Mitigating the negative views of customers while the adoption of Artificial-Intelligence chatbots in online banking services: Relevant gaps and future research agenda

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Abstract

The daily evolvement and growing interest in AI adoption worldwide, within different industrial sectors, have triggered scholars and practitioners to keep looking after every single piece of information and promising ideas that they can beneficially gather relative to that topic for the sake of enhancing consumers' experiences and excitements while using banks' mobile apps or any other online services. The level of adoption for AI chatbots in banking sectors promises to boost the servicing experience. however, due to issues related to trust, privacy, security, and emotional connections, the level of reluctancy while dealing with these AI chatbots still exists with no promising figures of resolving these remarkable complexities. The paper sheds light on the extant literature on AI chatbots for the sake of developing comprehensive ideas of the relevant research gaps on how to ideally mitigate these negative views together with further directions for future scholars. Moreover, this paper emphasizes the most influential reasons for having these negative feelings and reluctance while dealing with such AI chatbots. Also, in this report, there will be an emphasis on the possible and potential contributions of this research area.

Mitigating the Negative Views of Customers While the Adoption of Artificial-Intelligence Chatbots in Online Banking Services: Relevant Gaps and Future Research Agenda

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Abstract

The daily evolvement and growing interest in AI adoption worldwide, among different industrial sectors, have triggered scholars and practitioners to keep looking after every single piece of information and promising ideas that they can beneficially gather for the sake of enhancing consumers' experiences and excitements while using banks' mobile-apps or any other related online services. The level of adoption for AI chatbots in banking sectors promises to boost the servicing experience. However, due to issues related to trust, privacy, security, and emotional connections, the level of reluctancy while dealing with these AI chatbots still exists with no promising figures of resolving these remarkable complexities. The paper sheds light on the extant literature of AI chatbots in online banking context for the sake of developing comprehensive ideas of the relevant research gaps that exist to scrutinize how to ideally mitigate these negative views. This paper also reviews the most influential reasons for having these negative feelings and reluctances while dealing with such AI chatbots. Additionally, in this paper, there will be great emphasis on the possible and potential contributions of this research area. More importantly, the paper examines further directions for future scholars in this promising topic.

Keywords: Artificial intelligence (AI), AI-Chatbots, Online banking services

1. Introduction

E ven though Artificial-Intelligence (AI) is not a newly launched topic or area of research (Ransbotham et al., 2018), it has been widely discussed by scholars in the past few years due to its prominent applicability in various business-related areas and industrial sectors along with its remarkable impact toward the success of decision-making processes for both individuals and organizations (Jovanovic et al., 2021). AI simply means teaching, controlling, adapting, and letting the machines perform tasks that require super intelligence from a human being (Ransbotham et al., 2020). Likewise, the AI chatbot essentially is all about stimulating a special language in dealing with electronic robots to solve personalized issues or inquiries made by customers (Wang & Petrina, 2013). During the past few years, the digitalization phase prominently involved in people's daily lives. They crucially trust the technology to verify their identity and unlock any of their privacy contents along with securely having their online payment and purchases (Mishra & Awasthi, 2022). Additionally, the emerge of a sudden shock, like the Covid-19 pandemic, shifted the technological usage and orientation, further together with the considerable level of alteration patterns in their behaviours. These alteration patterns occur within different business contexts and have been widely shifted toward raising the expectation of regularly having maximum pace and accuracy in online services (Stoilova, 2021). Accordingly, many firms and organizations have spent thousands and millions of their financial resources on finding the best integration of AI chatbots into their daily operations. Nevertheless,

according to Davenport et al. (2020), both current and potential customers in different types of industries and organizations are still behaving with remarkable degrees of reluctance while dealing and interacting with AI chatbots due to some issues of privacy, ethics, and level of biases. Consequently, these reluctance issues generate a high level of negative reviews and e-WOM that impact the adoption of AI chatbots in numerous contexts and fields of application which might turn investments in AI chatbots into significant losses and forfeitures (Luo et al., 2019).

