

Antecedents of Chat-banking app services' word-of-mouth intentions: a three-variable mediation model

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Keywords

Perceived-value;
Customer engagement;
Experience,
Trust;
Word-of-Mouth

Abstract

Incorporating advanced technologies, banks in South Africa now offer Chat-banking app services. Using a three-variable mediation model, this study examines the antecedents of Chat-banking app services' positive word-of-mouth (WOM). Data was collected in an online survey from a purposive sample of 373 online banking customers and was analysed using structural equation modeling (SEM) on AMOS 28. The results show that customer engagement positively affects customer experience and WOM intentions. While customer experience positively affects perceived value and trust, it significantly negatively affects WOM intentions. Customer trust positively affects customer engagement, but not WOM intentions. The perceived value of Chat-banking app services affects customer engagement and trust but not WOM intentions. In addition, customer trust mediated the effects of customer experience and the effects of perceived value on WOM intention. Perceived value mediated the effect of customer experience on WOM intention. Customer experience partially mediated the effect of customer engagement on WOM intention. Managers can cultivate customer engagement to increase customer experience and WOM intentions. Improving customer experience with a Chat-banking app would enhance perceived value and customer trust while delivering perceived value increases customer engagement and customer trust. The limitations of this study and future research directions will be discussed.

1. Introduction

Using the three-variable mediation model, this study examines the antecedents of Chat-banking app services' word-of-mouth (WOM) intentions. Chat-banking app is an online banking service offered by banks to engage with customers, allowing them to transact via their Facebook, WhatsApp, Website, banking app, etc. Mobile banking (MB) provides immediate and interactive banking services (Gu, Lee & Suh, 2009). The 2020 – 2021 global retail banking consumer survey and a report compiled by Oracle Financial Services (2020) show that at a global level, the top five “Used Very Often” banking solutions range from (1) a bank's mobile app, (2) bank's online banking platform, and (3) bank's physical branches as the traditional offerings, and lastly, (4) digital wallet (e.g., Google Wallet, Apple Wallet, etc.), and (5) digital payments (e.g., Apple Pay, WeChat Pay, Alipay, etc.) as the new entrants. Earlier studies in South Africa have measured customers' benefits of accessing their bank account profiles and the convenience of managing them from any location and at any time using a mobile banking portal (Chigada & Hirschfelder, 2017; Pankomera & Van Greunen, 2018). Mobile banking is defined as any mobile interaction with a money managing institute, not necessarily a bank, which allows customers to deposit,

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send and withdraw money (Chigada & Hirschfelder, 2017). The mobile banking framework proposed by Shaikh, Karjaluo and Chinje (2015, p. 209) illustrates m-banking as an integral component of mobile technology, generating multiple m-banking accounts and services alongside m-banking accessible devices and techniques. Assensoh-Kodua, Migiro and Mutambara (2016) conducted a systematic review detailing the current literature on the intention to continue mobile banking in South Africa. They propose that future research within the mainstream of mobile banking and financial services is needed to remedy the imbalance and contribute to the practice of mobile banking applications in South Africa. Thusi and Maduku (2020) noted low access to banking services in developing countries like South Africa. Various scholars pointed to trust as one factor affecting customers' adoption of mobile banking in rural South Africa (Alnemer, 2022; Shankar & Datta, 2018; Thusi & Maduku, 2020). Nevertheless, looking at the future of South African retail banking, Creemers and Kallner (2022) noted that since 2019, the compound annual average rate of Internet banking has grown by 13.6%. In the same period, financial technology (Fintech) firms have grown by 12.2% annually. They speculated that if such growth rates persist, the global market value for Internet banking could reach USD 31.8 billion, and mobile banking could reach USD 1.8 billion by 2027. According to Statista (2024), the digital banking market in South Africa is estimated to reach a significant growth in net interest income (NII), which is mated to reach USD 0.76 billion in 2024. Projections show that this market could maintain a stable annual growth rate (CAGR 2024–2029) estimated at -0.53%. This indicates why studying Chat-banking app services in South Africa is essential from a consumer behaviour perspective. These authors insist that perceived trust and perceived value are considered mediators in the relationships between positive utility and negative utility, as well as the social environment and consumers' intentions to download apps. A study done by Okello, Bongomin and Ntay (2019) aimed to validate the mediating effect of customer trust in the link between the adoption of mobile money and consumer usage and financial inclusion of micro small and medium enterprises (MSMEs) in an emerging country such as rural Uganda.

Furthermore, customers in retail banking increasingly need a branchless, paperless, and digital experience. Success in this trend is more essential than incrementally refining the service branch experience (Enger & Vollhardt, 2016). Scholarly contribution in banking is keen on a move from adoption frameworks towards investigating customer experience with new technologies (Chauhan, Akhtar & Gupta, 2022). However, to the best of the current knowledge, no study has examined the three-variable mediation model of customer experience, customer trust, and perceived value of Chat-banking app services on the antecedents of word-of-mouth intentions, which is an essential area of mobile banking apps not well understood, mainly at the individual-customer level. In other words, there are no accessible studies that assessed the antecedents of WOM intentions regarding Chat-banking app services in South Africa, let alone measuring the three-variable mediation model of customer trust, perceived value, and customer experience.

As per Stocchi, Pourazad, Michaelidou, Tanusondjaja, and Harrigan (2022), extant research on the consequences of app adoption focuses on customers' willingness to spread WOM about the app and to

repeat purchases using the app. However, this study addresses several research questions in the existing literature. For example, these include (1) whether customer engagement can enhance customer experience and WOM intentions, (2) whether customer experience could enhance perceived value, customer trust, and WOM intentions, (3) whether customer trust could inspire customer engagement and WOM intentions, and (4) whether perceived value could increase customer engagement, customer trust, and WOM intentions regarding Chat-banking app services. Closing this gap in literature contributes to the transactional services completed using the Chat-banking app services and WOM intentions. This study probes the main factors that could motivate customers to spread WOM about the chat-banking app services. Research on how the perceived value of Chat-banking app services, customer engagement with such innovation, customer experience and trust could influence WOM intentions about this app is lacking. Therefore, this study unveils such novel contributions to the literature and practice.

This paper is structured as follows: the next section will outline the problem investigated, followed by a review of existing studies in the literature. After that, the theoretical framework will be discussed, focusing on developing the research hypotheses. A discussion of the research methodology used will follow this. The results will be presented and discussed in comparison with similar prior studies, thus leading to this study's theoretical and practical implications. The paper concludes with the limitations and future research directions.

2. Problem investigated

In a study assessing South African Internet banking trends, Singh (2004) intended to determine consumers' motives for not banking online. He developed and proposed strategies banks can adopt to motivate people to use online banking. Recently, more banks have continued to migrate their services to electronic/Internet banking, defined as "a portal through which customers access various financial services remotely using devices such as computers, tablets or smartphones" (Riquelme & Rios, 2010, p. 329). The advent of COVID-19 has simplified the process and cemented various banking services in electronic format (Saima, Rahman & Ghosh, 2021). Real-time responsiveness and easy-to-use apps for daily banking chores or ordering groceries are setting a high bar for speed and ease of doing business in business-to-consumer (B2C) industries, and these expectations are migrating to business-to-business (B2B) (Enger & Vollhardt, 2016). As such, many banks, including Siam Commercial Bank, Thailand's largest bank, announced plans in 2019 to invest the equivalent of USD 1.2 billion to enhance its digital banking platform. The same bank also planned to reduce its branches from 1,153 to 400 in 2020 (Poromatikul, Maeyer, Leelapanyalert & Zaby, 2020). Many banks today offer diverse services such as money transfers, mobile payments, account balance checking, etc. Due to its benefits, the m-banking adoption rate has increased significantly over the years (Al-Fahim, Ateeq, Abro, Milhem, Alzoraiki, Alkadash & Nagi, 2024). KLA.co.za (2024), a Market Research Agency in South Africa, stated that banking app installations at a global level have increased significantly by 55% in 2023 compared to 2022. It shows a growing customer preference for mobile financial transactions, probably motivated by

continuous developments in user experience (UX) offered by these apps. It also highlights the YouGov Profiles, showing that 42.31% of South African mobile phone users use digital banking, and 92% of South Africans own a mobile phone, which shows an essential reliance on digital banking services.

To date, researchers have gained interest in examining the factors influencing consumers' mobile banking usage (Al-Fahim et al., 2024). This also includes understanding the adoption of online banking in emerging African countries such as Namibia (Bothma & Mostert, 2023), the service quality of mobile phone apps in South Africa (Chigori, Viljoen, Ford & Cilliers, 2020), and the literature focusing on mobile banking in the geographic market places such as South Africa, Zimbabwe and Kenya (Chigada & Hirschfelder, 2017), etc. Nevertheless, the existing research that provides an understanding of the antecedents of WOM intentions regarding mobile banking (van Tonder, Petzer, van Vuuren & De Beer, 2018) is insufficient. In other words, this research seeks to answer questions unresolved in the existing literature regarding such antecedents and the mediating effects of customer trust, perceived value, and customer experience. This is a significant research gap in the literature and practice of mobile banking. The research questions that this research seeks to pursue include: What are the antecedents of WOM intentions regarding Chat-banking app services, and what is the role of the three-variable mediation model, such as customer trust, perceived value, and customer experience on the relationships between these antecedents.

Customers who do not acquire a good first impression may return quickly to conventional banking. Therefore, acquiring new customers and establishing users' principal trust is essential (Setiyono, Shihab & Azzahro, 2019). The main problem is that banks forget traditional business rules, such as listening to customers and delivering the satisfying experience they are willing to pay for (Singh, 2004). While banks in South Africa have introduced Chat-banking app services, insights about the antecedents of word-of-mouth for such mobile banking applications are lacking. Furthermore, mobile customers who hesitate to make a first bill are less likely to remain active 12 months later, a common effect across industries (Enger & Vollhardt, 2016). Besides, it is unknown whether customer experience enhances the perceived value and if the perceived value increases customers' engagement with these apps and their trust. This limits understanding how these factors could enhance word-of-mouth intentions regarding Chat-banking app services. By filling this knowledge gap, a theoretical framework (see Figure 1 in Section 8.4) examining antecedents of word-of-mouth intentions about the Chat-banking app services will be validated, which is the main objective of this study.

3. Research objectives

As the continuous use of mobile banking apps is a topic that has rarely been studied in South Africa, the primary objective of this study is to examine a theoretical framework of the antecedents of word-of-mouth intentions regarding Chat-banking app services in South Africa.

3.1 Secondary objectives

With the spread of new digital technologies and electronic mobile apps, Chat-banking app services have emerged in the banking sector following the COVID-19 pandemic. The secondary objectives of this study are:

- To investigate the effect of customer engagement, experience, trust, and perceived value as significant word-of-mouth antecedents intentions regarding Chat-banking app services.
- To examine the effect of perceived value and trust on customer experience with Chat-banking app services.
- To measure the effect of customer experience on perceived value and trust in Chat-banking app services.
- To propose and validate the theoretical framework of the antecedents of word-of-mouth intentions regarding the Chat-banking app services.
- To examine the role of the three-variable mediation model, such as customer trust, perceived value, and customer experience, on the interactions between the antecedents of word-of-mouth intentions regarding the Chat-banking app services in South Africa.

4. The hypotheses

To measure the stated objective, the study estimates the following hypotheses:

- H₁: Customer engagement has a positive and significant effect on the experience with Chat-banking app services.
- H₂: Customer engagement has a positive and significant effect on WOM intentions regarding Chat-banking app services.
- H₃: Customer experience has a positive and significant effect on the perceived value of Chat-banking app services.
- H₄: Customer experience has a positive and significant effect on customer trust in Chat-banking app services.
- H₅: Customer experience has a positive and significant effect on WOM intentions regarding Chat-banking app services.
- H₆: Customer trust has a positive and significant effect on customer engagement with Chat-banking app services.
- H₇: Customer trust has a positive and significant effect on WOM intentions regarding Chat-banking app services.
- H₈: Perceived value has a positive and significant effect on customer engagement with Chat-banking app services.
- H₉: Perceived value has a positive and significant effect on customer trust in Chat-banking app services.

- H₁₀: Perceived value has a positive and significant effect on WOM intentions regarding Chat-banking app services.
- H₁₁: Customer trust mediates the relationship between customer experience and WOM intentions regarding Chat-banking app services.
- H₁₂: Customer trust mediates the relationship between perceived value and WOM intentions regarding Chat-banking app services.
- H₁₃: Perceived value mediates the relationship between customer experience and WOM intentions regarding Chat-banking app services.
- H₁₄: Customer experience mediates the relationship between customer engagement and WOM intentions regarding Chat-banking app services.

5. Theoretical grounding

The study examines the role of the three-variable mediation model, such as customer trust, perceived value, and customer experience, in a theoretical framework of the antecedents of WOM intentions regarding Chat-banking app services. Therefore, this conceptualisation centres on unifying three different theories to construct a broader understanding of the phenomenon investigated in this study.

5.1 Initial trust model (ITM)

According to its establishment phase, trust can be separated into initial trust and continuance trust (Kim & Prabhakar, 2004; Siau & Shen, 2003). Most prominently, Siau and Shen (2003) proposed that customer trust, one of the factors for building long-term relationships, is essential for m-commerce growth and success and the establishment from initial trust improvement towards continuous trust improvement.

Initial trust reflects “the willingness of an individual to take risks to fulfill a need without prior experience, or credible, meaningful information” (Kim & Prabhakar, 2004; McKnight & Chervany, 2002). A study by Koufaris and Hampton-Sosa (2004) emphasised initial trust beliefs established before a customer’s first experience with an organisation’s website. Initial trust is considered the utmost essential construct during the initial timeframe when a potential consumer evaluates the vendor. Therefore, the first impression might determine whether or not consumers will conduct their first purchase transaction or interact with another individual or a particular organisation (Kaabachi et al., 2017). However, McKnight, Cummings and Chervany (1998) stated that initial trust between exchange parties would not rely on any form of prior experience with, or even first-hand knowledge of, the partner or other party. Instead, it would rely on a person’s disposition to trust or organisational or institutional cues that allow them to build trust with another party from any first-hand knowledge. These authors indicated a significant body of knowledge from five research streams that shed light on developing initial trust. Another type of initial trust is calculus-based trust (Lewicki & Bunker, 1995), in which the trustor evaluates the differences between the costs and benefits of prolonging trust. In addition to knowledge-based and calculative-based trust research, three other research streams have been used: (1) personality-based, (2) institution-based, and (3) cognition-based. Therefore, the consumers’ initial trust may not rely on prior experience of the

direct interactions with the e-commerce service vendors (Setiyono et al., 2019). Gu et al. (2009) confirmed that situational normality, structural assurances, and calculated-based trust significantly impact trust in mobile banking. Kim (2012) indicated that for first-time buyers who do not have any prior direct experience with the seller, the initial trust may be established by indirect experience such as the firm's reputation, recommendation, seller's website information quality, etc. Hence, initial trust between parties will not depend on direct experience with the other party. Instead, it will rely on the antecedents of initial trust (Kim & Prabhakar, 2004).

Therefore, there are many antecedents of initial trust. The first cohort of factors includes disposition to trust, personal innovativeness, and familiarity with e-vendor or technology, which affect initial trust and play a key role when a consumer is interacting with an unfamiliar party (Gefen et al., 2003; Grabner-Kräuter & Faullant, 2008; Kim & Prabhakar, 2004; Yu & Asgarkhani, 2015). Dispositional trust describes a tendency of consumers to either mistrust, feel doubt, or gain trust. It is essential to establish initial trust (Dawood, LieInsteadw & Lau, 2022). Sarkar, Chauhan and Kharea (2020) and Setiyono et al. (2019) found a significant positive link between a disposition to trust and trust in m-commerce and branchless banking apps, respectively. Personal disposition to trust also denoted as trust propensity, refers to an overall tendency or feeling in which individuals demonstrate faith or belief regarding humanity and accept a trusting position toward others (Chen & Barnes, 2007; Gefen, 2000; McKnight et al., 2002). Trust propensity, which embodies a natural tendency, is recognised as a determinant of initial trust (Li et al., 2008). The second cohort of factors includes a firm's reputation, corporate image, size, and trustworthiness, also acknowledged as strong cognitive and institutional cues influencing initial trust (McKnight et al., 2002). The firm's reputation as a signal of trustworthiness is a significant determinant of initial trust (Fuller, Serva & Benamati, 2007; Koufaris & Hampton-Sosa, 2004), and the company's size and ability to customise its offerings may influence initial trust (Koufaris & Hampton-Sosa, 2004). Thirdly, factors including website appeal, usability and information quality are also viewed as predictors of initial trust formation (Koufaris & Hampton-Sosa, 2004; Wakefield, Stocks & Wilder, 2004), and website quality is considered one of the most significant determinants of initial trust (Lowry, Vance, Moody, Beckman & Read, 2008; McKnight et al., 2002; Wakefield et al., 2004). The lack of consumer direct experience may result in relying on third-party mechanisms, such as web assurance seals (Hu, Wu, Wu & Zhang, 2010) and associations (Delgado-Ballester & Hernandez-Espallardo, 2008), to establish their initial trust. For example, a customer who visits a website for the first time might depend strongly on website cues and an organisation's reputation to establish initial trust beliefs; however, they would have lower "credible, significant information" that requires several interactions to develop initial trust (Koufaris & Hampton-Sosa, 2004, p. 378). Hence, dimensions related to structural assurance and situational normality positively predict the trust consumers have in an online vendor (Gefen et al., 2003; Grabner-Kräuter & Breitenecker, 2011; Lowry et al., 2008; McKnight et al., 2002; Wakefield et al., 2004). Scholars indicated that structural assurance is essential to establish initial trust and customers' confidence (Priya, Gandhi & Shaikh, 2018). Kim, Shin and Lee (2009) found that three attributes of

mobile banking (relative benefits, propensity-to-trust and structural assurances) significantly affected initial trust. However, the influence of reputation as a firm attribute on the adoption of mobile banking was not supported. According to Kaabachi et al. (2017), reputation is highly valuable when a consumer has no prior experience with the organisation. Fourth, the online environment influences initial trust, mainly the perceived risk and resultant vulnerability towards the Internet. For example, trust might be determined by individuals' perceptions of the institutional environment where the transactions are conducted or facilitated and whether such an environment is protected and safe (McKnight et al., 2002). Studies have also shown that the two main dimensions of the technology acceptance model (TAM), such as perceived ease of use and perceived usefulness, are affected by initial trust in online stores (Benamati, Fuller, Serva & Baroudi, 2010; Chen & Barnes, 2007; Hampton-Sosa & Koufaris, 2005; Kim, 2012).

