



Financial Behavior of Clients in the Context of Remote Banking

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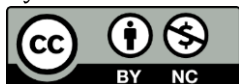
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ABSTRACT

The transition towards remote banking has fundamentally changed consumer financial behavior. However, current models of customer adoption are generally static in nature with an emphasis on intentionality. This study redefines the way we conceptualize digital banking as a dynamic behavioral migration process and develops the Sherstiuk Digital Behavioral Adaptation Model (SDBAM) as an analytical framework to help understand hybrid banking. Using Technology Acceptance Theory (TAT), Behavioral Finance, Cybersecurity Perception Research, and Digital Ecosystem Literature, this model incorporates digital readiness capacity, behavioral engagement intensity, perceived cybersecurity risk and adaptive channel allocation. Unlike other traditional frameworks, which emphasize whether or not customers will adopt digital banking (i.e., make a binary decision about using digital banking versus non-digital banking), SDBAM describes how consumers continually allocate their financial activities between different digital and physical banking channels rather than making a binary choice about the use of these two different types of channels. The results show that migration intensity is derived from the relationship between the consumer's structural digital capabilities and their perceptions of cyber-risk; furthermore, the level of integration into the digital banking ecosystem and the level of personalization afforded through the use of artificial intelligence (AI) increase the level of behavioral engagement. Finally, the degree of cybersecurity awareness among consumers moderates both behavioral stability and the dominant channel used for transactions. Overall, this study expands our knowledge of digital banking by changing the focus from the likelihood of adopting digital banking to the processes of adapting consumer behaviors and provides organizations with strategies to create hybrid banking models that optimize the use of digital and physical banking channels.

KEYWORDS

digital banking, behavioral migration, hybrid banking, cybersecurity perception, digital readiness, Sherstiuk Digital Behavioral Adaptation Model (SDBAM)

Introduction

The rapid digitalization of financial services has significantly altered the architectural design of retail banking and the behaviors of financial consumers over the last ten years. Internet banking, mobile financial applications, and platform-based financial systems have transferred the location of banking interactions from physical bank locations to digitally mediated environments (Gallegos et al., 2025; Wang, 2025). While the technological aspects of this transformation are evident, it is also institutional and behavioral. Remote banking changes how clients assess financial risk, assess service utility, build trust, and manage financial resources.

Research on the digital banking adoption has focused on the Technology Acceptance Model (TAM), with emphasis on perceived usefulness and perceived ease of use as key factors influencing behavioral intention (Amin et al., 2025; Bala & Sangeeta, 2025; Jamshaid et al., 2025). Although the contemporary digital landscape creates increased complexities for making financial decisions remotely due to perceptions of cybersecurity (Aldarab'ah & Sharif, 2025; Waliullah et al., 2025), digital literacy (Shoaib et al., 2025), social-economic adaptability (Hedau, 2025), and AI-based personalization mechanisms (Ashrafuzzaman et al., 2025). Thus, it is likely that the various components will interact with each other dynamically, as opposed to individually suggested static adoption models may not be sufficient in capturing current behavioral shifts.

Additionally, the institutional structure of banking is undergoing strategic redesign. The evolution of hybrid banking models from physical to hybrid banking has changed the function of branches, which currently function as advisory centers instead of transaction processing centers. Routine financial transactions, payments, and account management occur at remote channels, and advanced analytical tools create cross-selling and customer relationship-building strategies. Therefore, banks need to understand whether customers utilize digital channels and how their behavioral characteristics change once they begin using them.

There is extensive literature documenting the determinants of the acceptance of digital banking (Acosta-Prado et al., 2024), the role of trust and perceived risk in digital banking (Barjaktarovic Rakocevic et al., 2025; Dias et al., 2025), and the influence of e-commerce ecosystems on financial technology utilization (Wang, 2025). There remains a major research gap, however. Specifically, most existing studies do not integrate behavioral analytics into the strategic re-design of branches and hybrid services. Most studies examine the probability of adoption rather than the intensity of behavioral migration, cross-product engagement, and/or the long-term institutional impact of digital banking adoption.

While cybersecurity concerns and digital risk perceptions continue to represent significant barriers to adoption (Aldarab'ah & Sharif, 2025; Ologun et al., 2026), there is limited empirical research that incorporates risk-adjusted personalization into models of digital behavioral adaptation. In particular, as AI-powered personalization continues to expand (Ashrafuzzaman et al., 2025), finding an optimal balance between engagement and perceived security represents a central strategic challenge.

