

## Empirical Analysis of Switching Behavior and Technology Acceptance in Digital Top-Up Services: Evidence from Indonesian Specialty Coffee Micro-Retail

Adi Haryadi<sup>A</sup>, Andriani Kusumawati<sup>B</sup>, Teuku Noerman<sup>C</sup>, Wiyata<sup>D</sup>,

### Abstract

This research explores the factors influencing customer switching behavior in digital top-up services, with a particular focus on Indonesia's specialty coffee micro-retail sector. A modified Technology Acceptance Model (TAM) framework is applied, incorporating variables such as switching behavior, switching cost, perceived ease of use, perceived usefulness, perceived risk, and social influence. To date, this study represents the first empirical investigation examining customer switching behavior within digital top-up services among micro coffee retailers in Indonesia. Data were obtained through an online survey of 320 respondents and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that Perceived Ease of Use ( $\beta = 0.182, p < 0.01$ ), Perceived Usefulness ( $\beta = 0.418, p < 0.01$ ), and Switching Cost ( $\beta = 0.342, p < 0.05$ ) significantly and positively affect switching behavior. In contrast, Social Influence ( $\beta = 0.073, p = 0.242$ ) and Perceived Risk ( $\beta = 0.113, p = 0.099$ ) were found to be insignificant predictors. Overall, the model explains 71.5% of the variance in switching behavior ( $R^2 = 0.715$ ). These results provide valuable insights for fintech providers and policymakers, emphasizing the need to design secure, user-friendly, and efficient transaction systems to enhance adoption and customer loyalty among Indonesian micro-retailers. By integrating sociological and psychological perspectives, this paper not only extends the theoretical scope of TAM but also offers practical implications for fintech developers and policymakers in promoting digital resilience and inclusivity among micro-entrepreneurs. Ultimately, virtual account top-up services serve as catalysts for behavioral change and sustainable digital transformation within niche retail communities, reinforcing the significance of consumer-centered innovation in the digital economy.

**Keywords:** *Switching Behavior, Switching Cost, Perceived Ease of Use, Perceived Usefulness, Perceived Risk, Technology Acceptance Model, Digital Banking, Micro-Retail, Specialty Coffee Shops, Indonesia.*

<sup>A</sup>Department of Business Administration, Brawijaya University, Malang, Indonesia, Email: [adiharyadi@student.ub.ac.id](mailto:adiharyadi@student.ub.ac.id)

<sup>B</sup>Department of Business Administration, Brawijaya University, Malang, Indonesia, Email: [andriani.kusumawati@ub.ac.id](mailto:andriani.kusumawati@ub.ac.id)

<sup>C</sup>Department of Business Administration, Brawijaya University, Malang, Indonesia, Email: [tnoerman@ub.ac.id](mailto:tnoerman@ub.ac.id)

<sup>D</sup>Department of Business Administration, Brawijaya University, Malang, Indonesia, Email: [wiyata@ub.ac.id](mailto:wiyata@ub.ac.id)

## INTRODUCTION

Indonesia's coffee shop industry has experienced rapid growth in recent years, highlighted by a consistent rise in market value and the expansion of leading brands' outlet networks between 2022 and 2024. The sector grew at an average rate of 6.5% annually from 2021 to 2024 (Statista, 2024), while outlet numbers increased by approximately 1.7% each year (Santoso & Prabowo, 2023). Local chains such as Kopi Kenangan and Kopi Janji Jiwa notably expanded their reach, with Kopi Kenangan exceeding 1,000 outlets by 2024 and Janji Jiwa reaching about 1,100 outlets in 2022 (QahwaWorld, 2024; Scribd, 2022). Global chains like Starbucks also maintained a significant presence, operating over 500 outlets (Starbucks Indonesia, 2024).

This business expansion is closely tied to the widespread adoption of mobile applications, which are now central to the customer experience in major coffee chains. By 2024, proprietary apps from Starbucks, Kopi Kenangan, Fore Coffee, and Janji Jiwa each recorded hundreds of thousands to over a million downloads, offering features such as digital ordering, loyalty programs, and integrated payment systems (Google Play, 2024a-d). This digital shift reflects evolving consumer preferences for seamless, technology-driven experiences, underscoring the importance of digital engagement and brand loyalty in the sector.

A parallel digital transformation is evident in Indonesia's banking sector. The number of digital banking users is projected to rise from 47 million in 2021 to 75 million by 2026, driven by favorable regulations and digital innovation (OJK, 2021; Sugiarto, 2021). Most digital bank customers are aged 20 to 30, with approximately 60% belonging to Generation Y and Generation Z, who actively use smartphones and digital platforms for a variety of financial transactions (JakPat, 2023; Tirto.id, 2023; Santia, 2024). This demographic has fueled the adoption of digital collaboration strategies by banks, including partnerships with fintech and e-commerce platforms to enhance user experiences (Momentum Works, 2021).

Despite advances in digital payments, the strategic application of these technologies in micro-scale businesses, such as specialty coffee shops, remains underexplored. Independent outlets often face unique operational constraints yet stand to benefit from digital innovations that build transactional reliability and customer loyalty. The present study examines how virtual account (VA) top-up systems can strengthen these outcomes, extending the Technology Acceptance Model (TAM) through constructs such as Perceived Ease of Use, Perceived Usefulness, Perceived of Risk and adding the Social Influence due to Modern cafés function as 'third places' that facilitate social interaction and enable social influence among patrons (Lukito & Xenia, 2017)

Factors influencing switching behavior in digital financial services include social influence, switching costs, perceived ease of use, perceived usefulness, and perceived risk (Alyoussef, 2023; Deng et al., 2024; Hong Minh et al., 2023; Krishen & Hu, 2018; Kumar & Kashyap, 2022; Liu et al., 2017; Ramezaninia et al., 2022; Sakkthivel & Moovendhan, 2023;

Tang et al., 2023; van der Cruijssen & Diepstraten, 2017; Van Rompay et al., 2012). Users are more likely to adopt new services when they perceive greater utility, lower risk, and social endorsement, but high switching costs and security concerns can hinder such transitions. Recent advances suggest that innovation, efficiency, ease of use, and robust user interfaces underpin the success of digital collaboration, while switching costs, social influence, and perceived risk remain at the forefront of factors affecting digital service retention and adoption (Haryadi et al., 2024, pp. 1, 13)

By understanding these determinants, digital financial service providers and specialty retailers can design more effective engagement strategies, fostering consumer loyalty and ensuring that digital innovation addresses real-world needs in Indonesia's evolving digital economy.

