Understanding artificial intelligence experience: A customer perspective

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CHRONICLE	ABSTRACT
	The engagement between customers and brands is being transformed by artificial intelligence (AI). However, there has been little study into AI-powered customer experiences; hence, this research aims to examine how the incorporation of AI in purchasing might result in a better AI-powered customer experience. This research will develop a conceptual model based on the service quality model and trust-commitment theory. Further to this, an online questionnaire was distributed to individuals who had utilised an AI-powered service provided by a particular brand, and consequently, a total of 354 responses were analysed using Structural Equation Modelling (SEM). The results that were deduced from the responses demonstrated that relationship commitment has begun to substantially impact AI-powered customer experiences. In addition to this, the results also revealed that perceived sacrifice and trust both play an important role in mediating the impacts of perceived convenience, personalisation, and AI-powered service quality. This finding contributes to the previous literature by highlighting the mediating impacts of perceived sacrifice and trust, as well as the significant influence of relationship commitment on AI-powered customer experience. Furthermore, the research poses significant implications for merchants who use AI in services provided to their customers.

1. Introduction

Artificial intelligence (AI) seems to have the power to change how organisations attach to their consumers (Contissa et al., 2018). AI varies beyond social intelligence, in the sense that it is built on information processing at a high pace. Artificial intelligence is best described by its capacity to comprehend and compress data into useful information, to notify main objective behaviours (Ameen et al., 2021). AI, in supplementary technical terms, relates to 'machine learning that operates intelligently' (Gupta et al., 2019), which is solely intended to impersonate social capacity, as opposed to outdoing it in standings of accuracy (Contissa et al., 2018). Thus, this will be performed by modelling natural and biological intelligence and using a series of computational models (Gupta et al., 2019). Firms were gradually implementing AI technology powers through analytics of data, in the light of continuing boundary challenges, faster strategy cycles, and rising consumer demands (Ameen et al., 2021).

Businesses, such as a retailer, are utilising AI in a variety of ways, including the automation of chatbots and their creative development and customer engagement (Ameen et al., 2021). Prior studies have revealed that the application of artificial intelligence in the retail industry may hit one per cent of consumers, who are eighteen times more valuable than a typical customer to merchants. It is accomplished through the usage of height customisation and better commitment, based on the related and behavioural data (Ameen et al., 2021; Solis, 2017). Likewise, artificial intelligence technology may customize products and service recommendations by evaluating consumers' purchases and interests (Shank et al., 2019; Holzinger et al., 2015). As a result, this poses certain ramifications for various industries, such as luxury brands, that can now offer tailor-

made styling and buying guides solely premised on their consumers' desires and priorities. To fully recognise these returns, a deeper examination of this complicated phenomenon is compulsory, for instance, consumers' trust may be jeopardised depending on how trustworthy they deem AI technology to be, due to the obligation for greater volumes of client information (Ameen et al., 2021). The lack of social correlation and actions that consumers could reasonably be expected to take presents compromises that consequently have a negative impact on team experiences. The implications of this, as well as other potential issues associated with AI-powered consumer perceptions, should be thoroughly investigated (Shank et al., 2019).

Throughout many contexts, the perception of service quality is well defined, for example, Suhartanto et al. (2018). Consequently, what is quite well-identified is the significance of AI-powered trade engagements beginning to change consumer behaviours in three ways: (a) how they interpret the service quality, (b) how dedicated they are in terms of correlation, and (c) how they evaluate their overall AI-powered experiences. Despite their importance, past research is mostly concerned with the application of artificial intelligence from a technical and structural standpoint (Scheidt & Chung, 2019). As a result, there are limited studies focused solely on how consumers view AI technology as a means of a buying process, and how it leads toward a further interactive involvement (Jarrahi, 2018; Jiang et al., 2020).

As an outcome, the primary goal of this research is to assess how the inclusion of artificial intelligence in purchasing may result in better AI-powered customer service. To that end, we provide a novel model based on trust responsibility theory (Scheidt & Chung, 2019), in addition to the idea of the quality of the service (Jiang et al., 2020). However, our approach incorporates confidence and perceived sacrifice as elements that mediate the linkages between both the quality of services that support artificial intelligence, efficiency, and the user experience. Furthermore, the model considers relationship obligation to be an element impacting the customer experience of AI-powered purchasing.

The research has theoretical implications as well as applied ramifications. It primarily answers contemporary research goals in the realm of customer interaction by using slashing technology, such as AI (Ameen, et al., 2020). Concerning the theoretic implications, the study is one of the first that engages with consumers' perceptions of an AI-powered consumer experience; our findings contribute to a greater comprehension of human engagement with AI-powered services. The suggested approach that we have taken improves the comprehension of AI-powered consumer engagement by emphasising the importance of perceived trust and sacrifice. Our findings can assist retailers who wish to establish AI-powered customer engagement.

2. Theoretical Background

2.1 AI-Powered Customer Experience

Obtaining a competitive advantage in the customer experience is a critical aspect of brand management. The absence of direct touchpoint personnel—for example, staff for catering for consumers during a rush hour, or for information sharing—is a prevalent concern for many organisations. Customers build their experiences through engaging with persons (workers), functional (technical attributes), and mechanical (sensory components; ambient environment) aspects at different touch points during the trip (Prentice & Nguyen, 2020). Each one of the three components has a substantial impact on the user's emotional and cognitive perception of service quality. According to studies, artificial intelligence (AI) influences business and service-related initiatives, such as the sales cycle, consumer habits, and customer support activities (Davenport et al., 2020; Grewal et al., 2018). Nevertheless, previous research has identified four components of the consumer experience :cognitive, emotional, bodily, and sensory factors, as well as social elements (Verhoef & Bijmolt, 2019). Dwivedi et al. (2021) build upon this by identifying that the cognitive components of a consumer experience pertain to the usefulness, rapidity, and accessibility of a service.

