

Understanding User Adoption of Immersive FinTech in Banking: A Conceptual Framework Integrating Trust and Perceived Risk

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ABSTRACT

The advancement of Financial Technology (FinTech) has significantly transformed the global banking industry, accelerated digital transformation, and reshaped the way customers interact with financial services (Gomber et al., 2017; Lee & Shin, 2018). Among recent innovations, immersive technologies such as Augmented Reality (AR) and Virtual Reality (VR) are emerging as powerful tools for delivering engaging, interactive, and personalized banking experiences. Despite their transformative potential, the adoption of AR/VR-based banking services remains limited due to concerns related to trust, perceived risk, privacy, and security (Kim et al., 2008; Stewart & Jürjens, 2018).

This conceptual review critically synthesizes the existing literature on FinTech adoption, digital trust, and perceived risk to examine their influence on user acceptance of immersive banking technologies. Drawing on established behavioral theories, including the Technology Acceptance Model (Davis, 1989) and the Theory of Planned Behavior (Ajzen, 1991), the paper integrates trust and perceived risk into a comprehensive conceptual framework to explain customers' adoption intentions toward AR/VR-enabled financial services. The review identifies significant research gaps, particularly the limited empirical evidence on immersive banking adoption in developing economies and the need for integrated theoretical approaches.

The paper highlights future research opportunities related to sustainability-driven innovation, digital governance, and user-centric cybersecurity strategies. By consolidating fragmented research, this study contributes to the growing body of knowledge on immersive FinTech and provides a theoretical foundation for future empirical investigations into responsible digital transformation in the banking sector.

Keywords: FinTech, Immersive Banking, Augmented Reality, Virtual Reality, Trust, Perceived Risk.

1. INTRODUCTION

The rapid advancement of Financial Technology (FinTech) has fundamentally transformed the global banking industry by accelerating digital transformation and reshaping the delivery of financial services. FinTech integrates innovative digital technologies with financial services to improve operational efficiency, customer experience, and financial inclusion (Gomber et al., 2017; Lee & Shin, 2018). Driven by increasing digitalization, major financial institutions such as JPMorgan Chase, HSBC, and the State Bank of India have invested extensively in advanced digital banking platforms to remain competitive in an increasingly technology-driven financial ecosystem. These developments have shifted banking from traditional branch-based services toward intelligent, customer-centric, and platform-based financial solutions.

Among the emerging technologies driving this transformation, Augmented Reality (AR) and Virtual Reality (VR) have gained considerable attention for their ability to create immersive and interactive banking experiences. Immersive banking enables customers to interact with financial products and services through virtual environments, offering applications such as virtual bank branches, interactive financial advisory services, 3D financial visualization, and personalized customer engagement (Wirtz et al., 2022). These technologies have the potential to enhance customer satisfaction, improve financial decision-making, and strengthen customer-bank relationships through richer digital experiences.

Despite their significant potential, the adoption of AR/VR-based banking services remains at an early stage. Existing research has primarily focused on technological capabilities and service efficiency, while

comparatively limited attention has been given to the psychological determinants that influence customer acceptance of immersive banking technologies. Trust, perceived risk, privacy concerns, and behavioural intentions continue to represent major barriers to the successful adoption of innovative financial technologies (Gefen et al., 2003; Kim et al., 2008; Stewart & Jürjens, 2018). In immersive banking environments, these concerns become even more pronounced because AR and VR applications often involve extensive collection of personal, behavioural, and biometric data, increasing users' perceptions of uncertainty and security risks. Several behavioural theories, including the Technology Acceptance Model (TAM) (Davis, 1989) and the Theory of Planned Behavior (TPB) (Ajzen, 1991), have been widely employed to explain technology adoption in digital banking and FinTech contexts. However, these models alone do not sufficiently capture the unique characteristics of immersive financial technologies, where trust and perceived risk play central roles in shaping customer adoption decisions. Consequently, there is a growing need for an integrated theoretical perspective that combines established technology acceptance theories with psychological factors relevant to immersive digital environments.