This research seeks to empirically analyze how switching cost, perceived ease of use, perceived usefulness, perceived risk, and social influence affect switching behavior among users of digital top-up services in Indonesia's specialty coffee micro-retail sector. In addition, the study aims to enhance the practical understanding of technology adoption within micro-scale enterprises and to offer actionable insights for fintech developers and policymakers.

## **LITERATURE REVIEW**

The Technology Acceptance Model (TAM) has been extensively utilized to examine user acceptance of digital technologies; however, its application within micro-retail enterprises especially in niche markets such as artisanal coffee remains limited. Previous studies have largely concentrated on large-scale implementations or urban consumer segments, which may not accurately represent the behavioral nuances present in specialty coffee settings. Furthermore, while the traditional TAM constructs of perceived ease of use and perceived usefulness serve as essential foundations, they may not fully encompass the emotional, contextual, and trust-related factors that influence technology adoption in localized retail environments.

The Technology Acceptance Model (TAM) has been extensively utilized to examine user adoption of digital technologies; however, limited research has applied this framework to micro-retail enterprises, especially within niche sectors such as artisanal coffee. Existing studies predominantly focus on large-scale systems or urban consumer groups, which may overlook the complex behavioral patterns found in specialty coffee settings. Additionally, although the traditional TAM constructs perceived ease of use and perceived usefulness remain fundamental, modern digital retail environments necessitate the integration of other variables, including perceived risk, social influence, and switching costs, to more accurately explain customer behavior in localized market contexts.

This study advances theoretical conversation by adopting these constructs Perceived Ease of Use (PEoU), Perceived Usefulness (PoU),

Perceived Risk (PoR), Social Influence, Switching Cost, and Switching Behavior examine digital top-up services in specialty coffee shops that collaborate with digital banks as payment partners.

This study contributes to the theoretical discourse by incorporating the constructs of Perceived Ease of Use (PEoU), Perceived Usefulness (PoU), Perceived Risk (PoR), Social Influence, Switching Cost, and Switching Behavior to examine digital top-up service adoption within specialty coffee shops that partner with digital banks as payment providers. Previous works (e.g. Davis, 1989; Venkatesh & Bala, 2008) have not fully addressed these micro-context dynamics, particularly how switching decisions are shaped by usability, risk perceptions, social interactions, and financial or procedural barriers. Additionally, literature on digital transformation in coffee retail has been fragmented, often focusing on marketing or consumer loyalty without sufficiently evaluating the infrastructural and behavioral aspects of digital integration in payment systems.

Systematic studies confirm that both technical and social dimensions—such as the quality of collaboration platforms and the psychological barriers to switching—are critical in digital environments. These insights bridge the gap between technological adoption frameworks and customer loyalty theory (Haryadi et al., 2024, pp. 1, 13).

By synthesizing insights from fintech adoption, micro-retail behavior, and digital trust literature, this research positions itself at the intersection of operational technology and customer experience innovation an area yet to be comprehensively explored in current academic discourse.

### **Switching Behavior**

Switching behavior refers to the inclination of consumers to change from one service provider to another. In digital banking, this behavior is shaped by several aspects, including risk perception, usability, switching barriers, and digital cooperation. Research indicates that the strength of relationships and switching barriers significantly influence customers' decisions to remain with or change services (D. Kaur & Kaur, 2022; Wong et al., 2019). According to the Push-Pull-Mooring model utilized in this study, factors such as social influence, relocation expenses, and digital collaboration significantly impact user switching behavior (Chang et al., 2017; Tanuwijaya & Oktavia, 2023).

Factors such as service experience, innovation, and service quality play a crucial role in shaping customers' intentions to switch within the digital banking sector (Sharma & Khanna, 2020). Moreover, elements such as customer satisfaction, switching costs, and demographic factors also influence customers' decisions to switch services (Nguyen et al., 2019; Santosa et al., 2021). Considering the vital role of customer loyalty in ensuring the stability of the banking industry, understanding these determinants is essential for banks to enhance customer experience and sustain retention in the face of growing competition (Rust & Zahorik, 1993).

This study will analyze the elements of Social Influence (SI), Switching Cost (SC), Perceived Ease of Use (PEoU), Perceived Usefulness (PoU), and Perceived Risk (PoR) via the Push-Pull-Mooring model to assess their impact on Switching Behavior.(Chang et al., 2017; Tanuwijaya & Oktavia, 2023) From customers of Bank Digital ABCD who carried out digital collaboration with Gerai Kopi XYZ.

### **Social Influence**

Social Influence refers to the effect of social interactions on an individual's decision-making, especially regarding technology adoption. In the context of digital banking, social influence greatly affects users' likelihood of switching services. Research has shown that encouragement and support from peers and family members are key factors driving the adoption of new technologies (Dwivedi et al., 2023). Social media also plays an important role; reviews and recommendations on these platforms can increase positive perceptions of service (Arun Kumar et al., 2023).

Social identity influences technology adoption behavior, where individuals tend to follow the decisions of groups with which they identify (Tajfel, H., & Turner, 1986). By leveraging social influence, digital banks can build an active user community and increase customer loyalty through marketing strategies that focus on testimonials and recommendations (Ladhari et al., 2019). Overall, Social Influence is an important factor in understanding digital service adoption behavior, and financial institutions can implement strategies that leverage the dynamics of social influence to attract and retain customers in the digital era.