On the contrary, corporeal, and sensory aspects of a client's involvement are frequently distinguished among being in both an online and offline setting. Offline interactions include artefacts, lights, layout, & signs (Verhoef & Bijmolt, 2019). Online experiences, on the other hand, include technological structures, such as beautiful GUI and transparent design (Davenport et al., 2020). Lastly, the impact of others, such as friends, family, and a client's wider public relationships are associated with social components of customer experiences' (Lam, 2001). As shown in studies, such as Kushwaha et al. (2021), the use of virtual reality and mixed reality supplies customers with a realistic and futuristic buying experience (Hoyer et al., 2020; Pillai et al., 2020), through the impact of augmented reality and machine learning on consumers' cognitive (Suh et al., 2005), alongside the use of artificial intelligence for production and operation decision making. For all of these technologies to significantly improve consumer experiences, a deep understanding of the consumer, consisting of their interests and previous experiences, is required. Utilising AI can assist and expedite this knowledge since AI technologies can learn how to engage with consumers based on data and customer information (Paschek et al., 2017; Omale, 2019).

2.2 AI-Powered Services (Service Quality)

Service quality denotes the level of service offered by IS, with an emphasis on understanding the requirements of clients and reacting with certainty, compassion, and reactivity (Farrow et al., 2019). Service quality is defined as the variance between insight and expectation, and it is evaluated by exploring how customs observe a company's product aids (Shahin, & Samea, 2010). Furthermore, research suggests that service quality has a substantial impact on consumer loyalty and experience (Frow et al., 2019) The focus of service quality and customer happiness is based on the service's viewpoint. Information quality refers to the relevance, timeliness, and accuracy of the data produced by the systems. As a result, an AI-powered chatbot must provide consumers with accurate and timely information. Mithas et al. (2011) found that low data quality can erode consumer

trust and reduce business outcomes. However, (Lee, 2004), stated that service quality is assessed by conflicting the insights of the service established with prospects of what it should provide (Prentice & Kadan, 2019). Further to this, there's also a wealth of research on the standard of social services (vom Scheidt et al., 2020), but less on customer reactions to intelligent automation, particularly AI-powered services (Mithas et al., 2011). While AI-powered services are often based on identity technology, customer experience in the domain of AI-powered services is expected to be markedly different from those of social services.

2.3 Theory of Trust-Commitment

The theory of trust-commitment emphasises the functions of trust and commitment to the process of establishing relationships between customers and providers (Elbeltagi & Agag 2016). The idea has been researched in a broad range of scenarios over the years, such as shopping online (Lin et al., 2019), group buying websites (Liu et al., 2016), and e-commerce (Wang et al., 2016). In addition to these scenarios are online community brand alliances (Lu et al., 2018), social media fan pages (Rehman et al., 2019), online delivery behaviour (Akrout & Nagy, 2018), to explore how trust promotes customer-retailer relationships in online and social media contexts (Elbeltagi & Agag 2016). Each research emphasises the critical importance of trust and commitment in innovative relationships among consumers and retailers. With regards to Siau and Wang (2018), trust is the main component of the trust-commitment hypothesis, and it is also a critical component of the success of online systems since it depicts the connection between people and technology (Hengstler et al., 2016). Thus, privacy is an important element of trust as customers want to maintain control over how their data is used by retailers (Siau & Wang, 2018). Likewise, recent research has confirmed that trust has an impact on various relationships in the context of artificial intelligence, for example, usability and service quality (Akrout et al., 2018; Wang, & Hajli, 2019).

2.4 Hypothesis Development

This research has provided a model which is based on Morgan and Hunt's (1994) theory of trust and commitment, as well as the service quality model given by Parasuraman et al. (1994). The proposed model provides a novel method to evaluate how well the integration of artificial intelligence support services can help to improve the customer experience. The model incorporates variables that are significant to client communication with AI-powered services. Furthermore, trust and apparent sacrifices are incorporated as mediators in this model, mitigating the impacts of external elements like accessibility, personalisation, and AI-powered customer services.

Customers are encouraged by pleasures and their need for autonomy, according to the provided model. This has significant marketing ramifications because it implies that customers are willing to give up hedonistic rewards in return for greater social advantages. Accepting compromises is indeed a predicament. For instance, if a customer feels that tech is effectively forecasting their actions based on their specific features, they could pick a less desirable solution. Acknowledging compromise is a choice that must be made in each individual case. In particular, if a client believes that such technology is accurately predicting their selections based on their individual preferences, they may choose less desirable options to counter this measure. Researchers have proposed that consumers are prepared to give up what they could manage, such as their authority in terms of choice and privacy, because they do not influence these procedures (Anderson et al., 2018), and as automated systems grow more common and complicated, this effect is expected to intensify. Per (Anderson et al., 2018), the question of 'when do consumers surrender favoured choice possibilities to demonstrate their autonomy, when would the pursuit for satisfaction, comfort, & conveniences dominate their choices?' is solely dependent on consumers' willingness to make sacrifices in terms of what they can't handle. In the area of artificial intelligence, an apparent compromise might affect the interactions among several criteria (e.g., convenience, personalisation, and quality of service). Consequently, perceived security sacrifices may help to explain and understand links such as convenience, personalisation, and AI-powered customer support and experiences.
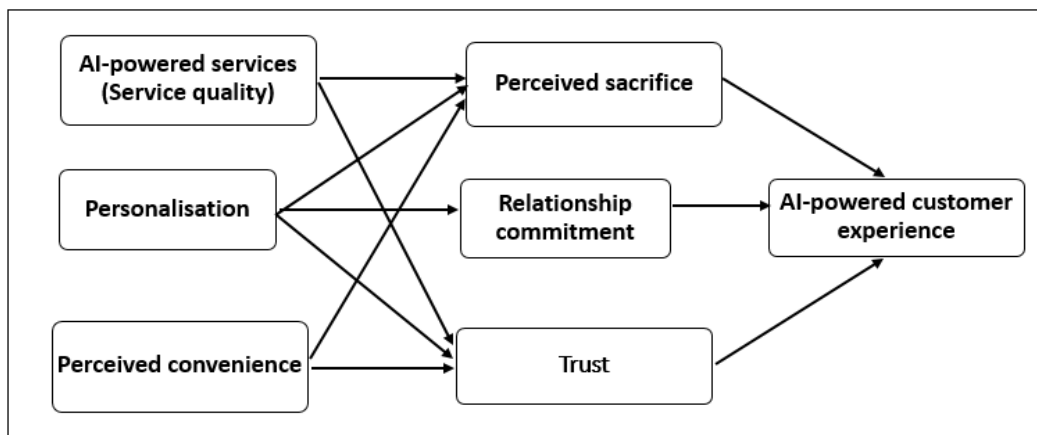