Therefore, this research seeks to address these theoretical and practical gaps by developing a structured behavioral model of digital banking adoption - the Sherstiuk Digital Behavioral Adaptation Model (SDBAM). Unlike traditional models of acceptance, such as TAM, SDBAM conceptualizes digital banking as a dynamic behavioral transition process that includes:

- Behavioral scoring mechanisms,
- Modeling of channel transitions,
- Digital readiness index,
- Risk-adjusted personalization matrix.

SDBAM uses behavioral economics, digital transformation theories, and advanced analytics logic to extend TAM beyond initial adoption to sustained behavioral migration and hybrid optimization.

The objectives of this research are threefold:

1. To analyze the structural changes in financial behavior caused by remote banking.

2. To investigate the institutional implications of migrating to remote channels for hybrid banking models.
3. To develop and empirically validate the Sherstiuk Digital Behavioral Adaptation Model (SDBAM) as a strategic framework for behavior-driven digital transformation.

This research contributes both theoretically and managerially to the field of digital banking. Theoretically, this research advances the digital banking literature by framing adoption as an adaptive behavioral restructuring. Managerially, this research offers banks a systematic method for determining the optimal allocation of digital channels, increasing cross-selling efficiency, and reducing the risks associated with cybersecurity-related attrition.

As the competitive advantage of banks is becoming increasingly dependent upon behavioral intelligence versus physical infrastructure, understanding financial behavior in the context of remote banking is no longer optional but necessary.

Literature Review

Theoretical Foundations of Digital Banking Adoption. Technology Acceptance Model (TAM) is the predominant theoretical model explaining digital banking adoption. TAM proposes that users form intentions regarding whether they will actually use a new technology based on two primary beliefs: perceived usefulness (PU) and perceived ease of use (PEOU). While many researchers have empirically validated TAM for predicting user acceptance behaviors in digital financial environments (Amin et al., 2025; Bala & Sangeeta, 2025; Jamshaid et al., 2025), several other researchers have empirically demonstrated that TAM's applicability can be moderated by various contextual factors, such as user digital literacy, socio-economic adaptability, and cybersecurity awareness (Hedau, 2025; Shoaib et al., 2025).

Although TAM-based research has provided significant insights into understanding why users intend to adopt digital banking, there are limitations associated with TAM-based research. For example, TAM-based research has primarily focused on understanding users' intentions of adopting digital banking versus understanding users' actual usage behaviors (post-adoption behavioral intensity) and/or how users transition between different digital channels (channel migration patterns). Therefore, while TAM-based research has established a necessary baseline for understanding users' adoption of digital banking, TAM requires structural extensions to provide additional insight into how users dynamically adjust their usage behaviors.

Behavioral Economics and Financial Decision-Making in Remote Environments. Behavioral economics theories propose that users' financial decisions, including their digital financial decisions, are often made under conditions of incomplete information and/or uncertainty (Todua & Gogitidze, 2024). Furthermore, behavioral economics theory proposes that users' financial decisions may be heavily influenced by cognitive heuristics, emotional trust signals, and contextual evaluations of risk (Mohammadbeigi, 2024). In addition, in the context of remote banking, users perceive a lack of direct interaction with bank employees and therefore rely on perceived security and institutional trust to facilitate their financial transactions (Dias et al., 2025).

Perceived institutional trust and perceived security become especially important when users interact with digital banking systems since users rely on technology to mediate the relationship between themselves and the institution providing them with banking services (Barjaktarovic Rakocovic et al., 2025). In fact, a number of researchers have demonstrated that users' perceptions of the level of cybersecurity in digital banking systems, along with users' perceptions of system reliability, play a critical role in determining users' levels of digital commitment (Dias et al., 2025).

Additionally, a number of researchers have found that users who possess high levels of financial literacy exhibit higher levels of financial well-being (Shoaib et al., 2025). Specifically, researchers have found that financial literacy enhances users' behavioral disciplines, which include their financial decision-making behaviors in the context of digital banking. Researchers have also found that digital self-efficacy plays a moderating role in users' perceptions of ease of use in digital banking environments (Hedau, 2025).