### **Switching Cost**

*Switching costs* affect the level of commitment, which can be added to high customer satisfaction. Customer satisfaction, commitment, and Switching Costs such as the costs incurred by users, lost benefits & adjustment time required due to switching to a new application, are direct antecedents of Switching behavior (Thaichon & Weaven, 2019).

### **Perceived Ease of Use (PEoU)**

Perceived Ease of Use (PEoU) is the belief that a technology is easy to use. When users find it simple and accessible, they are more likely to adopt it, especially in digital banking (Windasari et al., 2022). Indicates that the user-friendliness of digital banking applications significantly influences the propensity to change services. This indicates that perceived easiness significantly influences user behavioral control (Tanuwijaya & Oktavia, 2023).

PEoU also reduces the possibility of errors in using new technologies, making users more confident in adopting digital products. In the banking industry, PEOU can be seen from the user interface; the more intuitive and simple the interface, the more users are encouraged to try the service.(Nambiar & Bolar, 2023). Studies indicate that the

greater the usability of a technology, the higher the likelihood of user acceptance and adoption.(Parvathy & Durairaj, 2022). Thus, PEOU is a key factor in increasing digital banking adoption.

### **Perceived of Usefulness (PoU)**

*Perceived usefulness* (PoU) is the conviction that utilizing technology will enhance performance and yield substantial advantages. Positive attitudes toward PoU contribute to users' intention to switch to new technologies. According to(Nambiar & Bolar, 2023), the perception of the benefits of digital banking technology strengthens users' positive attitudes, which further influences switching intentions and behavior (Tanuwijaya & Oktavia, 2023).

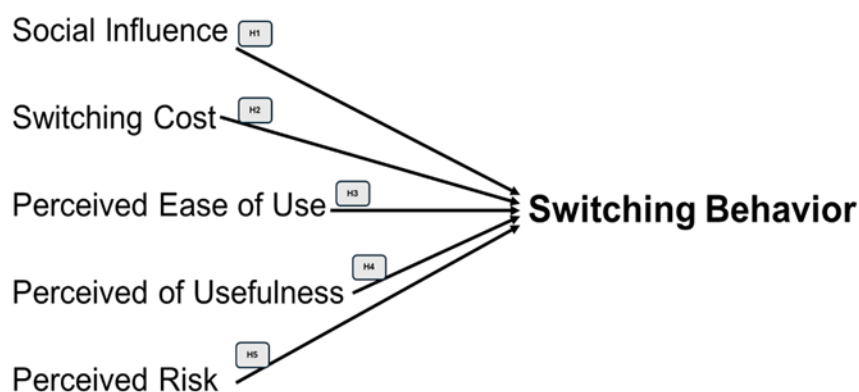
PoU also relates to the acceptance of technology that is easier to use than previous systems. Users assert that emerging technology can enhance efficiency with negligible exertion. Within the realm of Micro, Small, and Medium Enterprises (MSMEs), Point of Use (PoU) significantly facilitates the implementation of digital payment systems, enabling business owners to attain enhanced quality and precision in transactions.(Najib & Fahma, 2020; Parvathy & Durairaj, 2022). Research shows that the application of digital technology in banking provides significant benefits, making PoU a key element in technology adoption in this sector.(Nambiar & Bolar, 2023).

### **Perceived Risk (PR)**

*Perceived risk* (PoR) encompasses the apprehensions related to the utilization of emerging technology, including data security and privacy concerns, which may impede perceived behavioral control. Research by (Alaeddin et al., 2018) demonstrated that Perceived Risk (PoR) moderates the correlation between attitude and switching intention; as risk increases, the intention to switch diminishes, even in the presence of a favorable attitude, consistent with the Theory of Planned Behavior (TPB).

PoR is divided into functional (financial and performance risks) and psychosocial (impact on self-image). The level of perceived risk is influenced by price and other people's perceptions of the product (Peter & Donnelly, 2015). In digital banking, risks such as security and fraud are a major focus, with banks investing to protect customers (Mbama et al., 2018). PoR is also related to the Switching Barrier, where consumers reduce risk by seeking information before making a decision (Peter & Donnelly, 2015; Tesfom et al., 2022).

Based on the research model and previous literature, we postulate five hypotheses & completed with the figure amongst variables relationship as follows:



**Figure 1. Empirical Research Model**

H<sub>1</sub>: Social Influence has a positive and significant influence on switching behavior

H<sub>2</sub>: Switching Cost Has a Positive and Significant Influence on Switching

H<sub>3</sub>: Perceived ease of use has a positive effect on Switching behavior

H<sub>4</sub>: Perceived Usefulness has a positive influence on Switching behavior

H<sub>5</sub>: Perceived Risk has a positive influence on Switching behavior

This research involved the administration of an online questionnaire to participants who were customers of digital banking and specialty coffee micro-retail. All respondents were fully informed regarding the study's objectives and procedures, and participation was entirely voluntary. Informed consent was obtained electronically prior to data collection. No personally identifiable information was collected, and all responses remained strictly confidential and anonymous. The research protocol adhered to international ethical standards for social science research. All data collected are securely stored and will be used solely for academic purposes.

## **METHOD**

This study used a quantitative survey design to analyze customer switching behavior in digital top-up services. Data were collected through an online questionnaire targeting regular users of digital top-up features at specialty coffee shops in urban Indonesia. Purposive sampling ensured respondents had relevant experience. The instrument measured six constructs: Social Influence, Switching Cost, Perceived Ease of Use, Perceived Usefulness, Perceived Risk, and Switching Behavior. Validity was tested through expert review and pilot studies, while reliability was verified using Cronbach's Alpha and Composite Reliability. Data were analyzed with PLS-SEM using SmartPLS, with model validity assessed through AVE, Fornell-Larcker, and bootstrapping tests.

