

The Mediating Role of Trust in National Digital Identity Verification Platform Acceptance: A Conceptual Paper

Pavitira Manogaran¹, Teoh Ai Ping^{1*}

¹ Graduate School of Business, Universiti Sains Malaysia (USM), Malaysia

*Corresponding Author: apteoh@usm.my

Received: 6 December 2022 | Accepted: 11 July 2023 | Published: 1 September 2023

DOI: <https://doi.org/10.55057/ijbtm.2023.5.3.26>

Abstract: *Government and private organisation services online have been adopted rapidly during the digitalisation post-COVID-19 pandemic. The lack of digital identity exacerbates the authentication and verification of online services. This study investigates the mediating role of trust on determinants of national digital identity verification platform acceptance among young investors. The study develops an integrated theoretical framework from the Protection Motivation Theory and Uncertainty Reduction Theory. The study model incorporates three constructs, namely perceived severity, response efficacy, and transparency and accesses how trust as a mediator affects the acceptance of the NDIV platform. The online quantitative survey approach will be used as the method of this study, and data will be distributed among young investors in Malaysia. This study employs a comprehensive framework to understand the acceptance level of the NDIV platform. The study's findings will contribute to the body of knowledge regarding the NDIV platform in the Malaysian context.*

Keywords: National Digital Identity Verification Platform, Acceptance, Malaysia, Young Investors, Trust

1. Introduction

As the COVID-19 pandemic emerged in 2019, and it has caused damage to people's health and socioeconomic status. Though the pandemic has done irreversible damage, the one industry that is thriving from the pandemic is the technology industry (Nicola et al., 2020). Digitalisation accelerated faster than expected, and people must adapt to this phenomenon. Face-to-face engagement has to be avoided; the government and private sectors convert their services online to ensure minimal contact with the general public to adhere to the government's social distancing rules and avoid contact with infected patients (OECD, 2020). As much as it is convenient to use the digital platform and reduce waiting hours at government offices, the rapid digitalisation that took place, unfortunately, comes with a downside as the Malaysians do not have a valid digital identity to verify themselves online and still have to make appointments to get this done at the government and private organisations using the MyKad. Inadequate identification online gives the window of opportunity for cyberattacks to take place (Ho, 2022).

Although the Malaysian government and multimedia commission has made many efforts and worked on many initiatives to curb cyberattacks, reports show the impact is minimal, and Malaysians remain vulnerable to cyberattacks (Gomes, 2021). As of November 2022, MyCERT reported 6881 cyberattack incidents in Malaysia. The numbers recorded past three years have also been alarming (MyCERT, 2019, 2020, 2021, 2022). The cyberattacks in the

investment industry are even worse as the losses incurred by the victims are not retrievable and irreplaceable. The Securities Commission reported that out of 72,000 scam cases, 12,000 were investment scams (The Malaysian Reserve, 2022). A study has shown that Malaysian young adults were among the common phishing victims due to the increased use of digital activities (Lee, Gan & Liew, 2022). The cyberattacks had to be resolved, as Microsoft (2018) predicted it could cost the economy MYR 49.15 billion. This would affect the nation's GDP and the digital economy.

Governments globally could no longer run from the need to establish a genuine digital identity for their citizens. Estonia, India, Denmark, Norway, Korea and Singapore have all shown tremendous success in implementing the NDIV platform with various approaches to curb cyberattacks and strengthen cybersecurity in their countries (OECD, 2019). Over 60 percent of the global gross domestic product (GDP) will be digitalised by 2022 as people, businesses, devices, and things interact online. NDIV platform sits at the heart of those interactions. The NDIV platform represented individuals online and provided access to countless opportunities. Identity is foundational in digital economies and societies (World Economic Forum, 2019).

