International Journal of Accounting & Finance in Asia Pasific (IJAFAP)
Vol. 8 No. 2, pp.195-208, June, 2025
E-ISSN: 2621-2862 P-ISSN: 2614-7432
https://www.ejournal.aibpmjournals.com/index.php/IJAFAP

A Conceptual Framework of Motivational Factors Influencing Continuous e-Wallet Usage in Malaysia Post-COVID-19

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ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE
Rahim, E. A., & Cheah, J. S. (2025). A conceptual framework of motivational factors influencing continuous e-wallet usage in Malaysia Post-COVID-19. *International Journal of Accounting & Finance in Asia Pasific*, *8*(2), 195-208.

DOI:
https://doi.org/10.32535/ijafap.v8i2.3925

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Received: 18 April 2025
Accepted: 19 May 2025
Published: 20 June 2025

ABSTRACT

The global COVID-19 pandemic significantly boosted the adoption of digital payment methods, including e-wallets, but the factors influencing their continued use beyond the pandemic, particularly in Malaysia, remain insufficiently examined. This conceptual study proposes an integrated framework that combines the Technology Continuance Theory (TCT) with the Health Belief Model (HBM) to better understand Malaysians' ongoing intention to use e-wallets post-pandemic. Through an extensive review of the literature, this framework explores critical factors such as confirmation, perceived ease of use, perceived usefulness, perceived susceptibility, perceived severity, satisfaction, and attitude, and their impact on sustained usage behavior. The model emphasizes the interplay of both technological features and health-related perceptions in shaping user decisions in a post-COVID environment. The insights derived offer practical implications for policymakers and e-wallet service providers aiming to improve user retention and advance cashless payment adoption. Additionally, this framework lays the groundwork for future empirical studies to test and expand knowledge of e-wallet continuance in Malaysia and comparable emerging markets. By explicitly integrating health belief constructs with technology adoption theories, this study contributes a fresh theoretical perspective to the digital payment literature.

Keywords: Attitude; Digital Payment Continuance; e-Wallet Adoption; Health Belief Model; Post-Pandemic Behavior; Technology Continuance Theory; User Satisfaction

INTRODUCTION

The COVID-19 pandemic has brought about profound changes in consumer behavior globally, accelerating the uptake of digital technologies as individuals and organizations adapted to new health and safety requirements (Amran et al., 2023; Cheah, Loh et al., 2023; Rajah et al., 2023). Among these shifts, the rise in digital payments—especially through e-wallets—has been particularly pronounced. This trend is highly relevant in emerging economies such as Malaysia, where rapid digital transformation is reshaping the financial ecosystem (Chiew & Cheah, 2025; Kee, Lee et al., 2023; Kee, Sin et al., 2023).

Malaysia's digital economy initiatives actively promote cashless transactions, supported by government policies and enhanced technological infrastructure (Teoh & Cheah, 2025). The pandemic further accelerated this momentum, as health concerns and movement restrictions encouraged contactless payments and reduced reliance on physical cash (Cheah et al., 2024). Despite the initial surge in e-wallet adoption, maintaining user engagement beyond this phase remains a challenge, influenced by various technological, psychological, and environmental factors (Bhattacherjee, 2001; Daragmeh et al., 2021).

Most research to date has focused on the early adoption phase of digital payment technologies, with limited attention to factors driving continued usage, particularly in Malaysia's fragmented e-wallet market (Chiew & Cheah, 2025). Additionally, the intersection between health-related perceptions, such as risk of infection, and technology acceptance theories remains underexplored. Integrating frameworks like Technology Continuance Theory (TCT) and the Health Belief Model (HBM) offers a promising approach to capture the complex motivations behind sustained e-wallet use (Bhattacherjee, 2001; Teoh & Cheah, 2025).

This study addresses a critical gap by proposing an integrated conceptual framework that combines technological and health-related motivators influencing Malaysians' ongoing e-wallet usage in a post-pandemic context. Unlike prior research that tends to examine either adoption patterns or health factors in isolation, this study explicitly synthesizes both perspectives to offer a more comprehensive understanding of user behavior. By doing so, it not only advances academic knowledge but also provides actionable insights for policymakers and e-wallet providers seeking to increase user retention and accelerate Malaysia's transition toward a cashless society.