The survey focused on ABCD Digital Bank customers who topped up the XYZ Coffee Shop e-Wallet via virtual account services. Questionnaires were distributed via social media to users active in the past six months and who had completed at least one top-up. Of 320 respondents, 134 met all criteria. The questionnaire included profile, screening, introduction, core, and additional sections. Core questions covered Social Influence (SI), Switching Cost (SC: Procedural and

Financial), Perceived Ease of Use (PEoU), Perceived Usefulness (PoU), Perceived Risk (PoR), and Switching Behavior (SBHr).

The validity and reliability assessments in this study guarantee the quality of the instruments employed. Validity assessments are conducted by juxtaposing the computed  $r$  value with the tabulated  $r$  ( $df = n - 2$ ), wherein the instrument is deemed valid if the computed  $r$  exceeds the tabulated  $r$  and is positive. The Pearson Product Moment Correlation is employed to assess the congruence between the gathered data and actual situations. Reliability tests assess the consistency of respondents' answers, with the instrument considered reliable if the Cronbach Alpha value from SmartPLS exceeds 0.70, indicating the stability of the answers. Instruments that meet these two criteria are considered accurate and consistent in measuring research variables.

Data analysis in this study uses statistical methods to understand patterns and relationships between bank customers' behavior and perceptions of digital banking services. After the data is cleaned, descriptive analysis describes the characteristics of respondents, while linear regression and path analysis test the relationship between variables such as Social Influence, Switching Cost, Perceived Ease of Use, Perceived Usefulness, and Perceived Risk of switching behavior. The main method, Structural Equation Modeling (SEM) with SMART PLS, tests the measurement model (outer model) and structural model (inner model) to ensure the reliability and validity of the relationship between latent variables. Validity is tested using AVE and Fornell-Larcker, while reliability is tested using Cronbach's Alpha and composite reliability. Hypothesis testing uses Bootstrap resampling and t-test, where  $p$ -value  $< 0.05$  indicates a significant effect. The results of this analysis provide insight into the factors that influence the switching behavior of bank customers in choosing top-up services.

## **RESULTS AND DISCUSSION**

This section presents the empirical findings and corresponding discussion. It begins with a description of the respondents' profiles to contextualize their demographic and behavioral characteristics. Subsequently, the validity and reliability of the measurement instruments are evaluated, followed by the results of hypothesis testing and a comprehensive discussion of the principal findings. The implications of these results are then analyzed in relation to existing literature and the practical context of digital banking adoption among micro-retail consumers.

This research corroborates that enhancing digital collaboration effectiveness—through innovation and user-centered design—can significantly impact user satisfaction and operational performance. At the same time, persistent switching barriers, including costs, peer influence, and risk perception, must be strategically managed to foster customer retention in digital services (Haryadi et al., 2024).

Respondent Profile of 134 eligible responses are users of Gerai Kopi XYZ eWallet and are accustomed to doing Top Up from various banks

with the following composition based on the length of use: Length of Use 6 months there are 7%, for 6 months to 1 year there are 9% and users over 1 year there are 85% and all of them are customers of Bank Digital ABC who are now also users of the bank application's virtual account service.

Table 1 shows that despite some constructs having alpha < 0.7, all met AVE and composite reliability thresholds and were retained for theoretical relevance. Although limited in scope and sample, this study provides novel empirical evidence on digital banking and micro-retail switching behavior. The model is highly explanatory ( $R^2 = 0.715$ ), highlighting the importance of usability and practical value for user loyalty and opening new directions for future research.

**Table 1 Validity and Reliability Analysis**

Variables	No. of Items	Average Variance Extracted	Cronbach Alpha	Composite Reliability
Social Influence	2	0.679	0.532	0.808
Switching Cost	5	0.518	0.768	0.843
Perceived Ease of Use	2	0.687	0.546	0.814
Perceived Usefulness	3	0.667	0.75	0.857
Perceived Risk	2	0.702	0.577	0.825
Switching behavior	3	0.523	0.533	0.764

Linear regression analysis is employed to evaluate the hypotheses established in this study. This study presents a model summary in Table 2, indicating an R-square value of 0.714. Seventy-one-point four percent of clients switching behavior to digital banks is elucidated by independent factors, specifically Social Influence, Switching Cost, Perceived Ease of Use, Perceived Usefulness, and Perceived Risk. Additional factors account for the remaining 28.6% of consumer switching behavior.

**Table 2 Summary Model**

Variable	R Square	R Square Adjusted
Switching behavior	0.715	0.704

Bootstrapping analysis was performed using SmartPLS with 5,000 subsamples under complete bootstrapping. This process produced T-statistics and P-values to determine the significance of each variable. As shown in Table 3, Switching Cost ( $\beta = 0.342$ ,  $p < 0.05$ ), Perceived Ease of Use ( $\beta = 0.189$ ,  $p < 0.002$ ), and Perceived Usefulness ( $\beta = 0.430$ ,  $p < 0.05$ ) significantly affect millennial customers' switching behavior toward digital banks. Meanwhile, Social Influence ( $\beta = 0.052$ ,  $p = 0.355$ ) and Perceived Risk ( $\beta = 0.128$ ,  $p = 0.051$ ) show no significant impact. Therefore, hypotheses H2, H3, and H4 are supported, while H1 and H5 are rejected due to their p-values exceeding 0.05.