This conceptual review synthesizes the existing literature on FinTech adoption, digital trust, and perceived risk to develop an integrated conceptual framework explaining user adoption of immersive banking technologies. By combining insights from TAM, TPB, and trust–risk theory, the study identifies existing research gaps, particularly the limited empirical evidence from developing economies and the lack of comprehensive frameworks specifically designed for AR/VR-enabled banking services. The proposed framework provides a foundation for future empirical investigations and contributes to the growing literature on responsible digital transformation, immersive FinTech, and customer adoption behaviour in the banking sector.

2. THEORETICAL FOUNDATIONS

2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Davis (1989), is one of the most widely adopted theoretical frameworks for explaining individuals' acceptance and use of information technologies. According to TAM, two primary constructs—Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)—determine users' attitudes toward a technology, which subsequently influence their behavioral intentions and actual usage (Davis, 1989; Davis et al., 1989). Perceived usefulness refers to the extent to which an individual believes that using a particular technology will improve task performance, whereas perceived ease of use reflects the degree to which the technology is perceived as effortless to use. TAM has been extensively applied in studies examining e-banking, mobile banking, digital payments, and various FinTech services because of its strong predictive capability in explaining technology adoption (Venkatesh & Davis, 2000; Dwivedi et al., 2019). However, immersive banking technologies introduce unique experiential characteristics, including three-dimensional visualization, virtual interaction, and multisensory engagement, which extend beyond the traditional utility-based constructs of TAM. Consequently, relying solely on perceived usefulness and perceived ease of use may not adequately explain customers' adoption intentions in immersive financial environments. Additional psychological constructs, particularly trust and perceived risk, are necessary to capture the complexity of user decision-making in AR/VR-enabled banking services (Gefen et al., 2003; Kim et al., 2008).

2.2 Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), proposed by Ajzen (1991), explains human behavior through three key determinants: attitude toward the behavior, subjective norms, and perceived behavioral control. According to TPB, an individual's intention to perform a behavior is influenced by personal evaluations of the behavior, perceived social pressure, and confidence in their ability to successfully perform the behavior. TPB has been

widely employed to explain customer adoption of digital financial innovations, including mobile banking, online investment platforms, blockchain-based financial services, and digital payment systems (Oliveira et al., 2016; Liébana-Cabanillas et al., 2017). Within immersive banking environments, subjective norms may exert greater influence because AR and VR technologies are relatively novel and socially visible innovations. Likewise, perceived behavioral control becomes increasingly important as customers require adequate digital literacy, technological confidence, and access to compatible devices to effectively interact with immersive banking platforms. Therefore, TPB complements TAM by incorporating important social and behavioral dimensions that influence technology adoption.

2.3 Trust in Digital Financial Ecosystems

Trust is widely recognized as one of the most critical determinants of customer adoption in digital financial services because financial transactions inherently involve uncertainty, vulnerability, and information asymmetry (Morgan & Hunt, 1994; McKnight et al., 2002). In FinTech environments, trust reduces perceived uncertainty, strengthens customer confidence, and enhances users' willingness to engage with innovative financial technologies (Gefen et al., 2003; Zhou, 2012). Within immersive banking environments, trust can be understood through three complementary dimensions. **Institutional trust** reflects customers' confidence in the credibility, competence, and integrity of financial institutions. **Technological trust** refers to users' belief in the reliability, functionality, and security of AR/VR technologies that facilitate financial transactions. **Data privacy trust** concerns customers' confidence that their personal, financial, and biometric information will be collected, processed, and stored securely in compliance with privacy regulations (Stewart & Jürjens, 2018; Malhotra et al., 2004). Given the extensive use of immersive technologies for collecting sensitive user information, trust becomes a central mechanism through which customers evaluate and ultimately accept immersive banking services.