The acceptance of such a platform in Malaysia is still unknown, as the platform will only be implemented in 2024. The present study, therefore, focuses on the extent of the acceptance of the NDIV platform among young investors. As it is a highly technical platform, past implementations such as the MySejahtera and Gerak Malaysia applications to track close contacts during the pandemic did not receive a good response from the general public due to data privacy issues and lack of transparency (Lunn, 2021), postulating the study to highlight transparency and the mediating role of trust with PMT variables that could influence NDIV platform acceptance. It is imperative for the Malaysian government to strategies for a successful implementation by implementing the platform in a group with the highest potential of acceptance and the experience to use it.

This study suggests the implementation of the NDIV platform on young investors in Malaysia as there was a specific demand and problem that the implementation of the NDIV platform could solve. In both advanced and emerging economies, younger generations are far more digitally connected than older generations (Silver, 2019). Most internet users in Malaysia are between the age of 20 and 30. Most internet users (76.9%) are under the age of 40. The remaining 23.1 percent are people over 40 (MCMC, 2020). Because the NDIV platform requires the internet to function and the older generation has little association with it, it is not easy to study their acceptance in this study context. Young investors have shown shocking interest in the investment industry post-Covid, with an increase of 65 percent in new accounts in Bursa Malaysia (Aruna, 2017; The Edge Market, 2020). This group is desperate for a stagnant income as they are affected socioeconomically due to the pandemic in terms of unemployment, layoff, and salary decrement (Aun and Zhang, 2021). As the economy slows down and the cost of living rises, they resort to legal or illegal investment for a stagnant income. This group also actively trades online, making them the most vulnerable group to investment schemes as their personal, financial and banking data are compromised, and they do not have the advantage of verifying the authenticity of an investment scheme (Zhe, 2017). As they have experience using features similar to an NDIV platform, such as digital signature and online verification (Chong, Ong, and Tan, 2021), it is timely to study the acceptance of the NDIV platform among young investors.

Many past studies on technology acceptance have used the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB) and the Unified Theory of Acceptance and Use

of Technology (UTAUT) as the main model to address the forces that affect the level of acceptance of technology. Despite extensive studies on the technological acceptance of digital identities, there is still a gap in the literature on NDIV platform acceptance in the Malaysian context. In the present study, apart from employing the PMT, the most widely used framework in technology adoption studies, this study also integrates the URT to develop the underlying factors that explain NDIV platform acceptance among young investors. Moreover, two additional variables, transparency and trust, were included when studying the determinants of NDIV platform acceptance. Therefore, this study endeavours to develop a comprehensive framework for investigating young investors' acceptance of the NDIV platform.

- To investigate the influence of trust as a mediator between perceived severity, response efficacy, and transparency on NDIV platform acceptance among young investors.

2. Literature Review

2.1 Integration of Protection Motivation Theory and Uncertainty Reduction Theory

This study is based on the Protection Motivation Theory and Uncertainty Reduction Theory. Rogers and Maddux (1983) use PMT to predict an individual's response when confronted with a risky environment through cognitive mediating processes, which include threat appraisal and coping appraisal by examining perceived severity, perceived vulnerability, response efficacy and self-efficacy. Meanwhile, Berger and Calabrese (1974) use URT to explain how individuals interact when unsure about their surroundings with trust and transparency. Many previous studies have used PMT and URT separately to predict technology acceptance and adoption of telemedicine health services (Rahi et al., 2021), mobile health services (Sun et al., 2013), and e-government services (Venkatesh et al., 2016). However, little attention has been given to both these theories' integration.

This study focuses on the emergence of PMT and URT to gain new perspectives to understand the phenomenon of NDIV platform acceptance in the Malaysian context and address the theoretical and empirical gaps. Several limitations associated with the PMT are expected to be compensated by URT. The PMT model produces inconsistent predictions with empirical data and fails to explain why or how the interaction between threat appraisal and coping appraisal occurs or how the interaction is related to protection motivation and subsequent behaviour (Tanner, Hunt, & Eppright, 1991). Because the NDIV platform is brand new and has yet to be implemented, young investors could not draw on previous experience. The information provided by the government and the committee affiliated with the NDIV platform is extensively relied upon by investors. With transparency, young investors would use information-seeking tactics to learn more about the NDIV platform. The knowledge gained would assist new investors in reducing their concerns regarding the NDIV platform and workflow. Young investors who trust the NDIV platform are willing to tolerate the risk of vulnerability in their interactions with the platform. It allays the fears of young investors about the platform's unpredictability, lowering ambiguity about the digital project. This study uses the model to examine the adoption of the NDIV platform acceptance, which is more relevant to the current post-pandemic scenario.