Accordingly, initial trust represents the customer's willingness to be vulnerable to the service provider's actions (Mayer, Davis & Shoorman, 1995). Due to its essential role, initial trust has gained substantial attention in research contexts such as organisational relationships (McKnight et al., 1998), organisational information systems (Li et al., 2008), employee relationships (Robinson, 1996), and trust in a specific technology (McKnight, Carter, Thatcher & Clay, 2011). Research has also investigated initial trust in online bookstores (Chen & Barnes, 2007), wearable commerce (Gu, Wei & Xu, 2016), online commerce (Kim & Prabhakar, 2004; Koufaris & Hampton-Sosa, 2004; McKnight et al., 2002; Stouthuysen, Teunis, Reusen & Slabbinck, 2018), and online retailer (Eastlick & Lotz, 2011). In addition, initial trust has also been studied in mobile payment (Gao & Waechter, 2017; Talwar, Dhir, Khalil, Mohan & Islam, 2020; Zhou, 2014), mobile commerce (Lin, Lu, Wang & Wei, 2011), and the adoption of mobile brokerage (Lin, Lu, Wang & Wu, 2011). Of particular interest, initial trust has been studied in the context of Internet-only banks (Kaabachi et al., 2017), branchless banking app (Setiyono et al., 2019), and mobile banking (Kim, Shin & Lee, 2009; Mehrad & Mohammadi, 2016; Oliveira, Faria, Thomas & Popovića, 2014; Shankara, Jebarajakirthy & Ashaduzzaman, 2020; Shareef, Baabdullah, Dutta, Kumar & Dwivedi, 2018; Zhou, 2012; Zhou, 2011). Many scholars agree that initial trust is relevant, particularly when users have little or no experience adopting innovations such as M-banking services (Kim & Prabhakar, 2004; Kim et al., 2009). Therefore, as the initial trust is established the first time when a customer interacts with mobile banking (McKnight et al., 2002; Zhou, 2014), it is essential to build users' initial trust for mobile banking adoption (Gao & Waechter, 2017; Sharma & Sharma, 2019). Zhou (2012) studied users' initial trust in mobile banking. They suggested that building users' initial trust is critical for mobile banking service providers for two reasons: First, a lack of previous direct experience may increase users' perceived significant risk and uncertainty when they use mobile banking for the first time. So, they need to build initial trust to decrease perceived risk. Second, when the switching costs are low, such as in mobile banking, users may switch to other service providers or online banking. Hence, the service providers must build users' initial trust to retain them (Zhou, 2012; Zhou, 2014).

In general, all antecedents are acknowledged to affect usage intention indirectly through the mediation of the initial trust variable (Kim et al., 2009; McKnight et al., 2002). Kim and Prabhakar (2004) mentioned

that the antecedents of interest in their research were an individual's propensity to trust, WOM referrals, and structural assurances. This study proposes that customer trust mediates the relationship between customer experience and WOM intentions regarding Chat-banking app services. In addition, customer trust mediates the relationship between perceived value and WOM intentions regarding Chat-banking app services, such that the effect of customer perceived value of Chat-banking app services on customer intention to spread WOM is more vital for customers with higher rather than lower trust. This differs from Chen, Wang, Lyu and Zhang (2022), who report that brand trust significantly mediates the relationship between customer engagement and behaviour intention.

5.2 Value-based Adoption Model (VAM)

Zeithaml (1988) mentioned that the Perceived Value Theory (PVT) was built on the grounds of a model developed by Dodds & Monroe (1985), which explained perceived value as "consumer's general evaluation of the usefulness of a service or a product established on perceptions of what a consumer receives and what he or she sacrificed." Perceived value theory (PVT) was developed to predict consumers' buying decisions in an innovation context, incorporating the perceived benefit, monetary cost, and perceived risk variables (Wood & Scheer, 1996). In addition, the consumption-value theory proposed by Sheth et al. (1991a, 1991b) postulates that the multifaceted consumer choice, i.e. to purchase or not to purchase, to select one product or service type relative to the other, and to select one brand relative to the other, involves a multiplicity of kinds of value. These values are conditional, emotional, functional, epistemic, and social. While the literature discussed a Customer Value-Based Theory of the firm developed by Slater (1997), this study uses the Value-based Adoption Model (VAM) by Kim, Gupta and Chan (2007) to investigate and measure the perceived value as an external variable that affects the consumer's engagement and word-of-mouth intention regarding Chat-banking app services. VAM will be applied to analyse these factors from the consumer's perspective. These authors stated that VAM is directed at consumer adopters, not merely technology users, and concentrates on enhancing consumer value, making it the most suitable theory for use from the consumer's perspective.

The main advantage of VAM is that it recognises that the adopters are not only the users of technology but also consumers, and for this reason, value maximisation must be a primary concern. So, the consumer's intention to adopt will be predicted by the value of the benefit element. In addition, VAM has gained strong support from numerous studies. For example, prior studies (Kim et al., 2007; Kim, Park & Choi, 2017; Mathavan, Vafaei-Zadeh, Hanifah, Ramayah & Kurnia, 2024; Shelvia, Prayitno, Kartono & Sundjaja, 2020; Yu et al., 2019) have constructed theories based on VAM, highlighting the role of consumers rather than only technology adopters. Researchers widely use VAM, and its applicability has been validated in studies explaining the consumer adoption of mobile Internet (Kim et al., 2007) and customer engagement in fields like live-streaming commerce (Cao, Li, Wang & Ai, 2022). Xiong and Zuo (2022) used the VAM to measure the dimensions affecting the adoption of the medical and senior care mobile portal in China. Kim, Chun and Lee (2014) applied the VAM model to measure dimensions of TAM (i.e. perceived ease of use and usefulness), VAM, and social influence as predictors of the

student consumers' adoption of smartphones. Using the Value-Based Adoption Model (VAM), Jhee, Kim and Han (2024) studied the perceived value as a predictor of consumers' intention to use mobile shopping apps. Although the technicality and perception of risk among the evaluated sacrifices of mobile shopping apps were not statistically significant in affecting the perceived value, they found that the perceived value positively affects the intention to use. Wang and Li (2016) examined the factors affecting the usage of third-party mobile payment services in China adopting the Value-based Adoption Model (VAM). Lin, Wu, Hsu, and Chou (2012) combined the VAM model with several other models to explore consumers' continuous intention to use Internet protocol television (IPTV). Shelvia et al. (2020) also adopted a Value-based Adoption Model (VAM) to analyse the dimensions influencing consumers' intention to continue using mobile payments.

Following Kim et al. (2007), the current study adopts the theory of consumer choice in the economics and marketing traditions, i.e. the Value-based Adoption Model (VAM), to describe technology adoption, i.e. customer engagement, trust, and WOM in which the users are also characterised as consumers. This study has adopted the value-based adoption model (VAM) theory (Kim et al., 2007) as a user adoption model focusing on the perspective of user-perceived value. It uses the explanatory power of perceived value on customer engagement with the Chat-banking app services, building customers' trust and WOM intentions. Shelvia et al. (2020) agreed that the determination of comprehending the VAM model is to assist in defining the suitable dimensions based on customers' perceived value. They suggested that research on consumer adoption enables the potential to assist the development of critical business decisions about the more effective marketing of mobile payment services and can create better consumer acceptance.

Furthermore, Kim et al. (2007) explained that VAM provides a clear understanding of the dimensions affecting value perception and how perceived value results in the adoption from the value maximisation perspective. In general, their study has unveiled that perceived value is a crucial determinant of adopting the M-Internet by measuring the mediating effect of value perception on the interactions between a consumer's benefit and sacrifice related to the beliefs and their intention to adopt. Widodo and Maylina (2022) revealed that perceived value mediates the effect of perceived quality on consumers' purchase intention. Using a Value-Based Adoption Model, Vidyanata (2022) measured the influence social media marketing has on consumers' intention to purchase. The results showed that perceived value mediates the effect of social media marketing on purchase intention. Liao, Wu, Le and Phung (2022) integrated the dimensions of TAM with the Value-Based Adoption Model (VAM). Results indicated that consumers' perceived value is determined by the higher and lower levels of the moderating effects of e-word of mouth, inducing their intentions toward e-learning. Therefore, this study proposes that perceived value mediates the relationship between customer experience and WOM intentions regarding Chat-banking app services, such that the effect of customer experience with Chat-banking app services on customer intention to spread WOM is more substantial for customers with higher rather than lower perceived value.

5.3 Temporal experience theory

The concept of temporal experience resonates with people's perceptions regarding the passage of time (Wallace & Rabin, 1960). It is also considered an essential regular element of a marketing offering (Hirschman, 1987; Woermann & Rokka, 2015). Furthermore, temporal perceptions may occur in online settings, such as losing track of time while browsing online content or simply waiting to check out (Lee, Chen & Hess, 2017; Li & Browne, 2006). Temporal experience is also an element of customer engagement incorporated in the study of many types of media, such as online or digital and mobile portals (Calder, Malthouse & Schaedel, 2009; Malthouse, Calder, Kim & Vandebosch, 2016; Pagani & Malacarne, 2017). Customers often visit computer-generated media for temporal experiences that provide them with a sense of pleasure and assist them in disengaging from routine tasks. For instance, consumers often use mobile platforms and mobile apps during periods when idling or embarking on a traveling journey or taking breaks from tasks. According to Thakur (2019), from prior (satisfactory or otherwise) experiences, individuals with higher temporal experience have more likelihood to demonstrate higher purchasing and eWOM intentions, particularly for hedonic product categories (e.g., fashionable items, home upgrading or hospitality). These activities help them disengage from more regular or ordinary routines or schedules.

Furthermore, Thakur (2019) found partial support for the hypothesis that customers' temporal experience moderates the connection between customer satisfaction and intention to spread eWOM, such that the effect of customer satisfaction with retailers on customer intention to spread eWOM is more substantial for customers with higher rather than lower temporal experience. In addition, Kuppelwieser, Klaus, Manthiou and Hollebeek (2022) found that customer experience plays an essential role in the association between customer-perceived value and word-of-mouth, thereby approving the presence of a direct association between customer-perceived value (social, hedonic, utilitarian value), customer experience and word-of-mouth. Their findings also reflect the mediating effect of customer experience in the link between social and utilitarian (but not hedonic) values. Therefore, this study proposes that customer experience mediates the relationship between customers' engagement and WOM intentions regarding Chat-banking app services, such that the effect of customer engagement with Chat-banking app services on customer intention to spread WOM is more substantial for customers with higher rather than lower temporal experience.

6. Literature Review

This section discusses the literature review, starting with the definitions of the antecedents of Chat-banking app services' word-of-mouth intentions. This is followed by the descriptions that specify the hypotheses developed to measure the study's objectives, as shown in Figure 1, Section 8.4.

6.1 Antecedents of Chat-banking app services' word-of-mouth intentions

6.2.1 Perceived value involves evaluating the discrepancy between the perceived benefit and the cost of obtaining the product or service (Hollebeek, Conduit & Brodie, 2016). With the practical or technical

benefits that consumers obtain when using mobile banking, the emotional value materialises the feelings or affective states that an experience of consumption or use of a product or service generates. It relates to the fun, enjoyable, positive feelings, and emotional responses to using mobile banking apps (Berraies, Yahia & Hannachi, 2017).

6.1.2 Customer engagement refers to a focal individual's psychological willingness to invest in focal interactions with particular engagement objects (e.g., a firm or brand), often beyond the purchase (Hollebeek et al., 2016). In a digital setting, engagement is an affective commitment to an active relationship with technology and is the state of consumer involvement formed during the interaction process (Garzaro, Varotto & Pedro, 2021). Engagement behaviour (i.e., frequency and recency of mobile app use) affects consumption behaviour (i.e., point redemption) (Viswanathan, Hollebeek, Malthouse, Maslowska, Kim, & Xie, 2017).

6.1.3 Customer experience. In marketing or e-business, the perception and recognition of the value of a product is the primary goal. Positive perceptions will grow based on the values and experiences gained from customer participation in e-business transactions. This experience results in a cognitive perception called customer experience (Rahardja, Hongsuchon, Hariguna, & Ruangkanjanases, 2021). Customer experience is the outcome of customer interaction with the firm, including the interaction with the staff, self-service technologies, service environment, service companies, and customers (Chahal & Dutta, 2015).

6.2.4 Customer trust is defined as one's beliefs in, and a willingness to rely on, another party (e.g., Mayer et al., 1995; McKnight et al., 1998). The literature has defined "trust" as a willingness to depend on a partner with whom one has self-confidence (Moorman, Deshpandé & Zaltman, 1993; Morgan & Hunt, 1994).

6.2.5 WOM is an oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial about a brand, product, or service (Mukerjee, 2018). WOM can be positive or negative and spread online or offline (Van Tonder et al., 2018). Thus, word-of-mouth communication is the message about an organisation, its credibility and trustworthiness, its way of operating and its services communicated from one person to another (Lindberg-Repo & Grönroos, 1999).

6.2 Conceptual Model and Hypotheses Development

6.2.1 Customer engagement

Hollebeek et al. (2016) referred to customer engagement (CE) as a focal individual's psychologically based willingness to invest in the undertaking of focal interactions with particular engagement objects (e.g., a brand or firm), often beyond purchase. Online consumer engagement is defined as the customer's cognitive and affective commitment to an active relationship with the brand as personified by the website or other computer-mediated entities designed to communicate brand value (Mollen & Wilson, 2010). Thus, mobile app consumer engagement is operationalised in this study as the customer's cognitive and

affective commitment to an active relationship with the banking brand as personified by the technology app designed to communicate brand value.

Customer engagement involves cognitive, emotional and behavioural (Hollebeek, 2011). Hence, Chen et al. (2022) refer to customer engagement as the emotional bond established between the customer and the enterprise. Engagement behaviors such as frequency and recency of the mobile app influence consumption behavior (i.e. point redemption) (Viswanathan et al., 2017). Johnston and Kong (2011) point out that customers' experience involves their understanding based on evaluating the service encounter, engagement with and participation with it through sequential touch points, and how these factors affect their feelings. Consumer engagement occurs as a micro experience on the broader customer experience, and such engagement is an integral component of the overall customer experience (Islam, Hollebeek, Rahman, Khan & Rasool, 2019). Literature indicates that customer engagement with the brand positively affects their experience with the brand in the bank's digital service channels (website and mobile app) (Garzaro et al., 2021). Therefore,

H₁: Customer engagement has a positive and significant effect on customer experience with Chat-banking app service.

According to Chen et al. (2022), the nature of WOM transfers, recommendations, customer-to-customer (C2C) interactions, blogs, and writer's reviews, including other related activities by customers to a company or brand, are characteristics of the behavioural element. Van Doorn, Lemon, Mittal, Nass, Pick, Pirner and Verhoef (2010) stated that customer engagement indicates behaviour comprising two significant features: customer recommendation and review. The research shows that customer engagement influences word-of-mouth intentions by mediating brand trust (Chen et al., 2022). Santini, Ladeira, Pinto, Herter, Sampaio and Babin (2020) report that customer engagement with social media has a direct positive and significant effect on word-of-mouth. Therefore,

H₂: Customer engagement has a positive and significant effect on WOM intentions regarding the Chat-banking app service.

6.2.2 Customer experience

Amoah, Radder and Van Eyk (2017, p. 294) and Schmitt (2010, p. 56) describe an experience as 'perceptions, feelings and thoughts that consumers have when they encounter products and brands in the marketplace or engage in consumption activities'. Customer experience (CX) is an activity resulting from a customer's assessment that provides the emotional consequence and cognitive effect (Rahardja et al., 2021). Klaus and Maklan (2013) and Amoah et al. (2017) describe customer experience as the customer's cognitive and affective assessment of all direct and indirect encounters with the firm relating to their purchasing behaviour. Therefore, customer experience is operationalised in this study as the customer's cognitive and affective evaluation of all direct and indirect encounters with the banking services, particularly technology applications such as Chat-banking behaviour. Shahid, Ul Islam, Malik and Hasan

(2022) agree that customer experience in the m-banking context implies an overall experience, i.e., customer interaction with technology (Pekovic & Rolland, 2020).