Fig. 1. AI-Powered Customer Experience Proposed Model

The proposed model will incorporate AI-powered consumer experiences as an intrinsic variable. Prior research has revealed that smart technology-enabled services (e.g., AI, smartphones, iPads, tablets, smartwatches) vary among different shopping experiences (Verhoef & Bijmolt, 2009). In AI-powered client engagements, pleasure and identification characteristics are integrated. To clarify, pleasure encounters are experiences that are deemed as remarkable, entertaining, exhilarating, comforting, instructive, and one-of-a-kind. (Broderick, 2018). The acknowledgement element alludes to a sense of significance, regard, pleasure, safety, relationship, as well as a sense of wonder (Clark & Polesello, 2012). For emotional value and identification, parts of the client experience may be enhanced in AI-powered services with regard to time, convenience, delight, and personalisation (Verhoef & Bijmolt, 2016).

The suggested model incorporates association obligation to analyse its influence on AI-powered consumer experience based on trust-commitment theory (Morgan & Hunt, 1994). Past research has highlighted a gap in knowledge of a customer's loyalty, brand, and user impression (Saponaro et al., 2018). However, past research indicates that consumer experience consumes a major impact on the brand-loyalty (e.g., Verhoef & Bijmolt, 2016), Additionally, in line with the studies, once a brands dedication is established, it begins to gain a substantial influence on later encounters (Clark & Polesello, 2012). Consumers' loyalty to a brand influences their impressions of their experience via mechanisms such as incongruence, personality, and biased screening (Saponaro et al., 2018). The following sections offer an outline of the research developed upon the hypotheses.

2.5 Trust

A traditional definition of trust is 'a confident expectation weakness will be exploited in A risky circumstance will not be utilised.', (Corritore & Wiedenbeck et al., 2003). In the case of online purchases, this means trusting both the brand and the technology (Siau & Wang, 2018). Recent research in the context of AI has revealed that trust is critical when assuring the technology's adoption, continued advancement, and growth (Ghazizadeh et al., 2012). Therefore, there are two study strands on trusting innovation services: trust in innovation and trust in the technology business, encompassing their communications and practices used in the innovative business, particularly their interactions and operations (Nienaber et al., 2014). The idea of trust becomes more complicated in the area of AI-powered customer support, because confidence extends beyond the tech and brand to include the goal and processes of deploying AI (Hengstler et al., 2016). The purpose to display confidence with intent links to the process dimension, which speaks to the tech's comprehension (Siau & Wang, 2018). Whenever algorithmic processes and methods of understanding are visible, confidence is more certain to be maintained (Ghazizadeh et al., 2012).

Developing the trust factor in such an inventive brand, and in how these new technologies are presented to clients is a difficult endeavour. Brands frequently believe that using modern technology is adequate to satisfy consumers; nevertheless, several researchers present certain new technologies have failed due to technical concerns (Ghazizadeh et al., 2012), and emphasise the significance of trust in how companies convey the usage of breakthrough technology. According to Keiningham et al. (2017), the incorporation of artificial intelligence into the service delivery process must be conveyed actively, commencing with the early phases of its dissemination. Their logic is that while people's understanding levels are low, marketing and advertising have a better opportunity of promoting the adoption of new technology. Hengstler et al. (2016) indicates that when it comes to retail business, the more that consumer trusts a brand when they purchase, the more inclined they will be to be engaged in a long relationship—this indicates that a higher level of trust in impact and improves the customer experience. Though prior research shows a favourable association between consumer experience with brand trust after the initial encounter, this positive relationship continues into consumers' future experiences (Heidenreich & Spieth, 2013; Njamfa, 2018). Thus, we believe that the relationship between brand trust and perceived experience is much more apparent in the area of online encounters because of the delicacy of managing customer information. Therefore, the following hypothesis is proposed:

H₁. *Trust has a direct and positive impact on AI-powered customer experience.*

2.6 The Perceived Sacrifice

According to Vandenberghe et al. (2012) perceived sacrifice refers to what you gave up or lost in order to gain a product or service, and it includes both financial and non-expenses such as time, effort, intellectual involvement, or sentiments such as aggravation and displeasure (Zeithaml, 1988). Consequently, the latest evidence emphasises the importance of understanding the sacrifices that clients incur while utilising automated systems, particularly when there are so few alternatives accessible to them (Shin & Lin, 2016). On the other hand, both financial and non-financial sacrifices could be required to achieve a service, and the possible consequences of several non-financial losses might be hard to evaluate. Similarly, a lack of control and privacy, potential financial losses, time and effort necessary, and unpleasant emotions are examples of these sacrifices (De Kerviler et al., 2016; Shin & Lin, 2016). Two additional non-monetary sacrifices must be made in AI-powered services: the absence of personal communication, as well as the risk of social exclusion (Merisavo et al., 2007; Davenport et al., 2020), which can negatively influence the customer experience. However, by introducing a modern kind of social engagement that necessitates high degrees of collaboration and social coordinating from a human standpoint (Barber & Murphy, 2017), particularly, owing to the organised structure of the customer experience and the necessity for personal information, AI-powered services might well be accompanied by a loss of individual's interference (Christakis, 2019). Moreover, AI-powered services are typically extremely organised; with a series of actions that customers must take frequently, set by the needs of the tech instead of the needs of users. AI-powered services also need individual data from users in order to function effectively, which may be regarded as another loss of control (Gant et al., 2019). The loss of human aid (human agency) within AI-powered

services may also provide challenges for consumers, particularly those without previous experience and who might require more time to utilise these services properly. According to recent research, clients want a mix of technology and human employees (Barber & Murphy, 2017). Thus, reduced interpersonal communication may have a detrimental influence on the entire customer experience. Hence, the following hypothesis is proposed:

H₂. *Perceived sacrifice has a direct and negative impact on AI-powered customer experience.*

2.7 The Perceived Convenience

Service convenience is defined by Roy et al., (2017) as the ability to complete a task in the shortest amount of time with the least amount of human effort wasted, as the convenience can encourage customer interaction (Meyer et al., 2020). A convenient service can save time and effort whilst permitting mobility, which is crucial to attracting clients' interest (Chang et al., 2010). Likewise, during the coronavirus epidemic (COVID 19), geographical convenience may have been considered a more important factor than before, because the world was compelled to endure social isolation and consciousness (Van Doorn et al., 2010). The geographical and timesaving aspects of convenience were extensively researched, especially in relation to the observation of response times on consumer satisfaction (Roy et al., 2017). In fact, convenience has been extensively researched in the context of timesaving, in order to determine the influence of observed waiting time on the consumer experience (Thiel, 2019). Secondly, clients are given actual-time information and assistance throughout their experience (Roy et al., 2017). Finally, AI-powered chatbots may initiate conversations with customers, deliver necessary details, and provide help for each customer touchpoint throughout the consumer journey. This allows clients to get the responses that they need when they need them, rather than having to queue online for an agent, which can increase response times and better the customer experience (Thiel, 2019). Essentially, customers' involvement with brands is motivated by convenience (Ostermeyr et al., 2019; Roy et al., 2017). Convenience promotes customer trust in the business and the technology used to offer a service by lowering or even eliminating obstacles for buyers (Ong et al., 2012). Moreover, customers' total ratings of service usefulness are influenced by their impression of convenience (Reimers et al., 2009; Pham et al., 2018). Ultimately, businesses exploit convenience to minimise customers' perceived tradeoffs (Zhang et al., 2014). As a result, an increase in convenience reduces perceived sacrifice, indicating that perceived sacrifice and perceived convenience are negatively related. It's indeed reasonable to expect that AI-powered services will boost user convenience because they may be utilised at any time and from any location. Hence, the following developed hypotheses:

H₃ₐ. *Perceived convenience has a direct and positive impact on trust.*

H₃ᵦ. *Perceived convenience has a direct and negative impact on perceived sacrifice.*

2.8 Personalisation

This factor refers to the level of information personalised to the needs of a specific individual and is a significant element of high satisfaction (Zhang & Li, 2007). For example, data mining techniques adapt the information to a specific customer's wants and tastes, which can lead to increased buying interest (Bilgihan et al., 2016). In fact, one of the primary characteristics commonly linked with AI-powered services is personalisation (Lee et al., 2011). The areas of artificial intelligence (AI) and machine learning (ML) are largely concerned with improving personalisation applications and developing increasingly accurate algorithmic judgments, as well as predictive models (Chen et al., 2012). The variation of information depending on a particular user's profile, encompassing services and offers as well as prices, is referred to as content personalisation (Lee et al., 2011). Correspondingly, personalisation of the engagement process relates to AI algorithms' autonomy in deciding when and how to contact people (Chen, 2012). According to Chen, (2012), customisation in online services may be divided into three categories: content, user interface (UI), as well as communication processes. The flexibility of a screen layout and its presentation style is referred to as user interface personalisation, for instance, for the changing screen sizes, (O'Riordan, et al., 2020). For example, AI and machine learning enable companies to employ predictive personalisation, which implies that content can be altered in a legitimate time by utilising profiling instruments and data evaluation (Findlater & McGrenere,2010). Adherence to legal standards is thus an additional problem for firms that use all three elements of personalising experiences (Knight, 2018). However, this argues that instead of examining AI-powered services within discrete silos, researchers should investigate personalisation throughout all three aspects—the issue is to gain access to the appropriate information about which personalisation is centred without compromising consumers' privacy (Findlater & McGrenere, 2010). However, consumers who seem to like their customised experience would be less sensitive to what they would be sacrificing in AI-powered customer interactions (Shen et al., 2009), implying a poor association between a high level of personalisation and perceived sacrifice. Finally, personalisation strategies that provide positively significant inferences and low significant inferences are much more likely to improve customer loyalty to a brand. (Knight, 2018). Therefore, the following developed hypotheses:

H₄ₐ. *Personalisation has a direct and positive impact on trust.*

H₄ᵦ. *Personalisation has a direct and negative impact on perceived sacrifice.*

H₄c. *Personalisation has a positive direct impact on relationship commitment.*

2.9 AI-Powered (Service Quality)

Consumers evaluate service quality across four separate dimensions, according to previous research on self-service technology (Saratchandran et al., 2019). In fact, the quality and variety of personally identifiable information can determine whether a consumer has a significant impact on the value of AI-powered services. The quality of AI-enabled services is determined by the quality of client data collected by the brand (Treasure et al., 2019). In fact, Treasure (2019) asserts that AI improves the dependability of consumer services by assuming the capacity to conduct 'unbiased' client interactions. While it is far more probable that AI-powered services would replace old prejudices with brand-new ones, they are considerably better accessible than typical services and therefore can serve a large number of clients at once. Virtual assistants and some other AI-assisted customer support solutions are becoming more common as an automated and possibly effective approach to enhance the consumer experience (Roy, 2011). Even though many AI-powered businesses are built on the paradigm of self-service, a well-designed user experience was frequently cited as a key element to success. In reality, AI has the ability to modify a user's interface by controlling all aspects of the design, such as visual components, typeface, animation, as well as graphical data (Wang et al., 2008). In particular, customers' perceptions of brands are influenced by aesthetic and operational service quality, according to previous research (Irfan et al., 2020).

A customer-perceived AI-powered service that is pleasant, compassionate, as well as attentive has the ability to instil trust in the company (Gallarza et al., 2017). The user's perception of a high-quality service reduces their sense of compromise in regard to their lack of control, security, waste of money, effort, and time or unpleasant feelings including displeasure or frustration. Wang & Lin. (2017) acknowledged the impact of service quality on perceived quality, which corresponds to the exchange between advantages and compromises consumers must make in exchange for getting a service. According to certain research, perceived sacrifice is not the same as customer perception quality (Li & Shang, 2019). Because AI-powered services frequently do not require human involvement, consumers' impression of an important offer is crucial for mitigating the impact of apparent compromises, especially those connected to an absence of human help and control Therefore, the developed hypotheses:

H5a. *AI-powered service quality has a direct and positive impact on trust.*

H5b. *AI-powered service quality has a direct and negative impact on perceived sacrifice.*

2.10 The Relationship Commitment

Wang et al. (2016) defined relationship commitment as the long desire to keep the valuable brand relationship. In fact, customers will be more willing to collaborate with businesses when they have positive interactions and build strong relationships with them, which may also lead to them being more dedicated to these brands (Morgan and Hunt 1994). For example, lengthy satisfying encounters among shoppers and merchants result in a relationship of high quality (Wang et al., 2016). Likewise, consumers were led to feel that there are many other options and brands which offer comparable advantages, leading them to be less inclined to purchase from other brands. Customers establish emotive, normative, as well as calculative engagements, whilst talking with brands (Keiningham et al., 2017). Customers' emotional and personal participation leads to a stronger level of trust and commitment, which is referred to as effective or emotional commitment; for example, customers believe that they should stay with a company because of normative or social commitments, which are based on subjective standards that are built over time. (Verhoef & Bijmolt, 2016). The social context influences normative commitment. Calculative or functional commitment considers potential expenses that consumers might incur by moving with another brand (Wang et al., 2016), which could be due to the absence of competing brands or a less enticing alternative product (Bergman, 2006). Consumers make emotive, ethical, as well as analytical promises when they communicate with brands (Meyer & Natalya 2010). However, research has highlighted the impact of good customer experiences on dedication (Iglesias et al., 2012; Keiningham et al., 2017), and more modern research contends that once consumers had also passed through the initial impression of establishing brand dedication, this dedication can manage their experiences (Lemon & Verhoef, 2016). Because each commitment component (emotional, ethical, and analytical) may be impacted by a specific corporate strategy, managers must understand the effects that every aspect has on how consumers assess their experience. As a result, these three aspects may play a crucial role in deciding how consumers view their whole experience. Therefore, the following developed hypothesis:

H6. *Relationship commitment has a direct and positive impact on AI-powered customer experience.*

2.11 Mediating Effects of Trust and Perceived Sacrifice

Based on the model provided in this research, the three elements that influence the AI-powered customer experience: convenience, personalisation, and AI-powered service quality. With the hypothesis in mind, the effects of these components are transmitted through two components, the trust factor and the perceived sacrifice. Past studies have observed that the link between trust and the perceived experience, perhaps as a mediator (e.g., Zhu et al., 2013a,b) or even as a component, has a direct and positive impact on the customer experience (Martin et al., 2015). Convenience, personalisation, and AI-powered consumer delight are all mediated by the presence of trust in the AI-powered customer experience, as provided by the model in this study. Upon closer inspection, we claim that the trust factor enhances the impacts of ease, personalisation, as well as AI-powered quality of service on AI-powered customer experience. Whenever customers use an innovative service, they will establish a sense of confidence in the brand, procedure, and technology, and they will begin to undergo advancements and

changes and feel more at ease (Ling, Chai, & Piew, 2010; Zhu & Chen, 2012). As a result of this, the impact of convenience, just on customer experience, is amplified by the existence of trust.

Furthermore, AI-powered services provide customers with a substantially better level of personalisation because it is required to gather and analyse client data. Nevertheless, the effectiveness of this component was frequently linked to trust (McLaughlin & Sheridan, 2017). In other words, customers' perceptions of customisation are influenced by their confidence in a company as well as the AI technology it utilises (Searby, 2003). As a result, the link between customisation, as well as AI-powered service experience, may be influenced by trust.