These findings indicate that users' behaviors in digital banking emerge from the interactions between users' perceptions of the technology used to deliver the service, users' cognitive capacities to process information about the service, and users' evaluations of risk associated with using the service (Hedau, 2025; Mohammadbeigi, 2024). Although this perspective provides insight into understanding the behavioral aspects of users' interactions with digital banking systems, relatively little research exists that seeks to integrate these behavioral perspectives into strategic models for institutions.

Cybersecurity Perception and Risk as Structural Constraints. Fear of fraud, data breaches, and identity theft, among others, are commonly cited as reasons why users do not utilize digital banking systems (Aldarab'ah & Sharif, 2025; Waliullah et al., 2025). Systematic reviews have found that fear of these types of cyber threats is a major contributor to users' mistrust of digital banking systems (Waliullah et al., 2025). Additionally, Ologun et al. (2026) found that users' satisfaction levels with digital banking systems were positively affected by their level of awareness about cybersecurity.

Therefore, while cybersecurity is widely recognized as an important factor affecting users' adoption of digital banking systems, relatively little research exists that incorporates cybersecurity into risk-adjusted personalization models. As digital banking continues to evolve toward the use of artificial intelligence (AI)-driven models (Ashrafuzzaman et al., 2025), the need to balance users' desire for personalized banking experiences with their perceptions of risk will become increasingly important (Oktawiranti et al., 2025). The failure to address this gap in current models represents a conceptual gap.

E-Commerce Ecosystems and Reinforcement Effects. Users do not engage with digital banking systems in isolation; instead, they interact with digital banking systems as part of larger digital ecosystems (Gallegos et al., 2025; Theodorakopoulos & Theodoropoulou, 2024). Research has shown that users' engagements with digital banking systems are positively influenced by their previous experiences with digital commerce (Wang, 2025). Specifically, frequent engagement with digital payment systems leads to increased reliance on online financial services. Similarly, Gallegos et al. (2025) demonstrated that digital banking adoption was positively related to both users' perceptions of technological usability and the overall maturity of the ecosystem in which digital banking is situated (Gallegos et al., 2025).

As digital commerce grows, users' perceptions of the utility of digital banking increase because of the growing opportunity to seamlessly connect financial and commercial transactions (Gallegos et al., 2025). The positive effects of engaging with digital commerce on users' behaviors in digital banking systems suggest that once network externalities of digital commerce reach critical mass, users' behavioral migrations to digital channels accelerate (Oktawiranti et al., 2025; Theodorakopoulos & Theodoropoulou, 2024). Although researchers have identified the reinforcing effects of ecosystem participation on users' migration to digital channels, the literature has not systematically addressed how ecosystem reinforcement influences the transition dynamics of users between different channels in hybrid banking structures.

AI-Powered Personalization and Behavioral Intensification. Advances in Artificial Intelligence (AI) have dramatically changed consumer behavior when engaging with digital banking. AI-powered personalization improves customer retention, cross-selling and operational efficiency (Ashrafuzzaman et al., 2025). Additionally, AI-powered personalization increases customer satisfaction with the digital interface, which reduces the likelihood of a customer switching providers (Lama & Kayestha, 2025).

On the other hand, personalized banking creates an additional dual-effect mechanism. While increased personalization results in higher levels of customer engagement and perceived value (i.e., perceived useful), it also generates greater concerns regarding privacy and perceived risk of data exposure (Barjaktarovic Rakocovic et al., 2025). Therefore, the level of personalization in digital banking needs to be strategically managed.

The current body of literature has focused primarily on the outcomes of engagement with digital banking services, and has failed to adequately assess the relationship between the degree of personalization and digital readiness and the perceptions of security regarding customer data across

various customer segments. This knowledge gap limits our ability to determine the best approaches for banks to develop their personalization strategies in hybrid service environments.

Digital Inclusion, Demographic Moderators, and Structural Inequality. Demographic characteristics have historically affected the adoption rate of digital banking. Older individuals have a negative correlation with their digital adoption rates, whereas educational attainment and the frequency of use of the Internet have positive correlations with their likelihood of using digital banking (Hedau, 2025; Shoaib et al., 2025; Todua & Gogitidze, 2024). Differences in electronic payment usage have also been found based on gender, and related differences in behaviors have been observed in electronic payment usage (Amin et al., 2025).