2.2 NDIV Platform Acceptance

NDIV platform acceptance is the degree to which a person consents to the NDIV platform (Chong et al., 2021). There were several terms for the NDIV platform used in previous research studies, including digital identity (Rivera et al., 2017; Engeness, 2021; Korać et al., 2021; Madon and Schoemaker, 2021; Sule et al., 2021); privacy-preserving authentication

technology (Harbach et al., 2013); and digital identity system (Mir et al., 2021). The different countries had different names for their digital identity verification platform.

The NDIV platform is viewed as beneficial not only to citizens of a country but also to refugees in refugee management (Madon and Schoemaker, 2021); education; health services, and other social benefits (Sule et al., 2021); stakeholders and policymakers (Mir et al., 2021); and for better information security in e-learning systems (Korać et al., 2021; Engeness, 2021). The implementation of the NDIV platform showed numerous success stories in the countries it was implemented.

The NDIV platform prompts to replace the shady username and password authentication mechanism, which had become obsolete over time. Unfortunately, the government's efforts to roll out these identities were met with scepticism by citizens. Harbach et al. (2013) discovered that maintaining their privacy was among the most important factors influencing people's acceptance of new authentication systems.

2.3 PMT Variables

Perceived severity is an individual's assessment of the consequences of a dangerous event. An individual's belief in the benefit derived from their actions of using something is referred to as response efficacy (Sun et al., 2013). Trust is proven to be influenced by perceived severity (Vassilikopoulou et al., 2018; Pang et al., 2021; Ahluwalia, Edelen, Qureshi, & Etchegaray, 2021). The impact of response efficacy on trust was discovered (Fischer-Preßler et al., 2021). The following hypotheses are developed:

- H1. *Perceived severity positively influences trust among young investors.*
- H2. *Response efficacy positively influences trust among young investors.*

2.4 URT Variables

The degree to which an individual understands something used is referred to as transparency. Transparency is the key to successful technology implementation among its users (Venkatesh et al., 2016). Transparency positively benefited trust in many studies (Hartanto & Siregar, 2021; Nettet, Robb, Lopes, & Hastie, 2021; Buell, Porter, & Norton, 2021; Grimmelikhuijsen et al., 2021). The degree to which an individual believes that technology possesses the necessary characteristics for safeguarding one's interests and adhering to a set of values is called trust (Venkatesh et al., 2016). In terms of trust as a causal antecedent of NDIV platform acceptance, it is discovered that trust was favourably connected with mobile health service adoption (Zhao et al., 2018) and strongly influenced the intention to embrace FinTech services (Wang, 2021). Trust has been discovered to positively and significantly impact attitudes regarding bitcoin transactions and the behavioural intentions that blockchain technology supports (Albayati et al., 2020).

Trust is found to have a positive influence on attitude, significantly affecting behavioural intention to adopt mobile stock trading (Chong et al., 2021), and trust was found to have a positive influence on attitude, significantly affecting behavioural intention to adopt self-driving cars (Du et al., 2021). Again, trust influenced e-banking (Kimiagari & Baei, 2021), mobile banking (Van et al., 2021), installation of mobile applications (Harris et al., 2016; Chin et al., 2018), and transactions (Kim & Koo, 2016) on behavioural intentions. It is proposed that the following hypothesis be tested:

- H3. *Transparency positively influences trust among young investors.*
- H4. *Trust positively influences NDIV platform acceptance among young investors.*

2.5 Mediating Effect of Trust

In several studies, trust is a mediator. The association between information quality and investors' perceived advantages, as well as cybersecurity awareness and investors' perceived benefits, was discovered to be mediated by trust, which contributes to investment intention (Yang et al., 2020). Several studies on technological acceptance discovered the function of trust as a mediator. In the younger generation, trust is found to moderate the relationship between security issues, privacy concerns, and repurchase intention (Trivedi & Yadav, 2020).

