Perceived Usefulness, Perceived Ease of Use, And Perceived Risk's Effects on Intention to Use of Digital Wallet in Dili, Timor Leste

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Abstract

This study will discuss the impact of perceived to use, perceived ease of use, and perceived risk on the intention of Dili residents to use T-Pay as a digital transaction instrument. We analyzed the digital wallet T-Pay which provides consumers with digital payment services via a financial platform. This study employs quantitative methodologies, and the sample size is 100 individuals. We were utilizing SmartPLS software to handle online-distributed questionnaire data. This study demonstrates that the association between moderating impact and intention to use has a positive and statistically significant effect. Additionally, perceived risk has a major impact on intention to use.

Keywords: Perceived of Usefulness, Perceived Ease of Use, Perceived Risk, Perceived Use, Fintech, Finance

Introduction

In this modern era, human's life was never separated from technological developments (Kartawinata et al., 2020). The development of advanced technology forces us to adapt new innovations and discover more about the technologies itself, especially when it related to the internet (Khan et al., 2022). Nowadays, in carrying out our daily activities and to communicating with other people, we always use internet as a media tool (Susanto et al., 2022). Therefore, the internet has become a part of human life. Currently, various types of technology have been used in this world both in the fields of communication, medical, construction and information (Ullah et al., 2022). However, technological development is not only limited to that, in recent years a new technological innovation has emerged also in economy field called Financial Technology (Fintech) (Pradana et al., 2019).

Fintech is a combination of financial services and technology that ultimately changes the conventional business model into a modern business, where initially a payment transaction was carried out face to face and brought a nominal amount of money, now it can be done remotely and payments can be made in just a few seconds (Gusfei & Pradana, 2022). Fintech payment methods are electronic payment instruments where money can be stored in certain electronic media, known as E-money (Electronic Money).

According to Statista.com, Timor-Leste at the earliest stages of true FinTech as the future impact of cloud computing, IoT, artificial intelligence, and blockchain cannot even be estimated yet (Fakhri et al., 2019). Each year, tech companies are digging deeper into the financial services value chain and also creating new market structures in underbanked developing countries. Pure FinTech players are now sharing the market with some banks which provide new, digital-friendly banking services and integrate digital payments, microfinancing, and robot-advisor services into existing bank accounts (Susanto et al., 2022).

The development of Fintech in Timor-Leste began at the end of 2019 and currently its customers were considerable increasing due to the period of pandemic COVID-19 which was driven by the limited customer service and less interaction among the society. This can be seen from the existence of the several digital transactions in Timor-Leste where the transaction makes it easier for people to do transactions anywhere and anytime via devices.

Despite the increase in users, the development of digital payment to create an efficient and effective payment system is still hindered by the culture of the Timorese people who prefer to hold cash. Cash transactions still have a dominant role in the payment system (Adnan et al., 2021). However, transactions using digital payment have also experienced a significant increase in recent years. Telkomcel sees that Timor-Leste is a country that is already growing and has a millennial generation that is very active in utilizing technology, so TPAY can be a platform that will be used to help move the economy wheels during and after the pandemic. From the description above, it is concluded that technological developments have an impact on society's lives, especially in emerging of payment transaction methods.

From the phenomenon of the development of the digital economy at this time which is progressing and developing in Timor-Leste, it is very interesting to conduct research. The growth and development of FinTech in the use of digital payments will be more developed and in great demand because of its efficient use in terms of time and personal satisfaction. FinTech has produced positive results for e-commerce businesses and start-ups. In Timor-Leste there are already several companies that provide cashless transaction tools. E-Wallet is slowly becoming popular in the community due to the ease of obtaining it, users only need to register by filling out a short application, with few requirements and no credit check is needed, making it suitable for all levels of society.