Since stimuli activate experiences as they establish in response to a particular point of contact (Homburg, Jozić & Kuehnl, 2017), customer experience is the outcome of customer interaction with the firm, including the interaction with the self-service technologies, service environment, service companies, staff, and customers (Chahal & Dutta, 2015). In other words, customer experience is a subjective occurrence, and the components of a positive experience vary based on the settings, requiring context-specific examination (Fernandes & Pinto, 2019; Shahid et al., 2022). In banking, the experience with the brand is generated through five elements: corporate self-identity, emotional experience, corporate visual identity, functionality, and lifestyle (Hamzah, Alwi & Othman, 2014). As such, emotional value defines a customer's feelings when he or she experiences an organisation's services or products (Ho & Ko, 2008; Lee, 2020). It symbolises the customer's belief that it is not only about doing banking but mainly about enjoying the overall experience (Buttle, 2009; Islam, Shahid, Rasool, Rahman, Khan & Rather, 2020).

Research shows that perceived enjoyment is positively related to the perceived value of fitness technology wearables (Mathavan et al., 2024; Yang, Yu, Zo & Choi, 2016). The overall customer experience affects how frequently customers use a retailer's mobile applications (McLean, Al-Nabhani & Wilson, 2018). According to Lin, Wang & Huang (2020), when users can transfer money between accounts, purchase goods, and pay bills using m-payment with similar success that they would experience in a physical store environment, this would enhance their perceived value of mobile payment. Researchers indicate that physical experience positively affects the perceived value of online and offline commerce (Yang, Gong, Land & Chesney, 2020), and customer experience has a positive and significant effect on customers' perceived value of s-commerce (Rahardja et al., 2021). Therefore,

H₃: Customer experience has a positive and significant effect on the perceived value of Chat-banking app services.

Furthermore, Li and Yeh (2010) argued that there is a lack of knowledge regarding the effect of mobile visual aesthetics on the customers' experience and how this affects their trust towards mobile vendors. A prior study by Chauhan et al. (2022) has explored customer experience in digital banking. The results showed that customer experience is predicted by functional indicators (i.e. functional quality, customer trust and service convenience), mechanic indicators (i.e. website features, website design, usability) and humanic indicators (i.e. customer complaint handling). Shahid et al. (2022) confirmed that convenience, customer trust, and social influence significantly affect customer experience with mobile banking app use. However, app attributes showed less significance, and no interaction between customer support and customer experience was confirmed. Due to hazard risks accompanying the m-banking services, banks may lower customers' concerns by generating customer trust (Thusi & Maduku, 2020). Therefore, Shahid et al. (2022) believe that it is relevant to consider trust as an essential component that increases the

customer experience of m-banking operations. These researchers found a positive impact on customers' trust in the mobile banking experience.

On the other hand, scholars noted that trust in mobile technology consequences range from several factors (antecedents) such as community acceptance, information security, benefits gained, laws and regulations, and experience related to financial transactions conducted using advanced technology and smartphone applications (Dawood et al., 2022). For example, perceived trust in different banking services is a core element of the user experience and can be represented through many concepts and constructs such as Internet banking, online banking, etc. (Bitkina, Park & Kim, 2022). Following Järvinen (2014), this paper views consumer trust in the banking context as follows: consumer trust in banks and banking services is based on consumer experience. It depends on banks' ability to behave reliably, observe rules and regulations, work well and serve the general interest. In other words, direct experience becomes the basis for evaluating trustworthiness in the trial period (Dwyer, Schurr & Oh, 1987). Prior experience with the Internet would decrease some of the difficulties people may encounter when using commercial websites, enhancing Internet trust (Kaabachi et al., 2017). Sharma and Sharma (2019) note that customer trust is vital in establishing a positive user experience regarding technologies requiring delicate attention. Users who acquire more direct experience tend to develop initial trust, transferring into continuance trust (Zhou, 2012). Therefore, initial trust converts to continuance trust by gaining experiences (Bidar, 2018). Likewise, initial trust in mobile banking will be determined when users experience performance benefits related to m-banking (Kim et al., 2009). Liébana-Cabanillas, Sánchez-Fernández and Muñoz-Leiva (2015) showed that a customer's prior experience in electronic banking in Spanish led to trust and satisfactory banking. Scholars show that customer experience positively and significantly affects customer-relationship quality attributes (satisfaction and trust) of s-commerce (Rahardja et al., 2021). Hence, the customer experience of mobile banking has a positive and significant effect on customer trust (Febrian, Simanjuntak & Hasanah, 2021). Therefore,

H₄: Customer experience has a positive and significant effect on customer trust in the Chat-banking app.

Furthermore, WOM concerning product announcement information relates to the customer experience in several ways, which is a significant factor in good communication (Nie, Abd-Rabo, Sun, & Ren, 2019). The literature suggests that in situations of new product purchasing, many consumers experience perceived risk (Buttle, 1998), and consumers would seek and trust information from word-of-mouth, especially when facing higher-risk purchasing processes (Mehrad & Mohammadi, 2016). Arnold, Reynolds, Ponder and Lueg (2005) have explained the consequences of terrible and delightful experiences. They stated that customers who encounter poor experiences would perhaps tell others about such bad experiences or voice complaints or may stop revisiting the service provider, i.e. discontinue their patronage and switch to other service providers. On the other hand, those customers who encountered delightful experiences would perhaps tell others about these favourable experiences, i.e., spread positive word-of-mouth, recommend the service provider to their friends and family, or revisit the service

provider, i.e., repeat purchase intention. However, in a collectivist culture, consumers may not utter negative WOM about their personally unsatisfactory experience if the collective is mostly favourable (Buttle, 1998). Evidence (Siqueira Jr, Peña, ter Horst & Molina, 2019) shows the positive effect of customer experience on consumers' WOM behavior. Chattopadhyay and Laborie (2005) report that satisfied customers with the service experience tend to recommend it to their social interactions, such as friends and family, and intend to experience it again. Maklan and Klaus (2011) show that customer experience positively influences WOM behaviour. Thus, brand experience will likely relate positively to word-of-mouth (Mukerjee, 2018). Previous studies showed that the favourable and memorable experience of retail banking customers positively impacts word-of-mouth in the banking sector (Chahal & Dutta, 2015; Klaus & Maklan, 2013). Therefore,

H₅: Customer experience has a positive and significant effect on WOM intentions regarding the Chat-banking app.

6.2.3 Trust

Trust has traditionally been studied in different settings and disciplines, such as economics, sociology, psychology, and marketing (Doney & Cannon, 1997; Morgan & Hunt, 1994). Therefore, many different ways have been used to define this concept. Trust occurs when one party has confidence in an exchange partner's reliability and integrity (Morgan & Hunt, 1994). Confidence is viewed as a multidimensional construct with three different dimensions: honesty, benevolence and competence (Donney & Canon, 1997; Ganesan, 1994; Gefen et al., 2003; Morgan & Hunt, 1994; Sirdeshmukh, Singh & Sabol, 2002). Ability reflects the extent to which a service provider has the knowledge and expertise required to fulfill his or her tasks. Integrity refers to the extent to which the service providers keep their promise and do not deceive the customer. Benevolence refers to the extent to which the service provider is apprehensive about customers' interests, not just his or her benefits.

Trust reveals a consumer's willingness to accept vulnerability, relying on the positive expectation that the other party will deliver future behaviour (Mayer et al., 1995). The viewpoint on the initial adoption of technology resonates with research on initial trust (Li et al., 2008). In Internet banking, trust in the trustees is defined as follows. Initial trust in the Internet as a banking medium refers to the customer's willingness to become vulnerable to the interactions of the Internet, relying on the prior expectation that the Internet will perform the task the consumer expects it to perform — and not anything else — irrespective of the possible environmental disruptions, human user and service operator errors, and external attacks by third-parties (Kim & Prabhakar, 2004; Siau & Shen, 2003). Hence, it is operationalised in this study as the customer's willingness to become vulnerable to the interactions of the Chat-banking app, relying on the prior expectation that the app will perform the task the consumer expects it to perform. Research in online banking has shown trust as a critical factor in stimulating online banking operations (Alda's-Manzano et al., 2009), and service providers should establish users' initial trust to enable them to use mobile payment (Zhou, 2014). Initial trust occurs once a customer first opens the mobile app and registers at a stage where the transaction has not been initiated (Setiyono et al., 2019).

Literature shows that consumer engagement or brand engagement positively relates to consumer's commitment to the brand (Karjaluoto, Shaikh, Leppäniemi & Luomala, 2019), and therefore, customer engagement is a direct positive predictor of customers' brand trust in Chinese service hotels (Chen et al., 2022). Nevertheless, the literature shows trust as a predictor of customer engagement in the South African open medical aid industry (Williams & McKay, 2022), in social media (Santini et al., 2020), and in social commerce sellers (Wongkitrungrueng & Assarut, 2018). Therefore,

H₆: Customer trust has a positive and significant influence on user engagement with the Chat-banking app services.

Moreover, WOM occurs when consumers have an informal exchange of information and opinions relating to products and services (Arndt, 1967; Farzin, Sadeghi, Kharkeshi, Ruholahpur & Fattahi, 2021; Saleem, Zahra & Yaseen, 2017). The WOM concept is explained as oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial regarding a brand, product or service (Arndt, 1967; Mukerjee, 2018; Simpson & Siguaw, 2008). WOM depends on the interchange among interactivity, speed, and absence of market prejudices (De Matos & Rossi, 2008). During the post-purchase evaluation stage, consumers engage in word-of-mouth about wide-ranging objectives and motivations, primarily to assist other consumers, avoid possible errors, vent feelings of anger or decrease cognitive dissonance (Lindberg-Repo & Grönroos, 1999; Mehrad & Mohammadi, 2016). Therefore, when customers experience discomfort because of cognitive dissonance, one possible strategy is to seek WOM from other sources to reduce such discomfort. Thus, WOM is viewed as a risk reduction strategy that reduces or eliminates the consumers' uncomfortable feelings about risk exposure (Buttle, 1998). The literature has described the factors such as word-of-mouth referrals, perceived enjoyment, etc., as necessary in predicting customers' initial trust toward an e-vendor (Gefen et al., 2003; Grabner-Kraüter & Breitenecker, 2011; Koufaris & Hampton-Sosa, 2004). Scholars indicated that consumers would retain a certain degree of trust in the Internet as a banking channel, established based on factors such as word-of-mouth referrals spread by others (Kim & Prabhakar, 2004). Zarnadze and Pereira (2021) found that word-of-mouth positively affects trust in mobile banking. Matute, Polo-Redondo and Utrillas (2016) found that the characteristics of eWOM (e-credibility and e-quality) significantly affect customer trust. For instance, many consumers who search for large quantities of online reviews about preferred products or services tend to develop initial trust in that product or service (Teng, Wei Khong, Wei Goh, & Yee Loong Chong, 2014). Nevertheless, Chen et al. (2022) argued that consumers who established trust in a brand have a higher likelihood to maintain its reuse intention and establish trust in word-of-mouth regarding that brand. These authors found that brand trust directly and positively affects WOM intention. De Matos and Rossi (2008) revealed a significant positive influence of customer trust on WOM in marketing activity. Scholars reported that competence trust has a positive and significant impact on positive word-of-mouth intention in banking (van Tonder et al., 2018). Therefore,

H₇: Customer trust has a positive and significant effect on WOM intentions regarding Chat-banking app services.

6.2.4 Perceived value

Following Zeithaml (1988, p. 14) and Johnson, Herrmann and Huber (2006, p. 123), this study defines perceived value as a consumer's net valuation of the perception of the benefits accumulated from a product or service offer that is formed by the costs they are prepared to incur for the needs he or she is seeking to satisfy. Akturan and Tezcan (2012), Aurier and N'Goala (2010), Grewal, Krishnan, Baker and Borin (1998), and Kumar and Reinartz (2016) agreed that perceived value is a global ratio of benefits acquired relative to the sacrifices stipulated (two items). This aligns with Zeithaml's (1988) statement that perceived value signifies consumers' assessment of the product's utility by comparing the benefit received and the agreed-upon sacrifice. Therefore, perceived value denotes the value that a customer perceives he or she receives or experiences using a particular service (Pura, 2005). According to Woodruff (1997, p. 141), the perceived value typically involves a trade-off between the benefits the consumer obtains (e.g., quality, utility, and benefits) and the sacrifice he or she provides to obtain a product and use it (e.g., sacrifices, price). The concept of value has been widely used in pricing research, generally defined as follows: perceived value equals perceived benefits/perceived price (Liljander & Strandvik, 1993). For example, in the mobile banking setting, Thusi and Maduku (2020) suggested that 'price value' may be defined as the trade-off related to the costs of downloading, installing, and using the app compared to the perception of its value. Scholars consider perceived value to be more similar to the concept of payment equity, often discussed in Relationship Marketing (RM) research (Bolton & Lemon, 1999; Verhoef, Franses & Hoekstra, 2002). For example, relational marketing considers perceived value fundamental to preserving long-term customer relationships (Aaker, 1996).

Perceived value is a cognitive element founded on object-specific valuations (Charton-Vachet, Lombart & Louis, 2020; Zeithaml, 1988). In the context of mobile commerce, Kim et al. (2007) showed that perceived value is an evaluation of the overall effectiveness of a product or a service as measured by a customer, considering the effort an individual undertakes to surface and benefit from it. Kim et al. (2017) found that perceived benefit strongly influences the perceived value of the Internet of Things (IoT) smart home service. Relative benefits are theoretically identical to perceived value (Anckar & D'Incau, 2002), in which a service gains increased acceptance based on more value factors it offers (Kim et al., 2009). For example, perceived value is a concept comprising four exclusive value dimensions, namely, monetary value, performance/quality value, social value, and emotional value (Roig, Garcia, Tena & Monzonis, 2006; Sankaran & Chakraborty, 2022). Hence, customers may have a different perception of the value of an offering depending on their individual or personal values, preferences, needs, and financial resources (Ravald & Grönroos, 1996). Therefore, perceived value is a concept based on subjective evaluation that varies significantly among banking customers (Alsheikh & Bojei, 2012). For instance, customers may assess the value of mobile service prior to accepting or using it (Xiong, 2013). Furthermore, the perception of value may also vary based on the usage circumstances (Anckar & D'Incau, 2002). Researchers show that the perceived risk of ride-hailing services will negatively affect travelers' perceived value (Lu & Wang, 2020). Besides, perceived value has a positive impact on users'

engagement in Islamic banks (Fianto, Gan, Widiastuti & Sukmana, 2020), in the live-streaming commerce setting (Cao *et al.*, 2022), and in the banking sector (Hosseini & Aali, 2021). Therefore,

H₈: Perceived value has a positive and significant effect on customers' engagement with Chat-banking app services.

Sirdeshmukh *et al.* (2002) suggested that value is an essential factor of consumer goal in the exchange relationship. Researchers indicated that perceived value plays a vital role during exchange activities. A more valuable exchange is essential in offline and online settings (Wu, Chen, Chen & Cheng, 2014). In addition, trust occurs from a calculated evaluation of perceived gains and losses in the intended relationship (Kim & Prabhakar, 2004). Perceived trust in an online vendor positively affects the perceived value for potential and repeat customers (Setiawan & Achyar, 2012). Brodie, Whittome and Brush (2009) found that trust in employee behaviour positively affects customers' perceptions of value. While trust could not have a statistically significant direct impact on continuance intention in the performance segment, Poromatikul *et al.* (2020) confirmed that it impacted its antecedents, such as customer satisfaction and perceived value. Research in the context of mobile banking apps, Karjaluoto, Shaikh, Saarijarvi and Saraniemi (2019) found that self-congruence and product novelty were vital factors influencing the perceived value of mobile banking apps in Finland, which is a market leader in digital banking. In turn, perceived value affects overall customer satisfaction and commitment. Scholars showed that customer-perceived value positively and significantly affects customer relationship quality attributes (satisfaction and trust) of e-commerce (Rahardja *et al.*, 2021). In addition, customer trust positively relates to perceived value in on-demand ridesharing services (Aw, Basha, Ng & Sambasivan, 2019). However, research confirms that perceived benefits positively affect trust (Xiong, 2013). Extensive research shows a positive influence of shared value on customer trust (Kassim & Abdulla, 2006; Mukerjee & Nath, 2003). Scholars show that perceived value dimensions of mobile banking, i.e. emotional values, monetary value, and quality value, positively affect customer trust (Berraies *et al.*, 2017). For instance, customers' perceived values have been confirmed as antecedents of e-trust (Harris & Goode, 2004; Karjaluoto, Jayawardhena, Leppäniemi & Pihlström 2012), particularly in MB. That is, the perceived value of using mobile banking impacts customers' trust (Ramli, Harwani, Soelton, Hariani, Usman & Rohman, 2021). In addition, a higher degree of perceived value positively affects customer trust in mobile money applications (Hariguna, Adiandari & Ruangkanjanases, 2020), mobile intelligent devices of paid apps (Tang *et al.*, 2020), in the future of the StopCovid app (Kurtaliqui, Zaman & Sohier, 2022), B2B express parcel company (Correa, Alarcón & Cepeda, 2021), and hotel service companies in China (Chen *et al.*, 2022). Therefore,

H₉: Perceived value has a positive and significant effect on customer trust in Chat-banking app services.

