

A Conceptual Framework of Navigating Digital Banking: How Gender Impacts Adoption Intentions in Klang Valley

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Abstract: Malaysian banking users have encountered negative experiences while adopting traditional bank services. Several customers and businesses face limited access to traditional banking products and services due to factors such as low or irregular income, bad credit, or a lack of conveniently located banks. The acceptability of digital banking products and services in Malaysia is currently unknown and inadequate due to the general lack of familiarity among Malaysians with the notion of digital banking. Conventional methods of analyzing consumer behavior, which primarily consider historical data and current resources, will not result in the achievement of branchless banking in the future. This paper presents a framework that examines how various factors such as performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, price value, and habit may influence behavioral intention. Additionally, the framework considers gender as a moderator variable. The results of this study are anticipated to expand the existing body of knowledge on behavioral intention and bring advantages to marketers and digital banking providers.

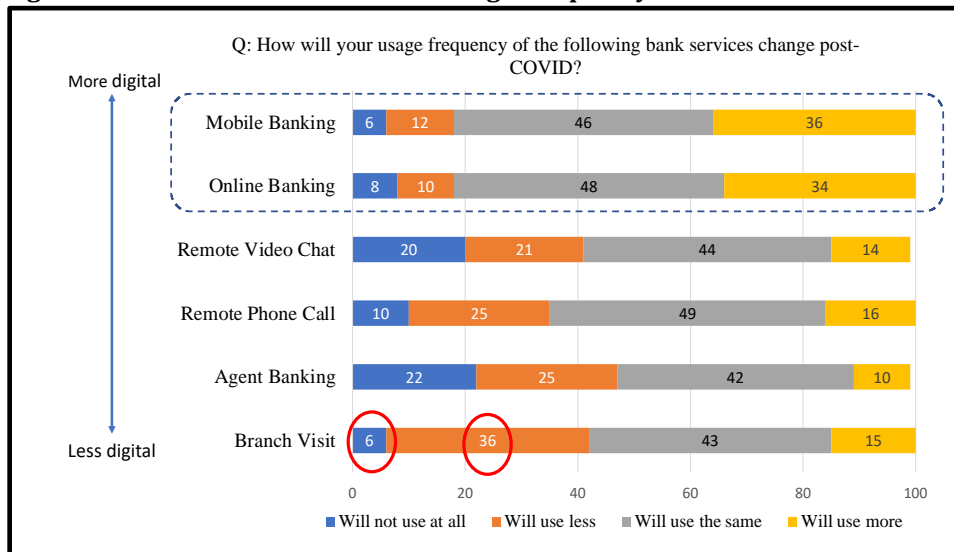
Keywords: *Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value, Habit, Gender, UTAUT2*

1. Introduction and Background

The emergence of digital banking is revolutionizing the traditional banking operations and financial services that were previously limited to physical bank branches (Windasari et al., 2022). Every aspect of digital banking, including account opening, money transfers, and various financial services, may be conveniently carried out using smartphones without the necessity of physically visiting a bank branch (Riadi et al., 2023).

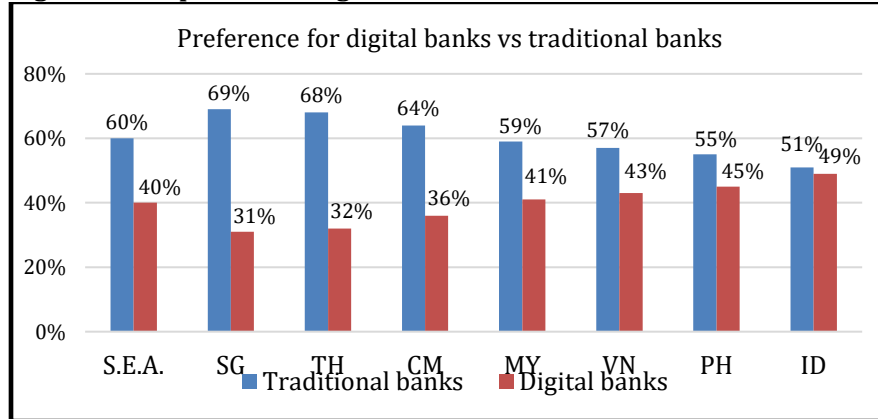
Survey done by McKinsey & Company (2021) Found that most Malaysians expect to continue or expand their use of mobile and online banking channels when the epidemic of Coronavirus disease 2019 (COVID-19) subsides, as shown in Figure 1. It suggests that 36 percent of respondents will visit their branch less often and 6% will never visit after the outbreak.