2.4 Perceived Risk in Immersive Environments

Perceived Risk Theory suggests that consumers evaluate potential losses and uncertainties before adopting innovative products or services (Bauer, 1960). In digital financial environments, perceived risk encompasses several dimensions, including financial risk, privacy risk, security risk, performance risk, and psychological risk, all of which significantly influence customers' technology adoption decisions (Featherman & Pavlou, 2003; Kim et al., 2008). The use of immersive technologies further intensifies these concerns because AR and VR applications often collect extensive behavioural, biometric, and location-based information to create personalized virtual experiences. Such data collection raises concerns regarding cybersecurity, identity theft, unauthorized access, and misuse of sensitive customer information (Stewart & Jürjens, 2018). Previous studies have consistently demonstrated that higher levels of perceived risk reduce customer trust, weaken behavioural intentions, and ultimately hinder the adoption of FinTech services (Pavlou, 2003; Ryu, 2018). Therefore, minimizing perceived risk while simultaneously strengthening customer trust is essential for promoting the successful adoption of immersive banking technologies.

3. CONCEPTUAL INTEGRATION: THE TRUST–RISK–ADOPTION FRAMEWORK

Building upon the theoretical foundations discussed earlier, this study proposes the **Trust–Risk–Adoption Framework** to explain customers' adoption of immersive FinTech services in banking. The framework integrates the Technology Acceptance Model (TAM) (Davis, 1989) and the Theory of Planned Behavior (TPB) (Ajzen, 1991) with two critical psychological constructs—**trust** and **perceived risk**—to provide a comprehensive understanding of customer behaviour in AR/VR-enabled banking environments. While TAM explains the technological determinants of adoption through perceived usefulness and perceived ease of use, TPB complements this perspective by incorporating behavioural attitudes and intentions. Trust and perceived

risk are incorporated as central psychological mechanisms that influence users' willingness to adopt immersive financial technologies (Gefen et al., 2003; Kim et al., 2008).

Within the proposed framework, **Perceived Usefulness (PU)** enhances customers' confidence in immersive banking platforms by demonstrating their ability to improve financial decision-making, service efficiency, and overall banking experiences. Greater perceived usefulness strengthens institutional and technological trust, thereby increasing customers' intentions to adopt AR/VR-based banking services (Davis, 1989; Venkatesh & Davis, 2000).

Similarly, **Perceived Ease of Use (PEOU)** influences customers' attitudes toward immersive banking by reducing cognitive effort and technological anxiety. User-friendly interfaces and intuitive virtual interactions encourage favourable attitudes, which subsequently strengthen behavioural intentions to use immersive financial services (Davis et al., 1989; Venkatesh et al., 2003).

Conversely, **Perceived Risk** is expected to negatively influence trust. Concerns regarding cybersecurity, privacy, financial loss, identity theft, and misuse of biometric information increase customers' uncertainty when interacting with immersive banking environments. Higher perceived risk diminishes institutional and technological trust, thereby reducing customers' willingness to adopt AR/VR-enabled financial services (Featherman & Pavlou, 2003; Kim et al., 2008; Stewart & Jürjens, 2018).

Finally, **Trust** functions as the central mediating construct linking technological perceptions with adoption intention. When customers perceive immersive banking platforms as secure, reliable, and transparent, they are more likely to develop positive behavioural intentions and subsequently adopt these innovative financial services (Gefen et al., 2003; Zhou, 2012). Accordingly, the proposed framework suggests that trust not only directly influences adoption intention but also mediates the effects of perceived usefulness and perceived risk on customer acceptance of immersive FinTech.

- Perceived Usefulness (PU) → Trust → Adoption Intention
- Perceived Ease of Use (PEOU) → Attitude → Adoption Intention
- Perceived Risk → Trust (Negative Relationship)
- Trust → Adoption Intention

Figure 1. Proposed Trust–Risk–Adoption Framework for Immersive FinTech Adoption in Banking