Literature Review

Perceived Usefulness

Usefulness is the meaning of usefulness and can also be interpreted as usefulness (Dewi et al., 2022). Usefulness is a benefit expected by technology users in carrying out their duties (Anggoro, 2019). Measurement of these benefits based on the frequency of use and diversity of applications run (Hong et al., 2021). Usefulness means that technology is able to reduce a person's efforts both time and effort to learn or at the same time use because basically individuals believe that the technology is easy to understand and does not make it difficult for users to do their work (Bregashtian & Herdinata, 2021). A product that has technology that is

easier to use will cause a perception of usefulness by its users. Perceived Usefulness is defined as the extent to which a technology will improve the performance of work (Ramayah & Ignatius, 2005). Perceived Usefulness is the user's belief that using a particular system will provide improvements to their work performance (Henderson & Divett, 2003). Furthermore, Perceived Usefulness is a belief about the decision-making process (Hong et al., 2021). Thus if a person feels that he believes that information systems are useful then he will use them. Perceived Usefulness leads to consumer perception of the results of the experience experienced (Jahangir & Begum, 2008). In addition, Perceived Usefulness is the extent to which a person's level of trust in something, if a person considers that it is useful and useful then he will use it, but if it is considered otherwise then someone will not use it (Bregashtian & Herdinata, 2021). Perceived Usefulness is defined as the profitability of the subject of a potential user using a particular application system will improve its performance (Wilson, 2019).

Perceived Ease of Use

Ease to use can be understood as something that is liked or desired as the basis of something that is considered useful or contains elements of usefulness (Anggoro, 2019). On the other hand, ease to use is also understood as the level to which users (users) believe that technology can be easily understood. (Elisa et al., 2022). Users have a sense that the ease of using information technology systems will cause a feeling in him that the system has uses, and therefore cause a sense of comfort when working. Even if the other way around, a system that is difficult to control, will provide a negative level of convenience (Hong et al., 2021). Perceived Ease of Use is one of the factors that determine the level of good attitudes of use (Ramayah & Ignatius, 2005). Perceived Ease of Use is based on the extent to which potential users expect the new system to be used free from universality. Perceived Ease of Use is also a belief about decision making. If a person feels that the new system is easy to use then he will use it, and vice versa (Henderson & Divett, 2003). The perceived ease of use dimensions include easy to use, simple and undestanble, and trouble-free. Ease measurements can be explained that the intensity of use and interaction between users with a system can indicate ease of use (Jahangir & Begum, 2008). More frequently used systems show that the system is better known by the user, easier to operate, and easier to use by its users. Users of the ease of using technology are influenced by several factors, including (Bregashtian & Herdinata, 2021) is a factor of user experience of the use of similar technology, the use of technology that is easy to understand, easy to control, clear and easy to understand, flexible, easy to be skilled, and reputation for the technology obtained by the user (Salsabila et al., 2021). A good reputation that will be heard by users will encourage user confidence in the ease of users of the technology.

Perceived Risk

Now there is research, there are two forms of uncertainty that can occur in the adoption of new technologies: environmental uncertainty (environmental uncertainty) and behavioral uncertainty (Behavioural uncertainty) (Masoud, 2013). Environmental uncertainty arises from network communication technologies that are beyond the user's control. Even information technology operators are difficult to control (Mamman et al., 2015). Consistent with this perspective, this study defines risk perception as the subjective belief of the user that there is an opportunity for the emergence of risk to suffer losses when using electronic wallet application services (Masoud, 2013). Perceived risk can be seen as the level of loss felt by users of a technology (Naiyi, 2004) . Perceived risk states that the level to which consumers of technology users believe that they are accessible with a certain type of financial, social, psychological, physical, or time risk. What can happen in using technology is fraud, poor product quality, delays in the delivery of products and illegal activities such as misuse of personal information (Bhatti et al., 2018).