Other scholars, Hartline and Jones (1996), believe that perceived value might affect consumers' behavioural intentions, particularly WOM. One plausible explanation is that consumers who perceive high value in what they receive are more likely to become highly committed to the firm and strive to recommend their reference group to patronise and establish loyalty to the same firm (McKee, Simmers & Licata, 2006). In addition, perceived value tends to impact WOM since it includes more tangible elements in the service encounter, such as the price aspect in the "give" element. Price can be viewed as a more extrinsic and tangible factor relative to other cues in the customers' evaluation of service quality, such as responsiveness and competence of employees (Hartline & Jones, 1996). Research showed that consumers' perceived value of an eWOM would be lower in the presence of contradictory information from other eWOM social media (Yang, 2022). Nonetheless, Zhang, Chen and Xiao (2019) report that perceived value positively influences the eWOM of the Chinese government's information service. Gruen, Osmonbekov and Czaplewski (2006) show that the overall value of the firm's offering significantly impacts loyalty intentions, such as repeat purchases and word of mouth. De Matos and Rossi (2008) found a significant positive effect of perceived value on WOM in marketing activity. Research shows that customers' perceived value of retail banks positively influences WOM intentions (Mukerjee, 2018). Perceived value influences word of mouth about the StopCovid app (Kurtaliqi et al., 2022), the Facial Recognition Payment and Mobile QR-Code Payment (Zhong & Moon, 2022), including WOM in non-profit contexts (Blut, Chaney, Lunardo, Mencarelli & Grewal, 2023; Vock, Van Dolen & Kolk, 2013). Therefore,

H₁₀: Perceived value has a positive and significant effect on WOM intentions regarding Chat-banking app services

6.3 Mediation of customer trust, perceived value, and customer experience

6.3.1 Customer trust

Trust is commonly considered a primary barrier to adopting online and mobile services (Afshan & Sharif, 2016; Hanafizadeh, Behboudi, Koshksaray & Tabar, 2014; Zhou, 2012, 2011). Trust positively affects customers' adoption of digital banking (Alnemer, 2022; Hanafizadeh et al., 2014; Shankar & Datta, 2018) and mobile payment (Alkhowaiter, 2022). Shaw (2014) probed the mediating effect of customer trust in mobile wallet adoption. In a bank context, Aurier and N'Goala (2010) reported that trust and relationship commitment mediated the entire effect of user satisfaction, which seems to be an essential but not adequate circumstance for maintaining and developing relationships in banking. Similarly, van Tonder et al. (2018) report that continuous commitment in an electronic banking setting mediated the relationships between perceived usefulness and competence trust with positive word-of-mouth intention respectively. Zhou (2011) showed that initial trust affects perceived usefulness, and both factors mediate consumer usage intention in mobile banking. In addition, Koo and Wati (2010) found that the effects of information quality on perceived usefulness and end-user satisfaction are mediated by customer trust. Second, trust partially mediated relationships between system quality and perceived usefulness and system quality and

end-user satisfaction in mobile banking services in Indonesia. Moreover, research has shown that service quality indirectly affects the behavioural intention to use Internet banking through the mediation of trust (Namahoot & Laohavichien, 2018). Berraies, Chtioui and Yahia (2015) assessed how functional attributes of banking websites and customer loyalty could be mediated by online trust. According to Suh and Han (2003), trust mediates the relationship between a person's perception of security control and his/her acceptance of online banking.

Notably, studies of mobile banking (Kim et al., 2009) and (Oliveira et al., 2014) have considered trust as a mediating variable in the relationship between the firms' reputation and intention. However, Dawood et al. (2022) argued that few studies conducted in the FinTech context have explored the mediating effects of mobile perceived trust on the consumers' intention and adoption. Kassim and Abdulla (2006) showed that shared value in Internet banking has a medium effect on relationship commitment, but only via the mediating variable, trust. Shankar, Jebarajakirthy and Ashaduzzaman (2020) found that initial trust mediated the effects between valence and intention differently between higher and lower consumer involvement in mobile banking. Their study also suggests initial trust as a mediator for the relationship between the e-WOM prompts and mobile banking adoption intention. It suggests that these mediating effects differ based on the hierarchy of customer involvement. Therefore,

H₁₁: Customer trust mediates the relationship between customer experience and WOM intentions regarding Chat-banking app services.

H₁₂: Customer trust mediates the relationship between perceived value and WOM intentions regarding Chat-banking app services.

6.3.2 Perceived value

Perceived value has a positive relationship with the consumers' intention to adopt mobile Internet (Kim et al., 2007) and the IoT smart home service (Kim et al., 2017). Customer perceived value was found to have a positive and significant effect on customer sustainable intentions of s-commerce (Rahardja et al., 2021) and customers' intention to continue to use m-banking (Prodanova, Ciunova-Shuleska & Palamidovska-Sterjadovska, 2019). Langat, Bonuke and Kibet (2021) revealed that customer-perceived value significantly mediates the relationship between mobile banking service quality and customer retention. Pisnik, Dlačić and Milfelner (2016) showed that perceived value in retail banking services mediated the link between perceived quality and customer satisfaction. Results also confirmed that perceived value mediates the association between perceived price and customer satisfaction with retail banking services. Kapoor, Sindwani, Goel and Shankar (2022) showed the mediating effect of perceived values on the relations between perceived relative advantage, favourable infrastructure conditions, security considerations, touch-free transactions, and m-wallet adoption intention. In contrast, the perceived values fail to mediate between ease of effort and customer intention. Customer value and consumer readiness as mediators influence customers' continued use of Internet banking (Ho & Ko, 2008). Kim et al. (2007) show that consumers' perceived value of M-Internet is a primary factor of their

adoption intention, and the other beliefs are mediated through perceived value. Kim et al. (2007) found that perceived value is a crucial determinant of adoption of the M-Internet. They showed the mediating effect of perception of value on the link between a benefit and sacrifice a customer perceives about the beliefs and the user's adoption intention. Therefore,

H₁₃: Perceived value mediates the relationship between customer experience and WOM intentions regarding Chat-banking app services.

6.3.3 Customer experience

Karjaluoto, Mattila and Pento (2002) showed that previous computer experience significantly affected online banking usage. In contrast, positive personal banking experiences appeared to influence customer attitudes and usage, and satisfied consumers continued with their existing delivery channels. Nevertheless, Laforet and Li (2005) found that the past positive banking experience did not significantly affect the adoption of online and mobile banking in China. McLean et al. (2018) mentioned that the level of enjoyment experienced by a customer during app usage plays an important mediating role between the utilitarian dimensions and the overall customer experience. In the literature, Davis, Bagozzi and Warshaw (1992) found that perceived enjoyment and perceived usefulness mediated the influence of perceived ease of use on intention. Japutra, Molinillo, Utami and Ekaputra (2022) reported the partial mediation effect of perceived enjoyment and perceived control in the connection between perceived challenge and each engagement behaviour (i.e., augmenting, influencing, co-developing, and mobilising). Wang (2015) showed that the relationship between technology excellence and mobile value-added service (MVAS) continuance intention is mediated by service experience. Liebana-Cabanillas, Sanchez-Fernandez and Mu~noz-Leiva (2014) reported the moderating role of customer experience in mobile payment adoption in the context of virtual social networks. Therefore,

H₁₄: Customer experience mediates the relationship between customers' engagement and WOM intentions regarding Chat-banking app services.

7. Research Methodology

7.1 Sampling and data collection

Utilising a quantitative research method, a cross-sectional study was conducted among customers of South African retail banks, who indicated that they use Chat-banking app services. A purposive sampling method was used to select the suitable respondents. For example, purposive sampling is best used when aiming to select respondents most likely to provide correct and useful data, and it is a method that identifies and selects respondents using limited research resources effectively (Campbell, Greenwood, Prior, Shearer, Walkem, Young, Bywaters & Walker, 2020). An online survey was conducted to collect data from online banking customers between 18 and 65 years old. The selection criteria were aimed at individuals who had used Chat-banking app services in the past six months before the survey. An experienced research syndicate used its website link to distribute the structured questionnaire. The link was shared with the potential respondents, inviting them to access and complete the self-administer

questionnaire. In general, the study collected 373 complete responses suitable for data analysis. This provided a response rate of 93.25%.

7.2 Measurement Instrument

The electronic questionnaire contained a cover letter explaining the study's objectives and participation instructions. Two screening questions ascertained the sample selection in the study. Section A collected demographic information of the respondents (e.g., age, gender, Chat-banking app services preferred, etc.). Section B collected responses measured using the pre-validated scales adapted from the literature. For instance, six items of sending WOM (from Oertzen and Odekerken-Schröder, 2019), four items of customer trust (from Mehrad and Mohammadi, 2016), four items of customer experience (from Thakur, 2019), four items of perceived value (from Cao et al., 2022), and six items of cognitive and affective engagement (from Hijazi, 2022). These items were purified during pre-testing and pilot testing of the questionnaire (n = 50). Prior to the initial survey, the questionnaire was pretested among three experts in mobile banking. In addition, a pilot survey was conducted among 50 respondents who shared attributes similar to those targeted in the main study. The results of the pilot study showed the internal consistency reliability of the constructs tested in the study using the Cronbach alpha. In general, the feedback gathered aided in improving the final version of the questionnaire and research methodology suitable for the nature of the study.

7.3 Ethics

The research ethics for the online survey (i.e., the confidentiality of data, anonymity, rights to withdraw, etc.) were met in this study, and the respondents were not remunerated for their participation. Before an online survey was conducted to collect data using a research syndicate's website from July to August 2022, the study acquired ethical approval from the University of Johannesburg's College of Ethical Research Committee. The committee granted an ethical clearance certificate with the number 2022SCiiS015. Before respondents could access the structured questionnaire on the research company's website, they were asked to select a button option where they could provide consent to participate. They were guaranteed the privacy and confidentiality of the data they disclosed.

8. Results and Findings

8.1 Descriptive statistics

Data was collected in an online survey of which 49.1% were men, 48.2% were women, and 2.7% preferred not to disclose their gender. Of the respondents, 210 (56.3%) were 18–24 years old and 105 (28.2%) were 25–29. The frequently used Chat-banking app services included processing payments (n = 92; 24.7%), checking balance (n = 85; 22.8%), resolving a query or complaint (n = 81; 21.7%), buying airtime and data (n = 79; 21.2%), and buy electricity (n = 33; 8.8%).

8.2 Common method of bias

The study assessed the method biases that could impact the research results and identified remedies for the potential sources of bias. Following Podsakoff, MacKenzie, Lee and Podsakoff (2003), procedural and statistical methods were used. For example, regarding the procedural remedies, attention was devoted to the association between the predictor and criterion variable emanating from (a) the respondents, (b) contextual indicators existing in the measurement situation or in the questionnaire itself, and (c) the use of specific words and format of the initial questions. For statistical remedies, Harman’s single-factor test was conducted. Using this technique, all the variables in their study were loaded into an Exploratory Factor Analysis (EFA) SPSS version 28 to examine the unrotated factor solution. The aim was to determine the number of factors necessary to account for the variance in the variables. The results showed that one general factor accounts for the majority of the covariance among the measures, thus explaining 41.53% of the variance below 50%. This indicated that the common method of bias does not highly affect the research results in this study.

8.3 Measurement model

A confirmatory factor analysis (CFA) was conducted using AMOS 28 to assess the measurement properties of the items in each construct (Anderson & Gerbing, 1988), which showed a good fit to the data with strong fit indices: $\chi^2 = 529.002 / df = 220 = 2.405$, $p < 0.000$; root mean square error of approximation (RMSEA) = 0.061; normed fit index (NFI) = 0.906; Tucker-Lewis index (TLI) = 0.923; and comparative fit index (CFI) = 0.943. However, four items – namely, EX¹ = 0.473, $t = 8.953$; EN¹ = 0.587, $t = 12.103$; EN⁶ = 0.646, $t = 13.639$; and PV³ = 0.654, $t = 12.959$ – loaded below 0.7 and were deleted in Table 1. The factor loadings ranged from 0.7 to 0.9, indicating good reliability (Hair, Risher, Sarstedt & Ringle, 2019) and the average variance extracted (AVE) above 0.5 (Fornell & Larcker, 1981). The Cronbach’s alpha values ranged from 0.854 to 0.928, above 0.7. Table 2 confirms the discriminant validity. First, all individual elements of the latent factor correlation matrix were less than 1 at 95% confidence intervals (Anderson & Gerbing, 1988). Second, the shared variance between pairs of constructs was always less than the corresponding AVE (see bold values) (Fornell & Larcker, 1981). The final measurement model showed a good fit to the data, with strong fit indices: $\chi^2 = 241.475 / df = 125 = 1.932$, $p < 0.000$; RMSEA = 0.050; NFI = 0.947; incremental fit index (IFI) = 0.975; TLI = 0.964; and CFI = 0.973.

Table 1. Standardised regression weights

Codes	Items	Estimate	<i>t-values</i>	<i>CR</i>	<i>AVE</i>
EN2	I feel very positive when I use this bank’s chat banking service	0.741	16.250	0.883	0.653
EN3	Using this bank’s chat banking service makes me happy	0.853	20.008		

Codes	Items	Estimate	<i>t-values</i>	CR	AVE
EN4	I feel good when I use this bank's chat banking service	0.851	Fixed		
EN5	I am proud to use this bank's chat banking service	0.783	17.664		
EX2	The response is always returned promptly when communicating through chat banking	0.795	16.467	0.862	0.675
EX3	The response provided by chat banking is always up-to-date	0.834	17.235		
EX4	Accurate response is always returned when communicating through chat banking	0.835	Fixed		
PV1	Compared to the effort I need to put in, I think the use of chat banking would be beneficial to me	0.799	15.763	0.861	0.674
PV2	I think that the use of chat banking would deliver me good value	0.885	17.178		
PV4	Compared to the time I need to spend, I think using chat banking would be worthwhile.	0.774	Fixed		
T1	I trust this chat banking service	0.770	15.098	0.882	0.652
T2	This chat banking provides services in my best interest	0.870	17.214		
T3	This chat banking provides sincere and genuine banking services	0.823	16.265		
T4	This chat banking performs its role of providing services well	0.763	Fixed		
WOM1	I mention my bank's chat banking service to others quite frequently	0.868	17.681	0.921	0.701
WOM2	I have told more people about my bank's chat banking service than other banks' chat banking services	0.865	17.618		
WOM3	I seldom miss an opportunity to tell others about my bank's chat banking service	0.831	16.802		
WOM4	When I tell others about my bank's chat banking service, I tend to talk about the chat banking service in great detail	0.858	17.433		
WOM5	I am proud to tell others that I use my bank's chat banking service	0.758	Fixed		

Table 2. Discriminant validity

Constructs	ENG	PV	TR	EX	WO
Engagement (ENG)	0.808				
Perceived value (PV)	0.647	0.821			
Trust (TR)	0.634	0.675	0.808		
Experience (EX)	0.528	0.507	0.563	0.822	
WOM	0.608	0.322	0.359	0.209	0.837

Note: Top diagonal values refer to the heterotrait-monotrait ratio between the variables; bottom diagonal values present the values of the correlation matrix.

8.4 Structural model

The structural equation modelling on AMOS 28 was used to test the hypothesised structural paths in Figure 1 below. The results showed that the conceptual model fit data fit appropriately ($\chi^2 = 241.475$, $df = 125 = 1.932$, $p = 0.000$; RMSEA = 0.050; NFI = 0.947; TLI = 0.964; CFI = 0.973), despite the insignificant effects of some hypotheses See Table 3.

Table 3. Summary results of the hypothesised structure

Hypothesi	Dep	Indep	Estimate	t-value	p-value	Results
H1	EX	ENG	0.293	3.692	0.001	Accepted
H2	WOM	ENG	0.719	8.492	0.001	Accepted
H3	PV	EX	0.376	5.146	0.001	Accepted
H4	TR	EX	0.247	4.147	0.001	Accepted
H5	WOM	EX	-0.150	-2.292	0.022	Rejected
H6	ENG	TR	0.303	4.130	0.001	Accepted
H7	WOM	TR	0.060	0.754	0.451	Rejected
H8	ENG	PV	0.381	5.228	0.001	Accepted
H9	TR	PV	0.532	8.358	0.001	Accepted
H10	WOM	PV	-0.107	-1.352	0.176	Rejected

Note. $p < 0.001$; $p < 0.01$; $p < 0.05$

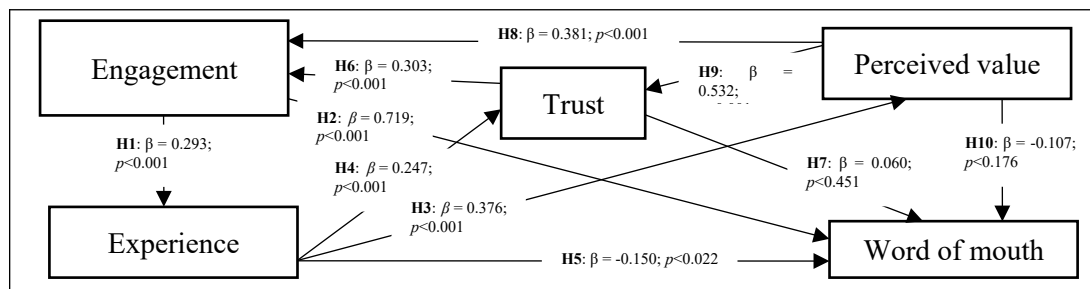


Figure 1: The theoretical framework

The results in Table 3 and Figure 1 showed a positive significant effect of customer engagement of chat-banking on experience (H1: $\beta = 0.293$; $p < 0.001$) and WOM intentions (H2: $\beta = 0.719$; $p < 0.001$). The customer experience of Chat-banking app services had a positive significant effect on perceived value (H3: $\beta = 0.376$; $p < 0.001$) and trust (H4: $\beta = 0.247$; $p < 0.001$). However, the experience of Chat-banking app services had a significant and negative effect on WOM intentions (H5: $\beta = -0.150$; $p < 0.022$). The trust had a significant positive impact on customer engagement in Chat-banking app services (H6: $\beta = 0.303$; $p < 0.001$) but did not influence its WOM intentions (H7: $\beta = 0.060$; $p < 0.451$). Perceived value of Chat-banking app services had a significant positive impact on customer engagement (H8: $\beta = 0.381$; $p < 0.001$) and trust (H9: $\beta = 0.532$; $p < 0.001$), although perceived value did not impact e-WOM intentions (H10: $\beta = -0.107$; $p < 0.176$). Thus, H1, H2, H3, H4, H6, H8, and H9 were accepted, while H5, H7, and H10 were rejected. The square multiple correlations showed the amount of variance extracted by each of the dependent variables, for example, customer trust (0.52), customer engagement (0.48), WOM intentions (0.39), perceived value (0.24), and customer experience (0.22), respectively.