Guided by key research questions, the study investigates which technological and health belief factors influence Malaysians' continuous intention to use e-wallets, how constructs from the TCT and the HBM interact to shape sustained usage, and what practical strategies can be derived to foster ongoing adoption and engagement. Through this inquiry, the study contributes a novel theoretical lens and a practical framework to better understand and support the continuance of e-wallet use in emerging digital economies.

LITERATURE REVIEW

This study examines the key drivers behind consumers' ongoing use of e-wallet applications in Malaysia following the COVID-19 pandemic. The global health crisis accelerated technology adoption and public health awareness, spurring extensive research across these interconnected domains (Cheah et al., 2024; Tan & Cheah, 2025). This literature review synthesizes relevant studies and theoretical perspectives to establish a foundation for the conceptual framework and hypothesis development.

Continuous Usage and Theoretical Foundations

Continuous usage refers to an individual's intention to maintain use of a product or service over time (Bhattacherjee, 2001). Several established models explain this behavior, including the Expectation Confirmation Theory (ECT), the Technology Acceptance Model (TAM), the TCT, and the Unified Theory of Acceptance and Use of Technology (UTAUT). TAM (Davis, 1989) emphasizes perceived usefulness and ease of use as critical determinants of initial adoption, while UTAUT broadens this by incorporating social influences and facilitating conditions, moderated by user demographics (Cheah, Amran et al., 2023; Venkatesh et al., 2003). ECT focuses on confirmation and satisfaction as key to sustained use. These frameworks collectively contribute to understanding long-term technology engagement.

The guiding theories for this study are represented in Table 1.

Table 1. Guiding Theories

Author	Theory	Topics
CC & Prathap (2020)	Expectation Confirmation Model (ECM) and HBM	Sustained use of digital payment methods during the pandemic
Abdul-Halim et al. (2022)	TCT with additional factors	Factors influencing e-wallet usage in Malaysia
Daragmeh et al. (2021)	HBM and TCT	Continuous intention to use digital payment amid the pandemic

Technology Continuance Theory (TCT)

Developed by Liao et al. (2009), TCT integrates components from TAM, ECT, and cognitive models to explain long-term usage intentions. Notably, it combines attitude and satisfaction within one framework, increasing its explanatory power for continuance behaviors. Key constructs include confirmation, perceived ease of use, perceived usefulness, satisfaction, attitude, and continuous intention. TCT has been widely applied to diverse domains such as mobile banking, e-wallets, and digital learning, demonstrating robust predictive capacity (Daragmeh et al., 2021; Jain et al., 2021).

Health Belief Model (HBM)

Originating in the 1950s, HBM is a value-expectancy theory widely employed to understand health-related behavioral changes by focusing on perceived threats and benefits (Abraham & Sheeran, 2015). It comprises constructs such as perceived severity, susceptibility, benefits, barriers, cues to action, and self-efficacy. During the COVID-19 pandemic, HBM provides insight into how health concerns affect the adoption of contactless payment technologies designed to mitigate infection risk. This study incorporates two key HBM constructs—perceived severity and susceptibility—to complement TCT in explaining e-wallet continuance.

Integration of TCT and HBM in Recent Studies

Several recent studies have combined TCT and HBM to explore digital payment behaviors during the pandemic. For example, CC and Prathap (2020) integrated ECM and HBM to demonstrate the influence of health risk perceptions on digital payment adoption. Similarly, Daragmeh et al. (2021) showed that health beliefs alongside technological factors shape sustained e-wallet use in Hungary. Abdul-Halim et al. (2022) extended TCT with additional factors like price benefits and trust to explain Malaysian e-wallet usage patterns. These findings underscore the value of merging technology acceptance and health belief perspectives to better understand post-pandemic payment behaviors.

Key Constructs in the Integrated Framework

Within TCT, confirmation reflects the degree to which users' initial expectations are met through experience, enhancing satisfaction and perceived usefulness, which in turn foster continued use (Bhattacherjee, 2001; Venkatesh et al., 2003). Perceived ease of use relates to the belief that technology use is effortless (Davis, 1989), and perceived usefulness pertains to the belief that technology improves performance or daily tasks, both positively impacting attitude and continuance intention (Daragmeh et al., 2021; Santhanamery & Ramayah, 2018).