Likewise, the daily technological evolvement impact massively the importance of developing superior online banking services that indeed have a vital impact on customer satisfaction (Firdous & Farooqi, 2017; Hammoud et al., 2018; Li et al., 2021). Nonetheless, dealing with AI chatbots to operationalize customers' banking inquiries and services still have the issues of reluctance due to trust, privacy, security of exchanging information, and lack of emotional connections in concerns with the AI chatbots which affect the level of customer satisfaction (Lui and Lamb, 2018). Accordingly, solving such AI-chatbots' relative hesitation issues has an influential influence on the trust factor that unquestionably has an enormous positive effect on customer satisfaction in online banking contexts (Nyagadza et al., 2022; Sathiyavany & Shivany, 2018), enhancing the overall brand image of the bank (Sanny et al., 2020), obtaining the ability of forecasting future stock prices' changes (Siddiqui & Abdullah, 2014), generating further profit margins in corporate as well as financing Small and Medium Enterprises (SMEs) deals (Rawindaran et al., 2021), and gaining further competitive advantages and market-share over other rival competitors (Kumar & Balaramachandran, 2018).

1.1. Objective and motivation of the study

Synthesizing what have been discussed in the extant literature of AI chatbots with regards to the online banking services context, while exploring how relatively the reluctance issues interchangeably shared some similarities in concepts and perspectives, could be the main reasons behind bringing out the best from future scholars to solve these AI Chatbots scientific puzzles. Unquestionably, these related patterns of behaviour from researchers would allow them to explore more hidden underpinnings of efficiency in online banking services and operations.

Notably, the research gaps of the related recent published papers would share certain levels of commonalities around the concept of trust, privacy,

security, and emotional connections which create doubtless superior motivation for exploring the optimal solutions to such crucial concerns. Furthermore, these mentioned motivations will have remarkable impacts on the willingness to develop a general understanding of the underpinnings of the concepts of AI chatbots. For instance, Davenport et al. (2020) and Castillo et al. (2021) all highlighted the substantial importance of comprehending the current research gaps regarding the understandability of AI chatbots in examining the acceptancy behaviour while communications being live and in progress with customers.

In AI environments, as people always expect to have the most advanced technological high-speed performance (Stoilova, 2021), the speed of operations done by this intelligent machine should always be prioritised while evaluating any strategic AI chatbot plans. Given the affairs of speed-quality assurance, the development of an automated perceived responses would allow for the creation of well-designed frameworks for overcoming any imperfections within these AI chatbots (Chopra, 2019). Furthermore, another motivation is related to expanding the extant online banking services literature for the sake of enriching the knowledge of how to deal with the set of emotional concerns and personal feelings that AI chatbots might have while interacting with both current and potential customers of the banks worldwide. This move will undoubtedly enhance the perception and the overall image of AI chatbots. Therefore, recent studies (Castillo et al., 2021; Cheng et al., 2022; Hornung & Smolnik, 2022; Luo et al., 2019; Weber-Guskar, 2021) have triggered the motivation to move forward with exploring the ideas that stimulate the ground foundations of the emotional issues in the aforementioned relationship.

2. Literature review with relevant gaps

Throughout the literature that has discussed implicitly or explicitly the issues that deal with mitigating the negative views of customers in-relative to dealing with AI chatbots while operating their banking services, it has been found that most of the relevant articles have assigned trust, privacy, security, and emotional connections as constructs in their models. Correspondingly, mitigating the reluctance and negative feelings generated by customers while dealing with AI chatbots can be eliminated by dealing efficiently with these major issues. This study can demonstrate and synthesize some relevant research papers regarding AI chatbots in online banking services. More precisely, it

explores the relative negative perceptions and ways of reluctancy shown by consumers while communicating with AI chatbots as a ways to have general ideas regarding possible contributions in which adding them to the extant literature would significantly enhance the relevant knowledge and scientific research gaps in regards with such a remarkable topic.