8.5 Multiple mediations: Customer trust, perceived value, and customer experience

In order to measure the total, direct, and indirect effects of independent variables on the dependent variables, the study used the PROCESS Procedure for SPSS Version 4.1 written by Andrew Hayes and Scharkow (2013). Following the Johnson-Neyman, the models assessed all confidence intervals using 1000 bootstrap samples for percentile bootstrap confidence intervals at a 95% confidence level. Three mediations, such as customer trust, perceived value, and customer experience, were measured to determine their strengths in explaining the antecedents of “Word-of-Mouth” regarding the Chat-banking

app services. Based on Baron and Kenny (1986), three criteria must be fulfilled in order for the mediation effect to take place: (1) “the effect of the predictor variable on the mediator must be significant”, (2) “the effect of the mediator on the outcome variable must be significant when incorporating for the effect of the predictor variable” and (3) “the indirect effect in mediation must be significant”. The summary of the results of the effects of the three-mediator model is reported in Table 4.

Table 4. Multiple mediations: Customer trust, perceived value, and customer experience

<i>Mediation of customer trust on customer experience and word-of-mouth intention</i>							
Total effect of X on Y							
	Effect	se	<i>T</i>	<i>p</i>	LLCI	ULCI	<i>R</i> ²
	0.4136	0.0753	5.4936	0.0000	0.2656	0.5617	0.0760
Direct effect of X on Y							
	Effect	se	<i>T</i>	<i>p</i>	LLCI	ULCI	
	0.1915	0.0892	2.1477	0.0324	0.0162	0.3669	
Indirect effect(s) of X on Y:							
	Effect	BootSE	BootLLCI	BootULCI			
Customer trust	0.2221	0.0589	0.1122	0.3483			
<i>Mediation of customer trust on perceived value and word-of-mouth intention</i>							
Total effect of X on Y							
	Effect	se	<i>t</i>	<i>p</i>	LLCI	ULCI	<i>R</i> ²
	0.4414	0.0674	6.5513	0.0000	0.3089	0.5739	0.1047
Direct effect of X on Y							
	Effect	se	<i>t</i>	<i>p</i>	LLCI	ULCI	
	0.2643	0.0825	3.2043	0.0015	0.1021	0.4265	
Indirect effect(s) of X on Y:							
	Effect	BootSE	BootLLCI	BootULCI			
Customer trust	0.1771	0.0548	0.0731	0.2877			
<i>Mediation of perceived value on customer experience and word-of-mouth intention</i>							
Total effect of X on Y							
	Effect	se	<i>t</i>	<i>p</i>	LLCI	ULCI	<i>R</i> ²
	0.4160	0.0750	5.5458	0.0000	0.2685	0.5636	0.0771
Direct effect of X on Y							
	Effect	se	<i>t</i>	<i>p</i>	LLCI	ULCI	
	0.2233	0.0856	2.6087	0.0095	0.0550	0.3916	
Indirect effect(s) of X on Y:							
	Effect	BootSE	BootLLCI	BootULCI			
Perceived value	0.1928	0.0510	0.0939	0.2936			
<i>Mediation of customer experience on customer engagement and word-of-mouth intention</i>							
Total effect of X on Y							
	Effect	se	<i>t</i>	<i>p</i>	LLCI	ULCI	<i>R</i> ²
	0.8523	0.0584	14.5939	0.0000	0.7374	0.9671	0.3691
Direct effect of X on Y							
	Effect	se	<i>t</i>	<i>p</i>	LLCI	ULCI	
	0.8888	0.0680	13.0653	0.0000	0.7550	1.0225	
Indirect effect(s) of X on Y:							
	Effect	BootSE	BootLLCI	BootULCI			
Customer experience	-0.0365	0.0333	-0.1035	0.0278			

Note: $p < 0.001$, $p < 0.01$, $p < 0.05$

First, the results in Table 4 indicated that the direct effect of mediation of customer trust on customer experience and word-of-mouth intention is significant ($\beta = 0.1915$, $t = 2.1477$, $p < 0.0324$) (ULCI = 0.0162; LLCI = 0.3669). The results showed that the indirect effect of bootstrapping is also significant ($\beta = 0.2221$; BootLLCI = 0.1122; BootULCI = 0.3483) is also significant. In addition, results indicated that

the direct effect of mediation of customer trust on perceived value and word-of-mouth intention is significant ($\beta = 0.4414$; $t = 6.5513$, $p < 0.0000$) (ULCI = 0.3089; LLCI = 0.5739). The results showed that the indirect effect of bootstrapping is also significant ($\beta = 0.1771$; BootLLCI = 0.0731; BootULCI = 0.2877). Second, the results indicated that the direct effect of mediation of perceived value on customer experience and word-of-mouth intention is significant ($\beta = 0.2233$, $t = 2.6087$, $p < 0.0095$) (ULCI = 0.0550; LLCI = 0.3916). The results showed that the indirect effect of bootstrapping is also significant ($\beta = 0.1928$; BootLLCI = 0.0939; BootULCI = 0.2936). Lastly, the results indicated that the direct effect of mediation of customer experience on customer engagement and word-of-mouth is significant ($\beta = 0.8888$, $t = 13.0653$, $p < 0.0000$) (ULCI = 0.7550; LLCI = 1.0225). The results showed that the negative indirect effect of bootstrapping is not significant ($\beta = -0.0365$; ULCI = -0.1035; LLCI = 0.0278).

9. Discussion of results

9.1 Theoretical contributions

The study was conducted among banking customers using Chat-banking app services in South Africa. 49.1% were men, 48.2% were women, and 2.7% preferred not to disclose their gender. Most of the respondents, 210 (56.3%), were young consumers between 18–24 years old and 105 (28.2%) were aged 25–29. Regarding the use of Chat-banking app services, the frequently used services included processing payments ($n = 92$; 24.7%), checking balance ($n = 85$; 22.8%), resolving a query or complaint ($n = 81$; 21.7%), buying airtime and data ($n = 79$; 21.2%), and buy electricity ($n = 33$; 8.8%).

Regarding the research questions, the results showed a significant positive effect of customer engagement with Chat-banking app services on customer experience. Thus, hypothesis 1 is supported. This result supports the view that customer engagement with the brand positively affects their experience with the brand in the bank's digital service channels (website and mobile app) (Garzaro et al., 2021). Mbama, Ezepue, Alboul and Beer (2018) showed that employee-customer engagement significantly affects customer experience in digital banking. In addition, the significant positive effect of customer engagement with Chat-banking app services on WOM intentions was confirmed. Therefore, hypothesis 2 is supported. This result supports the literature. For instance, Santini et al. (2020) showed that customer engagement with social media directly and significantly affects word-of-mouth. Moreover, customer engagement affects word-of-mouth intentions by mediating brand trust (Chen et al., 2022).

Furthermore, the results showed that customer experience with Chat-banking app services positively affects perceived value. Therefore, hypothesis 3 is supported. This result aligns with the view that when users can transfer money between accounts, purchase goods, and pay bills using m-payment with similar success that they would experience in a physical store environment, this would enhance their perceived value of mobile payment (Lin et al., 2020). The literature indicated that physical experience positively affects the perceived value of online and offline commerce (Yang et al., 2020), and customer experience positively and significantly affects customers' perceived value of s-commerce (Rahardja et al., 2021). This differs from research showing that perceived value improves customer experience in digital banking

(Mbama et al., 2018). In addition, the results showed that customer experience has a positive and significant effect on customer trust in the Chat-banking app. Therefore, hypothesis 4 is supported. This result is in line with the body of literature showing that the customer experience of mobile banking has a positive and significant effect on customer trust (Febrian et al., 2021). This differs from Mbama et al. (2018), who report that brand trust significantly positively affects customer experience in digital banking settings. Researchers showed that customer experience positively and significantly affects customer-relationship quality attributes (satisfaction and trust) of s-commerce (Rahardja et al., 2021) and in electronic banking in Spanish (Liébana-Cabanillas et al., 2015). Although customer experience with Chat-banking app services positively impacts perceived value and trust, this experience negatively affects WOM intentions, which is unexpected. Therefore, hypothesis 5 is rejected. This result contradicts the previous studies, which showed that the favourable and memorable experience of retail banking customers positively impacts word-of-mouth in the banking sector (Chahal & Dutta, 2015; Klaus & Maklan, 2013). It was established that brand experience positively correlates with word-of-mouth (Mukerjee, 2018). Marketing theory also indicates that customer experience positively influences WOM behaviour (Maklan & Klaus, 2011). Therefore, the negative effect of customer experience with Chat-banking app services on WOM intentions was not expected. Several factors could explain it, among others, including the struggles relating to the use of the app itself. Problems of app malfunctioning, password change, security concerns, etc., result in experiences that negatively influence WOM behaviour.

The results of this study also indicate that customer trust significantly impacts customer engagement with Chat-banking app services. Therefore, hypothesis 6 is supported. This finding corroborates the research in various contexts, which confirmed that trust is a predictor of customer engagement in the South African open medical aid industry (Williams & Mckay, 2022), in social media (Santini et al., 2020), and in social commerce sellers (Wongkitrungrueng & Assarut, 2018). However, the results could not support the hypothesis that customer trust significantly affects WOM intention regarding Chat-banking app services, which was unexpected. Therefore, hypothesis 7 is rejected. This result contradicts the literature that revealed a significant positive influence of customer trust on WOM in marketing activity (De Matos & Rossi, 2008). Research also showed that competence trust has a positive and significant impact on positive word-of-mouth intention in banking (van Tonder et al., 2018), and trust positively and significantly affects positive word-of-mouth intention in hotel services in China (Chen et al., 2022). This can be explained by the number of factors such as personal innovativeness and familiarity with banking app technology, the banking app cues, relative benefits, propensity-to-trust and structural assurances, the perceived risk and resultant vulnerability towards the Internet, which all are antecedents of initial trust.

The results of this study also indicated a significant positive impact of perceived value on customer engagement of Chat-banking app services. Therefore, hypothesis 8 is supported. This result further expands the literature showing that perceived value has a positive impact on users' engagement in Islamic banks (Fianto et al., 2020), the banking sector (Hosseini & Aali, 2021), and in the live-streaming commerce setting (Cao et al., 2022). In addition, the results showed that the perceived value of Chat-

banking app services has a significant positive effect on customer trust. Therefore, hypothesis 9 is supported. This result supports the literature showing that perceived value dimensions of mobile banking, i.e., emotional, monetary, and quality value, positively affect customer trust (Berraies et al., 2017). Extensive evidence also indicates that customers' perceived values, particularly in mobile banking, are antecedents of e-trust (Harris & Goode, 2004; Karjaluoto et al., 2012; Ramli et al., 2021). This is similar to the research showing that a higher degree of perceived value positively affects customer trust in other contexts, such as mobile money applications (Hariguna et al., 2020), mobile intelligent devices of paid apps (Tang et al., 2020), in the future of the StopCovid app (Kurtaliqui et al., 2022), B2B express parcel company (Correa et al., 2021), and hotel service companies in China (Chen et al., 2022). However, the results failed to support the hypothesis that the perceived value of chat-banking app services has a significant positive effect on customer WOM intentions, which was also unexpected. Therefore, hypothesis 10 is not supported. This finding contradicts the literature showing that customers' perceived value of retail banks positively influences WOM intentions (Mukerjee, 2018). Scholars have shown that the overall value of the firm's offering significantly impacts loyalty intentions, such as repeat purchases and word of mouth (Gruen et al., 2006). De Matos and Rossi (2008) also revealed a significant positive effect of perceived value on WOM in marketing activity. Ultimately, this result could not support studies showing that perceived value affects word of mouth about other contextual technologies such as the StopCovid app (Kurtaliqui et al., 2022), the Facial Recognition Payment and Mobile QR-Code Payment (Zhong & Moon, 2022), including WOM in non-profit contexts (Blut et al., 2023; Vock et al., 2013). Zhong and Moon (2022) found that perceived value significantly impacts word-of-mouth regarding facial recognition payments or mobile QR-code payments.

The overall findings showed that the antecedent factors explained 52% of the variance in trust and 39% in WOM intentions regarding WOM intentions. With the nomological validity of these findings, the study conducted the three mediation variable analysis. First, the results indicated that the direct effect of mediation of customer trust on customer experience and word-of-mouth intention is significant, and its indirect effect was also significant. Therefore, hypothesis 11 is supported. This result expands the work by Shankar et al. (2020), which showed that initial trust mediates the relationship between the e-WOM prompts and mobile banking adoption intention and suggests that these mediating effects differ based on the hierarchy levels of customer involvement. Matute et al. (2016) have analysed the mediating influence of customer trust and the website's perceived usefulness on e-WOM attributes' impact on online customers' repurchase intentions in the Spanish online context. In addition, results indicated that the direct effect of mediation of customer trust on perceived value and word-of-mouth intention is significant, and its indirect effect was also significant. Therefore, hypothesis 12 is supported. This result expands the work by Kassim and Abdulla (2006), showing that shared value in Internet banking has a medium effect on relationship commitment, but only via the mediating variable, trust. Second, the results indicated that the direct effect of mediation of perceived value on customer experience and word-of-mouth intention is

significant, and its indirect effect was also significant. Therefore, hypothesis 13 is supported. The literature shows the mediating effects of perceived value between eWOM social media types and consumers' intentions to purchase (Yang, 2022). Lastly, the results indicated that the direct effect of mediation of customer experience on customer engagement and word-of-mouth is significant, but its indirect effect was insignificant. Therefore, hypothesis 14 is partially supported. This result expands the work by Wang (2015), showing that service experience mediated the link between technology excellence and continuance intention of mobile value-added service (MVAS). Liebana-Cabanillas et al. (2014) reported the moderating role of customer experience in mobile payment adoption in virtual social networks. However, the insignificant negative indirect effect of bootstrapping was not expected. As stated earlier, several factors could explain it, among others, including the struggles relating to the use of the app itself. Problems of app malfunctioning, password change, security concerns, etc., result in experiences that negatively influence WOM behaviour; hence, customer experience partially mediates the relationship between customer engagement and word-of-mouth intention. A study by Laforet and Li (2005) found that the past positive banking experience did not significantly affect the adoption of online and mobile banking in China. In addition, Moslehpour, Pham, Wong and Bilgiçli (2018) found that both PU and PEOU significantly mediate the relationship between conscientiousness and online purchasing intention. However, openness to experience was not a significant mediator.

The study generally validated the role of the three-variable mediation model, such as customer trust, perceived value, and customer experience, in a theoretical framework of the antecedents of WOM intentions regarding Chat-banking app services. The results provide significant contributions showing the importance of merging the three theories of the initial trust model by McKnight et al. (1998), the Value-based Adoption Model (VAM) by Kim et al. (2007), and the temporal experience by Wallace and Rabin (1960). The square multiple correlations of the structural model indicated that the amount of variance extracted by each of the dependent variables varied from customer trust (52%), perceived value (24%), and customer experience (22%), respectively. In addition, the variance explained on the mediation of customer trust on perceived value and word-of-mouth intention was 10.47%, which is higher than all the mediation effects.

Prior research, Pisnik et al. (2016) insist that the study of perceived value might be expanded to incorporate more antecedents of perceived value (e.g., cultural, market-based orientation), including more concerns of perceived value (e.g., consumer trust), as consumers in developing economies are anticipated to possess less experience with retail banking than those from the developed economies. In addition, this study also acknowledged the systematic review and critical analysis research about customer engagement by Rosado-Pinto and Loureiro (2020), who noted several studies recommending the conceptual models presented to be tested in different countries with varied cultures to understand if the findings depend on cultural differences. The study also expands the current work-study by Oliveira et al. (2014), which unified three models, such as UTAUT, the task technology fit (TTF), and the initial trust model (ITM), in the context of mobile banking in Portugal. Their findings showed performance expectancy as the highest significant variable without any moderating effect for gender and age. The results show that the perceived

value of Chat-banking app services predicts customers' engagement and trust but not WOM intentions. It contributes knowledge on the antecedents of WOM intentions for Chat-banking app services among customers in an emerging market. This insight contributes to the VAM theory (Kim et al., 2007), focusing on the view of user-perceived value. Furthermore, the results show that the perceived trust of Chat-banking app services predicts customers' engagement but not WOM intentions. This insight contributes to the initial trust model by McKnight et al. (1998), focusing on the view of user trust. Lastly, the results show that the customer experience predicts customer-perceived value and trust but not WOM intentions. This insight contributes to the temporal experience theory by Wallace and Rabin (1960), which focuses on the view of user experience.