The impact of perceived utility on the desire to use a mobile wallet is also mediated by trust (Singh & Sinha, 2020). Iqbal et al. (2021) discovered that trust partially mediated the effect of openness to new experiences, extraversion, agreeableness, and conscientiousness on online purchasing intention, as well as partially mediated the link between the intention to use and actual use of e-Gov in telecentres (Kamarudin et al., 2021). The following hypotheses are derived based on evidence of trust as a causal outcome of the independent variables, Trust as the causal antecedent of the dependent variable, and trust as a mediator from previous studies: H5: Trust mediates the relationship between perceived severity and NDIV platform acceptance among young investors.

H6: Trust mediates the relationship between response efficacy and NDIV platform acceptance among young investors.

H7: Trust mediates the relationship between transparency and NDIV platform acceptance among young investors.

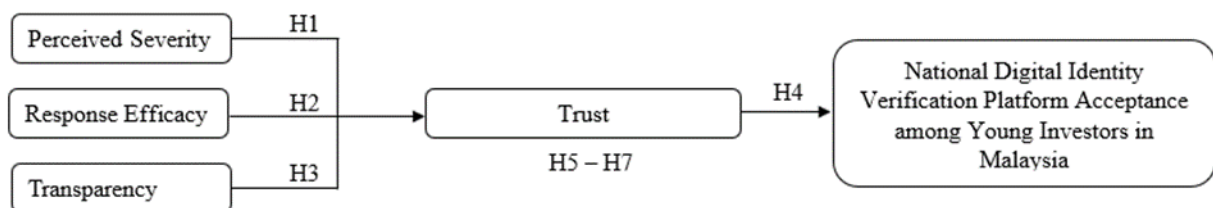


Figure 1: Theoretical Framework

3. Methodology

Past studies have had vast empirical results on the influence of perceived severity, response efficacy and transparency on the acceptance that was consistent, which is why this study focused on mediating the role of trust to contribute empirically. The Rungtusanatham et al. (2014) transmittal approach focused primarily on indirect effects. Hence, this study only tests the relationship between perceived severity, response efficacy and transparency on trust, trust on acceptance, and the mediating role of trust on these three relationships as proposed in the seven hypotheses. A structured questionnaire using a 7-point Likert scale will be utilised to gather data for the survey. The seven-point Likert scale ranges from strongly disagree (1) to strongly agree (7). All items in the survey questions are adapted from the previous literature (Sun et al., 2013; Venkatesh et al., 2016; Chong et al., 2021). This study's participants will be young investors with a registered amount with Bursa Malaysia who has prior experience with digital signatures and online verification and monitors investments actively; young investors are defined as those between the ages of 21 and 40.

4. Conclusions

This study explores the mediating role of trust on the determinants of NDIV platform acceptance. It employs an integrated PMT and URT framework with four variables: perceived

severity, response efficacy, transparency, and trust. The influencing factors must be determined because the importance of the NDIV platform acceptance is timely post-pandemic as digitalisation is rapid and needs a safer environment due to cyberattacks. The conceptual model is believed to provide insights into the Malaysian context, as the platform is still new and has minimal literature.

5. Implications of the Study

The research findings can provide valuable insights for practitioners on influencing factors that affect acceptance of the NDIV platform among young investors in Malaysia. The findings of this study will enrich the existing literature on NDIV platform acceptance and strengthen the protection motivation theory and uncertainty reduction theory. It may also contribute towards regulation enhancement among policymakers when the NDIV platform is successfully implemented.