From a health perspective, perceived susceptibility involves an individual's assessment of infection risk, motivating protective behaviors such as using contactless payments. Perceived severity addresses beliefs about the seriousness of a health threat, prompting precautionary actions (Yuen et al., 2020). These factors influence attitudes and intentions to adopt technologies that reduce health risks (CC & Prathap, 2020).

Satisfaction, defined as the emotional response to confirmation and perceived usefulness, mediates the relationship between these antecedents and continued use (Bhattacherjee, 2001; Liao et al., 2009). Attitude, representing positive or negative evaluations of technology use, further strengthens the intention to continue use (Fishbein & Ajzen, 1975; Rahi et al., 2021).

Research Gap and Rationale

While TCT and HBM have been applied individually or partially combined in previous research, there is a scarcity of comprehensive frameworks integrating these theories to explain continuous e-wallet usage in Malaysia post-COVID-19. Existing literature often addresses either initial adoption or health-related technology use separately, resulting in a fragmented understanding. This study addresses this gap by proposing a unified framework that captures both technological and health-related motivations, offering richer insights for theory and practice.

Proposition Development

Building upon the integrated framework that combines the TCT and the HBM, this section develops theoretical propositions to explain the psychological, behavioral, and technological factors influencing continuous e-wallet usage intention in the post-COVID-19 context. Each proposition is grounded in established literature and draws from prior empirical and conceptual studies, serving as a foundation for future hypothesis testing and empirical validation.

Confirmation is a core construct in TCT that reflects the extent to which users perceive that their expectations about a technology have been met or exceeded after actual usage (Bhattacherjee, 2001; Venkatesh et al., 2003). In digital financial services, confirmation represents users' evaluative feedback regarding the performance and functionality of the e-wallet compared to their initial beliefs. When users experience a positive alignment between expectations and reality, such as in transaction speed, security, or interface reliability, they tend to develop higher satisfaction and reinforce their perception of the technology's usefulness (Abdul-Halim et al., 2022; Khayer & Bao, 2019). In the context of e-wallets, such confirmation is particularly critical as it influences both emotional satisfaction and rational judgments, which in turn drive ongoing usage behavior (Santhanamery & Ramayah, 2018). Therefore, the following proposition is proposed:

P1: Confirmation positively influences the continuous intention to use e-wallets.

Perceived ease of use, a foundational concept introduced by Davis (1989), refers to the extent to which users believe that interacting with a system requires minimal effort. Numerous studies have demonstrated that technologies that are intuitive, user-friendly, and low in cognitive load foster greater adoption and sustained engagement (Mutambara & Bayaga, 2020). Within the e-wallet context, ease of navigation, minimal technical glitches, and simple authentication processes play vital roles in encouraging continued use. Especially in diverse user populations such as Malaysia, which includes users with varying levels of digital literacy, ease of use becomes a critical factor in reducing resistance and encouraging habitual behavior.

P2: Perceived ease of use positively affects the continuous usage intention of e-wallets.

Perceived usefulness is another core TCT variable and represents users' belief that the e-wallet improves the effectiveness or efficiency of their financial transactions (Davis, 1989). Prior research has consistently found that when users perceive technology as beneficial to their daily routines, through features such as speed, convenience, cost savings, and real-time transaction monitoring, they are more inclined to adopt and retain it (Daragmeh et al., 2021; Santhanamery & Ramayah, 2018). In Malaysia's fast-growing digital economy, users are increasingly reliant on mobile wallets not just for convenience but also for safety, rewards programs, and integration with e-commerce. The perception of such utility fosters not only satisfaction but also strengthens long-term behavioral intention.

P3: Perceived usefulness positively influences the continuous usage intention of e-wallets.

From the health psychology perspective, perceived susceptibility captures an individual's belief in their likelihood of encountering a health risk—in this case, exposure to infectious diseases through physical financial transactions (CC & Prathap, 2020). Research during the COVID-19 pandemic showed that heightened perceptions of vulnerability were strongly associated with increased adoption of contactless and digital payments (Yuen et al., 2020). In the post-pandemic period, these perceptions remain salient, especially as users continue to assess their risk exposure in daily interactions. This belief system encourages users to sustain the use of e-wallets as a protective behavioral strategy.

P4: Perceived susceptibility positively impacts the continuous intention to use e-wallets.