9.2 Implications for practitioners

The study unveils knowledge for managers who must establish trust in Chat-banking app services. Improving customers' engagement with Chat-banking app services is crucial to stimulating WOM intentions (Chen et al., 2022; Santini et al., 2020). To instil trust in Chat-banking app services, app developers must provide services that are in customers' best interests, ensuring a sincere and genuine banking service for customers. For managers to increase customers' trust in Chat-banking app services, the app must provide services that stimulate positive customer engagement. In order to increase WOM intention, the app must provide communication messages that encourage customers to mention their banks' Chat-banking services to others frequently. In general, managers and app developers should focus on antecedents of the initial trust, such as dispositional trust, personal innovativeness, and familiarity with Chat-banking app services technology. Sarkar et al. (2020) and Setiyono et al. (2019) found a significant positive link between a disposition to trust and trust in m-commerce and branchless banking apps, respectively—secondly, a firm's reputation, corporate image, size, and trustworthiness. The firm's reputation as a signal of trustworthiness (Fuller et al., 2007; Koufaris & Hampton-Sosa, 2004) and its size and ability to customise its offerings (Koufaris & Hampton-Sosa, 2004) may all influence the initial trust. Thirdly, website quality is considered one of the most significant determinants of initial trust (Lowry et al., 2008; McKnight et al., 2002; Priya et al., 2018; Wakefield et al., 2004). Fourth, the online environment influences initial trust, mainly the perceived risk and resultant vulnerability towards the Internet. For example, the institutional environment where the transactions are conducted or facilitated and whether such an environment is protected and safe influence initial trust (McKnight et al., 2002). Considering all these antecedents may help increase customers' trust in Chat-banking app services, which, in turn, could stimulate positive customer engagement and increase WOM intentions about Chat-banking app services.

Furthermore, to improve the perception of value, Chat-Banking app service managers need to make it relevant to trigger various values classified as conditional, emotional, functional, epistemic, and social (Sheth et al., 1991a; 1991b). For managers to increase customers' perceived value in Chat-banking app services, the app must provide services that stimulate positive customer engagement and trust.

Engagement with such a banking app would lead to the potential intention to spread word-of-mouth regarding Chat-banking app services. Thus, to ensure perceived value, managers and app developers could utilise the main advantage of VAM, which is to recognise that the adopters are not only the users of technology but also consumers. For this reason, value maximisation must be a primary concern (Kim et al., 2007). In explaining the insinuations of customer value-based competition, Woodruff (1997) suggested that in the new age, i.e. the next main period in managerial practice, of competing for greater customer value delivery, businesses certainly would feel obliged to develop capabilities that could help them generate customer value learning and translation. They believe that many are by now seeking help. In that sense, banks need to be cognizant that information and guidance significantly enhance the perception of value-added services offered by mobile banking applications and lower the perceived risks associated with innovation (Akturan & Tezcan, 2012). In addition, as many customers value learning and translation, this could help increase WOM intentions about Chat-banking app services.

Moreover, managers need to understand the concept of temporal experience, as it resonates with people's perceptions regarding the passage of time (Wallace & Rabin, 1960). Providing exceptional customer experience could improve customer perceived value and trust in Chat-banking app services. App managers can also enhance temporal perceptions, making the interaction with the app highly interesting to avoid customers losing track of time while browsing the app content or simply waiting to check out (Lee, Chen & Hess, 2017; Li & Browne, 2006). Customer engagement with the Chat-banking app services should be considered an essential factor that enhances customer experience and WOM intentions. Temporal experience is also an element of customer engagement incorporated in studying many types of media, such as online or digital and mobile portals (Calder et al., 2009; Malthouse et al., 2016; Pagani & Malacarne, 2017). Managers need to understand that customers often visit computer-generated media for temporal experiences that give them a sense of pleasure and assist them in disengaging from routine tasks. These essential features could help Chat-banking app services improve perceived value and customer trust. For instance, consumers often use mobile platforms and mobile apps during periods when idling or embarking on a traveling journey or taking breaks from tasks. This makes it necessary for Chat-banking app services to enhance perceived value (i.e. conditional, emotional, functional, epistemic, and social) and customer trust by ensuring a captivating interaction, helping to ensure that customers do not lose track of time while browsing the app content or simply waiting to check out. Such an experience with Chat-banking app services could help alleviate negative WOM. As customers perceive a negative experience with Chat-banking app services, leading them to tell more people about such an experience, it is essential to alter this perception by increasing positive engagement, which could make them feel proud to tell others about it. In general, bank service providers should pay attention to improving the digital experience offered by their products and services (e.g., Chat-banking app services) as a favourable online experience produces a financial posture on banking organisations (Hamzah et al., 2014; Chauhan et al., 2022). Suoranta and Mattila (2004) insisted that a bank's communication style must match the potential adopters' information processing styles. They noted that interpersonal communication was more helpful in informing more experienced consumers and occasional users, whereas mass media was more useful in

informing non-users and less experienced users. Furthermore, banks and third-party applications must provide a more advanced architecture to present a seamless experience to m-payment users (Liebana-Cabanillas et al., 2014).

10. Limitations, conclusions, and future research direction

Despite the nomological validity of the results (i.e., support for the proposed theory), the study revealed unexpected results. First, experience negatively affects WOM intentions. Second, the findings show an insignificant influence of trust on Chat-banking app services WOM intentions. Third, the perceived value of Chat-banking app services insignificantly affects WOM intentions. Therefore, this study concludes that customer engagement is a valuable factor contributing to significant knowledge in the framework of the antecedents of word-of-mouth intentions regarding Chat-banking app services in South Africa. In addition, the study purposed to investigate three mediating variables, and the results showed significant direct and indirect mediating effects of customer trust and perceived value in the proposed model. In contrast, customer trust indicated a partial mediating effect. All these results require a longitudinal study. The model can be validated in other countries to expand the generalisability of the findings. Future studies can incorporate measures of the technology acceptance model (e.g., perceived ease of use and perceived usefulness) and continuous intentions to use Chat-banking app services utilising the experimental research design. Other essential variables can also be incorporated into the model (e.g., technostress, emotions from the perspective of cognitive appraisal view, concerns of security and privacy, etc.) to enhance the literature.

References

- Aaker, D. A. (1996). Measuring brand equity across products and markets. *California Management Review*, 38(3), 102–120.
- Afshan, S., & Sharif, A. (2016). Acceptance of mobile banking framework in Pakistan. *Telematics and Informatics*, 33(2), 370-387.
- Akturan, U., & Tezcan, N. (2012). Mobile banking adoption of the youth market: Perceptions and intentions. *Marketing Intelligence & Planning*, 30(4), 444-459.
- Al-Fahim, N. H., Ateeq, A. A., Abro, Z., Milhem, M., Alzoraiki, M., Alkadash, T. M., & Nagi, M. (2024). Factors influencing the mobile banking usage: mediating role of perceived usefulness. In *Digital Technology and Changing Roles in Managerial and Financial Accounting: Theoretical Knowledge and Practical Application* (Vol. 36, pp. 115-128).
- Aldás-Manzano, J., Lassala-Navarré, C., Ruiz-Mafé, C., & Sanz-Blas, S. (2009). Key drivers of Internet banking services use. *Online Information Review*, 33(4), 672-695.
- Alkhowaiter, W. A. (2022). Use and behavioural intention of m-payment in GCC countries: Extending meta-UTAUT with trust and Islamic religiosity. *Journal of Innovation & Knowledge*, 7(4), <https://doi.org/10.1016/j.jik.2022.100240>

- Alnemer, H.A. (2022). Determinants of digital banking adoption in the Kingdom of Saudi Arabia: A technology acceptance model approach. *Digital Business*, 2, 1–8.
- Alsheikh, L., & Bojei, J. (2012). Customer's perceived value to use mobile banking services. *In International Conference on Management, Behavioral Sciences and Economics Issues (ICMBSE 2012)*, Penang, Malaysia (pp. 178-182).
- Amoah, F., Radder, L., & Van Eyk, M. (2017). Experience composite worth: A combination of experience quality and experience value. *Southern African Business Review*, 21(1), 292-310.
- Anckar, B., & D'incay, D. (2002). Value creation in mobile commerce: Findings from a consumer survey. *Journal of Information Technology Theory and Application (JITTA)*, 4(1), 43-64.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- Arnold, M. J., Reynolds, K. E., Ponder, N., & Lueg, J. E. (2005). Customer delight in a retail context: investigating delightful and terrible shopping experiences. *Journal of Business Research*, 58(8), 1132-1145.
- Arndt, J. (1967). Role of product-related conversations in the diffusion of a new product. *Journal of Marketing Research*, 4(3), 291-295.
- Assensoh-Kodua, A., Migiro, S., & Mutambara, E. (2016). Mobile banking in South Africa: a systematic review of the literature. *Banks and Bank Systems*, 11(1), 34–41. doi:10.21511/bbs.11(1).2016.04
- Aurier, P., & N'Goala, G. (2010). The differing and mediating roles of trust and relationship commitment in service relationship maintenance and development. *Journal of the Academy of Marketing Science*, 38(3), 303–325.
- Aw, E. C. X., Basha, N. K., Ng, S. I., & Sambasivan, M. (2019). To grab or not to grab? The role of trust and perceived value in on-demand ridesharing services. *Asia Pacific Journal of Marketing and Logistics*, 31(5), 1442-1465.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173.
- Benamati, J., Fuller, M. A., Serva, M. A., & Baroudi, J. J. (2010). Clarifying the integration of trust and tam in e-commerce environments: implications for systems design and management. *IEEE Transactions on Engineering Management*, 57(3), 380–393. DOI: 10.1109/TEM.2009.2023111
- Berraies, S., Chtioui, R., & Yahia, K. B. (2015). Functional characteristics of banking websites and customer loyalty: the mediating role of online trust. *Journal of Applied Business Research*, 31(3), 911–923.
- Berraies, S., Yahia, K.B., & Hannachi, M. (2017). Identifying the effects of perceived values of mobile banking applications on customers. Comparative study between baby boomers, Generation X and Generation Y. *International Journal of Bank Marketing*, 35(6), 1018–1038.

- Bidar, R. (2018). Customer value perception toward use of mobile banking applications. *In Proceedings of the 29th Australasian Conference on Information Systems (ACIS2018) (pp. 1-11)*. Australasian Conference on Information Systems.
- Bitkina, O., Park, J., & Kim, H. K. (2022). Measuring user-perceived characteristics for banking services: proposing a methodology. *International Journal of Environmental Research and Public Health*, 19, 1-15.
- Blut, M., Chaney, D., Lunardo, R., Mencarelli, R., & Grewal, D. (2023). Customer perceived value: a comprehensive meta-analysis. *Journal of Service Research*, DOI: 10.1177/10946705231222295.
- Bolton, R. N., & Lemon, K. N. (1999). A dynamic model of customers' usage of services: Usage as an antecedent and consequence of satisfaction. *Journal of Marketing Research*, 36(2), 171-186.
- Bothma, M. & Mostert, L. (2023). Adopting the technology acceptance model: a Namibian perspective. *South African Journal of Information Management*, 25(1), a1624. <https://doi.org/10.4102/sajim.v25i1.1624>
- Brodie, R. J., Whittome, J. R., & Brush, G. J. (2009). Investigating the service brand: a customer value perspective. *Journal of Business Research*, 62(3), 345-355.
- Buttle, F. A. (2009). *Customer relationship management: concepts and technologies*. Second edition. Routledge. Butterworth-Heinemann. USA. ISBN: 978-1-85617-522-7
- Buttle, F. A. (1998). Word-of-mouth: understanding and managing referral marketing. *Journal of Strategic Marketing*, (6), 241-254.
- Calder, B. J., Malthouse, E. C., & Schaedel, U. (2009). An experimental study of the relationship between online engagement and advertising effectiveness. *Journal of Interactive Marketing*, 23(4), 321-331.
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of research in Nursing*, 25(8), 652-661.
- Cao, J., Li, J., Wang, Y., & Ai, M. (2022). The impact of self-efficacy and perceived value on customer engagement under live streaming commerce environment. *Security and Communication Networks*, 1-13. <https://doi.org/10.1155/2022/2904447>
- Chahal, H., & Dutta, K. (2015). Measurement and impact of customer experience in banking sector. *Decision*, 42, 57-70. DOI 10.1007/s40622-014-0069-6
- Charton-Vachet, F., Lombart, C., & Louis, D. (2020). Impact of attitude towards a region on purchase intention of regional products: the mediating effects of perceived value and preference. *International Journal of Retail & Distribution Management*, 48(7), 707-725.
- Chattopadhyay, A., & Laborie, J. L. (2005). Managing brand experience: The market contact audit™. *Journal of Advertising Research*, 45(1), 9-16.
- Chauhan, S., Akhtar, A., & Gupta, A. (2022). Customer experience in digital banking: a review and future research directions. *International Journal of Quality and Service Sciences*, 14(2), 311-348. DOI 10.1108/IJQSS-02-2021-0027

- Chen, Y., & Barnes, S. (2007). Initial trust and online buyer behaviour. *Industrial Management & Data Systems*, 107(1), 21–36. DOI 10.1108/02635570710719034
- Chigada, J. M. & Hirschfelder, B. (2017). Mobile banking in South Africa: A review and directions for future research. *South African Journal of Information Management*, 19(1), a789. <https://doi.org/10.4102/sajim.v19i1.789>
- Chigori, D., Viljoen, K., Ford, M., & Cilliers, L. (2020). Mobile phone banking: A comparative analysis of e-service quality and customer loyalty of banking applications and Unstructured Supplementary Service Data services. *Journal of Economic and Financial Sciences*, 13(1), a471. <https://doi.org/10.4102/jef.v13i1.471>
- Chen, X., Wang, Y., Lyu, X., & Zhang, J. (2022). The impact of hotel customer engagement and service evaluation on customer behavior intention: The mediating effect of brand trust. *Frontiers in Psychology*, 13, doi: 10.3389/fpsyg.2022.852336.
- Correa, C., Alarcón, D., & Cepeda, I. (2021). “I am Delighted!”: The effect of perceived customer value on repurchase and advocacy intention in B2B express delivery services. *Sustainability*, 13(11), <https://doi.org/10.3390/su13116013>
- Creemers, T., & Kallner, H. (2022). The future of retail banking in South Africa. *The future of banking research paper*. pp. 1 – 32. August 2022.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace 1. *Journal of Applied Social Psychology*, 22(14), 1111-1132.
- Dawood, H. M., Liew, C. Y., & Lau, T. C. (2022). Mobile perceived trust mediation on the intention and adoption of FinTech innovations using mobile technology: A systematic literature review [version 2; peer review: 2 approved]. *FI000Research*, 10, 1-19.
- Delgado-Ballester, E., & Hernaández-Espallardo, M. (2008). Building online brands through brand alliances in internet. *European Journal of Marketing*, 42(9/10), 954-976. DOI 10.1108/03090560810891091
- De Matos, C. A., & Rossi, C. A. V. (2008). Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators. *Journal of the Academy of Marketing Science*, 36, 578-596.
- Dodds, W. B., & Monroe, K. B. (1985). The effect of brand and price information on subjective product evaluations. *Advances in Consumer Research*, 12(1), 85-90.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of Marketing*, 61(2), 35-51.
- Dwyer, F. R., Schurr, P. H., & Oh, S. (1987). Developing buyer-seller relationships. *Journal of Marketing*, 51(2), 11-27.
- Eastlick, M. A., & Lotz, S. (2011). Cognitive and institutional predictors of initial trust toward an online retailer. *International Journal of Retail & Distribution Management*, 39(4), 234–255.
- Enger, W., & Vollhardt, K. (2016). Customer experience. Creating value through transforming customer journeys. 1, Winter 2016. McKinsey & Company.

