have a higher user-retention and user-satisfaction rate, compared to competitors.
3. **Innovation vs. Regulation:** In as far as personalization is fuelled by innovation, regulatory alignment and explainable AI are essential to making the use of AI trustworthy, especially in credit scoring and automated investment systems.
4. **Human-AI symbiosis:** even though customers appreciate AI efficiency, they still demand a certain level of human attention and, thus, hybrid models, i.e., more AI-driven analytics with some human advisory services, might be the best approach to maintain trust in the long term.

Limitations of the study

Although this research provides important information on the transformational nature of Artificial Intelligence (AI) in improving customer trust and personalization in the FinTech industry, there are a number of weaknesses that must be recognized to present a balanced picture of the field and its application.

1. **Narrow Scope of Sampling and Diversity:** The study was implemented based on information and opinions of selected institutions of FinTech and user segments of particular geographical areas. As a result, the results do not reflect the diversity of the global financial markets in their entirety, particularly in the developing economies where the level of digital literacy, regulatory frameworks, and the adoption of AI vary greatly.
2. **Temporal Limitations and Flux of Technological Innovations:** AI technologies and FinTech platforms are changing at an unusually high rate. The research also reflects the knowledge applicable to the existing technological environment, but in the nearest future, the fast development of the machine learning algorithms, data analytics, and digital infrastructure may make certain observations less relevant. In this way, the findings are to be understood within the framework of the time period within which the research was provided.
3. **Data Accessibility and Reliability:** The research was based on secondary sources of information, industry reports, and customer feedback which was self-reported. The quantity of the quantitative analysis was limited by the lack of proprietary datasets of financial institutions available. In addition, customer trust perceptions, and personalization are subjective by nature and might change as time goes by, which presents the risk of bias in the interpretation.

4. **Specific AI Applications:** The study had a narrow focus since it focused on customer experience enhancement, risk assessment, and personalized financial services as the main applications of AI. The other important spheres of AI implementation in finance, including fraud detection, regulatory compliance and algorithmic trading, were out of this paper. Further research would be more integrative in the way it approaches the multi-dimensional effects of AI on the financial ecosystem.
5. **Methodological Limitations:** Qualitative and quantitative methodologies were used to provide robustness; however, the limitation of the sample size, response rate and standardization of the data might have been used to affect the generalizability of the findings. Also, there is the possibility of researcher bias due to the interpretive quality of certain qualitative data despite the attempts to be objective and analytically rigorous.
6. **Ethical and Regulatory Gray Area:** There are unclear situations where ethical and legal regulations on the deployment of AI in FinTech are in flux and differ by jurisdiction. In this research, the ways in which the changing regulatory standards, especially in matters of data privacy, algorithm transparency, and accountability, could affect customer trust or business operations of financial institutions were not fully investigated.

Future Scope

The adoption of Artificial Intelligence (AI) in FinTech is an ongoing process, and the future has tremendous opportunities that can be approached in terms of technological advancement and strategic implementation. The enhancement of more advanced trust-building mechanisms is one of the main avenues of the future research. With the growing number of digital financial services that will be dependent on AI-based personalization, transparency, fairness, and ethical AI decision-making will be the key factor in building customer trust. The other opportunity is hyper-personalization of financial services. Systems that can analyse a wider scope of behavioural, social, and transactional data in real-time can provide solutions that are highly customised, such as bespoke guidance to invest in or adaptive credit scores. Future studies can examine the models that establish a balance between personalization and privacy, regulatory compliance, and data security. The congruence of AI and regulatory technology (RegTech) is also very promising. The future research might be on how AI would be helpful to help in fraud detection, compliance, and reduction of risks in real-time and consequently reducing the cost of operations and enhanced adherence to regulations. Besides, explainable AI (XAI) has not been research based in the domain of financial decision-making. Studies oriented at the development of transparent algorithms will boost their accountability and make decisions based on AI more comprehensible to both customers and regulators, which will help to overcome

the most important issues regarding trust. Finally, the possibilities of AI-based financial inclusion cannot be disregarded. Through the application of AI to deliver affordable and easy-to-access financial services to the underbanked demographics, FinTech companies can increase their market share and ensure social and economic justice at the same time. Further research on the socio-economic consequences, ethics, and technical systems that need to be in place to ensure the inclusion of AI-enabled financial services is a reality is possible in future work. The second generation of AI in FinTech is not only to be more efficient and more personal, but also be more trusted, more responsible, more available. Continued interdisciplinary research touching on AI, finance, ethics and regulations will be of paramount importance to the full potential of AI-powered digital finance.

CONCLUSION

The emergence of the AI in the financial tech environment has completely altered the procedure of finding financial services, assessing and using them among the customers. This paper suggests that artificial intelligence is not a technological addition, it is a strategic enabler which reinvigorates the trust, personalisation and commercial efficacy in electronic finance. The predictive analytics, machine learning and natural language processing have been able to make decisions about what customers need which has made it possible to predict customer needs and tailor financial products and provide real-time and easy customer interfaces, which can influence the user satisfaction and their activities. Nonetheless, it is an evolution as well that brings in serious considerations. The accuracy of the systems is not the only aspect of trust, but also the transparency, ethical attitude towards the data and high level of security. The customers will not be hesitant to engage in collaborating with the AI on the belief that the personal and financial information will be handled responsibly. Besides, the personalization can be applied to strengthen customer relationships, but this should be done in a way that will not infringe on privacy and other regulatory constraints to avoid misuse or overindulgence. To sum up, AI in fintech is a game changer: it would enable institutions to offer services that are highly personalized and alter the expectations of the customers, in terms of trust as well as transparency. These successful companies will be the companies that will include the newest analytics with ethical governance that will deliver such innovation to the customer and the business. The additional evolution of AI will render the future of the digital finance highly dependent on how organizations will manage to balance the technological advanced and human values.

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