Prior research has also found that trust acts as a bridge among customer loyalty (Sheridan, 2017). Consumers are more likely to trust the services if they are aware of the technology that it is utilising (Chou, 2014). As a result, customers gain confidence in the brand, technology, and the procedure of AI-powered services, and the AI-powered consumer experience is much more likely to be positive. Therefore, the following developed hypothesis:

H7a. *The impacts of ease, personalisation, and AI-powered service quality on AI-powered customer experience are mediated by trust.*

Aside from the trust factor, the perceived sacrifice is suggested to be a moderating element. The impacts of ease, personalisation, and AI-enabled service quality on AI-enabled customer experience are associated with the perceived sacrifice in the proposed model. The apparent loss mediates the impacts of convenience, personalisation, driving AI-powered service quality upon AI-powered customer experience. Further to this, we also suggest that when customer perceived sacrifice is reduced when using the service, the impacts of convenience, personalisation, and AI-powered service quality on AI-powered customer experience are increased. The idea of convenience depicts the amount of time and energy that consumers expend when purchasing and utilising a service or product (Windle et al., 2018). One of the primary advantages that clients may obtain from employing AI-powered bots is convenience (Tivasuradej et al., 2018). The influence of convenience on AI-powered purchasing experiences is elicited by a decrease in perceived sacrifice.

Furthermore, past research has demonstrated the relevance of personalisation (Godovykh et al., 2012). So, because AI-powered service is personalised to an individual's needs, personalisation reduces customers' impressions of the compromises that they are making. This produces the effect of personalisation on the AI-powered consumer experience. Consumers, for instance, will be less worried about their loss of privacy if the service is personalised (Bilgihan et al., 2016), as this can lead to an enhanced perspective on the AI-powered experience. Moreover, apparent sacrifice may be at the root of the link between AI-powered quality of service and AI-powered service delivery encounter. Prior research suggests that using a greater service reduces the feeling of compromise (Payne et al., 2018). Hence, the following developed hypothesis:

H7b. The impacts of convenience, personalisation, and AI-powered service quality on AI-powered customer experience are moderated by the perceived sacrifice.

3. Methodology

To further explore this study a conceptual framework was developed, and to test the hypotheses, we surveyed AI-powered customer experience by purchasing a particular brand in Jordan. The current research made use of primary data via survey questionnaires that were distributed through social media platforms (e.g., Facebook, Instagram, and WhatsApp) to respondents. Respondents are customers who were purchasing online and have used AI tools such as a chatbot service. A snowball sampling technique was utilised in this research to identify artificial intelligence applications and services for users and non-user This approach is appropriate for this study since it is hard to obtain a list of an audience who utilise AI services to express their experiences and perceptions (Biernacki & Waldorf, 1981). The measurement for each factor was adopted from prior studies: AI-powered customer experience (Prentice & Nguyen, 2020; Davenport et al., 2020; Grewal, Motyka, & Levy, 2018; Foroudi et al., 2018; Parise et al., 2016; Dwivedi et al. 2021). AI-enabled service quality (Lee et al 2004; Prentice & Kadan, 2019; Scheidt et al., 2020; Mithas et al.,2011), relationship commitment (Iglesias et al., 2012; Keiningham et al., 2017; Lemon & Verhoef, 2016; Fullerton, 2005), trust (Elbeltagi & Agag 2016; Akrout et al., 2018; Wang, & Hajli, 2019; Siau & Wang, 2018), perceived convenience (Walch, 2019 Roy et al., 2017; Ong et al., 2012; Thiel, 2019; Reimers et al., 2009; Pham et al., 2018) and perceived sacrifice (Andr'e et al., 2018; Kerviler et al., 2016; Shin & Lin, 2016). We used multiple items to measure each factor. A pilot study was also conducted by gathering 60 responses and making a few minor changes to the questionnaire. Each of the factors were evaluated by a 7-point Likert scale, with a value of 1 as Strongly Disagree and a value of 7 as Strongly Agree. A total of 354 unique responses were collected between January and March 2022.

4. Data Analysis

Since the aim of this study is how incorporating AI into a brand may result in a better AI-powered customer experience, structural equation modelling (SEM) using SmartPLS 3.0 (Ringle et al., 2015) was used to analyse the proposed hypotheses in the research model. SEM-PLS approach is deemed appropriate to deal with research models with multiple dependent variables, small sample sizes, and non-normal data distribution (Shackman, 2013).

5. Measurement Model

The analysis began by evaluating the measurement model. This includes evaluating the constructs' reliability and validity. Construct reliability was assessed based on three tests: composite reliability (CR), Cronbach's alpha (α), and rho_A. As can be shown in Table 1, all constructs acquired CR, α, and rho_A values above the minimum recommended value of 0.7 (Hair et al., 2019), indicating that all constructs in the research model had adequate internal consistency and reliability. For the construct validity (convergent validity), each construct's measurement items' loadings and 'Average Variance Extracted' (AVE) were assessed. As presented in Table 1, each construct had an AVE higher than the minimum acceptable value of 0.5, and the intended measurement items of each construct had a factor loading higher than 0.707 (Hair et al., 2019). Furthermore, discriminant validity was assessed based on two tests: the criterion of Fornell and Larcker (1981), and the 'heterotrait-mono-trait ratio of correlations' (HTMT) (Henseler et al., 2015). As introduced in Table 2, the square root of each construct was larger than the correlations of the construct. Additionally, Table 3 shows that all HTMT values were less than 0.85, confirming the discriminant validity.