- Febrian, D., Simanjuntak, M., & Hasanah, N. (2021). The effect of benefits offered and customer experience on re-use intention of mobile banking through customer satisfaction and trust. *Jurnal Keuangan dan Perbankan*, 25(3), 551-569.
- Farzin, M., Sadeghi, M., Kharkeshi, F.Y., Ruholahpur, H., & Fattahi, M. (2021). Extending UTAUT2 in M-banking adoption and actual use behavior: Does WOM communication matter? *Asian Journal of Economics and Banking*, 5(2), 136-157.
- Fernandes, T., & Pinto, T. (2019). Relationship quality determinants and outcomes in retail banking services: The role of customer experience. *Journal of Retailing and Consumer Services*, 50, 30-41. <https://doi.org/10.1016/j.jretconser.2019.01.018>
- Fianto, B. A., Gan, C., Widiastuti, T., & Sukmana, R. (2020). Customer loyalty to Islamic banks: evidence from Indonesia. *Cogent Business & Management*, 7(1), 1-27.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. February 1981.
- Fuller, M. A., Serva, M. A., & Benamati, J. (2007). Seeing is believing: the transitory influence of reputation information on e-commerce trust and decision making. *Decision Sciences*, 38(4), 675 – 699. DOI: 10.1111/j.1540-5915.2007.00174.x
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58(2), 1-19.
- Gao, L., & Waechter, K. A. (2017). Examining the role of initial trust in user adoption of mobile payment services: an empirical investigation. *Information Systems Frontiers*, 19, 525–548.
- Garzaro, D. M., Varotto, L. F., & Pedro, S. (2021). Internet and mobile banking: the role of engagement and experience on satisfaction and loyalty. *International Journal of Bank Marketing*, 39(1), 1-23.
- Gefen, D. (2000). E-commerce: The role of familiarity and trust. *OMEGA*, 28(6), 725–737.
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 27(1), 51 –90. <http://www.jstor.org/stable/30036519>
- Grabner-Kräuter, S., & Breitenecker, R.J. (2011). Factors influencing online banking adoption: evidence from the Austrian market. *International Journal of Internet Marketing and Advertising*, 6(4), 333-351.
- Grabner-Kräuter, S., & Faullant, R. (2008). Consumer acceptance of Internet banking: The influence of Internet trust. *International Journal of Bank Marketing*, 26(7), 483–504. DOI: 10.1108/02652320810913855
- Grewal, D., Krishnan, R., Baker, J., & Borin, N. (1998). The effect of store name, brand name and price discounts on consumers' evaluations and purchase intentions. *Journal of Retailing*, 74(3), 331-352.
- Gruen, T. W., Osmonbekov, T., & Czaplewski, A. J. (2006). eWOM: The impact of customer-to-customer online know-how exchange on customer value and loyalty. *Journal of Business Research*, 59(4), 449-456.
- Gu, J., Lee, S., & Suh, Y. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, 36, 11605–11616. doi:10.1016/j.eswa.2009.03.024

- Gu, Z., Wei, J., & Xu, F. (2016). An empirical study on factors influencing consumers' initial trust in wearable commerce. *Journal of Computer Information Systems*, 56(1), 79–85.
- Hair, J. F., Risher, J. F., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
- Hampton-Sosa, W., & Koufaris, M. (2005). The effect of web site perceptions on initial trust in the owner company. *International Journal of Electronic Commerce*, 10(1), 55–81.
- Hamzah, Z. L., Alwi, S. F. S., & Othman, M. N. (2014). Designing corporate brand experience in an online context: A qualitative insight. *Journal of Business Research*, 67(11), 2299-2310. <http://dx.doi.org/10.1016/j.jbusres.2014.06.018>
- Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., & Tabar, M. J. S. (2014). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, 31(1), 62-78.
- Hariguna, T., Adiandari, A. M., & Ruangkanjanases, A. (2020). Assessing customer intention use of mobile money application and the antecedent of perceived value, economic trust and service trust. *International Journal of Web Information Systems*, 16(3), 331-345.
- Harris, L. C., & Goode, M. M. (2004). The four levels of loyalty and the pivotal role of trust: a study of online service dynamics. *Journal of Retailing*, 80(2), 139-158.
- Hartline, M. D., & Jones, K. C. (1996). Employee performance cues in a hotel service environment: Influence on perceived service quality, value, and word-of-mouth intentions. *Journal of Business Research*, 35(3), 207-215.
- Hayes, A. F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis: does method really matter?. *Psychological Science*, 24(10), 1918-1927.
- Hirschman, E. C. (1987). People as products: Analysis of a complex marketing exchange. *Journal of Marketing*, 51(1), 98–108. <https://doi.org/10.2307/1251147>
- Hijazi, R. (2022). Mobile banking service quality and customer value co-creation intention: a moderated mediated model. *International Journal of Bank Marketing*, DOI 10.1108/IJBM-01-2022-0004
- Ho, S. H., & Ko, Y. Y. (2008). Effects of self-service technology on customer value and customer readiness: The case of Internet banking. *Internet Research*, 18(4), 427-446.
- Hollebeek, L. (2011). Exploring customer brand engagement: definition and themes. *Journal of Strategic Marketing*, 19(7), 555-573.
- Hollebeek, L. D., Conduit, J., & Brodie, R. J. (2016). Strategic drivers, anticipated and unanticipated outcomes of customer engagement. *Journal of Marketing Management*, 32(5–6), 393–398. <https://doi.org/10.1080/0267257X.2016.1144360>
- Homburg, C., Jozić, D., & Kuehnl, C. (2017). Customer experience management: toward implementing an evolving marketing concept. *Journal of the Academy of Marketing Science*, 45, 377-401.
- Hosseini, S. M. K., & Aali, S. (2021). The effect of perceived value on customer engagement value in relationship-oriented and non-relationship-oriented customers in the banking industry. *Indian Journal of Economics and Business*, 20(4), 807-825.

- Hu, X., Wu, G. M., Wu, Y., & Zhang, H. (2010). The effects of web assurance seals on consumers' initial trust in an online vendor: A functional perspective. *Decision Support Systems*, 48(2), 407-418. DOI: 10.1016/j.dss.2009.10.004
- Islam, J. U., Hollebeek, L. D., Rahman, Z., Khan, I., & Rasool, A. (2019). Customer engagement in the service context: An empirical investigation of the construct, its antecedents and consequences. *Journal of Retailing and Consumer Services*, 50, 277-285.
- Islam, J. U., Shahid, S., Rasool, A., Rahman, Z., Khan, I., & Rather, R. A. (2020). Impact of website attributes on customer engagement in banking: a solicitation of stimulus-organism-response theory. *International Journal of Bank Marketing*, 38(6), 1279-1303. <https://doi.org/10.1108/IJBM-12-2019-0460>
- Järvinen, R. A. (2014). Consumer trust in banking relationships in Europe. *International Journal of Bank Marketing*, 32(6), 551-566. <http://dx.doi.org/10.1108/IJBM-08-2013-0086>
- Jhee, S. Y., Kim, M. K., & Han, S. L. (2024). A study on the perceived value and intention of use of mobile shopping apps using Value-Based Adoption Model (VAM). *Journal of Service Research and Studies*, 14(2), 101-116.
- Johnson, M. D., Herrmann, A., & Huber, F. (2006). The evolution of loyalty intentions. *Journal of Marketing*, 70, 122-132. <http://dx.doi.org/10.1509/jmkg.70.2.122>
- Johnston, R., & Kong, X. (2011). The customer experience: a road-map for improvement. *Managing Service Quality: An International Journal*, 21(1), 5-24.
- Japutra, A., Molinillo, S., Utami, A. F., & Ekaputra, I. A. (2022). Exploring the effect of relative advantage and challenge on customer engagement behavior with mobile commerce applications. *Telematics and Informatics*, 72, <https://doi.org/10.1016/j.tele.2022.101841>
- Kaabachi, S., Mrad, S. B., & Petrescu, A. (2017). The moderating effect of e-bank structure on French consumers' trust. *International Journal of Bank Marketing*, DOI 10.1108/IJBM-04-2019-0119
- Kapoor, A., Sindwani, R., Goel, M., & Shankar, A. (2022). Mobile wallet adoption intention amid COVID-19 pandemic outbreak: A novel conceptual framework. *Computers & Industrial Engineering*, 172, <https://doi.org/10.1016/j.cie.2022.108646>
- Kassim, M. N., & Abdulla, K. M. A. (2006). The influence of attraction on Internet banking: an extension to the trust-relationship commitment model. *International Journal of Bank Marketing*, 24(6), 424-442.
- Karjaluoto, H., Shaikh, A. A., Leppäniemi, M., & Luomala, R. (2020). Examining consumers' usage intention of contactless payment systems. *International Journal of Bank Marketing*, 38(2), 332-351.
- Karjaluoto, H., Shaikh, A. A., Saarijärvi, H., & Saraniemi, S. (2019). How perceived value drives the use of mobile financial services apps. *International Journal of Information Management*, 47, 252-261.
- Karjaluoto, H., Jayawardhena, C., Leppäniemi, M., & Pihlström, M. (2012). How value and trust influence loyalty in wireless telecommunications industry. *Telecommunications Policy*, 36(8), 636-649.

- Karjaluoto, H., Mattila, M., & Pento, T. (2002). Factors underlying attitude formation towards online banking in Finland. *International Journal of Bank Marketing*, 20(6), 261-272.
- Keller, K. L., & Lehmann, D. R. (2006). Brands and branding: Research findings and future priorities. *Marketing Science*, 25(6), 740–759. <https://www.jstor.org/stable/40057218>
- Kim, D. J. (2012). An investigation of the effect of online consumer trust on expectation, satisfaction, and post-expectation. *Information System and E-Business Management*, 10, 219–240. DOI 10.1007/s10257-010-0136-2
- Kim, D., Chun, H., & Lee, H. (2014). Determining the factors that influence college students' adoption of smartphones. *Journal of the Association for Information Science and Technology*, 65(3), DOI:10.1002/asi.22987
- Kim, H. W., Gupta, S., & Chan, H. C. (2007). Value-based adoption of mobile Internet: An empirical investigation. *Decision Support Systems*, 43(1), 111-126.
- Kim, Y., Park, Y., & Choi, J. (2017). A study on the adoption of IoT smart home service: using Value-based Adoption Model. *Total Quality Management & Business Excellence*, 28(9-10), 1149-1165.
- Kim, G., Shin, B., & Lee, H.G. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. *Information Systems Journal*, 19, 283–311.
- Kim, K. K., & Prabhakar, B. (2004). Initial trust and the adoption of B2C e-commerce: the case of Internet banking. *ACM SIGMIS Database*, 35 (2), 50–64.
- Klaus, P. P., & Maklan, S. (2013). Towards a better measure of customer experience. *International Journal of Market Research*, (55)2, 226-246.
- KLA.co.za (2024). The future of digital banking in South Africa. <https://kla.co.za/blogs/the-future-of-digital-banking-in-south-africa/>
- Koo, C., & Wati, Y. (2010). Toward an understanding of the mediating role of “trust” in mobile banking service: an empirical test of Indonesia case. *Journal of Universal Computer Science*, 16(13), 1801-1824.
- Koufaris, M. & Hampton-Sosa, W. (2004). The development of initial trust in an online company by new customers. *Information and Management*, 41, 377–397.
- Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. *Journal of Marketing*, 80(6), 36-68.
- Kuppelwieser, V. G., Klaus, P., Manthiou, A., & Hollebeek, L. D. (2022). The role of customer experience in the perceived value–word-of-mouth relationship. *Journal of Services Marketing*, 36(3), 364-378.
- Kurtaliqui, F., Zaman, M., & Sohler, R. (2022). The psychological reassurance effect of mobile tracing apps in COVID-19 Era. *Computers in Human Behavior*, 131, 1-15.
- Laforet, S., & Li, X. (2005). Consumers' attitudes towards online and mobile banking in China. *International Journal of Bank Marketing*, 23(5), 362-380.

- Langat, D. K., Bonuke, R., & Kibet, Y. (2021). Mobile banking service quality and customer retention: a moderated mediation model of customer perceived value and perceived corporate image. *SEISENSE Journal of Management*, 4(4), 47-61.
- Lee, D. H. (2020). The impact of exhibition service quality on general attendees' satisfaction through distinct mediating roles of perceived value. *Asia Pacific Journal of Marketing and Logistics*, 32(3), 793-816.
- Lee, Y. G., Chen, A. N., & Hess, T. (2017). The online waiting experience: Using temporal information and distractors to make online waits feel shorter. *Journal of the Association for Information Systems*, 18(3). DOI: 10.17705/1jais.00452
- Lee, Y. G., Chen, A. N., & Hess, T. (2017). The online waiting experience: Using temporal information and distractors to make online waits feel shorter. *Journal of the Association for Information Systems*, 18(3), DOI: 10.17705/1jais.00452
- Lewicki, R. J., & Bunker, B. B. (1995). Trust in relationships: A model of trust development and decline. In B. B. Bunker & J. Z. Rubin (Eds.), *Conflict, cooperation and justice*: 133-173. San Francisco: Jossey-Bass.
- Li, D., & Browne, G. J. (2006). The role of need for cognition and mood in online flow experience. *Journal of Computer Information Systems*, 46(3), 11-17.
- Li, X., Hess, T.J., & Valacich, J.S. (2008). Why do we trust new technology? A study of initial trust formation with organizational information systems. *Journal of Strategic Information Systems*, 17, 39-71. doi:10.1016/j.jsis.2008.01.001
- Li, Y. M., & Yeh, Y. S. (2010). Increasing trust in mobile commerce through design aesthetics. *Computers in Human Behavior*, 26(4), 673-684.
- Liao, Y.-K., Wu, W.-Y., Le, T.Q., & Phung, T. T. T. (2022) The Integration of the Technology Acceptance Model and Value-Based Adoption Model to study the adoption of e-learning: the moderating role of e-WOM. *Sustainability*, 14, 815. <https://doi.org/10.3390/su14020815>
- Liljander, V., & Strandvik, T. (1993). Estimating zones of tolerance in perceived service quality and perceived service value. *International Journal of Service Industry Management*, 4(2), 6-28.
- Lin, J., Lu, Y., Wang, B., & Wu, S. (2011). Initial trust and adoption of mobile brokerage service. *International Journal of Mobile Communications*, 9(2), 124-143.
- Lin, K. Y., Wang, Y. T., & Huang, T. K. (2020). Exploring the antecedents of mobile payment service usage: Perspectives based on cost-benefit theory, perceived value, and social influences. *Online Information Review*, 44(1), 299-318.
- Lin, J., Lu, Y., Wang, B., & Wei, K. K. (2011). The role of inter-channel trust transfer in establishing mobile commerce trust. *Electronic Commerce Research and Applications*, 10(6), 615-625.
- Lin, T. C., Wu, S., Hsu, J. S. C., & Chou, Y. C. (2012). The integration of value-based adoption and expectation-confirmation models: An example of IPTV continuance intention. *Decision Support Systems*, 54(1), 63-75.

- Lindberg-Repo, K., & Grönroos, C. (1999). Word-of-mouth referrals in the domain of relationship marketing. *Australasian Marketing Journal*, 7(1), 109–117.
- Lowry, P. B., Vance, A., Moody, G. D., Beckman, B., & Read, A. S. (2008). Explaining and predicting the impact of branding alliances and web site quality on initial consumer trust of e-commerce web sites. *Journal of Management Information Systems*, 24(4), 199–224. DOI: 10.2753/MIS0742-1222240408
- Lu, K., & Wang, X. (2020). Analysis of perceived value and travelers' behavioral intention to adopt ride-hailing services: case of Nanjing, China. *Journal of Advanced Transportation*, 2020(1). <https://doi.org/10.1155/2020/4380610>
- Maklan, S., & Klaus, P. P. (2011). Customer experience. Are we measuring the right things? *International Journal of Market Research*, 53(6), 771-792.
- Malthouse, E. C., Calder, B. J., Kim, S. J., & Vandenbosch, M. (2016). Evidence that user-generated content that produces engagement increases purchase behaviours. *Journal of Marketing Management*, 32(5-6), 427-444.
- Mathavan, B., Vafaei-Zadeh, A., Hanifah, H., Ramayah, T., & Kurnia, S. (2024). Understanding the purchase intention of fitness wearables: using value-based adoption model. *Asia-Pacific Journal of Business Administration*, 16(1), 101-126.
- Matute, J., Polo-Redondo, Y., & Utrillas, A. (2016). The influence of EWOM characteristics on online repurchase intention: Mediating roles of trust and perceived usefulness. *Online Information Review*, 40(7), 1090-1110.
- Mayer, R. C., Davis, J. H., & Shoorman, F. D. (1995). An integrative model of organization trust. *Academy of Management Review*, 20, 709–734.
- Mbama, C. I., Ezepe, P., Alboul, L., & Beer, M. (2018). Digital banking, customer experience and financial performance UK bank managers' perceptions. *Journal of Research in Interactive Marketing*, 12(4), 432-451.
- McKee, D., Simmers, C.S., & Licata, J. (2006). Customer self-efficacy and response to service. *Journal of Service Research*, 8(3), 207–220.
- McKnight, D. H., & Chervany, N. L. (2002). What trust means in e-commerce customer relationships: an interdisciplinary conceptual typology. *International Journal of Electronic Commerce*, 6(2), 35–59.
- McKnight, D. H., Choudhury, V. & Kacmar, C. (2002) Developing and validating trust measures for e-Commerce: an integrative typology. *Information Systems Research*, 13, 297–323.
- McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial trust formation in new organizational relationships. *The Academy of Management Review*, 23(3), 473–490. <https://www.jstor.org/stable/259290>
- McKnight, D. H., Carter, M., Thatcher, J. B., & Clay, P. F. (2011). Trust in a specific technology: An investigation of its components and measures. *ACM Transactions on Management Information Systems (TMIS)*, 2(2), 1–25.