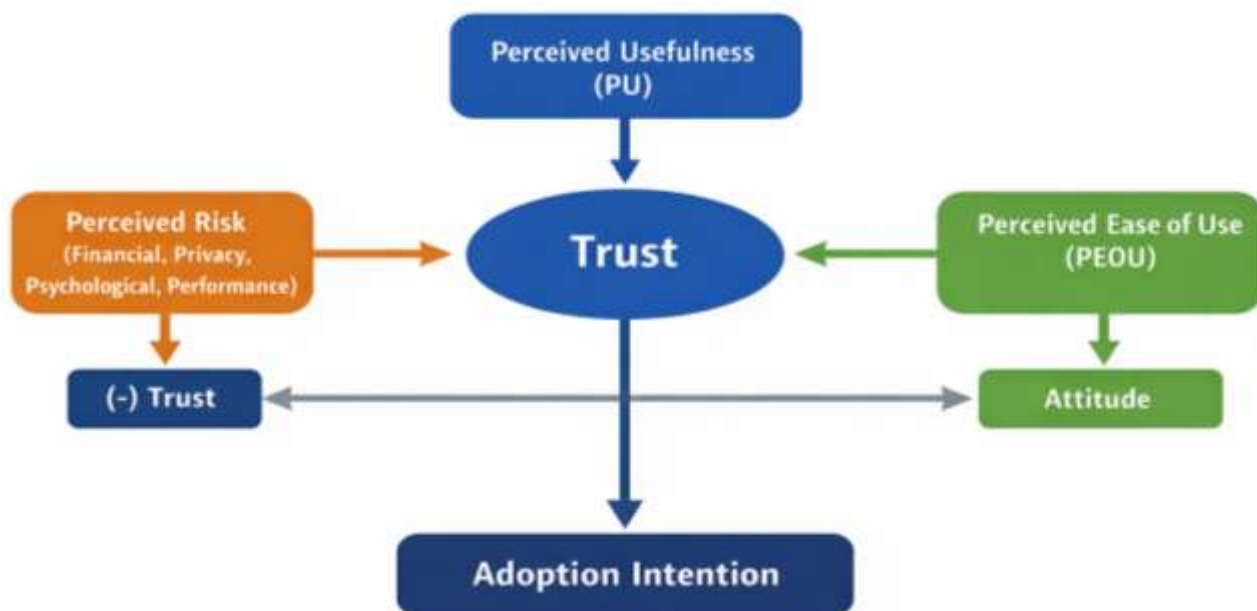


Fig. 1 Integrated Trust – Risk Framework for Immersive FinTech Adoption in Banking

3.1 Perceived Usefulness and Trust

Perceived Usefulness (PU) refers to the extent to which customers believe that using a technology enhances their performance and improves the efficiency of accomplishing specific tasks (Davis, 1989). In the context

of immersive banking, usefulness extends beyond operational efficiency to encompass experiential benefits such as three-dimensional financial visualization, virtual advisory sessions, interactive loan simulations, and personalized financial planning through AR/VR environments. These immersive capabilities enable customers to better understand complex financial products, thereby improving decision quality and overall banking experiences (Wirtz et al., 2022). When users perceive immersive banking technologies as valuable, reliable, and beneficial, they develop greater confidence in the technology and the financial institution providing these services. Consequently, higher perceived usefulness strengthens institutional and technological trust, increasing customers' willingness to engage with immersive FinTech platforms (Gefen et al., 2003; Venkatesh & Davis, 2000).

3.2 Perceived Ease of Use and Attitude

Perceived Ease of Use (PEOU) describes the degree to which individuals believe that using a technology requires minimal effort (Davis, 1989). In immersive banking environments, ease of use is reflected in intuitive interface design, seamless navigation, responsive virtual interactions, and simplified user experiences. User-friendly AR/VR applications reduce cognitive effort, improve customer comfort, and enhance confidence in interacting with virtual banking services. Conversely, complex interfaces, technical difficulties, and unfamiliar virtual environments may increase technological anxiety and negatively influence users' attitudes toward immersive banking technologies (Venkatesh et al., 2003). Consistent with TAM, a favourable perception of ease of use fosters positive attitudes, which subsequently strengthen customers' behavioural intentions to adopt innovative banking services (Davis et al., 1989; Dwivedi et al., 2019).