Perceived severity reflects the extent to which an individual believes that the consequences of the health threat are serious or life-altering (Yuen et al., 2020). In the context of digital payments, if users associate in-person transactions with significant health threats, such as virus transmission, hospitalization, or long-term complications, they are more likely to avoid such behaviors by continuing to use contactless options (CC & Prathap, 2020). In Malaysia, where health campaigns during the pandemic emphasized both the probability and seriousness of infection, perceived severity may continue to reinforce technology-based preventive actions. Thus, sustained usage of e-wallets becomes not only a matter of convenience but also a reflection of health-conscious decision-making.

P5: Perceived severity positively influences the continuous intention to use e-wallets.

Satisfaction operates as a crucial mediating variable in the post-adoption phase, linking system performance to continued use. Defined as a positive emotional state resulting from the fulfillment of expectations, satisfaction emerges from the combined influence of confirmation, perceived ease of use, and perceived usefulness (Bhattacherjee, 2001;

Liao et al., 2009). A satisfied user is more likely to re-engage with the platform, recommend it to others, and resist switching to alternatives. Satisfaction also reinforces trust, which plays a vital role in technology continuance, especially in financial services where reliability and user experience are paramount (Khayer & Bao, 2019).

P6: Satisfaction strengthens the positive impact on the continuous usage intention of e-wallets.

Attitude, derived from the Theory of Reasoned Action (Fishbein & Ajzen, 1975), refers to an individual's overall evaluative judgment—positive or negative—toward using a technology. Attitudes are shaped by cognitive assessments (e.g., usefulness) and affective experiences (e.g., satisfaction), and they play a crucial role in forming and sustaining behavioral intentions (Rahi et al., 2021). Over time, as users accumulate positive experiences and internalize the value of the e-wallet system, their attitude becomes more favorable and solidifies into habitual behavior. A strong, positive attitude not only supports repeat usage but also increases user tolerance for minor inconveniences, thereby ensuring long-term engagement (Liao et al., 2009).

P7: Consumer attitude strengthens the impact on the continuous usage intention of e-wallets.

Together, these seven propositions reflect the multidimensional nature of user motivation in digital finance. By integrating both technological and health belief constructs, the framework acknowledges that continued usage behavior is shaped by a combination of utility, usability, emotional satisfaction, perceived threat, and behavioral attitude. These propositions serve as a theoretical foundation for future empirical studies and practical interventions aimed at improving e-wallet retention strategies in Malaysia and other emerging markets.

RESEARCH METHOD

This study adopts a conceptual research design with the objective of developing a comprehensive theoretical framework that explains the motivational factors influencing continuous e-wallet usage in Malaysia following the COVID-19 pandemic. The conceptual approach is particularly suitable in this context, as it allows for the synthesis and integration of existing knowledge across multiple disciplines, including information systems, behavioral psychology, and health communication, without engaging in primary data collection. The research focuses on constructing a theoretically grounded model by systematically reviewing the academic literature on technology continuance and health behavior.

To ensure rigor, a thorough literature search was conducted using established academic databases such as Scopus, Web of Science, Google Scholar, and selected publisher platforms including Elsevier, Springer, Emerald, and Wiley. The review targeted peer-reviewed journal articles published between 2018 and 2023 to reflect the most recent developments in digital financial behavior and public health awareness. Keywords and search phrases included "e-wallet," "digital wallet," "technology continuance theory," "health belief model," "contactless payment," "post-pandemic behavior," and "digital payment adoption." The selection process focused on studies that explored continuance intention, digital adoption, and health-related motivations within or after the COVID-19 context.

Through this literature review, two foundational theories were identified as particularly relevant for the research aim: the TCT and the HBM. TCT explains how users' post-

adoption evaluations—such as confirmation, perceived usefulness, and perceived ease of use—shape their ongoing intention to use technology. HBM complements this framework by accounting for health-driven behavioral factors, specifically perceived susceptibility and perceived severity, which became especially pertinent during the pandemic. By integrating these models, the study develops a conceptual framework that captures both functional and psychological motivators influencing continued use of e-wallets.