Figure 1: Post-COVID Bank Services Usage Frequency



Nevertheless, a significant majority of consumers (60%) still opt to maintain their primary banking accounts with traditional banks rather than digital banks as can be seen in Figure 2. Traditional banks possess well-established reputations and extensive histories, which can foster a feeling of confidence and safety. Several individuals may prefer traditional banks that they have been familiar with for a long time. Certain individuals place importance on personal interactions and the personalized assistance provided by traditional banks. They may have a preference for accessing a physical branch to seek assistance with intricate financial issues. As digital banks continue to expand and develop, these aspects may change. As people become more accustomed to technology and digital banking becomes more ingrained in daily life, the balance between traditional and digital banking preferences may shift.

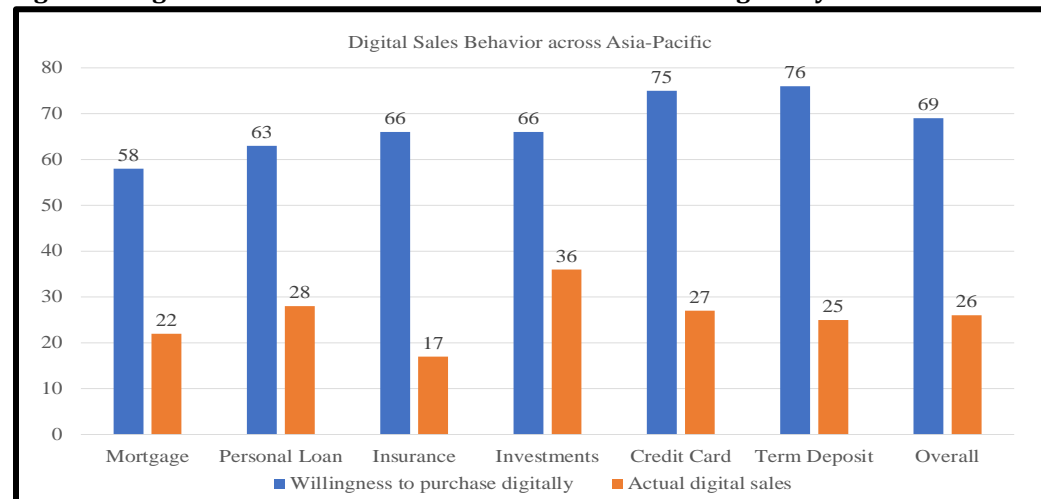
Figure 2: Comparison of Digital Banks and Traditional Banks



Source: Survey Consumer Payment Attitudes Study – VISA (2022)

A study conducted by Barquin et al. (2021) Revealed that despite customer interest in online banking products in Malaysia, banks have not successfully translated this desire into digital sales. The reason for this is that just 20 to 30 percent of the participants reported having purchased a financial product, such as a savings account, loan, or credit card, through a mobile app or online platform. Approximately 70% of respondents express a willingness to utilize digital channels for purposes other than commerce, as depicted in Figure 3.

Figure 3: Digital Sales Behavior Across Asia-Pacific including Malaysia



Source: McKinsey & Company (2021)

Several studies have been conducted in developing countries such as Pakistan (Khan, 2022), Bangladesh (Ashraf, 2022), India (Divya Meena et al., 2017), Vietnam (Nguyen & Dang, 2018; Nguyen et al., 2020), and Indonesia (Anggraeni et al., 2021; Rachmawati et al., 2019; Setiyono et al., 2019; Sintha, 2021) to investigate

the intention to adopt digital banking. Nevertheless, there is a scarcity of research investigating the determinants that impact consumers' intention to use digital banking, particularly within the Malaysian setting (Azmi et al., 2021; Suhaimi & Hassan, 2019; Tiong, 2020).