Literature on digital inclusion emphasizes that digital readiness is unevenly distributed, leading to structural inequalities in the adoption rates of digital banking services (Acosta-Prado et al., 2024). However, financial inclusion benefits from the growth of digital banking are contingent on the literacy of consumers and the availability of infrastructure (Ali et al., 2025).

Although there is evidence of the impact of demographic differences on the adoption of digital banking, most research treats demographic differences as controls rather than as predictors of the intensity of migration from traditional banking channels to digital banking channels. As a result, the institutional implications of demographic differences in digital banking adoption remain inadequately developed.

Identified Research Gaps. A review of the existing literature indicates that there are at least five important gaps in the literature:

1. *Focus on Static Adoption Rates.* The majority of the literature reviews focus on the formation of intent to adopt digital banking, as opposed to the dynamic behavioral migration of consumers after they have adopted digital banking services.
2. *Lack of Institutional Integration of Behavior Analytics.* There is limited research that links behavioral analytics generated through digital banking to transformation strategies for branches within hybrid banking systems.
3. *Lack of Risk-Adjusted Models of Personalization.* Research on AI-powered personalization has largely been conducted independent of its potential risks, including the lack of integration of cybersecurity perception and digital readiness.
4. *Lack of Quantitative Models of Channel Transition.* Only a few research models provide quantitative metrics for the migration of customers from traditional to hybrid to fully digital service channels.

Lack of Integration of Behavioral Finance Insights and Strategy. Research on behavioral finance and digital transformation strategy remains insufficiently integrated into the literature.

Problem Statement

The purpose of this paper is to examine how the transition to remote banking reshapes customer financial behavior beyond static adoption models, and to develop a conceptual framework (Sherstiuk Digital Behavioral Adaptation Model, SDBAM) that explains dynamic behavioral migration, risk-adjusted engagement, and adaptive channel allocation within hybrid banking systems..

Methods and Materials

This study utilizes a conceptual-analytic research design to develop and articulate the Sherstiuk Digital Behavioral Adaptation Model (SDBAM). Unlike most studies, which utilize statistical methods to estimate models, the methodology employed here is theory-based and utilizes an integrative model construction approach to build upon existing theories. The primary purpose of the study is to construct an adaptable model for understanding the behavioral migration of customers using hybrid banking systems.

The development of the SDBAM begins with theoretical integration. Five core constructs identified in prior digital banking literature - digital readiness capacity, perceived cybersecurity risk, behavioral engagement intensity, ecosystem integration, and adaptive channel allocation -are treated as integrated elements of adaptive financial behaviors (See Table 1) (Amin et al., 2025; Aldarab'ah & Sharif, 2025; Jamshaid et al., 2025; Shoaib et al., 2025; Wang, 2025), rather than independent predictors of customer adoption and usage of digital banking services. Although several frameworks have been developed to understand why customers adopt and continue to use digital banking services, including the Technology Acceptance Model (TAM) and extensions thereof, they do not adequately capture the dynamics involved in the migration of customers across multiple banking channels. Therefore, the methodology used in this study is designed to position five to six core constructs identified in the literature within a broader behavioral transition architecture.

Table 1. Core Constructs of the Sherstiuk Digital Behavioral Adaptation Model (SDBAM)

Construct	Conceptual Definition	Role in the Model
Digital Readiness Capacity	Structural ability of customers to operate in remote banking environments, shaped by digital literacy, technological familiarity, and habitual online engagement	Determines potential for behavioral migration
Perceived Cybersecurity Risk	Subjective evaluation of vulnerability related to fraud, data breaches, and privacy loss in digital banking	Moderates' migration intensity and engagement depth
Behavioral Engagement Intensity	Depth and regularity of interaction with digital banking services and products	Drives adaptive channel reallocation
Ecosystem Integration	Degree of integration between banking services, electronic payments, and e-commerce platforms	Amplifies perceived usefulness and engagement
Adaptive Channel Allocation	Dynamic redistribution of financial activities between physical and digital banking channels	Institutional outcome of behavioral adaptation

The SDBAM conceptualizes customers' remote banking behavior as a continuous process of adaptation rather than a binary adoption outcome. In this manner, customers are viewed as migrating their financial activities across both physical and digital banking channels based upon changes in their digital readiness, perceived risk, and degree of ecosystem exposure. Digital readiness is defined as a structural capacity variable representing customers' technical competencies and level of familiarity with banking technology platforms. Cybersecurity perception, in contrast, serves as a moderating constraint influencing the extent and permanence of digital migration. Finally, behavioral engagement represents the observable manifestations of the relationship between digital readiness and cybersecurity perceptions, and is measured through customers' levels of transaction frequency and product diversification.