The constructs extracted from the literature were synthesized to form a coherent model, with relationships between them expressed as theoretical propositions. These propositions, grounded in both theoretical reasoning and empirical findings from previous studies, offer testable pathways for future research. While this paper does not involve empirical testing, it establishes a clear theoretical structure that can guide subsequent quantitative studies. Recommended methods for future research include the use of survey instruments to gather data, followed by analytical techniques such as Structural Equation Modelling (SEM) or Partial Least Squares SEM (PLS-SEM) to validate the relationships. Mixed-methods research could further enhance contextual understanding by incorporating qualitative insights.

Overall, this conceptual methodology provides a rigorous and transparent basis for the development of a theoretically sound and practically relevant framework. It offers a valuable foundation for future empirical exploration and contributes meaningfully to the understanding of digital payment behavior in emerging markets. By capturing the interplay of technology-driven and health-motivated factors, the study adds to the growing body of literature at the intersection of financial technology and behavioral health, particularly in societies shaped by post-pandemic realities.

RESULTS

Since this study is conceptual in nature, the results reflect the outcome of a structured theoretical synthesis rather than empirical hypothesis testing. Drawing upon an extensive review of existing literature, two theoretical perspectives—TCT and the HBM—were integrated to form a unified conceptual framework. This framework is designed to explain the determinants of continuous usage intention of e-wallets among users in Malaysia, particularly in the context of post-COVID-19 digital financial behavior.

The proposed model identifies seven core constructs that are hypothesized to influence ongoing e-wallet usage: confirmation, perceived usefulness, perceived ease of use, perceived susceptibility, perceived severity, satisfaction, and attitude. These variables are organized under two overarching theoretical domains. From TCT, confirmation, perceived ease of use, and perceived usefulness are recognized as technological factors that contribute to the user's intention to continue engaging with e-wallet systems. These variables capture users' post-adoption evaluations—specifically, how their prior expectations align with actual experience (confirmation), how effortless the technology is perceived to be (ease of use), and the degree to which it adds value to their financial activities (usefulness).

In parallel, the model incorporates perceived susceptibility and perceived severity, two constructs derived from the HBM, to capture health-related motivations. These constructs reflect users' perceptions of vulnerability to health risks and the seriousness of potential consequences from physical contact during payment interactions. Their inclusion reflects the heightened concern for hygiene and safety in financial transactions brought about by the COVID-19 pandemic, which has accelerated the shift toward contactless payment systems such as e-wallets. Within this context, the model assumes

that individuals with high perceptions of susceptibility and severity are more likely to prefer and sustain the use of e-wallets to mitigate exposure risks.

Importantly, satisfaction and attitude are introduced as mediating variables that bridge the influence of both technological and health-belief constructs on the continuous usage intention of e-wallets. Satisfaction is theorized to result from positive user experiences, which are influenced by confirmation, ease of use, and usefulness. Attitude, on the other hand, reflects users' overall evaluation and emotional response toward the e-wallet system and is expected to be shaped by both satisfaction and health belief factors.

Figure 1. Conceptual Framework of Motivational Factors Influencing Continuous e-Wallet Usage in Malaysia Post-COVID-19