The introduction of digital banking services is anticipated to broaden and enhance financial inclusion, enabling individuals to access financial services without constraints of time and location. (Maulidya & Afifah, 2021). For digital banks to achieve success in Malaysia, they must possess a comprehensive understanding of the specific requirements of the target demographics they cater to. In addition, it is imperative for them to actively contribute to the advancement of financial literacy and financial inclusion throughout the entire nation (KPMG, 2020).

To promote a wider adoption of digital banking, it is crucial to identify the specific areas that require more focus in the implementation process. Gaining insight into the factors that drive customers to adopt digital banking can assist governments in promoting financial inclusion and empowering individuals to have greater control over their financial well-being, particularly in recovering from setbacks such as the COVID-19 outbreak. The purpose of this study is to analyze the UTAUT2 model of the behavioral intention of digital banking with gender as a moderator variable.

2. Literature Review

The Extended Unified Theory of Acceptance and Use of Technology (UTAUT2): Venkatesh et al. (2012) Created the Extended Unified Theory of Acceptance and Use of Technology (UTAUT2) to specifically examine how consumers perceive and utilize technology. This theory considers the acceptance of innovations for personal use and has been further explored by Alalwan et al. (2017), Baptista & Oliveira (2015), and Merhi et al. (2019). While UTAUT only accounts for 40% to 52% of the variation in customers' adoption of focal technology, UTAUT2 accounts for 56% to 74% of the variation in consumers' behavioral intentions. (Shankar et al., 2016; Venkatesh et al., 2012). Several researchers have acknowledged that the UTAUT2 is comprehensive and superior since it encompasses all the essential factors that predict the adoption of any technological innovation. (Tamilmani et al., 2021). Furthermore, the lack of the moderator variable which is age and experience does not damage the theoretical model when investigating the direct influence within the UTAUT2 model (Dwivedi, 2017).

Behavior Intention: Parkins et al. (2018) Defined behavioral intention as an individual's plan for the future. Research suggests that the decision to use technology is influenced by the behavioral intention to use it (Rizun & Strzelecki, 2020) and the adoption of a technology innovation is influenced by individual motivation (Turner et al., 2010). Prior studies conducted by several researchers (Parkins et al., 2018; Perri et al., 2020) have demonstrated that intention is the primary factor in determining the actual adoption of technology (Vairetti et al., 2019). Behavioral intention is well recognized as a crucial factor in determining the actual use and willingness to adopt new technologies (Ajzen, 1991; Venkatesh et al., 2003).

Performance Expectancy and the influence of gender as moderator variable: Performance expectancy, as defined by Davis et al. (1989) and Venkatesh et al. (2003), is a measure of consumer confidence that indicates the extent to which customers believe that using a specific platform will improve their performance. Wu and Ho (2022) Found that digital banking users believe that digital features can enhance problem-solving by providing rapid, convenient, and efficient solutions, thanks to their sophisticated technological attributes. A study conducted by Khan (2022) investigated the impact of behavioral intention and usage behavior on digital banking in Pakistan and Mainland China. Behavioral intention to adopt digital banking is influenced by performance expectancy both in Pakistan and China. As a result, it is hypothesized that:

H1: Performance expectancy positively influences banking consumers' behavioral intention to adopt digital banking.

H1a: The effect of performance expectancy on banking consumers' behavioral intention to adopt digital banking is moderated by gender.

Effort Expectancy and the influence of gender as a moderator variable: Effort expectancy is defined as the understanding that an individual can utilize information technology systems without any effort (Venkatesh &

Davis, 2000) and they are easy to use (Anggraeni et al., 2021). The study conducted by Windasari et al. (2022) centers around the examination of young consumers belonging to the demographic cohorts of Generation Y and Generation Z. The study was conducted in Indonesia due to the twofold increase in the utilization of digital banking within the past three years. The results indicated that consumers' willingness to embrace a digital-only bank is influenced positively by their perception of how easy it is to use digital-only banking services. Contrary to this, a study conducted by Merhi et al. (2019) found that effort expectancy does not have a major role for Lebanese participants, but it does have a mildly significant impact on English participants. Based on these analyses, it is hypothesized that:

H2: Effort expectancy positively influences banking consumers' behavioral intention to adopt digital banking.
H2a: The effect of effort expectancy on banking consumers' behavioral intention to adopt digital banking is moderated by gender.