3.3 Perceived Risk and Trust

Perceived risk represents customers' expectations regarding potential losses or uncertainties associated with using innovative financial technologies (Bauer, 1960). Within immersive banking environments, customers may perceive multiple forms of risk, including financial risk, privacy risk, cybersecurity risk, performance risk, and identity theft due to the extensive collection and processing of behavioural and biometric information (Featherman & Pavlou, 2003; Stewart & Jürjens, 2018). Elevated perceptions of these risks undermine customers' confidence in both the technology and the financial institution, thereby weakening institutional and technological trust. Previous research consistently demonstrates that perceived risk negatively influences trust and significantly reduces customers' intentions to adopt FinTech services (Kim et al., 2008; Pavlou, 2003; Ryu, 2018). Therefore, reducing perceived risk through effective cybersecurity measures, transparent privacy policies, and secure digital infrastructure is essential for promoting customer acceptance of immersive banking technologies.

3.4 Trust and Adoption Intention

Trust is widely regarded as one of the strongest predictors of technology adoption in digital financial services because financial transactions inherently involve uncertainty and perceived vulnerability (Morgan & Hunt, 1994). In immersive banking, trust reflects customers' confidence that AR/VR-enabled banking platforms are secure, reliable, and capable of protecting sensitive personal and financial information. Trust functions as a central mediating mechanism through which customers translate positive technological perceptions into behavioural intentions. Even when customers perceive immersive banking systems as useful and easy to use, they may remain reluctant to adopt them if sufficient trust has not been established (Gefen et al., 2003; Zhou, 2012). Conversely, high levels of trust reduce uncertainty, strengthen confidence, and significantly enhance customers' intentions to adopt and continuously use immersive FinTech services. Accordingly, trust serves as the pivotal construct linking technological perceptions, perceived risk, and customer adoption intention within the proposed conceptual framework.

4. RESEARCH GAPS

Although the literature on FinTech adoption has expanded considerably over the past decade, several important research gaps remain regarding the adoption of immersive banking technologies. First, while numerous studies have examined mobile banking, internet banking, and digital payment systems, relatively few have specifically investigated customer adoption of Augmented Reality (AR) and Virtual Reality (VR) applications within the banking sector. Consequently, the unique characteristics of immersive banking environments, including virtual interaction, three-dimensional financial visualization, and multisensory user experiences, remain insufficiently explored (Dwivedi et al., 2019; Wirtz et al., 2022).

Second, the majority of existing studies have been conducted in developed economies, whereas empirical evidence from emerging markets remains limited. Developing countries such as India, Jordan, and several Southeast Asian economies are experiencing rapid digital transformation and increasing FinTech adoption; however, customers in these regions differ significantly in terms of digital literacy, financial inclusion, technological infrastructure, and cultural values. These contextual differences may influence trust formation, perceived risk, and technology adoption behaviours, highlighting the need for region-specific empirical investigations (Lee & Shin, 2018; Ryu, 2018).

Third, existing research has paid relatively little attention to the integration of sustainability, digital governance, and ethical considerations within immersive FinTech ecosystems. As AR/VR technologies increasingly rely on artificial intelligence, biometric authentication, and large-scale data processing, issues related to cybersecurity, responsible innovation, data privacy, regulatory compliance, and environmental sustainability have become increasingly important. Future research should therefore examine how sustainable digital governance frameworks can promote customer trust while ensuring secure and responsible deployment of immersive banking technologies (Stewart & Jürjens, 2018).

Finally, although trust is widely recognised as a critical determinant of FinTech adoption, limited research has examined the mechanisms through which trust is established and maintained in immersive banking environments. Existing studies primarily treat trust as a single construct, with comparatively little attention given to its multidimensional nature, including institutional trust, technological trust, and data privacy trust. Future empirical studies should investigate how these dimensions interact with perceived risk and behavioural intentions to provide a more comprehensive understanding of customer adoption of immersive financial technologies (Gefen et al., 2003; McKnight et al., 2002; Kim et al., 2008).

Addressing these research gaps would not only strengthen the theoretical understanding of immersive FinTech adoption but also provide valuable guidance for financial institutions, technology developers, and policymakers seeking to foster secure, sustainable, and customer-centric digital banking ecosystems.