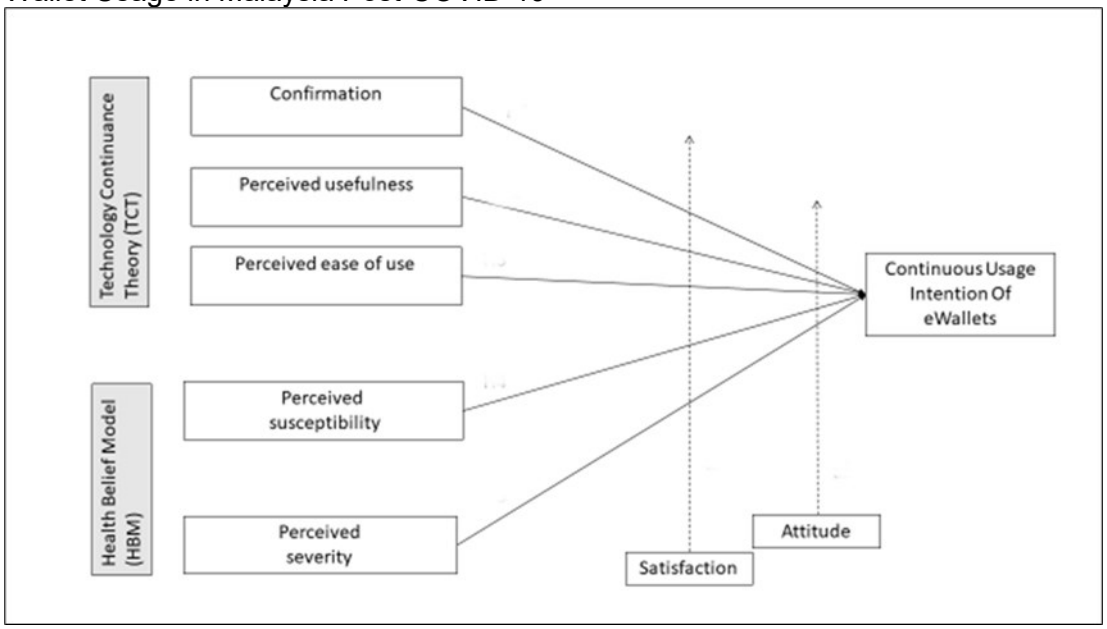

Figure 1 presents the conceptual model visually, illustrating the direct and indirect pathways through which the identified constructs influence ongoing usage intention. Solid arrows represent hypothesized direct relationships, while dashed arrows indicate potential mediating effects. The framework suggests that both rational, technology-driven evaluations and emotional, health-based motivations contribute synergistically to users' decisions to continue using e-wallets over time.

This theoretical integration contributes to the literature by offering a more holistic understanding of technology continuance in a post-pandemic context, particularly in emerging markets like Malaysia, where digital payment adoption has been rapidly evolving. By combining behavioral constructs from information systems and public health domains, the model offers a nuanced view of the complex, multi-dimensional motivations behind continued e-wallet usage. It lays the groundwork for future empirical studies to validate the hypothesized relationships, test model fit, and assess the relative weight of technological versus health-related drivers in influencing sustained engagement with digital financial services.

DISCUSSION

This conceptual study offers an integrative lens for understanding the factors driving Malaysians' continued use of e-wallets in the post-COVID-19 era by combining the TCT and the HBM. By unifying these frameworks, the proposed model provides a more holistic understanding of user motivation, capturing both technological determinants and

health-related perceptions that have become increasingly relevant in a pandemic-conscious society. This dual-theory approach addresses a critical gap in the continuance intention literature, particularly within the context of emerging markets where digital payment adoption has been accelerated by public health concerns.

Technological Factors and Continuous Usage

In alignment with well-established models of technology acceptance and post-adoption behavior, the framework identifies confirmation, perceived ease of use, and perceived usefulness as core technological enablers of continuous e-wallet engagement (Bhattacherjee, 2001; Davis, 1989; Liao et al., 2009). These constructs reinforce the notion that users' ongoing commitment to a digital platform is shaped by how well the technology meets their expectations, simplifies their interactions, and delivers tangible value.

Confirmation—defined as the degree to which users' initial expectations are met or exceeded—plays a pivotal role in post-adoption satisfaction and continuance. Empirical evidence suggests that confirmation enhances perceived usefulness, which in turn drives satisfaction and attitude formation (Abdul-Halim et al., 2022; Khayer & Bao, 2019). Users who perceive consistency between anticipated and actual performance are more likely to feel reassured, developing a favorable outlook that supports long-term usage. This is especially important in competitive financial environments where user retention hinges on consistently positive experiences (Santhanamery & Ramayah, 2018).

Perceived ease of use further contributes to continuance by reducing the cognitive and physical effort needed to complete digital transactions (Davis, 1989; Mutambara & Bayaga, 2020). In Malaysia, where user diversity spans digital natives and older, less technologically inclined populations, the simplicity and intuitiveness of an e-wallet interface can significantly influence its sustained use. A seamless user experience lowers barriers to engagement, increases trust, and can lead to greater habitual use across demographic segments. This makes ease of use not just a functional feature but a strategic design priority for digital finance platforms.

Perceived usefulness, or the belief that using the e-wallet adds value through speed, convenience, and efficiency, is a direct driver of continuance intention (Daragmeh et al., 2021; Santhanamery & Ramayah, 2018). In line with prior research, users are more likely to maintain their engagement with e-wallet systems when they perceive measurable benefits such as time savings, financial rewards, and enhanced transaction security (Rahi et al., 2021). Importantly, these benefits must evolve alongside user expectations to sustain perceived usefulness over time. Collectively, these technological factors form the structural foundation of the model and are supported by consistent empirical validation across various countries and digital service domains.