Declaration of Interest

None

References

- Ahluwalia, S. C., Edelen, M. O., Qureshi, N., & Etchegaray, J. M. (2021). Trust in experts, not trust in national leadership, leads to greater uptake of recommended actions during the COVID-19 pandemic. *Risk, Hazards & Crisis in Public Policy*, 12(3), 283-302.
- Albayati, H., Kim, S. K., & Rho, J. J. (2020). Accepting financial transactions using blockchain technology and cryptocurrency: A customer perspective approach. *Technology in Society*, 62, 101320.
- Aruna, P. (2017). *More young investors entering into Malaysian market*. Retrieved from <https://www.thestar.com.my/business/business-news/2017/05/03/young-investors/>
- Aun, L. H., & Zhang, K. (2021). *The COVID-19 recession: Rough times for young Malaysians*. Retrieved from <https://www.malaysianow.com/opinion/2021/09/09/the-covid-19-recession-rough-times-for-young-Malaysians/>
- Berger, C. R., & Calabrese, R. J. (1974). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research*, 1(2), 99-112.
- Buell, R. W., Porter, E., & Norton, M. I. (2021). Surfacing the submerged state: Operational transparency increases trust in and engagement with government. *Manufacturing & Service Operations Management*, 23(4), 781-802.
- Chin, A., Harris, M., & Brookshire, R. (2018). A bidirectional perspective of trust and risk in determining factors that influence mobile app installation. *International Journal of Information Management*, 39(1), 49-59.
- Chong, L. L., Ong, H. B., & Tan, S. H. (2021). Acceptability of mobile stock trading application: A study of young investors in Malaysia. *Technology in Society*, 64, 10149.
- Du, H., Zhu, G., & Zheng, J. (2021). Why travelers trust and accept self-driving cars: An empirical study. *Travel Behaviour and Society*, 22(1), 1-9.
- Engeness, I. (2021). Developing teachers' digital identity: towards the pedagogic design principles of digital environments to enhance students' learning in the 21st century. *European Journal of Teacher Education*, 44(1), 96-114.

- Fischer-Preßler, D., Bonaretti, D., & Fischbach, K. (2021). A protection-motivation perspective to explain intention to use and continue to use mobile warning systems. *Business & Information Systems Engineering*, 64(2), 1-16.
- Gomes, V. (2021). *Adoption of national digital identity more timely than ever*. Retrieve from <https://www.theedgemarkets.com/article/adoption-national-digital-identity-more-timely-ever>
- Grimmelikhuijsen, S., Herkes, F., Leistikow, I., Verkroost, J., de Vries, F., & Zijlstra, W. G. (2021). Can decision transparency increase citizen trust in regulatory agencies? Evidence from a representative survey experiment. *Regulation & Governance*, 15(1), 17-31.
- Harbach, M., Fahl, S., Rieger, M., & Smith, M. (2013). On the acceptance of privacy-preserving authentication technology: the curious case of national identity cards. In *International Symposium on Privacy Enhancing Technologies Symposium* (pp. 245-264). Berlin, Heidelberg: Springer.
- Harris, M., Brookshire, R., & Chin, A. (2016). Identifying factors influencing consumers' intent to install mobile applications. *International Journal of Information Management*, 36(3), 441-450.
- Hartanto, D., & Siregar, S. M. (2021). Determinants of overall public trust in local government: Meditation of government response to COVID-19 in Indonesian context. *Transforming Government: People, Process and Policy*, 15(2), 261-274.
- Ho, F. (2022). *Cybersecurity: Is digitalisation a double-edged sword for Malaysia?*. Retrieve from <https://www.theedgemarkets.com/article/cybersecurity-digitalisation-doubledged-sword-malaysia>
- Iqbal, M. K., Raza, A., Ahmed, F., Faraz, N. A., & Bhutta, U. S. (2021). Research on influencing mechanism of big five personality traits on customers online purchase intention: A mediating role of trust. *International Journal of Electronic Business*, 16(1), 52-76.
- Kamarudin, S., Omar, S. Z., Zaremohzzabieh, Z., Bolong, J., & Osman, M. N. (2021). Factors Predicting the adoption of e-government services in telecenters in rural areas: The mediating role of trust. *Asia-Pacific Social Science Review*, 21(1), 20-38.
- Kim, G., & Koo, H. (2016). The causal relationship between risk and trust in the online marketplace: A bidirectional perspective. *Computers in Human Behavior*, 55, 1020-1029.
- Kimiagari, S., & Baei, F. (2021). Promoting e-banking actual usage: Mix of technology acceptance model and technology-organisation-environment framework. *Enterprise Information Systems*, 16(8-9), 1-57.
- Korać, D., Damjanović, B., & Simić, D. (2021). A model of digital identity for better information security in e-learning systems. *The Journal of Supercomputing*, 78(7), 1-30.
- Lee, Y. Y., Gan, C. L., & Liew, T. W. (2022). Phishing victimisation among Malaysian young adults: cyber routine activities theory and attitude in information sharing online. *The Journal of Adult Protection*
- Lunn, E. (2021). *Young people and men targeted by social media investment scammers*. Retrieved from <https://www.yourmoney.com/investing/young-people-and-men-targeted-by-social-media-investment-scammers/>
- Maddux, J. E., & Rogers, R. W. (1983). Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change. *Journal of Experimental Social Psychology*, 19(5), 469-479.
- Madon, S., & Schoemaker, E. (2021). Digital identity as a platform for improving refugee management. *Information Systems Journal*, 31(6), 929-953.