Intention to Use

Intention to use can be defined as a form of user's desire to use or reuse a certain object (Liu, 2012). Interest to use is one of the aspects of human psychology that tends to give attention or feel greater pleasure to the object, where this feeling can encourage a person to achieve goals (Ramos-de-Luna et al., 2016). Interest in using is described as a person's situation before taking an action. Interest in using can also be used as a basis for predicting a person's behaviour or actions (Zhao et al., 2020). Related to this, the position of interest in using when viewed from the theory of consumer behaviour in purchasing decisions lies in post-purchase behaviour. In general, when consumers feel interest or satisfaction in meeting a need, usually the consumer will continue to remember what he felt. Post-purchase behaviour includes post-purchase satisfaction, post-purchase actions and product use (Lu et al., 2011). Interest in using the theory of Technology Acceptance Model (TAM) developed by Davis, et. al (1989) entered into behaviour Intention to Use. Until now, the TAM model is the most widely used model in predicting consumer acceptance behaviour towards an information technology and has been proven to be a useful theoretical model in understanding and explain the behaviour of consumers (users) in implementing an information system. Behaviour Intention to Use or in this study is interpreted as interest in using, on the basic assumption that a person's behaviour in using or accepting a technology is influenced by two main variables, namely perceived usefulness and perceived ease of use. Interest indicator consist of three indicators. This indicator is what the researcher uses in the interest in using research, of the three indicators, namely: Interest in the object of interest, Feeling happy, and Tendency to use (Denaputri & Usman, 2019).
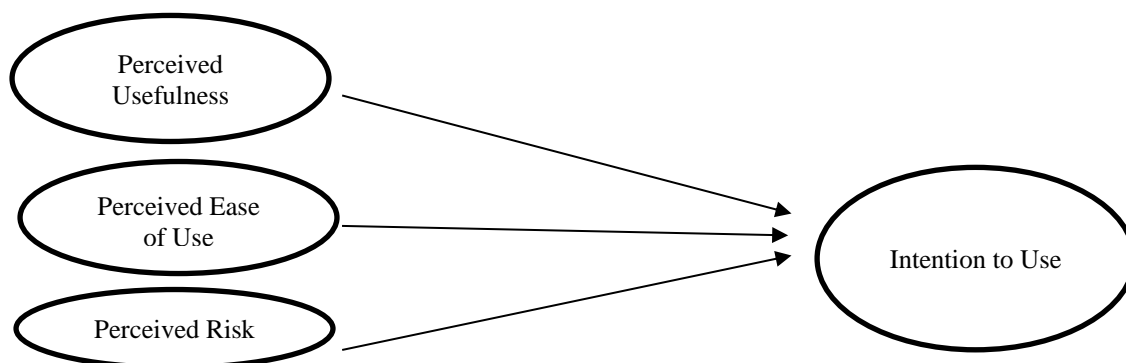
Research Framework

Figure 1 *Research Framework*

Methods

In this study, the author uses a causal descriptive type of research with a quantitative approach. The research method as a method based on the philosophy of positivism; the method used to examine a particular population or sample; Sampling technique is usually carried out by calculating certain appropriate sampling techniques; collection of quantitative/statistical data with the aim of testing the established hypothesis (Chin, 1998). This study uses a Likert scale (Willayat et al., 2022). The Likert scale is used to measure attitudes, opinions, and perceptions of individuals or groups of individuals about social phenomena (Joshi et al., 2015). By using a Likert scale, the variable to be measured are translated into variable indicators and then these indicators are used as a starting point for compiling instrument items which can be in the form of statements or questions. This research uses Structural Equation Modeling or SEM method (Zaman et al., 2021). Interpreting the structural equation model (Structural Equation Model) is an analysis that combines factor analysis approaches (factor analysis),

structural models (structural models), and path analysis (path analysis) (Ghozali & Hengky, 2015). This study uses Partial Least Square (PLS) as a variant-based SEM statistical method. Partial Least Square (PLS) is defined as a method for predicting constructs in models with many factors and collinear relationships (Krishnan et al., 2011). SmartPLS software is often used to build a composite model between latent variables or variables that are not measured directly and the specification of paths that connect between variables (Li et al., 2022). The advantage of PLS is that it can model many dependent and independent variables (complex models) (Pradana et al., 2022). The results remain solid even though there are abnormal and missing data (missing values) (Abdillah & Hartono, 2015).