Social Influence and the Influence of Gender as a Moderator Variable: Social influence is defined as an individual's perception of how their relatives or friends would react to their use of technology (Venkatesh et al., 2003), as well as the extent to which other individuals such as family members, friends, and colleagues, as well as external factors such as the environment, advertisements, and feedback from real customers, influence their beliefs (Khan, 2022; Rembulan & Firmansyah, 2020; Sharma et al., 2017). Study done by Alkhowaiter (2020) This is to investigate the variables that impact the favorable attitude, intention to adopt, and actual usage of mobile payments in GCC nations. Regarding attitude, social influence was found to have a relatively moderate correlation, whereas its connection with behavioral intention was significantly stronger. Consequently, it is hypothesized that:

H3: Social influence positively influences banking consumers' behavioral intention to adopt digital banking.
H3a: The effect of social influence on banking consumers' behavioral intention to adopt digital banking is moderated by gender.

Facilitating Condition and the Influence of Gender as a Moderator Variable: Facilitating condition refers to the availability and accessibility of resources that are crucial for promoting the adoption of a specific behavior on the platform (Rahman et al., 2020) With an assumption that there is an adequate infrastructure in place to facilitate the usage of the technology (Songkram, 2023). Infrastructure encompasses knowledge, management, organization, and technical support capabilities (Nikou & Economides, 2017). Thusi and Maduku (2020) Conducted a study on Generation Y retail banking users to investigate the factors that influence the uptake and utilization of mobile banking services. The desire of Generation Y to use mobile banking apps is significantly influenced by factors such as performance expectancy, facilitating conditions, and habit. As a result, it is hypothesized that:

H4: Facilitating conditions positively influence banking consumer's behavioral intention to adopt digital banking
H4a: The effect of facilitating conditions on banking consumers' behavioral intention to adopt digital banking is moderated by gender.

Hedonic Motivation and the influence of gender as moderator variable: Hedonic motivation pertains to the pleasure one experiences from the activity, such as an aesthetically pleasing and visually stunning design of the platform, which stimulates the consumer's inclination to adopt technological advancement (Anggraeni et al., 2021). The study conducted by Hassan et al. (2022) Revealed a statistically significant positive correlation between hedonic motivation and the intention to use health information applications. This finding aligns with other research that demonstrated consumers derive satisfaction from using health information applications. (Brown & Venkatesh, 2005; Venkatesh et al., 2012). Consumers who participate in mobile commerce are driven by hedonic motivation, which is a significant factor for them. (Vinerean et al., 2022). Based on these analyses, it is hypothesized that:

H5: Hedonic motivation positively influences banking consumers' behavioral intention to adopt digital banking.
H5a: The effect of hedonic motivation on banking consumers' behavioral intention to adopt digital banking is moderated by gender.

Price Value and the Influence of Gender as a Moderator Variable: Price value refers to the consideration that consumers give to the amount of money they will need to invest to use an application, as well as their

perception of the application's worth (Venkatesh et al., 2012). Adopting technology in the consumer's setting may result in extra costs for the consumer (Alalwan et al., 2017). The UTAUT2 model includes the price value as it has an impact on consumer intention to adopt, as customers are the ones who suffer the expenses (Venkatesh et al., 2012). The study conducted by Chaveesuk et al. (2022) reveals that prices have a significant impact on the behavioral intention to adopt massive online open courses (MOOCs) in Poland. In addition, the pricing value of a telemedicine application has a significant role in determining its adoption by individuals, as shown by Rahi (2022) and consistent with prior studies by Baudier et al. (2020) and Gao et al. (2015). Consequently, it is hypothesized that:

H6: Price value positively influences banking consumers' behavioral intention to adopt digital banking.

H6a: The effect of price value on banking consumers' behavioral intention to adopt digital banking is moderated by gender.