- MCMC. (2020). *Internet Users Survey 2020*. Cyberjaya: Malaysian Communications and Multimedia Commission.
- Microsoft. (2018). *Securing the modern enterprise in a digital world*. Retrieved from <https://news.microsoft.com/apac/features/cybersecurity-in-asia/>
- Mir, U., Kar, A. K., & Gupta, M. P. (2021). AI-enabled digital identity inputs for stakeholders and policymakers. *Journal of Science and Technology Policy Management*, 12(3), 1-28.
- MyCERT. (2019). *Reported incidents based on general incident classification statistics 2019*. Retrieved from <https://www.mycert.org.my/portal/statistics-content?menu=b75e037d-6ee3-4d11-8169-66677d694932&id=0d39dd96-835b-44c7-b710-139e560f6ae0>
- MyCERT. (2020). *Reported incidents based on general incident classification statistics 2020*. Retrieved from <https://www.mycert.org.my/portal/statistics-content?menu=b75e037d-6ee3-4d11-8169-66677d694932&id=2650ed29-88be-4cec-86cc-13f8e07ae228>
- MyCERT. (2021). *Reported incidents based on general incident classification statistics 2021*. Retrieved from <https://www.mycert.org.my/portal/statistics-content?menu=b75e037d-6ee3-4d11-8169-66677d694932&id=7515176d-597d-4b39-90a2-44220bf37c0f>
- MyCERT. (2022). *Reported incidents based on general incident classification statistics 2022*. Retrieved from <https://www.mycert.org.my/portal/statistics-content?menu=b75e037d-6ee3-4d11-8169-66677d694932&id=574bf33f-7291-4b6e-bb61-9adcf6a6259c>
- Nesset, B., Robb, D. A., Lopes, J., & Hastie, H. (2021). Transparency in HRI: Trust and decision making in the face of robot errors. In *Companion of the 2021 ACM/IEEE International Conference on Human-Robot Interaction* (pp. 313-317). Boulder: Association for Computing Machinery.
- Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., ... & Agha, R. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Journal Of Surgery*, 78, 185-193.
- OECD. (2019). *Digital government in Chile digital identity*. Paris: OECD Publishing.
- OECD. (2020). *Digital Transformation in the Age of COVID-19: Building Resilience and Bridging Divides, Digital Economy Outlook 2020 Supplement*. Paris: OECD.
- Pang, Q., Meng, H., Fang, M., Xing, J., & Yao, J. (2021). Social distancing, health concerns, and digitally empowered consumption behavior under COVID-19: A study on livestream shopping technology. *Frontiers in Public Health*, 9, 748048.
- Rahi, S., Khan, M. M., & Alghizzawi, M. (2021). Factors influencing the adoption of telemedicine health services during COVID-19 pandemic crisis: An integrative research model. *Enterprise Information Systems*, 15(6), 769-793.
- Rivera, R., Robledo, J. G., Larios, V. M., & Avalos, J. M. (2017). How digital identity on blockchain can contribute in a smart city environment. In *International Smart Cities Conference* (pp. 1-4). Wuxi: IEEE.
- Silver, L. (2019). *Smartphone ownership is growing rapidly around the world, but not always equally*. Retrieved from <https://www.pewresearch.org/global/2019/02/05/in-emerging-economies-smartphone-adoption-has-grown-more-quickly-among-younger-generations/>
- Singh, N., & Sinha, N. (2020). How perceived trust mediates merchant's intention to use a mobile wallet technology. *Journal of Retailing and Consumer Services*, 52, 101894.
- Sule, M. J., Zennaro, M., & Thomas, G. (2021). Cybersecurity through the lens of digital identity and data protection: Issues and trends. *Technology in Society*, 67, 101734.