The SDBAM was constructed by structurally reconfiguring the three dimensions outlined above into an interactive model of adaptive behavior. Unlike the traditional TAM, where customers follow a linear path from perception to intention to usage, the SDBAM posits that the capacity, risk perception, and engagement intensity of customers are joint determinants of their channel allocation decisions. This positioning enables the SDBAM to capture hybrid banking realities in which customers simultaneously engage in both physical and digital services, and continuously adjust their allocations based upon experiential feedback and institutional trust.

While this study does not empirically test the SDBAM, all of its constructs can be operationally defined and measured within typical banking data infrastructures. For example, digital engagement can be approximated through measures of transaction activity and platform interaction depth; digital readiness can be inferred through the consistency of customers' behavior and the extent of their participation in banking ecosystems; cybersecurity perception can be measured through customers' self-reported trust and risk sensitivity; and channel transition can be measured through changes in the relative utilization of branches and digital services. Figure 1 illustrates how digital banking behavior is an adaptive migration process rather than a binary adoption outcome. The capacity for digital readiness will interact with customers' perceptions of cybersecurity risk to influence the intensity of their behavioral engagement, and this engagement will be influenced by the degree of their participation in the banking ecosystem and the degree to which they experience personalized service due to AI-driven technologies. Ultimately, customers' behavioral engagement will drive their adaptive channel allocation decisions regarding the use of physical and digital banking services,

ultimately resulting in a hybrid banking configuration in which both branch and remote channels exist, coexist, and serve distinct functional purposes.

Methodologically, this study contributes to knowledge of digital banking through a shift from predictive adoption modeling to adaptive migration modeling of behaviors as it integrates a single architectural model with technology acceptance theory, behavioral finance, and strategic banking transformation to provide a strategically relevant and theoretically consistent framework for the study of financial behavior in remote banking.

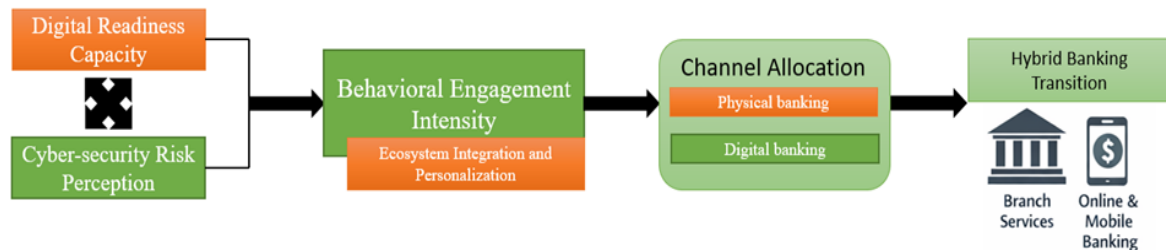


Figure 1. Structural architecture of the Sherstiuk Digital Behavioral Adaptation Model (SDBAM)

Results and Discussion

Although the SDBAM provides an analytical framework for understanding the structural factors influencing financial behaviors during remote banking applications, it does so in a manner that views adoption as a process rather than as an event. In addition to viewing digital banking as a means of transitioning existing financial activities across service channels, the SDBAM posits that behavioral adaptation is influenced by a customer's level of digital readiness and his or her perceptions of cybersecurity risk in increasingly complex digital ecosystems.

The first key finding of the study relates to the structural migration of younger and digitally literate customer segments toward a primarily remote banking environment. The SDBAM has demonstrated that individuals who are highly digitally ready experience lower levels of cognitive friction when interacting with digital banking platforms. Lower levels of cognitive friction result in higher levels of behavioral engagement intensity, which in turn accelerate the migration of customers away from traditional, physical banking locations. Moreover, SDBAM indicates that migration is not driven solely by a desire for convenience; instead, migration is further facilitated by exposure to an individual's surrounding digital ecosystem. For example, as individuals incorporate electronic payment systems and e-commerce into their routine financial behavior, remote banking becomes a habituated financial behavior (Wang, 2025). Thus, digital banking transitions from being a supplemental service channel to being a primary financial interface.