Habit and the influence of gender as moderator variable: A habit can be defined as a learned behavior that is triggered by an unintended stimulus and provides rewarding outcomes (Merhi et al., 2019). Consequently, consumers will cultivate a propensity for deploying technology with more frequency. In the study done by Samsudeen et al. (2022) Surveyed Islamic Banking consumers in Sri Lanka to identify the elements that impact their inclination to adopt mobile banking services. They employ the Unified Theory of Acceptance and Use of Technology (UTAUT2) as their framework. There is a significant correlation between habit and customer adoption intention. This indicates that the way customers use technology significantly influences their willingness to embrace mobile banking. Based on these analyses, it is hypothesized that:

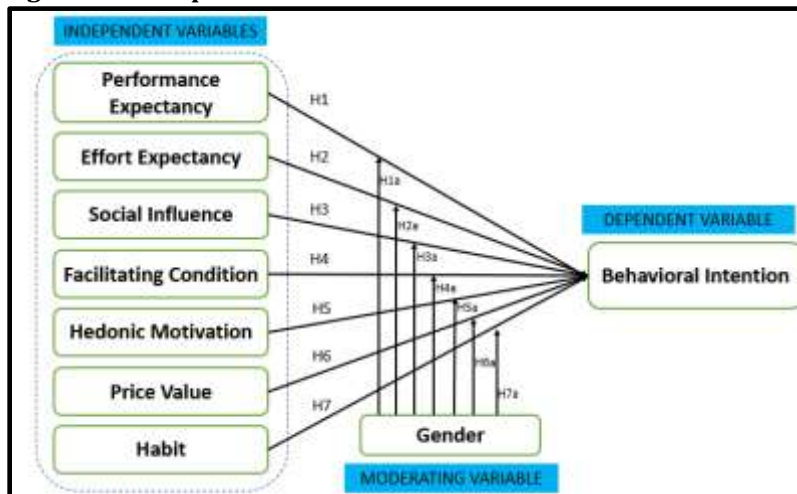
H7: Habit positively influences banking consumers' behavioral intention to adopt digital banking.

H7a: The effect of habit on banking consumers' behavioral intention to adopt digital banking is moderated by gender.

Conceptual Model

In developing nations, digital banking offers a distinct perceived benefit compared to its application in wealthy countries. (KPMG, 2020). Following the approval from the Minister of Finance, Bank Negara Malaysia (BNM) publicly released the names of the five applicants who were granted digital bank licenses on April 29, 2022 (Hen, 2022). This news garnered extensive attention to the potential of digital banking in Malaysia. Understanding the requirements of Malaysian customers in certain target demographics is crucial for ensuring the efficiency of digital banking in the country. The researchers have revised the framework of UTAUT2 by incorporating a single moderator, namely gender as can be seen in Figure 4.

Figure 4: Conceptual Model



3. Methodology

A self-administered questionnaire will be employed to gather data on the suggested model. This study will use a Purposive sample technique to select a non-probability sample frame from the specified population. The

approach was selected because it will assist researchers in comprehending consumers' intention to adopt digital banking. The completed surveys will be evaluated using the Statistical Package for Social Science (SPSS) and the Structural Equation Model (SEM).

4. Conclusion

Digital banking is essential in the banking sector as it enhances operational efficiency and customer service, providing consumers with a convenient and user-friendly banking experience. (Ahn & Lee, 2019). It improves the efficiency and effectiveness of the business model by decreasing operating costs, such as the inefficiencies of using paper-based documents for billing, credit card statements, receipts, and other uses. The banking business has been significantly influenced by information technology, leading to the development of user-friendly banking systems. This has enabled individuals without bank accounts to access new markets and benefit from various financial services. (Zahid et al., 2021). Based on the results of a survey conducted by PricewaterhouseCoopers (PwC) among banking consumers in Malaysia, it was found that the consumers had a negative experience when accessing traditional banking services. (PwC, 2019). Consumers exhibit a lack of commitment toward their existing financial institutions and will seek alternatives if their needs are not fulfilled. (Marcous, 2014). Thus, this proposed study aims to understand how performance expectancy, effort expectancy social influence, facilitating condition, hedonic motivation, price value and habit can influence behavioral intention with gender as a moderator variable.