Result and Discussion

Evaluation of the Measurement

The measuring model, is used to assess the association between indicator variables and associated constructs. It specifies the measurement indicators and the directional link between the concept and the measurement indicator.

Table 1 *Evaluation of the Measurement*

Factors	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Intention to Use	0.889	0.930	0.768
Perceived of Ease Use	0.919	0.935	0.673
Perceived of Risk	0.882	0.927	0.809
Perceived of Usefulness	0.908	0.925	0.607

Table 2 *Outer Loading*

Variables	Indicator	Factor Loading	Results
Intention to Use	IU1	0.850	Valid
	IU2	0.888	Valid
	IU3	0.912	Valid
	IU4	0.854	Valid
Perceived of Ease Use	PE1	0.784	Valid
	PE2	0.800	Valid
	PE3	0.825	Valid
	PE4	0.839	Valid
	PE5	0.869	Valid
	PE6	0.787	Valid
	PE7	0.836	Valid
Perceived of Risk	PR1	0.909	Valid
	PR2	0.904	Valid
	PR3	0.886	Valid
Perceived of Usefulness	PU1	0.787	Valid
	PU2	0.795	Valid
	PU3	0.767	Valid
	PU4	0.771	Valid
	PU5	0.811	Valid
	PU6	0.763	Valid
	PU7	0.793	Valid
	PU8	0.744	Valid

The table above displays the overall findings for reliability and validity. All Composite Reliability (CR) and Cronbach's Alpha (CA) values are better than 0.7, as predicted, and the AVE value is greater than 0.5. Therefore, it may be stated that the variable is dependable, has a high level of dependability, and meets the conditions for validity.

According to the preceding table, there is no outside loading indication with a value of 0.70. This indicates that the indicator has been deemed legitimate for research and may be utilized for further investigation.

Hypothesis Test

To measure the significance of the predictive model in testing the structural model, we can look at the t-statistic value between the independent and dependent variables. To assess the significance of the prediction model in testing the structural model, it can be seen from the t-statistic value between the independent and dependent variables in the path coefficient table in the SmartPls output.

Table 3 *Hypothesis Test*

	Hypothesis	Path Coefficient	Sample Mean	Standard Deviation	t-values	p-values
H1	Perceived of Ease Use -> Intention to Use	0.121	0.134	0.073	1.659	0.098
H2	Perceived of Risk -> Intention to Use	0.499	0.487	0.050	9.912	0.000
H3	Perceived of Usefulness -> Intention to Use	-0.062	-0.058	0.049	1.250	0.212

In the table above, perceived of Ease Use -> Intention to Use, the research significance value is obtained, t values of $1.659 < 1.96$, significance level of $0.098 > 0.05$ and the path coefficient value is positive 0.121, so it can be said that hypothesis 2 shows the direction of a positive but not significant relationship. This indicates that the perceived ease of use has an effect but is not significant on the intention to use (Sabilla et al., 2022).

Perceived Risk -> Intention to Use obtained a research significance value of $9.912 > 1.96$, a significance level of $0.000 < 0.05$ and a positive path coefficient value of 0.499, which indicates the relationship between perceived risk and intention to use is positive and significant. Thus, it can be said that hypothesis 2 is accepted. This shows that perceived risk affects and is significant on intention to use.

Perceived Usefulness -> Intention to Use obtained t values of $1250 < 1.96$, significance level of $0.212 > 0.05$ and path coefficient value is -0.062. Therefore, it can be said that hypothesis 3 shows the direction of the negative and insignificant relationship. This shows that perceived usefulness has no effect and is significant on intention to use.

Conclusion

This study's results indicate a significant positive relationship between the perceived ease of use has an impact but is not significant on the intention to use the use of T-Pay. However, this study shows that perceived risk has a significant effect on the intention to use the Dili community in using T-Pay as a digital transaction tool. Then, perceived usefulness has

no effect and is significant on the intention to use T-Pay as a digital payment instrument so there are still other factors that can affect the intention to use T-Pay but are not discussed in this study.

Reference

Abdillah, W., & Hartono, J. (2015). Partial Least Square (PLS) - Alternatif Structural Equation Modeling (SEM) dalam Penelitian Bisnis. ANDI.