5. SUSTAINABILITY AND RESPONSIBLE INNOVATION

The emergence of immersive FinTech represents a significant step toward achieving sustainable digital transformation in the financial sector. By integrating Augmented Reality (AR) and Virtual Reality (VR) into banking services, financial institutions can enhance customer engagement, improve financial literacy, and expand access to banking services for geographically dispersed and underserved populations. Consequently, immersive banking has the potential to support several United Nations Sustainable Development Goals (SDGs), particularly SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), and SDG 10 (Reduced Inequalities) through the promotion of financial inclusion, technological innovation, and equitable access to digital financial services (United Nations, 2015).

Despite these opportunities, the successful implementation of immersive banking technologies requires responsible innovation that balances technological advancement with ethical, legal, and societal considerations. AR/VR platforms frequently rely on extensive collection and processing of personal, behavioural, and biometric data, creating significant concerns regarding privacy protection, cybersecurity,

informed consent, and responsible data management (Stewart & Jürjens, 2018). Failure to address these issues may undermine customer trust and reduce the adoption of immersive financial services.

To promote responsible innovation, financial institutions should establish robust regulatory compliance mechanisms, implement transparent data governance policies, and adopt user-centric cybersecurity architectures that safeguard sensitive customer information throughout the digital banking journey. Furthermore, the integration of privacy-by-design principles, ethical artificial intelligence, secure authentication mechanisms, and transparent algorithmic decision-making can enhance customer confidence and strengthen trust in immersive financial ecosystems (Malhotra et al., 2004; Ryu, 2018).

Given the rapid evolution of immersive technologies, collaboration among financial institutions, technology providers, regulatory authorities, and central banks is essential for developing comprehensive governance frameworks that ensure security, interoperability, consumer protection, and ethical innovation. Such collaborative efforts will facilitate the creation of secure, transparent, inclusive, and sustainable immersive banking ecosystems capable of supporting long-term digital transformation while protecting consumer interests and strengthening public trust in next-generation financial services.

6. THEORETICAL AND PRACTICAL IMPLICATIONS

6.1 Theoretical Implications

This conceptual review contributes to the growing body of knowledge on immersive FinTech by extending the **Technology Acceptance Model (TAM)** (Davis, 1989) and the **Theory of Planned Behavior (TPB)** (Ajzen, 1991) to the emerging context of AR/VR-enabled banking services. While both theories have been extensively applied to explain the adoption of traditional digital banking technologies, they do not fully capture the psychological and experiential characteristics associated with immersive financial environments. By integrating **trust** and **perceived risk** into these established behavioural frameworks, this study provides a more comprehensive explanation of customer adoption behaviour in immersive banking contexts.

Furthermore, the proposed **Trust–Risk–Adoption Framework** advances existing literature by conceptualizing trust as a central mediating mechanism through which technological perceptions influence adoption intention. The framework demonstrates that customers' perceptions of usefulness and ease of use alone are insufficient to explain the adoption of immersive financial technologies unless accompanied by adequate levels of institutional, technological, and data privacy trust. In addition, the framework highlights the negative influence of perceived risk on trust, thereby enriching the theoretical understanding of customer decision-making in emerging FinTech ecosystems (Gefen et al., 2003; Kim et al., 2008). The proposed model provides a robust theoretical foundation for future empirical research examining AR/VR adoption, digital trust, and technology acceptance across different cultural and economic settings.

6.2 Practical Implications

The findings of this review provide several practical insights for financial institutions, technology developers, and policymakers involved in the implementation of immersive banking technologies. First, banks should prioritize **cybersecurity transparency**, robust privacy protection mechanisms, and clear communication regarding the collection, storage, and use of customer data. Transparent security practices can strengthen customer trust and reduce perceived risk, thereby encouraging wider adoption of AR/VR-based financial services (Stewart & Jürjens, 2018).

Second, developers of immersive banking platforms should design **user-friendly AR/VR interfaces** that minimize cognitive complexity, reduce technological anxiety, and enhance overall usability. Intuitive navigation, simplified virtual interactions, and accessible interface designs can improve customers' perceived ease of use and foster more positive attitudes toward immersive banking technologies (Venkatesh et al., 2003).