Health Belief Factors in a Post-Pandemic Environment

The integration of the Health Belief Model introduces a novel dimension to the study of technology continuance by incorporating perceived susceptibility and perceived severity—constructs traditionally associated with health-related behavior (Abraham & Sheeran, 2015; CC & Prathap, 2020). This addition recognizes that in the wake of COVID-19, technology use, particularly contactless payment, has been influenced not just by utility or convenience, but also by personal health risk perceptions.

Perceived susceptibility captures users' subjective beliefs about their vulnerability to health risks, such as viral infections during physical or financial exchanges. As Yuen et al. (2020) argue, when users feel at risk of illness, they are more inclined to adopt and continue using digital alternatives that reduce physical contact. In Malaysia, public

campaigns and health advisories during the pandemic have significantly raised awareness, likely increasing perceived susceptibility and driving behavioral shifts toward e-wallet use.

Perceived severity, on the other hand, reflects the perceived seriousness of the consequences of contracting a health threat like COVID-19 (CC & Prathap, 2020; Yuen et al., 2020). Users who associate in-person cash transactions with high risk and severe health outcomes are more motivated to sustain behaviors that reduce exposure, such as using e-wallets. This perspective aligns with emerging global consumer trends that show continued preference for digital, hygienic alternatives even as restrictions ease. Together, these constructs introduce emotional and psychological drivers into the rational calculus of technology use, offering a richer, more comprehensive framework.

Mediating Roles of Satisfaction and Attitude

Two key mediators—satisfaction and attitude—play a central role in translating technological and health beliefs into continued usage intention. Consistent with Bhattacherjee (2001) and Liao et al. (2009), satisfaction is conceptualized as a post-usage emotional response that results from positive confirmation and perceived performance. Satisfied users are more likely to stay loyal, engage more frequently, and recommend the platform to others. Satisfaction serves as a reinforcing mechanism, bridging the cognitive evaluation of system features with emotional commitment to future use (Khayer & Bao, 2019).

Attitude, as originally framed by Fishbein and Ajzen (1975), reflects users' overall evaluation—positive or negative—toward continued e-wallet usage. Attitudes are shaped by the interplay of satisfaction and perceived usefulness and serve as strong predictors of behavioral intention (Rahi et al., 2021). As users transition from initial adoption to routine usage, attitudes solidify, playing a progressively influential role in shaping habitual behavior. Liao et al. (2009) highlight that over time, a positive attitude can serve as a buffer against minor service disruptions or competing alternatives, thus reinforcing platform loyalty.

Practical Implications for Providers and Policymakers

The integrated framework offers valuable insights for e-wallet providers aiming to improve user retention. Emphasizing ease of use and usefulness in product design can enhance user satisfaction and attitudes, while health-related messaging can address lingering concerns about safety and hygiene. For instance, highlighting the infection-prevention benefits of contactless payments can resonate with health-conscious consumers and differentiate e-wallet offerings.

Policymakers can leverage these findings to promote digital payment adoption as part of broader public health strategies. Supporting infrastructure improvements, facilitating digital literacy programs, and integrating health awareness campaigns can encourage cashless transactions, contributing to safer and more resilient economies. Malaysia's ongoing digital economy agenda aligns with these goals, making the findings timely and relevant (Teoh & Cheah, 2025).

Limitations and Directions for Future Research

Despite its theoretical contributions, this study is limited by its conceptual nature and the absence of empirical testing. The framework focuses on select constructs from TCT and HBM, potentially overlooking other relevant factors such as social influence, trust, or economic incentives. Moreover, the contextual focus on Malaysia may limit generalizability to countries with different cultural or technological environments.

Future empirical research should employ quantitative methods such as SEM to validate and refine the proposed relationships. Longitudinal studies would be particularly valuable to observe changes in user motivations and behaviors as public health contexts evolve. Additionally, comparative studies across different demographic groups or countries could illuminate contextual moderating factors.

Expanding the framework to include broader psychological, social, and economic determinants could enhance explanatory power and practical relevance. For example, incorporating constructs from theories such as the UTAUT or Trust Theory may provide a more comprehensive understanding. Finally, exploring the role of emerging technologies like biometric authentication or blockchain in influencing continuance intention could offer new avenues for research.