References

- Ahn, S. J., & Lee, S. H. (2019). The effect of consumers' perceived value on acceptance of an Internet-only bank service. *Sustainability (Switzerland)*, 11(17), 1–9. <https://doi.org/10.3390/su11174599>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50.
- Alalwan, A. A., Dwivedi, Y. K., & Rana, N. P. (2017). Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust. *International Journal of Information Management*, 37(3), 99–110. <https://doi.org/10.1016/j.ijinfomgt.2017.01.002>
- Alkhowaiter, W. A. (2020). Digital payment and banking adoption research in Gulf countries: A systematic literature review. *International Journal of Information Management*, 53, 102102. <https://doi.org/10.1016/j.ijinfomgt.2020.102102>
- Anggraeni, R., Hapsari, R., & Muslim, N. A. (2021). Examining Factors Influencing Consumers Intention and Usage of Digital Banking: Evidence from Indonesian Digital Banking Customers. *Asia Pacific Management and Business Application*, 009(03), 193–210.
- Ashraf, M. A. (2022). Comprehending the intention to use branchless banking by rural people during the coronavirus pandemic: evidence from Bangladesh. *Journal of Financial Services Marketing*, July 2019. <https://doi.org/10.1057/s41264-021-00136-7>
- Azmi, N. N. N., Zahari, N. H. M., Yunus, Z. M., & Kamar-Bodian, W. N. I. W. A. (2021). Determinants of User's Intention to Adopt Digital Banking Services in Malaysia. *International Journal of Advanced Research in Economics and Finance*, 3(4), 26–33. <https://doi.org/10.55057/ijaref.2021.3.4.3>
- Baptista, G., & Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators. *Computers in Human Behavior*, 50.
- Barquin, S., Buntoro, E., HV, V., & Pricillia, I. (2021). *Emerging markets leap forward in digital banking innovation and adoption*. McKinsey & Company. <https://www.mckinsey.com/industries/financial-services/our-insights/emerging-markets-leap-forward-in-digital-banking-innovation-and-adoption>
- Baudier, P., Kondrateva, G., & Ammi, C. (2020). The future of Telemedicine Cabin? The case of the French students' acceptability. *Futures*, 122(May), 102595. <https://doi.org/10.1016/j.futures.2020.102595>
- Brown, S. A., & Venkatesh, V. (2005). Model of adoption of technology in households: A baseline model test and extension incorporating household life cycle. *MIS Quarterly: Management Information Systems*, 29(3), 399–426. <https://doi.org/10.2307/25148690>
- Chaveesuk, S., Khalid, B., Bsoul-Kopowska, M., Rostanska, E., & Chaiyasoonthorn, W. (2022). Comparative analysis of variables that influence behavioral intention to use MOOCs. *PLoS ONE*, 17, 1–26.
- Davis, F. D., Bagozzi, R. P., & Warshaw, R. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35.
- Divya Meena, S., Sriram, M., & Sundaram, N. (2017). Digital financial inclusion is a need of the hour: An