**Table 3 Bootstrapping Result**

Variables	$\beta$	T-Statistics	P-Value	Results
Social Influence → Switching behavior	0.073	1,171	0.242	Insignificant
Switching Cost → Switching behavior	0.341	6,432	0.000	Significant
Perceived Ease of Use → Switching behavior	0.182	2,917	0.004	Significant
Perceived Usefulness → Switching behavior	0.418	6.365	0.000	Significant
Perceived Risk → Switching behavior	0.113	1,652	0.099	Insignificant

According to the established hypothesis, it can be inferred that Switching Cost, Perceived Ease of Use, and Perceived Usefulness affect the switching behavior of ZXY coffee shop patrons in digital banking. This outcome aligns with other research findings regarding switching costs conducted by (Willy & Mutis, 2018; Zhang et al., 2014), Perceived Usefulness (Purwaningdyah et al., 2021; Xiao, 2008), and the results of research on the perception of ease of use conducted by (Nambiar & Bolar, 2023; Parvathy & Durairaj, 2022; Windasari et al., 2022).

Nonetheless, Social Influence and Perceived Risk do not substantially impact client switching behavior in digital banks. This represents a novel discovery since it contradicts the findings of other studies on customer switching behavior undertaken by (Kim et al., 2023; Luu et al., 2021; Sakkthivel & Moovendhan, 2023) Regarding Social Influence, Willy's research (2018) and research (Kurniawan et al., 2023; Yeo et al., 2020) regarding Perceived of Risk.

Although Social Influence and Perceived Risk are two new factors proposed by the author in this study, these two factors are included in the factors that are considered in selecting a digital bank as presented in Table 4.

**Table 4 Open Questions**

Variable	Number of Respondents
Perceived Ease of Use	84
Social Influence	78
Perceived Usefulness	64
Perceived Risk	60
Switching Cost	46

Perceived Ease of Use (PEoU) emerges as a crucial determinant influencing customers' intention to switch to the XYZ Coffee Shop's top-up service via the ABCD Digital Bank virtual account. As indicated in Table 3, PEoU significantly impacts Switching Behavior ( $\beta = 0.189$ , p-value = 0.002). Furthermore, Table 4 highlights that PEoU obtained the highest number of responses (84 participants), emphasizing that ease of use is a major concern for customers. PEoU reflects users' perception of how straightforward and effortless the service is to understand and operate, which is a vital aspect of adopting new technologies, particularly in digital platforms. Applications with intuitive layouts, simple navigation, and user-friendly features—such as appropriate color schemes, auto-complete options, and recognizable icons—can reduce perceived complexity. This reduction lowers cognitive effort, accelerates technological adaptation, and enhances customers' confidence in using the service. Consequently, PEoU plays a central role in creating positive user experiences, fostering the acceptance of digital services, and strengthening customer loyalty.

In contrast, Social Influence does not exert a significant impact on switching decisions regarding the use of XYZ Coffee Shop's digital top-up service ( $\beta = 0.052$ ,  $p$ -value = 0.355). Despite Table 4 showing a relatively high number of responses for this factor (78 respondents), its effect is not directly associated with Switching Behavior. Nevertheless, recommendations from close contacts such as family and friends, as well as favorable reviews and testimonials on social media, may still indirectly shape perceptions of safety and usefulness. By leveraging social influence within their marketing strategies, XYZ Coffee Shop and ABCD Digital Bank can potentially attract more users, even though the statistical evidence does not confirm a strong effect.

*Perceived Usefulness (PoU)* is the most significant factor in influencing Switching Behavior, as shown in Table 3 ( $\beta = 0.430$ ,  $p$ -value = 0.000). This shows that customers highly consider the practical benefits and increased efficiency of digital services, such as convenience, speed, and security in transactions. Although the number of responses to PoU in Table 4 is lower than PEOU (64 respondents), its statistical influence shows that the higher the perceived usefulness of a service, the more likely customers are to adopt the service. When digital services are perceived to be superior to conventional methods, customers tend to switch and continue using these services.

Perceived Risk (PoR) does not reach statistical significance at the 5% level ( $\beta = 0.128$ ,  $p = 0.051$ ), yet it remains an essential factor in how users assess digital services. As shown in Table 4, 60 respondents highlighted this variable, suggesting that risk continues to matter even when it falls short of the significance threshold. Perceived risk typically involves concerns about data protection, privacy issues, and possible financial losses arising from failed transactions. Such uncertainties often cause risk-averse customers to act cautiously or hesitate before adopting new services. To address this, providers should strengthen system security, ensure data privacy, and offer responsive customer support in order to reduce perceived risk and enhance customer confidence.

Meanwhile, Switching Cost (SC) emerges as another important determinant of switching behavior ( $\beta = 0.342$ ,  $p = 0.000$ ). Despite having the fewest responses in Table 4 (46 participants), its statistical effect is notably strong, reflecting that switching costs represent a substantial obstacle for users considering new services. These costs include the time, effort, and financial resources required to learn the application, adjust to a new interface, or complete the registration process. To lower these barriers, service providers can deliver user education, offer clear instructional guides, and introduce incentives that make the transition to new services easier and more appealing.

Based on the explanation above that the main empirical results and findings are as follows:

1. Switching Cost ( $\beta = 0.342$ ,  $p < 0.05$ ), Perceived Ease of Use ( $\beta = 0.182$ ,  $p < 0.01$ ), and Perceived Usefulness ( $\beta = 0.418$ ,  $p < 0.01$ ) significantly influence switching behavior towards digital banking in the micro-retail context.

2. Social Influence ( $\beta = 0.073$ ,  $p > 0.05$ ) and Perceived Risk ( $\beta = 0.113$ ,  $p > 0.05$ ) do not have a statistically significant impact.
3. With  $R^2 = 0.715$ , the model was highly explanatory, though subject to limitations inherent in self-reported, cross-sectional data
4. Perceived Ease of Use is the most frequently cited reason for switching (84 respondents), followed by Social Influence, Perceived Usefulness, Perceived Risk, and Switching Cost.

The study finds that switching cost, perceived ease of use, and perceived usefulness significantly influence switching behavior, consistent with previous research on digital banking adoption. In contrast, social influence and perceived risk show no significant effect, suggesting that in micro-retail digital services, usability and perceived benefits are more decisive than social approval or risk perception. These findings emphasize the need for service providers to focus on delivering real value and improving user experience rather than relying on social or risk-based marketing approaches.