- Sun, Y., Wang, N., Guo, X., & Peng, Z. (2013). Understanding the acceptance of mobile health services: A comparison and integration of alternative models. *Journal of Electronic Commerce Research*, 14(2), 183-200.
- Tanner, J. J., Hunt, J. B., & Eppright, D. R. (1991). The protection motivation model: A normative model of fear appeals. *Journal of Marketing*, 55(3), 36-45.
- The Edge Market. (2020). *New CDS accounts opened in January to July soared 125% to 218,000 Bursa*. Retrieved from <https://www.theedgemarkets.com/article/new-cds-accounts-opened-january-july-soared-125-218000-%E2%80%9494-bursa>
- The Malaysian Reserve. (2022). *SC: Malaysia recorded 1,800 investment scams for 9M22*. Retrieved from <https://themalaysianreserve.com/2022/10/19/sc-malaysia-recorded-1800-investment-scams-for-9m22/>
- Trivedi, S. K., & Yadav, M. (2020). Repurchase intentions in Y generation: Mediation of trust and e-satisfaction. *Marketing Intelligence & Planning*, 38(1), 401-415.
- Van, H. N., Pham, L., Williamson, S., Chan, C. Y., Thang, T. D., & Nam, V. X. (2021). Explaining intention to use mobile banking: Integrating perceived risk and trust into the technology acceptance model. *International Journal of Applied Decision Sciences*, 14(1), 55-80.
- Vassilikopoulou, A., Lepetsos, A., & Siomkos, G. (2018). Crises through the consumer lens: The role of trust, blame and risk. *Journal of Consumer Marketing*, 35(10), 1-11.
- Venkatesh, V., Thong, J. Y., Chan, F. K., & Hu, P. J. (2016). Managing citizens' uncertainty in e-government services: The mediating and moderating roles of transparency and trust. *Information Systems Research*, 27(1), 87-111.
- Wang. (2021). Exploring biometric identification in FinTech applications based on the modified TAM. *Financial Innovation*, 7(1), 1-24.
- World Economic Forum. (2019). *Our shared digital future*. Retrieved from https://www3.weforum.org/docs/WEF_Responsible_Digital_Transformation.pdf
- Yang, L., Lau, L., & Gan, H. (2020). Investors' perceptions of the cybersecurity risk management reporting framework. *International Journal of Accounting & Information Management*, 28(1), 167-183.
- Zhao, Y., Ni, Q., & Zhou, R. (2018). What factors influence the mobile health service adoption? A meta-analysis and the moderating role of age. *International Journal of Information Management*, 43(1), 342-350.
- Zhe, K. S. (2017). *Cover story: Detecting cryptocurrency scams*. Retrieved from <https://www.theedgemarkets.com/article/cover-story-detecting-cryptocurrency-scams>