CONCLUSION

This conceptual study develops an integrated framework that combines the TCT and HBM to comprehensively examine the factors motivating Malaysians to continue using e-wallets in the post-COVID-19 period. By integrating constructs from both technological acceptance and health belief perspectives, this study addresses a critical research gap in understanding sustained digital payment adoption within emerging economies.

The framework highlights several key technological determinants—confirmation, perceived ease of use, and perceived usefulness—that significantly influence users' continuance intentions. Confirmation reflects the extent to which users perceive their initial expectations have been fulfilled by actual experience, reinforcing satisfaction and enhancing the perceived utility of e-wallets (Bhattacherjee, 2001). Perceived ease of use lowers the barriers to adoption by ensuring that users find e-wallets simple and convenient to operate (Davis, 1989; Mutambara & Bayaga, 2020), a factor that is especially critical in Malaysia's diverse demographic landscape. Perceived usefulness, representing the belief that e-wallets enhance transactional efficiency and daily convenience, consistently predicts ongoing usage (Daragmeh et al., 2021; Santhanamery & Ramayah, 2018).

Crucially, the framework incorporates health-related beliefs—perceived susceptibility and perceived severity—to account for motivations driven by health safety concerns heightened by the pandemic (Abraham & Sheeran, 2015; CC & Prathap, 2020). Users who perceive themselves as vulnerable to infection and view the consequences of illness as severe are more likely to engage in protective behaviors, including the sustained use of contactless payment methods (Yuen et al., 2020). These health belief factors extend the traditional technology adoption models by recognizing the evolving socio-health context in which digital payments are used.

Satisfaction and attitude emerge as pivotal mediators linking technological and health beliefs to continued usage intentions. Satisfaction captures users' affective responses based on confirmation and perceived usefulness, fostering loyalty and repeated engagement (Bhattacherjee, 2001; Liao et al., 2009). Attitude, reflecting positive or negative evaluations of e-wallet use, further strengthens behavioral intentions, especially as users move beyond initial trial phases toward habitual use (Fishbein & Ajzen, 1975; Rahi et al., 2021).

From a practical perspective, this integrated model offers valuable guidance for e-wallet providers and policymakers. Service providers should prioritize enhancing user-friendly interfaces and communicating clear benefits to boost perceived ease of use and usefulness, which in turn promote satisfaction and positive attitudes. Additionally,

incorporating health safety messages that emphasize the reduced infection risks associated with contactless payments can address users' health concerns, further motivating continued usage. Policymakers can harness these insights to design targeted campaigns and policies that encourage digital payment adoption, supporting Malaysia's digital economy ambitions and public health goals (Teoh & Cheah, 2025).

Nevertheless, this study's conceptual nature entails certain limitations. Without empirical validation, the proposed relationships remain theoretical and require testing through quantitative or mixed-methods research. Moreover, the focus on Malaysia may limit the generalizability of findings to other countries with different cultural, technological, or public health dynamics. Future research should undertake empirical studies using robust methodologies like SEM and longitudinal designs to capture changes in usage behavior over time and under varying health conditions.

Expanding the framework to include additional psychological, social, and economic factors, such as trust, social influence, and financial incentives, could further enhance its explanatory power and practical relevance. Comparative studies involving different demographic groups or countries would also provide richer insights into contextual moderators of e-wallet continuance. Furthermore, exploring emerging technologies like biometric authentication and blockchain may reveal new drivers of user retention.

In conclusion, this study offers a novel theoretical foundation that explicitly links technology acceptance and health beliefs to explain e-wallet continuance in a post-pandemic world. By emphasizing the combined impact of usability, satisfaction, attitude, and health perceptions, it provides a nuanced understanding of user behavior that can inform future research and support the sustainable growth of digital payments in Malaysia and similar emerging economies. These insights are timely and critical as societies increasingly rely on digital financial services amidst evolving health and technological landscapes.

ACKNOWLEDGMENT
The authors would like to express their sincere appreciation to all individuals who contributed, directly or indirectly, to the completion of this research. The completion of this work would not have been possible without the insights, encouragement, and support received throughout the research process. We also acknowledge the broader academic community whose literature and discussions have enriched the foundation of this study.

DECLARATION OF CONFLICTING INTERESTS
The authors declare that there is no conflict of interest.

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