Table 1
Construct Relativity and Validity

CONSTRUCT	ITEM	LOADING	A	CR	RHO_A	AVE
AI-POWERED SERVICES (SERVICE QUALITY) (SQ)	SQ1	0.93	0.94	0.94	0.94	0.81
	SQ2	0.88				
	SQ3	0.90				
	SQ4	0.89				
PERSONALISATION (PER)	PER1	0.81	0.92	0.92	0.92	0.83
	PER2	0.76				
	PER3	0.79				
	PER4	0.71				
PERCEIVED CONVENIENCE (COV)	COV1	0.84	0.87	0.87	87	0.63
	COV2	0.80				
	COV3	0.77				
	COV4	0.78				
PERCEIVED SACRIFICE (PSA)	PSA1	0.87	0.93	0.93	0.93	0.73
	PSA2	0.84				
	PSA3	0.88				
	PSA4	0.84				
	PSA5	0.86				
RELATIONSHIP COMMITMENT (COM)	COM1	0.86	0.86	0.86	0.86	0.61
	COM2	0.88				
	COM3	0.86				
	COM4	0.79				
TRUST (TR)	TR1	0.91	0.9	0.9	0.9	0.7
	TR2	0.89				
	TR3	0.92				
AI-POWERED CUSTOMER EXPERIENCE (CEX)	CEX1	0.91	0.89	0.89	0.89	0.78
	CEX2	0.86				
	CEX3	0.89				
	CEX4	0.90				

Table 2
Fornell & Larcker's Discriminant Validity

Construct	SQ	PER	COV	PSA	COM	TR	CEX
AI-powered services (Service quality) (SQ)	0.90*						
Personalisation (PER)	0.66**	0.91					
Perceived convenience (COV)	0.61	0.59	0.79				
Perceived sacrifice (PSA)	0.72	0.63	0.68	0.85			
Relationship commitment (COM)	0.43	0.43	0.45	0.44	0.78		
Trust (TR)	0.71	0.70	0.65	0.68	0.53	0.84	
AI-powered customer experience (CEX)	0.69	0.65	0.66	0.74	0.37	0.69	0.88

*Square root, ** correlation

Table 3
HTMT Test

Construct	SQ	PER	COV	PSA	COM	TR	CEX
AI-powered services (Service quality) (SQ)	-						
Personalisation (PER)	0.66	-					
Perceived convenience (COV)	0.61	0.59	-				
Perceived sacrifice (PSA)	0.72	0.63	0.68	-			
Relationship commitment (COM)	0.43	0.43	0.44	0.44	-		
Trust (TR)	0.71	0.70	0.65	0.68	0.53	-	
AI-powered customer experience (CEX)	0.69	0.65	0.66	0.74	0.37	0.68	-

6. Structural Model

After having the adequacy of the measurement model fit checked, the structural model was evaluated. As be seen in Table 4, all proposed hypotheses were supported. The strongest predictor of perceived sacrifice was perceived convenience (β=0.205, p value<0.01). Personalisation generated the strongest effect on trust (β=0.65, p value<0.001). The strongest effect generated on AI-powered experience was from trust (β=0.407, p value<0.001). The total variance explained in trust was 62.4% (R2=0.624), relationship commitment 23.9% (R2=0.239), perceived convenience 42.2% (R2=0.422), and AI-powered experience 52.2% (R2=0.522).

Table 4
Hypotheses Development

Hypotheses	Path	β	T Statistics	P Values
H1	AI-powered services (Service quality) → Perceived sacrifice	0.149***	1.983	0.047***
H2	AI-powered services (Service quality) → Trust	0.312*	4.699	0*
H3	Personalisation → Perceived sacrifice	0.2**	2.973	0.003**
H4	Personalisation → Relationship commitment	0.347*	5.599	0*
H5	Personalisation → Trust	0.65	18.678	0*
H6	Perceived convenience →Perceived sacrifice	0.205	2.853	0.004**
H7	Perceived convenience → Trust	0.235	3.981	0*
H8	Perceived sacrifice → AI-powered customer experience	0.136	2.765	0.006**
H9	Relationship commitment → AI-powered customer experience	0.296	4.091	0*
H10	Trust →AI-powered customer experience	0.407	6.226	*

7. Discussion

The purpose of this research is to evaluate the influence of artificial intelligence in the buying experience, particularly in terms of how the incorporation of AI enhances the customer experience. As a result, the model was proposed based on two theories: the trust-commitment theory by Morgan and Hunt, (1994) and the service quality model by Parasuraman et al. (1994). The presented proposed model incorporates the two factors as a mediator, which are trust and the perceived sacrifice between AI-powered customer experiences and related constructs: personalisation, convenience, relationship commitment, and AI-powered service quality. For example, Davenport et al. (2020), emphasises the significance of trust and the perceived sacrifices through the decisions that customers may be required to make when utilising AI-powered services. However, neither element has been experimentally examined as part of an overall theoretical basis. With regards to the novelty of the theoretical model that this research proposed a model on, this research suggests that it is important to incorporate trust and the perceived sacrifice as mediators of the impacts of AI-powered customer experience, convenience, personalisation, and AI-powered service quality. Our research concentrated on the AI-enabled customer experience provided. To gain customers a new insight should be provided into customer purchases by brands. Moreover, the results confirm the important role that the relationship commitment towards a brand, in assessing customers' AI-enabled customer experience, had when customers had an initial experience with the brand. The findings also confirm two types of AI-powered customer experiences, which we assessed as pleasure and discretion, which expanded existing research on the influence of user digital experiences on popularity (Foroudi et al., 2018). Customer experiences through the incorporation of digital technology (Parise et al., 2016), as well as customer experiences in online commerce as a predictor of other variables (Roy et al., 2017). Likewise, Dwivedi et al. (2019) emphasises the complexities of AI usage and the ambiguities surrounding usage domains like privacy, dependability, and integrity.