## CONCLUSIONS

This study contributes theoretically and practically by extending the Technology Acceptance Model (TAM) to examine digital banking adoption among specialty coffee micro-retailers using virtual account top-up services. Incorporating variables such as switching behavior, switching cost, perceived ease of use, perceived usefulness, perceived risk, and social influence, the results show that usability, perceived benefits, and switching barriers are the key drivers of adoption, while social and risk factors have minimal impact. These insights underscore the need for user-friendly systems, clear benefit communication, and reduced switching barriers to accelerate adoption and strengthen customer loyalty in micro-retail settings.

Furthermore, the study confirms that the social influence and behavioral dynamics present in coffee shops—as modern “third places”—provide a unique ecosystem where digital financial collaboration can flourish, even if direct peer influence is not the dominant factor in switching decisions. By situating digital innovation within this community-driven micro-retail environment, this research offers new insights for fintech developers, digital banks, and small business strategists seeking to foster digital transformation, loyalty, and resilience in Indonesia’s rapidly evolving digital economy.

Beyond theoretical enrichment, the findings present actionable insights for fintech developers, policymakers, and small business strategists. Integrating VA systems not only supports operational efficiency but also strengthens digital readiness in informal economic sectors. As cashless transactions become a norm, such targeted interventions are imperative for inclusive digital economies. In essence, VA top-up services can serve as digital infrastructure enablers for resilience, loyalty, and growth in micro-scale retail—marking a subtle yet crucial shift in how digital adoption is conceptualized and implemented in practice.

The analysis using linear regression and bootstrapping on the influence of Social Influence, Switching Cost, Perceived Ease of Use (PEoU), Perceived Usefulness (PoU), and Perceived Risk on switching behavior among XYZ Coffee Shop customers using the ABCD Digital Bank Virtual Account application shows that Switching Cost, PEoU, and PoU significantly affect customers' decisions to adopt digital top-up services. In contrast, Social Influence and Perceived Risk show no significant effect.

PEoU emerges as the most dominant factor, highlighting that ease of use strongly drives adoption. PoU also plays a key role, as users tend to switch to services offering greater efficiency and practical value. Although Switching Cost influences behavior, its effect is weaker compared to usability and perceived benefits, emphasizing that convenience and value are the main motivators for digital service adoption.

Although limited in scope and sample, this study advances digital service adoption strategies by highlighting application simplicity and tangible benefits for user loyalty. While Social Influence and Perceived Risk were not significant, both remain relevant for marketing. The core novelty lies in empirically examining digital banking and micro-retail switching behavior a context previously unexplored, thus opening new avenues for research and practice.

These findings offer practical implications for fintech companies and micro-retailers aiming to increase customer engagement and retention in digital platforms. Further research should explore additional behavioral and contextual factors influencing digital service switching in informal sectors.

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## **REFERENCES**

- Alaeddin, O., Rana, A., Zainudin, Z., & Kamarudin, F. (2018). From physical to digital: Investigating consumer behavior of switching to a mobile wallet. *Polish Journal of Management Studies*, 17(2), 18–30. <https://doi.org/10.17512/pjms.2018.17.2.02>
- Alyoussef, I. Y. (2023). Acceptance of e-learning in higher education: The

- role of task-technology fit with the information systems success model. *Heliyon*, 9(3), e13751. <https://doi.org/10.1016/j.heliyon.2023.e13751>
- Arun Kumar, N., Girish, S., Suresha, B., & Mahesh, E. (2023). Switching Intention and Switching Behavior of Adults in the Non-life Insurance Sektor: The mediating role of Brand Love. *Insurance Markets and Companies*, 14(1), 1–7. [https://doi.org/10.21511/ins.14\(1\).2023.01](https://doi.org/10.21511/ins.14(1).2023.01)
- Barquin, S., Gantes, G. de, HV, V., & Shrikhande, D. (2019). Digital banking in Indonesia: Building loyalty and generating growth. *McKinsey & Company*, February, 6. <https://www.mckinsey.com/industries/financial-services/our-insights/digital-banking-in-indonesia-building-loyalty-and-generating-growth>
- Chang, H. H., Wong, K. H., & Li, S. Y. (2017). Applying push-pull-mooring to investigate channel switching behaviors: M-shopping self-efficacy and switching costs as moderators. *Electronic Commerce Research and Applications*, 24, 50–67. <https://doi.org/10.1016/j.elerap.2017.06.002>
- Deng, W., Yang, T., Ju, X., & Deng, J. (2024). Linking Enterprise Information Systems Success to female employees' work-family enrichment in China. *Journal of Management and Organization*. <https://doi.org/10.1017/jmo.2024.7>
- Dwivedi, Y. K., Kshetri, N., Hughes, L., Slade, E. L., Jeyaraj, A., Kar, A. K., Baabdullah, A. M., Koochang, A., Raghavan, V., Ahuja, M., Albanna, H., Albashrawi, M. A., Al-Busaidi, A. S., Balakrishnan, J., Barlette, Y., Basu, S., Bose, I., Brooks, L., Buhalis, D., ... Wright, R. (2023). Opinion Paper: "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges, and implications of generative conversational AI for research, practice, and policy. *International Journal of Information Management*, 71, 102642. <https://doi.org/10.1016/j.ijinfomgt.2023.102642>
- Hampl, N. (2020). Drivers of and barriers to partner switch in interfirm alliances: a conceptual model. *Journal of Business Economics*, 90(4), 563–589. <https://doi.org/10.1007/s11573-019-00965-y>
- Haryadi, A., Kusumawati, A., & Noerman, T. (2024). Switching Barriers in the Modern Era: A Systematic Exploration of the Literature. *Journal of International Crisis & Risk Communication Research (JICRCR)*, 7(3).
- Haryadi, A., Kusumawati, A., Noerman, T., & Wiyata. (2024). Digital Collaboration in the Modern Era: A Systematic Exploration of Literature. In *Proceedings of ICOPAG 2024* (p. 13). EAI. <https://doi.org/10.4108/eai.30-10-2024.2354742>
- Hong Minh, N. T., Bich Ngoc, N. T., Hong Chuyen, N. T., & Thu Huong, L. T. (2023). Factors Affecting Students' Satisfaction in Blended Learning Courses: A Case Study in Thai Nguyen University. *WSEAS Transactions on Computer Research*, 11, 330–338. <https://doi.org/10.37394/232018.2023.11.30>