The second finding of the study relates to the impact of engagement intensity upon the cross-product expansion of digital banking products. Studies have shown that customers who engage at a high level with digital banking products also tend to adopt a broader range of financial products offered through these platforms. Furthermore, studies have shown that artificial intelligence (AI)-driven personalization can amplify the effects of engagement intensity by making additional financial services more visible and accessible to customers (Ashrafuzzaman et al., 2025; Lama & Kayestha, 2025). From the perspective of the SDBAM, personalization does not simply improve customer satisfaction; it further solidifies digital dependency. As the breadth of financial products that customers interact with expands, the costs associated with "switching" back to traditional banking channels increases, thereby further solidifying the dominance of digital banking channels.

Despite the positive influence of the relationship between digital readiness and cross-product expansion, the SDBAM also illustrates how the relationship between a customer's digital readiness and their perceived cybersecurity risk constrains the migration intensity of customers. Even though a customer may be highly digitally capable, they will moderate their engagement with digital banking if they perceive their vulnerability to cyber-attacks as high (Aldarab'ah & Sharif, 2025; Waliullah et

al., 2025). The interaction between a customer's digital readiness and their perceived risk influences their behavioral outcome. If a customer has high digital readiness and low perceived risk, they will migrate quickly. If a customer has high digital readiness but high perceived risk, they will engage with digital banking at a cautious pace and likely maintain some degree of hybrid channel use. Finally, if a customer has low digital readiness and high perceived risk, they will continue to rely heavily on branch-based banking. The interaction mechanisms illustrated in the SDBAM explain why there continues to be considerable heterogeneity in digital banking penetration rates among different demographic groups (see Figure 2 and Table 2).

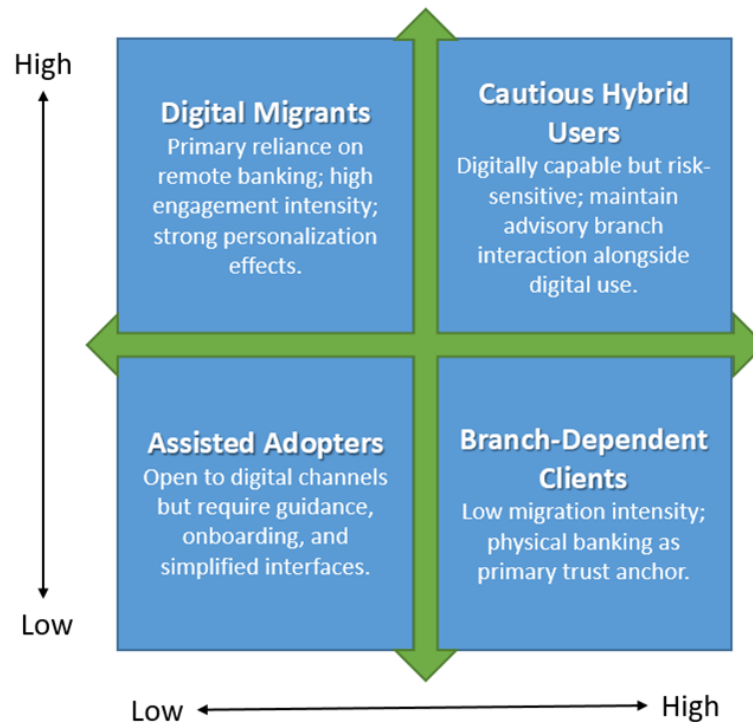


Figure 2. Digital readiness–cybersecurity risk interaction matrix within the Sherstiuk Digital Behavioral Adaptation Model (SDBAM)

Table 2. Behavioral Migration Typology under SDBAM

Behavioral Segment	Digital Readiness	Risk Perception	Dominant Channel Configuration
Digital Migrants	High	Low	Predominantly digital
Cautious Hybrid Users	High	High	Balanced digital – branch usage
Assisted Adopters	Low	Low	Gradual digital adoption with support
Branch-Dependent Clients	Low	High	Predominantly physical banking

A third discovery relates to how institutions use their bank branches. The role of a branch changes as more of its transactions are done remotely. Branches do not disappear completely - they become places where customers can get advice and have their trust reinforced. According to SDBAM, the way banks view the value of a branch has changed - instead of using them for just processing transactions, branches now serve as risk mitigation and complex financial consulting locations. Even though customers are doing their daily banking transactions online, customers who feel threatened by digital risks will still go into a branch periodically to get some physical reassurance about what is going on with their money. The above hybrid form of stabilizing provides an explanation for why the replacement of all of the banks' physical branches with digital ones is highly unlikely to occur in the near future.