Our latest results reveal significant trade-off that customers may suffer while using AI-enabled services, for example, an absence of human connection, a loss of control, a lack of privacy, consumption of time, and potentially unpleasant sensations of irritability—and all of these factors may have a detrimental impact on AI-powered service experiences. Our results further emphasise the importance of the idea of trust in AI-enabled user experience. Our research reveals how the trust factor mediates the association between AI-powered customer experience with (a) apparent sacrifice (b) personalisation (c) AI-powered (service quality). Customers start to believe in a brand and the technologies that it uses whenever AI-powered services are (a) convenient (b) personalised, and (c) of good quality. As a result, a high degree of trust improves the whole service experience. These studies, considered collectively, provide empirical support for the results based on past research, for example Wang et al. (2020), who emphasises the importance of trust in AI-technology. Our research builds on past research surrounding the service experience by exploring the role of perceived sacrifice as a mediating factor, such as (Shin et al., 2016; Merisavo et al., 2007). Our results confirm that perceived sacrifice mediates the paths among AI-powered customer experience with (a) apparent sacrifice (b) personalisation (c) AI-powered (service quality). When considering the compromises that consumers must make in order to use an AI-enabled service, in order for the service to feel less burdensome in terms of the user interface, data, and other aspects of customisation and communication, it is apparent that once AI-enabled services are seen as safe and highly reliable, and when extra support is offered as it is needed, consumers will feel more at ease. Our results improve on prior research that has highlighted difficulties related to the usage of AI-services, for example (Wang et al., 2020; Shank et al., 2019). Customers are prepared to give up essential aspects of traditional services as long as AI-enabled services are personalised and provide a high-quality service, according to our results. Also, it's important to note that, service quality in traditional (customer-to-customer) situations has already been thoroughly researched, for example (Suhartanto et al., 2019; Scheidt et al., 2019).

Our research identifies four key quality aspects of AI-enabled services: safety, dependability interface design, and enhanced customer assistance. Interestingly, apparent sacrifice mitigates the impacts of personalisation and AI-enabled service quality. It will not moderate the correlation among perceived convenience considerations and AI-powered user experience. Even though AI-enabled services are linked with convenience, for example (Walch et al., 2019; Thiel et al.,2019), its relevance may have increased as a result of the COVID-19 crisis, our results demonstrated that convenience, such as time and location availability, do not substantially affect customers' perceptions of the compromises that they must implement in order use these services.

8. Research Implication and Contribution

8.1 Theoretical Contributions

The finding of this research makes a noteworthy contribution to knowledge by giving actual evidence of the factors influencing AI-powered customer experience. The study has developed a conceptual model which incorporates factors that affect AI-powered customer experience. Trust and perceived sacrifice are incorporated as mediators in the developed model. Regardless of the fact that studies have been conducted to demonstrate the importance of trust and sacrifice (e.g., Davenport et al., 2020), this study is considered to be a pioneer in its ability to incorporate and empirically assess these factors as mediators in an AI-customer experience theoretical model.

The findings of this study demonstrate that relationship commitment has a major impact on AI-powered customer experiences. When a customer has their first encounter with such a particular brand, their determination to establish an ongoing engagement has a major beneficial influence on the AI-powered customer experience. Our results indicate how the incorporation of AI produces a transformation in how customer recognises their experiences, as well as the aspects they believe, are vital for the success of these encounters. Furthermore, while researching AI-powered services, the context of existing constructs like service quality may need to be changed due to the complex characteristics of AI technology.

8.2 Managerial Implications

Given the significance of enjoyable shopping experiences, businesses continue to face challenges whilst using AI. Although it is critical for merchants to incorporate innovative technology, for those impacting the consumer experience, it is also critical to ensure that customers perceive their influence and, more particularly, the possible advantage that they can connect with them. In other words, gaining a deeper knowledge of the customer's perspective is a necessary step to take when developing a successful retailing plan that uses innovative technology. Also, the study's findings present the critical areas for merchants to address, including perceived sacrifices and perceived convenience. While perceived convenience was already highlighted as a fundamental benefit of AI-powered services, merchants must realise that convenience by itself is insufficient to mitigate the importance of the sacrifices that consumers believe they must make when using a service (e.g., loss of privacy, loss of control, or a lack of personal interaction). It is critical to recognise that perceived sacrifices continue to be major issues for customers, even after all of their engagement with AI-powered services.

Companies must respond by establishing relationships with AI system developers to overcome these challenges. Robotics, for example, is one element of AI-powered services that merchants may profit from. However, the absence of personal communication continues to be a challenge for consumers, which will not minimise in relevance even as AI-powered services boost their convenience. As a result, companies must seek a comprehensive framework in terms of human engagement, such as through fully personalised services that are complemented by well-versed customer support staff. This can lead to increasing relationship commitment, which has been demonstrated to have a substantial impact on how customer perceives their AI-powered experiences throughout this research.

According to the findings of our study, trust is crucial in AI-powered experiences. Due to the complexity and possible confusion of AI technology from the customer's point of view, obtaining their confidence is a fundamental problem in AI-powered services. Our findings show a favourable link between trust, perceived convenience, and service quality. Whenever a service is much more convenient in terms of time and place, they gather and analyse client data for a greater number of purposes and provide a higher level of service quality in terms of security, user interface, credibility, and service and support. It is critical that merchants properly convey their success in these aspects to their customers.

9. Limitations and Future Research

This is one of a few studies that focuses on consumers' experiences with AI-powered services. This research encourages information systems and marketing experts to perform more multidisciplinary studies and to look at extra elements that offer a critical perspective of successful variables of AI-powered services across different customer groups. Furthermore, we gathered information based on 354 replies, which are included in our analysis. Future studies may gather and analyse the data provided with a bigger sample size to prevent the likelihood of generalising the results.

Moreover, while this research focuses on customers who utilise AI-powered services for particular brands, future research may choose to look at various retailers and different industries. Lastly, researching the morals and protection of AI technology from a consumer standpoint may also open up new avenues for future research.

10. Conclusion

This research helps to improve our knowledge of AI-powered customer experiences. Through emphasising the consumption experience and identification elements of AI-powered customer experiences, this research represents a unique effort to investigate how chatbot technology and artificial intelligence, will enhance the customer shopping experience. The study also emphasises the benefits and the significance of this relationship commitment, as well as the important possible influence of trust and perceived sacrifice in AI-powered customer experience.

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