Finally, **regulatory authorities and central banks** should establish comprehensive governance frameworks that address cybersecurity, data privacy, interoperability, ethical artificial intelligence, and consumer protection within immersive financial ecosystems. Developing standardized regulatory guidelines will enhance public confidence, support responsible innovation, and facilitate the sustainable adoption of immersive FinTech solutions. Collaboration among financial institutions, technology providers, and policymakers will be essential for creating secure, inclusive, and trustworthy digital banking environments capable of supporting long-term financial innovation.

7. FUTURE RESEARCH DIRECTIONS

The proposed Trust–Risk–Adoption Framework offers several opportunities for future empirical research on immersive FinTech and digital banking. First, researchers should empirically validate the proposed conceptual model using advanced analytical techniques such as Structural Equation Modeling (SEM) or Partial Least Squares Structural Equation Modeling (PLS-SEM). These methods can examine the direct, indirect, and mediating relationships among perceived usefulness, perceived ease of use, trust, perceived risk, and adoption intention, thereby providing empirical support for the proposed framework (Hair et al., 2022).

Second, future studies should investigate the moderating influence of digital literacy, technological readiness, age, and prior experience with immersive technologies on customers' adoption intentions. Individuals with higher levels of digital competence may perceive lower levels of risk and demonstrate greater confidence in using AR/VR-enabled banking services, leading to stronger adoption intentions (Venkatesh et al., 2003).

Third, comparative research examining immersive banking and traditional digital banking channels, such as mobile banking and internet banking, would provide valuable insights into the unique value proposition of AR/VR technologies. Such studies could identify differences in customer trust, perceived usefulness, user experience, and behavioral intentions across multiple banking platforms, thereby informing banks' digital transformation strategies.

Finally, future research should adopt longitudinal research designs to examine how customer trust evolves over time as users gain greater familiarity and experience with immersive financial technologies. Longitudinal studies would enhance understanding of the dynamic relationships among trust, perceived risk, continued usage intention, and customer loyalty, thereby providing a more comprehensive perspective on post-adoption behavior in immersive banking environments (Bhattacharjee, 2001; Gefen et al., 2003). In addition, cross-cultural investigations involving both developed and emerging economies would strengthen the generalizability of existing findings and contribute to the development of globally relevant models of immersive FinTech adoption.

8. CONCLUSION

The rapid evolution of Financial Technology (FinTech) has positioned immersive technologies, particularly Augmented Reality (AR) and Virtual Reality (VR), as promising innovations capable of transforming the future of digital banking. By delivering interactive, personalized, and engaging financial experiences, immersive banking has the potential to enhance customer engagement, improve financial decision-making, and support broader objectives of digital transformation. Nevertheless, technological innovation alone is insufficient to ensure widespread customer acceptance. Psychological factors—especially trust and perceived risk—remain fundamental determinants of users' willingness to adopt immersive financial services (Gefen et al., 2003; Kim et al., 2008).

This conceptual review integrates the Technology Acceptance Model (TAM) (Davis, 1989), the Theory of Planned Behavior (TPB) (Ajzen, 1991), and trust–risk theory to propose the Trust–Risk–Adoption Framework for understanding customer adoption of AR/VR-enabled banking services. By synthesizing fragmented literature, the study identifies critical research gaps related to immersive banking adoption, trust formation, sustainability, and digital governance while highlighting opportunities for future empirical investigation.

Overall, this study contributes to the growing body of knowledge on immersive FinTech by providing a comprehensive theoretical foundation for understanding customer behaviour in emerging digital financial environments. The proposed framework offers valuable guidance for researchers, financial institutions, technology developers, and policymakers seeking to foster secure, trustworthy, and sustainable immersive banking ecosystems. As AR/VR technologies continue to evolve, understanding the interplay between technological innovation, trust, and perceived risk will be essential for achieving responsible digital transformation and promoting the successful adoption of next-generation banking services.

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