- Indonesia, P. (2020). *Digital Banking in Indonesia: A Revolution in the Making*.
- Kaur, D., & Kaur, R. (2022). Elucidating the role of gender differences via TAM in e-recruitment adoption in India: a multi-group analysis using MICOM. *Bottom Line*, 35(2–3), 115–136. <https://doi.org/10.1108/BL-11-2021-0104>
- Kaur, G., Sharma, R. D., & Mahajan, N. (2014). Segmentation of bank customers by loyalty and switching intentions. *Vikalpa*, 39(4), 75–89. <https://doi.org/10.1177/0256090920140406>
- Kim, E. D., Kuan, K. K. Y., Vaghasiya, M. R., Gunja, N., & Poon, S. K. (2023). A repeated cross-sectional study on the implementation of an electronic medication management system. *Information Technology and Management*. <https://doi.org/10.1007/s10799-023-00398-8>
- Krishen, A. S., & Hu, H.-F. (2018). Will they pitch or will they switch? Comparing Chinese and American consumers. *Psychology and Marketing*, 35(3), 210–219. <https://doi.org/10.1002/mar.21081>
- Kumar, A., & Kashyap, A. K. (2022). Understanding the Factors Influencing Repurchase Intention in Online Shopping: A Meta-analytic Review. *Vision*. <https://doi.org/10.1177/09722629221107957>
- Kurniawan, A. F., Wenas, J. N., & Atmojo, R. N. P. (2023). Factors Influencing the Intention to Use Electronic Payment Among Generation Z in Jabodetabek. *Lecture Notes in Electrical Engineering*, 1029 LNEE, 539–549. [https://doi.org/10.1007/978-3-031-29078-7\\_47](https://doi.org/10.1007/978-3-031-29078-7_47)
- Ladhari, R., Ghauri, P. N., & Nakhata, R. (2019). Customer experience in retailing: A review of the literature and a future research agenda. *Journal of Retailing and Consumer Services*, 51, 374–383. <https://doi.org/10.1016/j.jretconser.2019.06.018>.
- Liu, H.-C., Liu, S.-I., Tjung, J.-J., Sun, F.-J., Huang, H.-C., & Fang, C.-K. (2017). Self-harm and its association with internet addiction and internet exposure to suicidal thought in adolescents. *Journal of the Formosan Medical Association*, 116(3), 153–160. <https://doi.org/10.1016/j.jfma.2016.03.010>
- Lukito, Y. N., & Xenia, A. P. (2017). Café as third place and the creation of a unique space of interaction in UI Campus. *IOP Conference Series: Earth and Environmental Science*, 99, 012028. <https://doi.org/10.1088/1755-1315/99/1/012028>
- Luu, T. M. N., Nguyen, P. M., Ho, N.-N.-Y., & Phung, D. T. (2021). Antecedents of the intention to use electronic payment: Evidence from individual and household retailers in Vietnam. *International Journal of Electronic Business*, 16(3), 296–313. <https://doi.org/10.1504/IJEB.2021.116613>
- Mbama, C. I., Ezepue, P., Alboul, L., & Beer, M. (2018). *Digital banking, customer experience and financial performance UK bank managers' perceptions*. <https://doi.org/10.1108/JRIM-01-2018-0026>
- Najib, M., & Fahma, F. (2020). Investigating the adoption of digital

- payment system through an extended technology acceptance model: An insight from the Indonesian small and medium enterprises. *International Journal on Advanced Science, Engineering and Information Technology*, 10(4), 1702–1708. <https://doi.org/10.18517/ijaseit.10.4.11616>
- Nambiar, B. K., & Bolar, K. (2023). Factors influencing customer preference of cardless technology over the card for cash withdrawals: an extended technology acceptance model. *Journal of Financial Services Marketing*, 28(1), 58–73. <https://doi.org/10.1057/s41264-022-00139-y>
- Nguyen, Q. N., Ta, A., & Prybutok, V. (2019). An Integrated Model of Voice-User Interface Continuance Intention: The Gender Effect. *International Journal of Human-Computer Interaction*, 35(15), 1362–1377. <https://doi.org/10.1080/10447318.2018.1525023>
- Parvathy, V., & Durairaj, D. (2022). Adoption of mobile payment among visually impaired users in Tamil Nadu based on technology acceptance model (TAM). *International Journal of Health Sciences*, 6(May), 5346–5361. <https://doi.org/10.53730/ijhs.v6ns3.7100>
- Peter, J. P., & Donnelly, J. H. (2015). *A Preface to Marketing Management*. McGraw-Hill Education.
- Purwaningdyah, S. W. S., Haerunnisa, N. F., Hairunnisa, S. N., Wardhani, N. S., Larasati, C., Siahaan, Y. P., & Sinaga, O. (2021). The Influence of Perceived Usefulness, Perceived Ease of Use, Perceived Risk in the Shopee Application on Consumer Decisions in Online Shopping During the Covid-19 Pandemic. *Review of International Geographical Education Online*, 11(5), 1065–1072. <https://doi.org/10.48047/rigeo.11.05.102>
- Ramezaninia, M., Panahifar, F., & Sarhangi, N. H. (2022). Significant factors affecting m-banking adoption case study: higher education institutions in Tehran. *International Journal of Electronic Business*, 17(1), 61–86. <https://doi.org/10.1504/IJEB.2022.120014>
- Rust, R. T., & Zahorik, A. J. (1993). Customer satisfaction, customer retention, and market share. In *Journal of Retailing* (Vol. 69, Issue 2, pp. 193–215). [https://doi.org/10.1016/0022-4359\(93\)90003-2](https://doi.org/10.1016/0022-4359(93)90003-2)
- Sakkthivel, A. M., & Moovendhan, V. (2023). Examining the mediation effect of exogenous variables over brand switching behavior: evidence from Indian women consumers. *International Journal of Business Excellence*, 31(4), 500–520. <https://doi.org/10.1504/IJBEX.2023.135487>
- Santosa, A. D., Taufik, N., Prabowo, F. H. E., & Rahmawati, M. (2021). Continuance intention of baby boomers and X generation as new users of digital payment during the COVID-19 pandemic using UTAUT2. *Journal of Financial Services Marketing*, 26(4), 259–273. <https://doi.org/10.1057/s41264-021-00104-1>
- Saputra, R. B. (2021). Analisis Perkembangan Pada Faktor-Faktor Yang Mempengaruhi Pendapatan Asli Daerah (PAD) Provinsi Jawa Barat Tahun 2010-2019. *Jurnal Ilmiah Mahasiswa FEB Universitas Brawijaya*, 9(2), 1–15.