- investigation amongst bank account holders in Vellore district of Tamil Nadu, India. *International Journal of Applied Business and Economic Research*.
- Gao, Y., Li, H., & Luo, Y. (2015). An empirical study of wearable technology acceptance in healthcare. *Industrial Management and Data Systems*, 115(9), 1704–1723. <https://doi.org/10.1108/IMDS-03-2015-0087>
- Hassan, I. B., Murad, M. A. A., El-Shekell, I., & Liu, J. (2022). Extending the UTAUT2 Model with a Privacy Calculus Model to Enhance the Adoption of a Health Information Application in Malaysia. *Informatics*, 9(2), 1–27. <https://doi.org/10.3390/informatics9020031>
- Hen, S. E. (2022). *BNM awards digital banking licenses to Boost-RHB, GXS Bank-Kuok Brothers, YTL-SEA, AEON-MoneyLion, KAF Consortium*. The Edge Markets. <https://www.theedgemarkets.com/article/flash-bnm-awards-digital-banking-licence-rhbboost-gxs-bankkuok-brothers-yltsea-aeon-credit>
- Khan, I. U. (2022). How does culture influence digital banking? A comparative study based on the unified model. *Technology in Society*, 68(August 2020), 101822. <https://doi.org/10.1016/j.techsoc.2021.101822>
- KPMG. (2020). *Digital banking: The inclusive agenda*. <https://home.kpmg/my/en/home/insights/2020/05/digital-banking-report-the-inclusive-agenda.html>
- Marcous, J. (2014). *Digital Transformation in Banking Starts With Consumer Needs*. The Financial Brand. <https://thefinancialbrand.com/news/digital-transformation-banking/digital-transformation-banking-consumer-needs-study-41608/#:~:text=Today's digital consumer wants to, through other channels as well.>
- Maulidya, G. P., & Afifah, N. (2021). Perbankan Dalam Era Baru Digital: Menuju Bank 4.0. *Proceeding Seminar Bisnis Seri V*, 278–288.
- McKinsey & Company. (2021). *Emerging markets leap forward in digital banking innovation and adoption*. *Emerging markets leap forward in digital banking* (Issue September).
- Merhi, M., Hone, K., & Tarhini, A. (2019). A cross-cultural study of the intention to use mobile banking between Lebanese and British consumers: Extending UTAUT2 with security, privacy and trust. *Technology in Society*, 59, 101151.
- Nguyen, T. P., & Dang, T. L. P. (2018). Digital Banking in Vietnam Current Situation and Recommendations. *International Journal of Innovation and Research in Educational Sciences*, 5(4), 2349–5219.
- Nguyen, T. T., Nguyen, H. T., Mai, H. T., & Tran, T. T. M. (2020). Determinants of digital banking services in Vietnam: Applying utaut2 model. *Asian Economic and Financial Review*, 10(6), 680–697. h
- Nikou, S. A., & Economides, A. A. (2017). Mobile-based assessment: Investigating the factors that influence behavioral intention to use. *Computers & Education*, 109, 56–73
- Parkins, J. R., Rollins, C., Anders, S., & Comeau, L. (2018). Predicting intention to adopt solar technology in Canada: The role of knowledge, public engagement, and visibility. *Energy Policy*, 114(December 2017), 114–122. <https://doi.org/10.1016/j.enpol.2017.11.050>
- Perri, C., Giglio, C., & Corvello, V. (2020). Smart users for smart technologies: Investigating the intention to adopt smart energy consumption behaviors. *Technological Forecasting and Social Change*, 155(February), 119991. <https://doi.org/10.1016/j.techfore.2020.119991>
- PwC. (2019). *Digital Banking: Malaysian banks at a crossroads*.
- Rachmawati, R., Farda, N. M., Rijanta, R., Setiyono, B., Alfianita Hapsari, S., Ramadhan, E., & Dwi Dharmawan, R. (2019). The Comparison between the Uses of Branchless Banking in Urban and Rural Areas: Geographical Perspective. *IOP Conference Series: Earth and Environmental Science*, 338(1). <https://doi.org/10.1088/1755-1315/338/1/012016>
- Rahi, S. (2022). Assessing individual behavior towards adoption of telemedicine application during COVID-19 pandemic: evidence from an emerging market. *Library Hi Tech*, 40(2), 394–420. <https://doi.org/10.1108/LHT-01-2021-0030>
- Rahman, M., Ismail, I., & Bahri, S. (2020). Analyzing consumer adoption of cashless payment in Malaysia. *Digital Business*, 1(1), 100004. <https://doi.org/10.1016/j.digbus.2021.100004>
- Rembulan, N. D. R., & Firmansyah, E. A. (2020). Perilaku Konsumen Muslim Generasi-Z Dalam Pengadopsian Dompot Digital. *Valid Jurnal Ilmiah*, 17(2), 111–128.
- Riadi, A., Widiatmoko Soewardikoen, D., & Swasty, W. (2023). Pengungkit kredibilitas dan brand trust pada website bank digital di Indonesia. *Serat Rupa Journal of Design*, 7(1), 1–14. <https://doi.org/10.28932/srjd.v7i1.5310>
- Rizun, M., & Strzelecki, A. (2020). Students' acceptance of the Covid-19 impact on shifting higher education to distance learning in Poland. *International Journal of Environmental Research and Public Health*,