The fourth discovery is related to the timing of how people adapt. Migration to new behaviors does not happen instantaneously; it occurs when there is continuous learning, risk assessment and adjustment to the digital environment. If a customer initially experiments with a digital service, but then pulls back after experiencing a negative incident (e.g., security) or usability frustration, this represents a temporary retreat from an initial phase of digital experimentation. However, repeated positive experiences with a digital service may lead to increased confidence and reduced perceptions

of vulnerability in that area of the digital environment. Therefore, SDBAM views digital adaptation as cyclical (i.e., alternating periods of rapid change with periods of slow change), and allows for both acceleration and deceleration phases during the development of digital channels.

The final discovery is related to how banks compete in the digital banking environment. Competitive advantage in digital banking is no longer determined by the level of technology that a bank uses. Instead, competitive advantage is based upon the bank's ability to adjust the degree of personalized services offered to customers relative to the perceived level of risk associated with each customer segment. Providing too much personalized service to customers in high-risk sensitive segments may create privacy anxiety in those customers, while providing too little personalized service to customers in digitally confident segments may limit the customers' willingness to engage with the bank at a deep level. Therefore, optimal channel strategy in the digital banking environment requires risk-based personalization rather than simply increasing digital services across all customer segments uniformly.

The results of the Sherstiuk Digital Behavioral Adaptation Model (SDBAM) have both theoretical and practical implications regarding financial behavior in remote banking environments. Almost all prior research in digital banking has focused on intention-based frameworks such as the Technology Acceptance Model (Amin et al., 2025; Jamshaid et al., 2025). While these models do an excellent job of predicting whether individuals will adopt digital banking technologies, they are structurally constrained in their ability to measure the adaptive dynamics that occur post-acceptance. In addition to building upon previous perspectives, the current study expands the field of digital banking by viewing digital banking behavior as a continuous process of channel reallocation based on individual digital readiness, exposure to digital ecosystems, and perceived digital bank cybersecurity risks.

From a theoretical viewpoint, SDBAM represents a three-way advancement of the body of knowledge regarding digital banking. First, SDBAM shifts the focal point of the analytical lens away from the likelihood of adoption and toward the intensity of behavioral migration. Conventional approaches view usage as a dichotomous variable; SDBAM views it as a continuous variable. As a result of this shift in perspective, SDBAM is able to account for the reality of hybrid banking in which consumers simultaneously interact with both physical and digital channels and continually modify their allocation patterns over time, rather than simply substituting one channel for another. In doing so, SDBAM provides a more accurate reflection of the dynamic nature of today's financial ecosystems, where consumers interact with various channels in a fluid manner (Gallegos et al., 2025).

Second, SDBAM incorporates cybersecurity perceptions into the structural moderators of digital engagement depth. Although it is well-established in the literature that cybersecurity concerns impact consumer decisions about adopting digital banking services (Aldarab'ah & Sharif, 2025; Waliullah et al., 2025), prior research has generally treated these concerns as direct inhibitors of adoption. The current research demonstrates that perceived risk does not uniformly prevent individuals from engaging with digital banking services; instead, it influences the degree to which individuals migrate to remote services and the stability of that migration. Digitally capable consumers may continue to engage in remote services while taking deliberate action to limit or minimize high-risk transactions. This nuanced relationship between readiness and perceived vulnerability adds greater precision to the explanatory power of behavioral models of digital banking engagement compared to traditional acceptance models.

Finally, SDBAM bridges the gap between customer-level behavioral adaptation and institutional transformation. Digital banking research often focuses on the determinants of consumer behavior in terms of using digital banking services without fully exploring the institutional implications of that behavior. By providing the theoretical underpinnings for the concept of adaptive channel reallocation, SDBAM highlights how increasing digital intensity fundamentally changes the way branches function in hybrid systems. Rather than closing down physical branches, digital banking transforms them into trust reinforcement and advisory nodes. SDBAM thus challenges the simplistically stated notion that digital banking will displace physical banking and presents a stabilization framework where physical and digital channels coexist in a strategic manner.