- McLean, G., Al-Nabhani, K., & Wilson, A. (2018). Developing a mobile applications customer experience model (MACE)-implications for retailers. *Journal of Business Research*, 85, 325-336.
- Mehrad, D., & Mohammadi, S. (2016). Word of Mouth impact on the adoption of mobile banking in Iran. *Telematics and Informatics*, <http://dx.doi.org/10.1016/j.tele.2016.08.009>
- Mollen, A., & Wilson, H. (2010). Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research*, 63(9-10), 919-925.
- Moorman, C., Deshpandé, R., & Zaltman, G. (1993). Factors affecting trust in market research relationships. *Journal of Marketing*, 57(1), 81-101. January 1993.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38.
- Moslehpour, M., Pham, V. K., Wong, W. K., & Bilgiçli, İ. (2018). E-purchase intention of Taiwanese consumers: Sustainable mediation of perceived usefulness and perceived ease of use. *Sustainability*, 10(1). doi:10.3390/su10010234
- Mukerjee, K. (2018). The impact of brand experience, service quality and perceived value on word of mouth of retail bank customers: investigating the mediating effect of loyalty. *Journal of Financial Service Marketing*, <https://doi.org/10.1057/s41264-018-0039-8>
- Mukherjee, A., & Nath, P. (2003). A model of trust in online relationship banking. *International Journal of Bank Marketing*, 21(1), 5-15.
- Namahoot, K. S., & Laohavichien, T. (2018). Assessing the intentions to use Internet banking: The role of perceived risk and trust as mediating factors. *International Journal of Bank Marketing*, 36(2), 256-276.
- Nie, P., Abd-Rabo, M. A., Sun, Y., & Ren, J. (2019). A consumption behavior model with advertising and word-of-mouth effect. *Journal of Nonlinear Modeling and Analysis*, 1(4), 461–89.
- Oertzen, A., & Odekerken-Schröder, G. (2019). Achieving continued usage in online banking: a post-adoption study. *International Journal of Bank Marketing*, 37(6), 1394-1418.
- Okello, G., Bongomin, C., & Ntay, J. (2019). Trust: mediator between mobile money adoption and usage and financial inclusion. *Social Responsibility Journal*. DOI 10.1108/SRJ-01-2019-0011
- Oracle Financial Services (2020). Global retail banking consumer trends. The changing shape of consumer banking relationships. *2020-2021 Global Retail Banking Consumer Survey and Report*. pp. 1-28.
- Oliveira, T., Faria, M., Thomas, M. A., & Popovic, A. (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. *International Journal of Information Management*, 34, 689–703.
- Pagani, M., & Malacarne, G. (2017). Experiential engagement and active vs. Passive behavior in mobile location-based social networks: The moderating role of privacy. *Journal of Interactive Marketing*, 37, 133–148. <https://doi.org/10.1016/j.intmar.2016.10.001>

- Pankomera, R., & Van Greunen, D. (2018). Challenges, benefits, and adoption dynamics of mobile banking at the base of the pyramid (BOP) in Africa: A systematic review. *The African Journal of Information and Communication (AJIC)*, 21, 21–49. <https://doi.org/10.23962/10539/26113>
- Pekovic, S., & Rolland, S. (2020). Recipes for achieving customer loyalty: A qualitative comparative analysis of the dimensions of customer experience. *Journal of Retailing and Consumer Services*, 56, <https://doi.org/10.1016/j.jretconser.2020>
- Pisnik, A., Dlačić, J., & Milfelner, B. (2016). The importance of perceived service value in retail banking services. *Market-Tržište*, 28(2), 191-212.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.
- Poromatikul, C., De Maeyer, P., Leelapanyalert, K., & Zaby, S. (2020). Drivers of continuance intention with mobile banking apps. *International Journal of Bank Marketing*, 38(1), 242-262. DOI 10.1108/IJBM-08-2018-0224
- Priya, R., Gandhi, A.V., & Shaikh, A. (2018). Mobile banking adoption in an emerging economy: An empirical analysis of young Indian consumers. *Benchmarking: An International Journal*, 25(2), 743–762. <https://doi.org/10.1108/BIJ-01-2016-0009>
- Prodanova, J., Ciunova-Shuleska, A., & Palamidovska-Sterjadovska, N. (2019). Enriching m-banking perceived value to achieve reuse intention. *Marketing Intelligence & Planning*, 37(6), 617-630.
- Pura, M. (2005). Linking perceived value and loyalty in location-based mobile services. *Managing Service Quality: An International Journal*, 15(6), 509-538.
- Rahardja, U., Hongsuchon, T., Hariguna, T., & Ruangkanjanases, A. (2021). Understanding impact sustainable intention of s-commerce activities: the role of customer experiences, perceived value, and mediation of relationship quality. *Sustainability*, 13(20). <https://doi.org/10.3390/su132011492>
- Ramli, Y., Harwani, Y., Soelton, M., Hariani, S., Usman, F., & Rohman, F. (2021). The implication of trust that influences customers' intention to use mobile banking. *Journal of Asian Finance, Economics and Business*, 8(1), 353-361.
- Ravald, A., & Grönroos, C. (1996). The value concept and relationship marketing. *European Journal of Marketing*, 30(2), 19-30.
- Riquelme, E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of mobile banking. *International Journal of Bank Marketing*, 28(5), 328–341. <http://dx.doi.org/10.1108/02652321011064872>
- Robinson, S.L. (1996). Trust and breach of the psychological contract. *Administrative Science Quarterly*, 41(4), 574-599. <http://www.jstor.org/stable/2393868>
- Roig, J. C. F., Garcia, J. S., Tena, A. M. A., & Monzonis, J. L. (2006). Customer perceived value in banking services. *International Journal of Bank Marketing*, 24(5), 266-283.
- Rosado-Pinto, F., & Loureiro, S. M. C. (2020). The growing complexity of customer engagement: a systematic review. *EuroMed Journal of Business*, 15(2), 167-203.

- Saima, F.N., Rahman, M.A., & Ghosh, R. (2021). MFS usage intention during COVID-19 and beyond: an integration of health belief and expectation confirmation model. *Journal of Economic and Administrative Sciences*, DOI 10.1108/JEAS-07-2021-0133
- Saleem, M. A., Zahra, S., & Yaseen, A. (2017). Impact of service quality and trust on repurchase intentions – the case of Pakistan airline industry. *Asia Pacific Journal of Marketing and Logistics*, 29(5), 1136-1159. <https://doi.org/10.1108/APJML-10-2016-0192>
- Sankaran, R., & Chakraborty, S. (2021). Factors impacting mobile banking in India: Empirical approach extending UTAUT2 with perceived value and trust. *IIM Kozhikode Society & Management Review*, 11(1), 7-24.
- Santini, F. O., Ladeira, W. J., Pinto, D. C., Herter, M. M., Sampaio, C. H., & Babin, B. J. (2020). Customer engagement in social media: a framework and meta-analysis. *Journal of the Academy of Marketing Science*, 48, 1211-1228.
- Sarkar, S., Chauhan, S., & Kharea, A. (2020). A meta-analysis of antecedents and consequences of trust in mobile commerce. *International Journal of Information Management*, 50, 286–301. <https://doi.org/10.1016/j.ijinfomgt.2019.08.008>
- Schmitt, B. (2010). Experiential marketing: Concepts, frameworks and consumer insights. *Foundation of Trends in Marketing*, 5(2), 55–112.
- Setiawan, R., & Achyar, A. (2012). Effects of perceived trust and perceived price on customers' intention to buy in online store in Indonesia. *ASEAN Marketing Journal*, 4(1), 26-36.
- Setiyono, Shihab & Azzahro, (2018). The role of initial trust on intention to use branchless banking application: case study of jenius. *2018 International Conference of Computer and Informatics Engineering (IC2IE)*. IOP Conference Series. *Journal of Physics: Conference Series*, 1193. doi:10.1088/1742-6596/1193/1/012022
- Shahid, S., Islam, J. U., Malik, S., & Hasan, U. (2022). Examining consumer experience in using m-banking apps: A study of its antecedents and outcomes. *Journal of Retailing and Consumer Services*, 65, <https://doi.org/10.1016/j.jretconser.2021.102870>
- Shaikh, A. A., Karjaluo, H., & Chinje, N. B. (2015). Continuous mobile banking usage and relationship commitment – A multi-country assessment. *Journal of Financial Services Marketing*, 20(3), 208–219.
- Shankar, A., & Datta, B. (2018). Factors affecting mobile payment adoption intention: An Indian perspective. *Global Business Review*, 19(3S), 72–89. DOI: 10.1177/0972150918757870
- Shankar, A., Jebarajakirthy, C., & Ashaduzzaman, M. (2020). How do electronic word of mouth practices contribute to mobile banking adoption?. *Journal of Retailing and Consumer Services*, 52, <https://doi.org/10.1016/j.jretconser.2019.101920>
- Shareef, M. A., Baabdullah, A., Dutta, S., Kumar, V., & Dwivedi, Y. K. (2018). Consumer adoption of mobile banking services: An empirical examination of factors according to adoption stages. *Journal of Retailing and Consumer Services*, 43, 54-67.

- Sharma, S.K., & Sharma, M. (2019). Examining the role of trust and quality dimensions in the actual usage of mobile banking services: An empirical investigation. *International Journal of Information Management*, 44, 65-75.
- Shaw, N. (2014). The mediating influence of trust in the adoption of the mobile wallet. *Journal of Retailing and Consumer Services*, 21(4), 449-459.
<http://dx.doi.org/10.1016/j.jretconser.2014.03.008>
- Shelvia, O., Prayitno, A. T., Kartono, R., & Sundjaja, A. M. (2020). Analysis of factors affecting Consumer's continuance intention to use mobile payments with a value-based adoption model (VAM) approach. *Psychology and Education*, 57(9), 2883-2898.
- Sheth, J. N., Newman, B. I. & Gross, B. L. (1991a). Consumption values and market choices. Theory and applications. Cincinnati, OH: South-Western Publishing Co.
- Sheth, J. N., Newman, B. I. & Gross, B. L. (1991b). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159–70.
- Siau, K. L., & Shen, Z. (2003). Building customer trust in mobile commerce. *Communications of the ACM*, 46(4), 91–94. DOI: 10.1145/641205.641211
- Simpson, P. M., & Siguaw, J. A. (2008). Destination word of mouth: The role of traveler type, residents, and identity salience. *Journal of Travel Research*, 47(2), 167-182.
- Singh, A. M. (2004). Trends in South African internet banking. *Aslib Proceedings: New Information Perspectives*, 56(3), 187-196. DOI 10.1108/00012530410539368
- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing*, 66(1), 15-37.
- Siqueira Jr, J. R., Peña, N. G., ter Horst, E., & Molina, G. (2019). Spreading the word: How customer experience in a traditional retail setting influences consumer traditional and electronic word-of-mouth intention. *Electronic Commerce Research and Applications*, 37, 100870.
- Slater, S.F. (1997). Developing a Customer Value-Based Theory of the firm. *Journal of the Academy of Marketing Science*, 25(2): 162–7.
- Suoranta, M., & Mattila, M. (2004). Mobile banking and consumer behaviour: New insights into the diffusion pattern. *Journal of Financial Services Marketing*, 8, 354-366.
- Statista (2024). Digital banks – South Africa. <https://www.statista.com/outlook/fmo/banking/digital-banks/south-africa>
- Stocchi, L., Pourazad, N., Michaelidou, N., Tanusondjaja, A., & Harrigan, P. (2022). Marketing research on mobile apps: past, present and future. *Journal of the Academy of Marketing Science*, 50, 195-225.
- Stouthuysen, K., Teunis, I., Reusen, E., & Slabbinck, H. (2018). Initial trust and intentions to buy: The effect of vendor-specific guarantees, customer reviews and the role of online shopping experience. *Electronic Commerce Research and Applications*, 27, 23–38.
- Suh, B., & Han, I. (2003). The impact of customer trust and perception of security control on the acceptance of electronic commerce. *International Journal of Electronic Commerce*, 7(3), 135-161.

- Talwar, S., Dhir, A., Khalil, A., Mohan, G., & Islam, A.N. (2020). Point of adoption and beyond. Initial trust and mobile-payment continuation intention. *Journal of Retailing and Consumer Services*, 55. DOI:10.1016/j.jretconser.2020.102086
- Tang, J., Zhang, B., & Akram, U. (2020). User willingness to purchase applications on mobile intelligent devices: evidence from app store. *Asia Pacific Journal of Marketing and Logistics*, 32(8), 1629-1649. DOI 10.1108/APJML-06-2019-0411
- Teng, S., Wei Khong, K., Wei Goh, W., & Yee Loong Chong, A. (2014). Examining the antecedents of persuasive eWOM messages in social media. *Online Information Review*, 38(6), 746-768.
- Thakur, R. (2019). The moderating role of customer engagement experiences in customer satisfaction–loyalty relationship. *European Journal of Marketing*, 53(7), 1278-1310.
- Thusi, P., & Maduku, D. K. (2020). South African millennials' acceptance and use of retail mobile banking apps: An integrated perspective. *Computers in Human Behavior*, 111, <https://doi.org/10.1016/j.chb.2020.106405>
- Van Doorn, J., Lemon, K. N., Mittal, V., Nass, S., Pick, D., Pirner, P., & Verhoef, P. C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, 13(3), 253-266.
- Van Tonder, E., Petzer, D. J., Van Vuuren, N., & De Beer, L. T. (2018). Perceived value, relationship quality and positive WOM intention in banking. *International Journal of Bank Marketing*, 36(7), 1347-1366.
- Verhoef, P. C., Franses, P. H., & Hoekstra, J. C. (2002). The effect of relational constructs on customer referrals and number of services purchased from a multiservice provider: does age of relationship matter?. *Journal of the Academy of Marketing Science*, 30, 202-216.
- Viswanathan, V., Hollebeck, L.D., Malthouse, E. C., Maslowska, E., Kim, S. J., & Xie, W. (2017). The dynamics of consumer engagement with mobile technologies, *Service Science*, 9(1), 36-49.
- Vidyanata, D. (2022). Understanding the effect of social media marketing on purchase intention: A value-based adoption model. *JDM (Jurnal Dinamika Manajemen)*, 13(2), 305-321.
- Vock, M., Van Dolen, W., & Kolk, A. (2013). Changing behaviour through business-nonprofit collaboration? Consumer responses to social alliances. *European Journal of Marketing*, 47(9), 1476-1503.
- Wakefield, R. L., Stocks, M. H., & Wilder, M. (2004). The role of web site characteristics in initial trust formation. *Journal of Computer Information Systems*, 45(1), 94-103.
- Wallace, M., & Rabin, A. I. (1960). Temporal experience. *Psychological Bulletin*, 57(3), 213–236. <https://doi.org/10.1037/h0041410>
- Wang, K. (2015). Determinants of mobile value-added service continuance: The mediating role of service experience. *Information & Management*, 52(3), 261-274.
- Wang, Z., & Li, H. (2016). Factors influencing usage of third party mobile payment services in China: An empirical study. Master's Thesis 15 credits. Department of Business Studies. Uppsala University. Spring Semester of 2016.

- Widodo, T., & Maylina, N. L. P. K. (2022). The mediating role of perceived value and social media word-of-mouth in the relationship between perceived quality and purchase intention. *Jurnal Manajemen Dan Pemasaran Jasa*, 15(1), 49-68.
- Williams, C. C., & McKay, N. (2022). Affective commitment, trust, perceived value and service quality as predictors of customer engagement in the South African open medical aid industry. *The Retail and Marketing Review*, 18(1), 98-110.
- Woermann, N., & Rokka, J. (2015). Timeflow: How consumption practices shape consumers' temporal experiences. *Journal of Consumer Research*, 41(6), 1486-1508.
- Wood, C. M., & Scheer, L. K. (1996). Incorporating perceived risk into models of consumer deal assessment and purchase intent. *Advances in Consumer Research*, 23(1), 399-404.
- Woodruff, R. B. (1997). Customer value: the next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25, 139-153.
- Wongkitrungrueng, A., & Assarut, N. (2018). The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, <https://doi.org/10.1016/j.jbusres.2018.08.032>
- Wu, L. Y., Chen, K. Y., Chen, P. Y., & Cheng, S. L. (2014). Perceived value, transaction cost, and repurchase-intention in online shopping: A relational exchange perspective. *Journal of Business Research*, 67(1), 2768-2776.
- Xiong, S. (2013, November). Adoption of mobile banking model based on perceived value and trust. In *2013 6th International Conference on Information Management, Innovation Management and Industrial Engineering*, (Vol. 1, pp. 632-635). IEEE.
- Xiong, J., & Zuo, M. (2022). Understanding factors influencing the adoption of a mobile platform of medical and senior care in China. *Technological Forecasting and Social Change*, 179. <https://doi.org/10.1016/j.techfore.2022.121621>
- Yang, X. (2022). Consumers' purchase intentions in social commerce: the role of social psychological distance, perceived value, and perceived cognitive effort. *Information Technology & People*, 35(8), 330-348.
- Yang, Y., Gong, Y., Land, L., & Chesney, T. (2020). Understanding the effects of physical experience and information integration on consumer use of online to offline commerce. *International Journal of Information Management*, 51, 1-18.
- Yang, H., Yu, J., Zo, H., & Choi, M. (2016). User acceptance of wearable devices: An extended perspective of perceived value. *Telematics and Informatics*, 33(2), 256-269.
- Yu, C., & Asgarkhani, M. (2015). An investigation of trust in e-banking. Evidence from Taiwan and New Zealand empirical studies. *Management Research Review*, 38(12), 1267-1284. DOI 10.1108/MRR-09-2014-0210
- Yu, H., Seo, I., & Choi, J. (2019). A study of critical factors affecting adoption of self-customisation service—focused on value-based adoption model. *Total Quality Management & Business Excellence*, 30(sup1), 98-113.

- Zarnadze, G., & Pereira, I. V. (2021, December). The impact of WOM on the acceptance of mobile banking. *In Proceedings of the International Conference on Business Excellence*, 15(1), 377-391.
- Zeithaml, V.A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22.
- Zhang, Z., Chen, H., & Xiao, B. (2019). Understanding eWOM of Chinese Governments information service: a perceived value-based perspective. *Information Discovery and Delivery*, 47(4), 251-258.
- Zhong, Y., & Moon, H.C. (2022). Investigating customer behavior of using contactless payment in China: A comparative study of facial recognition payment and mobile QR-code payment. *Sustainability*, 14, 1-19.
- Zhou, T. (2014). An empirical examination of initial trust in mobile payment. *Wireless personal communications*, 77, 1519-1531.
- Zhou, T. (2012). Understanding users' initial trust in mobile banking: An elaboration likelihood perspective. *Computers in Human Behavior*, 28(4), 1518-1525.
- Zhou, T. (2011). An empirical examination of initial trust in mobile banking. *Internet Research*, 21(5), 527-540.