Adnan, A. Z., Rahayu, A., Hendrayati, H., & Yusuf, R. (2021, February). The role of electronic customer relationship management (E-CRM) in improving service quality. In Journal of Physics: Conference Series (Vol. 1764, No. 1, p. 012051). IOP Publishing.

Anggoro, A. (2019). EFFECTS OF PERCEIVED USEFULNESS, PERCEIVED EASE OF USED, AND PERCEIVED VALUE ON BEHAVIORAL INTENTION TO USE DIGITAL WALLET (A Case Studyof OVO User in Malang). Jurnal Ilmiah Mahasiswa FEB, 7(2), 1–21.

Bhatti, A., Saad, S., & Gbadebo, S. M. (2018). Convenience Risk, Product Risk, and Perceived Risk Influence on Online Shopping: Moderating Effect of Attitude. Science Arena Publications International Journal of Business Management , 3(2), 1–11. www.sciarena.com

Bregashtian, B., & Herdinata, C. (2021). The Effect of Perceived Ease of Use, Usefulness and Risk on Intention to Use the Go-Food Application in Surabaya and Sidoarjo. KnE Social Sciences, 169–183–169–183. https://doi.org/10.18502/KSS.V5I5.8807

Chin. (1998). Handbook of Partial Least Squares: Concepts, Methods and Applications. Springer Berlin Heidelberg. In The Journal of biological chemistry (Vol. 206, Issue 1).

Denaputri, A., & Usman, O. (2019). Effect of Perceived Trust, Perceived Security, Perceived Usefulness and Perceived Ease of Use on Customers' Intention to Use Mobile Payment. SSRN Electronic Journal. https://doi.org/10.2139/SSRN.3511632

Dewi, C. K., Pradana, M., Huertas-García, R., Rubiyanti, N., & Syarifuddin, S. (2022). Developing halal consumer behavior and tourism studies: Recommendations for Indonesia and Spain. Frontiers in Psychology, 13, 863130.

Elisa, H. P., Fakhri, M., & Pradana, M. (2022). The moderating effect of social media use in impulsive buying of personal protective equipments during the COVID-19 pandemic. Cogent Social Sciences, 8(1), 2062094. https://doi.org/10.1080/23311886.2022.2062094

Fakhri, M., Pradana, M., Syarifuddin, S., Hafid, H., Mustika, N.P. (2019). Analyzing work satisfaction of employees at production department: Case study of indonesian state military equipment manufacturer. International Journal of Advanced Science and Technology, 28(8 Special Issue), pp. 163–175.

Ghozali, I., & Hengky, L. (2015). Konsep, Teknik, Aplikasi Menggunakan Smart PLS 3.0 Untuk Penelitian Empiris. Badan Penerbit Universitas Diponegoro.

Gusfei, A.D., Pradana, M. (2022). The Effect of E-Service Quality and E-Trust on Mobile Payment Application E-Customer Loyalty Through E-Customer Satisfaction as Intervening Variable. Res Militaris, 12(2), pp. 166–180. https://resmilitaris.net/menu-script/index.php/resmilitaris/article/view/87/33

Henderson, R., & Divett, M. J. (2003). Perceived usefulness, ease of use and electronic supermarket use. International Journal of Human-Computer Studies, 59(3), 383–395. https://doi.org/10.1016/S1071-5819(03)00079-X

Hong, C., Choi, H. (Hailey), Choi, E. K. (Cindy), & Joung, H. W. (David). (2021). Factors affecting customer intention to use online food delivery services before and during the COVID-19 pandemic. Journal of Hospitality and Tourism Management, 48, 509–518.

https://doi.org/10.1016/J.JHTM.2021.08.012

Jahangir, N., & Begum, N. (2008). The role of perceived usefulness, perceived ease of use, security and privacy, and customer attitude to engender customer adaptation in the context of electronic banking. African Journal of Business Management, 2(2), 032–040. https://doi.org/10.5897/AJBM.9000634

Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert Scale: Explored and Explained. British Journal of Applied Science & Technology, BJAST(4), 396–403. https://doi.org/10.9734/BJAST/2015/14975

Kartawinata, B.R., Pradana, M., Akbar, A, Trenggana, A.F.N., Cahyaningrum, S.D. (2020). The Effect of Easy Perception and Risk of Users of Financial Technology Services in SMEs of Bandung, Indonesia. Proceedings of the International Conference on Industrial Engineering and Operations Management, 2020, 59, pp. 997–1007.