In addition to contributing to our understanding of the role of adaptive channel reallocation in the development of hybrid banking systems, SDBAM also offers insights into the design of personalization strategies in AI-enabled financial environments. While AI-enabled personalization

enhances consumer engagement and retention (Ashrafuzzaman et al., 2025; Lama & Kayestha, 2025), SDBAM shows that personalization must be tailored according to the perceived level of cybersecurity risk experienced by individual consumers. For example, excessive algorithmic targeting to personalize services may increase the level of anxiety experienced by consumers who are concerned about their privacy, especially those in risk-sensitive segments. Conversely, the lack of sufficient personalization may reduce the engagement of digitally confident consumers. Therefore, competitive advantage is now dependent on the institution's ability to dynamically balance the intensity of engagement and the perceived security of its customers.

With regard to managerial implications, the findings of SDBAM are very significant (see Table 3). To achieve success in digital transformation, banks need to move beyond the implementation of uniform migration strategies and need to develop mechanisms to assess the heterogeneous levels of digital readiness across different customer segments. Based on the level of digital readiness, banks then need to allocate channels in accordance with the level of digital readiness. Hybrid optimization (i.e., optimizing the use of both physical and digital channels), rather than the forced digitalization of all customers, is likely to emerge as the most sustainable strategic approach in this context. Finally, cybersecurity communication strategies are becoming increasingly critical not only for ensuring regulatory compliance but also for ensuring the long-term stability of consumer behavior in the face of evolving cyber threats. Transparency in communicating security-related issues can significantly enhance the rate at which digitally capable yet risk-sensitive consumers transition to remote banking services.

Table 3. Strategic Implications of Behavioral Segments for Hybrid Banking

Segment	Primary Strategic Focus	Role of Digital Channels	Role of Physical Branches
Digital Migrants	Engagement maximization	Primary service interface	Minimal, episodic
Cautious Hybrid Users	Trust stabilization	Routine transactions	Advisory and reassurance
Assisted Adopters	Capability building	Guided onboarding	Support and education
Branch-Dependent Clients	Trust reinforcement	Limited, optional	Primary interaction point

The findings have significant implications for financial inclusion. In addition to their immediate impact on customer behavior, the increasing prevalence of digital ecosystems is likely to further reinforce the "migration" effect described by Wang (2025), through ecosystem effects such as the integration of electronic payment systems and e-commerce (Wang, 2025). Institutions that successfully integrate financial services with these digital ecosystems are likely to gain a deeper level of behavioral integration with customers, although this will depend upon institutions developing the capacity to support digital literacy skills (Shoib et al., 2025) among their customer base to mitigate the widening of structural inequalities in digital readiness.

Conclusion

This paper has demonstrated that remote banking transformation cannot simply be characterized as either a technological or behavioral phenomenon; it is an adaptive process shaped by an interdependent relationship of three key dimensions - customer readiness, perceived risk, and ecosystem participation, and the strategic choices made by financial service providers. Therefore, by providing a unified conceptual framework to understand all four dimensions of remote banking transformation, the Sherstiuk Digital Behavioral Adaptation Model (SDBAM) contributes to both our theoretical understanding of hybrid banking systems and offers a practical strategic lens to guide decision-making during the evolving hybrid banking paradigm.

The transition of financial services from branch banking to remote banking represents a fundamental shift in the way consumers access and engage with financial services, as opposed to a simple technology upgrade. This research reconceptualizes digital banking adoption as an adaptive migration process and provides the Sherstiuk Digital Behavioral Adaptation Model (SDBAM) as a single, comprehensive framework for understanding that process. The SDBAM includes three critical dimensions of digital banking migration - digital readiness, ecosystem reinforcement, and adaptive channel allocation - and therefore extends beyond static intention-based explanations to capture the dynamic restructuring of consumer financial behavior in hybrid banking systems.

The empirical analysis demonstrates that the degree of digital banking migration is not solely dependent on how useful customers perceive the technology to be or how easy they find it to use. Rather, it arises out of the interaction of structural capacity (i.e., the ability of customers to effectively utilize the digital banking technology) and perceived risk. Ecosystem integration and AI-driven personalization increase the degree of behavioral engagement; however, they do so while remaining constrained by cybersecurity sensitivity. The interaction of these two constructs helps explain the observed heterogeneity in channel usage patterns and thereby supports the continued dominance of hybrid banking models in modern financial systems.

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