- Sharma, A., & Khanna, P. (2020). Relevance of adopting emerging technologies in the outbound supply chain: New paradigm for cement industry. *Operations and Supply Chain Management*, 13(2), 210 – 221. <https://doi.org/10.31387/OSCM0410263>
- Siti, M. (2023). Transformasi Digital Branch Dalam Upaya Peningkatan Layanan Di Era Society 5.0 Pada Bank Mandiri Jember. *JEIPS: Jurnal Ekonomi Islam Dan Perbankan Syariah*, 3(1).
- Tajfel, H., & Turner, J. C. (1986). *The social identity theory of intergroup behavior*. In: Worchel, S. & Austin, W. G. (Eds.), *Psychology of Intergroup Relations*. Nelson-Hall.
- Tang, W., Zhang, X., & Tian, Y. (2023). Investigating Lifelong Learners' Continuing Learning Intention Moderated by Affective Support in Online Learning. *Sustainability (Switzerland)*, 15(3). <https://doi.org/10.3390/su15031901>
- Tanuwijaya, E., & Oktavia, T. (2023). Analysis of the Factors Influencing Customer Switching Behaviour of The Millennials in Digital Banks. *Journal of System and Management Sciences*, 13(2), 122–133. <https://doi.org/10.33168/JSMS.2023.0209>
- Tesfom, G., Broekhuizen, T. L. J., & Lutz, C. H. M. (2022). Switching Intentions of Service Providers and Cultural Orientation. *Journal of International Consumer Marketing*, 34(4), 450–464. <https://doi.org/10.1080/08961530.2021.1964408>
- Thaichon, P., & Weaven, S. (2019). Customer-centric sales organizations. In *Handbook on Customer Centricity: Strategies for Building a Customer-Centric Organization*. Edward Elgar Publishing Ltd. <https://doi.org/10.4337/9781788113601.00012>
- van der Crujisen, C., & Diepstraten, M. (2017). Banking Products: You Can Take Them with You, So Why Don't You? *Journal of Financial Services Research*, 52(1-2), 123–154. <https://doi.org/10.1007/s10693-017-0276-3>
- Van Rompay, T. J. L., Krooshoop, J., Verhoeven, J. W. M., & Pruyn, A. T. H. (2012). With or without you: Interactive effects of retail density and need for affiliation on shopping pleasure and spending. *Journal of Business Research*, 65(8), 1126–1131. <https://doi.org/10.1016/j.jbusres.2011.08.005>
- Willy, A., & Mutis, T. (2018). The Research of Customer Switching Behavior at Some Leasing Companies. *International Review of Management and Marketing*, 8(1), 115–118. [www.econjournals.com](http://www.econjournals.com)
- Willys, N. (2018). Customer Satisfaction, Switching Costs and Customer Loyalty: An Empirical Study on the Mobile Telecommunication Service. *American Journal of Industrial and Business Management*, 08(04), 1022–1037. <https://doi.org/10.4236/ajibm.2018.84070>
- Windasari, N. A., Kusumawati, N., Larasati, N., & Amelia, R. P. (2022). Digital-only banking experience: Insights from Gen Y and Gen Z. *Journal of Innovation and Knowledge*, 7(2), 100170. <https://doi.org/10.1016/j.jik.2022.100170>
- Wong, K. H., Chang, H. H., & Yeh, C. H. (2019). The effects of consumption values and relational benefits on smartphone brand

- switching behavior. *Information Technology and People*, 32(1), 217–243. <https://doi.org/10.1108/ITP-02-2018-0064>
- Xiao, K.-H. (2008). An empirical study of customer's online initial trust production model based on consumer's perception. *2008 International Conference on Wireless Communications, Networking and Mobile Computing, WiCOM 2008*. <https://doi.org/10.1109/WiCom.2008.2116>
- Yeo, S. F., Tan, C. L., Lim, K. B., & Wan, J. H. (2020). To buy or not to buy: Factors that influence consumers' intention to purchase groceries online. *Management and Accounting Review*, 19(3), 1–23. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85113230975&partnerID=40&md5=32fd610dafc0df9efa542ca90ed81c86>
- Zhang, Y., Chen, X., Zhao, Y., & Yao, Q. (2014). Exploring the Impact of Switching Costs on Customer Retention in the Technology Standard Competition Market. *Journal of Service Science and Management*, 07(04), 267–276. <https://doi.org/10.4236/jssm.2014.74024>