Plenty of scholars (Bedué & Fritzsche, 2021; Pitardi and Mariott, 2021; Chong et al., 2022; Kim et al., 2020) have discussed the issues of trust and confidence while the adoption of AI chatbots between the employees themselves working together in a certain organization or with both potential and current customers. The results of these studies were approximately similar in the way that trust as a factor can mediate the relationship between individuals' judgments and AI adoption in the online banking sector. Correspondingly, the higher the accuracy of information and related answers for banking inquiries that AI chatbots can significantly provide, the higher level of trust being generating in the given relationship. Furthermore, by employing quantitative as well as mixed approach studies, they successfully found that the functional attitude of AI can positively increase the level of trust. When in fact Other scholars (Chatterjee et al., 2021; Davenport et al., 2020; Marjerison et al., 2022) mainly focused on matters of privacy and security while employing AI in general not just AI chatbots. Accordingly, considering different cultures and contexts, they proved that the issues of privacy and security remain significant. Different scholars (Castillo et al., 2021; Luo et al., 2019; Weber-Guskar, 2021) also consider the issue of emotional connection with the AI chatbots which highly influence the behaviour of customers that this AI chatbot will not provide enough support due to their perception of high distinction between the degree of the seriousness of their issue with the associated response of this AI chatbot. However, to the best of the author's knowledge, some distinct areas relating to this topic either have not been assigned yet or are set as future research directions. For instance, Al-Mansour and Hussein (2020) have illustrated the intelligent capabilities of AI chatbots. However, they mentioned that there is a crucial need for further exploration of the impact of user interface as a way of creating interactive communication between AI chatbots with customers. More importantly, they argued that the relevant literature lacks a standard framework for measuring the quality of AI chatbots in different business sectors. Also, Nyagadza et al. (2022) claimed that the e-banking customer service

theories can be developed and expanded distinctly by implementing longitudinal empirical research that can be done to compare other pertinent theoretical frameworks with the usage intention of AI chatbots as an e-banking customer-service assistance.

3. Potential contributions of this research area

Given the promising substantiality of the field as well as the daily emergence, future scholars could add further knowledge within different research areas. For instance, by exploring the differences in demographics and characteristics of customers that are dealing with the aforementioned AI chatbots, exact figures, facts, and conclusions about the exact type of customers that have high reluctance and negative views regarding the ability of those AI chatbots to operationalize their banking services. More importantly, scholars can reach a significant contribution by validating the most ideal and significantly related frameworks that judge the quality of AI chatbots. This would unquestionably save plenty of times and financial resources for various types of organizations, particularly those that are extensively technology oriented.

4. Limitations and future research directions

Despite being comprehensive in exploring the relevant and extant literature, this paper still counts for some limitations, like all other academic papers. The exploration of the topic was done from only the published research papers that were written and used English as their base writing language. Also, relevant knowledge was extracted primarily from research articles not conferences, books, or any academic sources that are useful and might add further knowledge in the given context.

Conversely, set of relevant future recommendations that would improve the area of AI chatbots significantly regarding the online banking services, as follows:

- Further attention should be given to the relationship of AI chatbots with the effectiveness and efficiency of strategic online banking services schemes and plans for the flawless integration of AI chatbots. These strategic schemes of efficiency and effectiveness should be implemented with the most suitable resource allocation relevancy while prioritizing the continuous examination and comparable techniques between the expected and the actual results.
- It is with a high level of importance to consider researching the ways and well-specified set of

procedures and codes for the programming and integrating of the AI chatbots in online banking services in order to have the most accurate answers for any precise questions being asked from customers, instead of acting like a rule-based bot.

- Since the incapacity of AI chatbots to take the conversation forward is a common failure that most AI chatbots are constantly suffering from, this area shows how supreme importance it is to explore the most efficient areas of study for training the AI chatbots abilities to take forward any further inquiries that might exist.

- A great focus should be directed to the domains in which there might be a direct or indirect relationship between the semantic ambiguity issues faced by AI chatbots with their affection upon the issue of trust-perceptions whether to be positively or negatively influenced. Hence, these domains are critical for the sake of inspecting new findings concerning this relationship.

- Some more research should be done for investigating whether the market-driven incentives can be with enough adequacy for firms to deploy their strategic schemes of AI chatbots adoption within online banking services, in a way are not conflicting with the customers' set of norms, traditions, and ethics. Otherwise, these practices need to be regulated primarily by certain regulations from governments that ensure the best adoption of AI chatbots.

- A great extent of attention from future researchers in AI chatbots relative to online banking services context needs to examine the usage of mix methods approach (combining both qualitative and quantitative) that would significantly enrich the extant literature.

- As the rapid technological evolvement continues to expand further, detecting the changes in the behaviour and perception of customers toward the usage of AI chatbots for operationalizing their banking services would undoubtedly add a substantial contribution to the field. This would, apparently, be done by using a longitudinal approach that allows for showing the patterns of change in the behaviour overtime.

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