- 17(18), 6468.
- Samsudeen, S. N., Selvaratnam, G., & Hayathu Mohamed, A. H. (2022). Intention to use mobile banking services: an Islamic banking customers' perspective from Sri Lanka. *Journal of Islamic Marketing*, 13(2), 410–433. <https://doi.org/10.1108/JIMA-05-2019-0108>
- Setiyono, C., Shihab, M. R., & Azzahro, F. (2019). The role of initial trust on intention to use branchless banking application: A case study of genius. *Journal of Physics: Conference Series*, 1193(1). <https://doi.org/10.1088/1742-6596/1193/1/012022>
- Shankar, V., Kleijnen, M., Ramanathan, S., Rizley, R., Holland, S., & Morrissey, S. (2016). Mobile Shopper Marketing: Key Issues, Current Insights, and Future Research Avenues. *Journal of Interactive Marketing*, 34, 37–48. <https://doi.org/10.1016/j.intmar.2016.03.002>
- Sharma, S. K., Govindaluri, S. M., Muharrami, S. M., & Tarhini, A. (2017). A multi-analytical model for mobile banking adoption: a developing country perspective. *Review of International Business and Strategy*, 27(1), 133–148. <https://doi.org/10.1108/RIBS-11-2016-0074>
- Sintha, L. (2021). Branchless Banking as a Disruptive Innovation in Indonesia. *Proceedings of the 2nd Annual Conference on Blended Learning, Educational Technology and Innovation (ACBLETI 2020)*, 560(Acbleti 2020), 380–385. <https://doi.org/10.2991/assehr.k.210615.074>
- Songkram, N., Chootongchai, S., Osuwan, H., Chuppunnarat, Y., & Songkram, N. (2023). Students' adoption of the behavioral intention of digital learning platforms. *Education and information technologies*, 28(9), 11655-11677.
- Suhaimi, A. I. H., & Hassan, M. S. B. A. (2019). Determinants of Branchless Digital Banking Acceptance among Generation Y in Malaysia. *2018 IEEE Conference on E-Learning, e-Management and e-Services, IC3e 2018*, 103–108. <https://doi.org/10.1109/IC3e.2018.8632626>
- Tamilmani, K., Rana, N. P., & Dwivedi, Y. K. (2021). Consumer Acceptance and Use of Information Technology: A Meta-Analytic Evaluation of UTAUT2. *Information Systems Frontiers*, 23(4), 987–1005.
- Thusi, P., & Maduku, D. K. (2020). South African millennials' acceptance and use of retail mobile banking apps: An integrated perspective. *Computers in Human Behavior*, 111(July 2019), 106405. <https://doi.org/10.1016/j.chb.2020.106405>
- Tiong, W. ni. (2020). Factors Influencing Behavioural Intention Towards Adoption of Digital Banking Services in Malaysia. *International Journal of Asian Social Science*, 10(8), 450–457.
- Turner, M., Kitchenham, B., Brereton, P., Charters, S., & Budgen, D. (2010). Does the technology acceptance model predict actual use? A systematic literature review. *Information and Software Technology*, 52(5), 463–479.
- Vairetti, C., González-Ramírez, R. G., Maldonado, S., Álvarez, C., & Voß, S. (2019). Facilitating conditions for successful adoption of inter-organizational information systems in seaports. *Transportation Research Part A: Policy and Practice*, 130(July), 333–350. <https://doi.org/10.1016/j.tra.2019.09.017>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27.
- Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36.
- Venkatesh, V., Viswanath, Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly: Management Information Systems*, 36(1), 157–178. <https://doi.org/10.2307/41410412>
- Vinerean, S., Budac, C., Baltador, L. A., & Dabija, D. C. (2022). Assessing the Effects of the COVID-19 Pandemic on M-Commerce Adoption: An Adapted UTAUT2 Approach. *Electronics (Switzerland)*, 11(8). <https://doi.org/10.3390/electronics11081269>
- 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>
- Wu, C. G., & Ho, J. C. (2022). The influences of technological characteristics and user beliefs on customers' perceptions of live chat usage in mobile banking. *International Journal of Bank Marketing*, 40(1), 68–86. <https://doi.org/10.1108/IJBM-09-2020-0465>
- Zahid, M., Rahman, H. U., Ullah, Z., & Muhammad, A. (2021). Sustainability and branchless banking: The development and validation of a distinct measurement scale. *Technology in Society*, 67, 101764.