Khan, M. A. S., Du, J., Malik, H. A., Anuar, M. M., Pradana, M., & Yaacob, M. R. B. (2022). Green innovation practices and consumer resistance to green innovation products: Moderating role of environmental knowledge and pro-environmental behavior. Journal of Innovation & Knowledge, 7(4), 100280. https://doi.org/10.1016/j.jik.2022.100280

Krishnan, A., Williams, L. J., McIntosh, A. R., & Abdi, H. (2011). Partial Least Squares (PLS) methods for neuroimaging: A tutorial and review. NeuroImage, 56(2), 455–475. https://doi.org/10.1016/j.neuroimage.2010.07.034

Li, J., Manafian, J., Wardhana, A., Othman, A. J., Husein, I., Al-Thamir, M., & Abotaleb, M. (2022). N-Lump to the (2+ 1)-Dimensional Variable-Coefficient Caudrey–Dodd–Gibbon–Kotera–Sawada Equation. Complexity, 2022.

Liu, B. Bin. (2012). Understanding consumers' intention to use mobile payment services: The perspective of university students in Northern Jiangsu area. Proceedings of the 2012 2nd International Conference on Business Computing and Global Informatization, BCGIN 2012, 257–260. https://doi.org/10.1109/BCGIN.2012.73

Lu, Y., Yang, S., Chau, P. Y. K., & Cao, Y. (2011). Dynamics between the trust transfer process and intention to use mobile payment services: A cross-environment perspective. Information & Management, 48(8), 393–403. https://doi.org/10.1016/J.IM.2011.09.006

Mamman, H., Maidawa, M., & Saleh, M. (2015). EFFECTS OF PERCEIVED RISK ON ON-LINE SHOPPING Perceived Risk View project Database Design View project. Proceedings of the 1st Management, Technology, and Development Conference, 318–323. https://www.researchgate.net/publication/306547085

Masoud, E. Y. (2013). The Effect of Perceived Risk on Online Shopping in Jordan. European Journal of Business and Management Www.Iiste.Org ISSN, 5(6). https://www.researchgate.net/publication/340438323

Naiyi, Y. (2004). Dimensions of Consumer's Perceived Risk in Online Shopping. Journal of Electronic Science and Technology, 2(3), 177–182. https://www.academia.edu/download/55077188/0403-32.pdf

Pradana, M., Syarifuddin, S., Hafid, H., Gilang, A. (2019). Diandri, M.Purchase intention determinants of halal food in secular countries. International Journal of Supply Chain Management, 8(4), pp. 83–89.

Pradana, M., Wahyuddin, S., Syarifuddin, S., Putra, A. (2019). Gap analysis of Indonesian state-owned bank internet banking website. Proceedings of the International Conference on Industrial Engineering and Operations Management, pp. 1235–1244.

Pradana, M., Wardhana, A., Rubiyanti, N., Syahputra, S., & Utami, D. G. (2022). Halal food purchase intention of Muslim students in Spain: testing the moderating effect of need-for-cognition. Journal of Islamic Marketing, 13(2), pp. 434–445.

Ramayah, T., & Ignatius, J. (2005). Impact of Perceived usefulness, Perceived ease of use and

Perceived Enjoyment on Intention to shop online. ICFAI Journal of Systems Management . www.nua.ie/

Ramos-de-Luna, I., Montoro-Ríos, F., & Liébana-Cabanillas, F. (2016). Determinants of the intention to use NFC technology as a payment system: an acceptance model approach. Information Systems and E-Business Management, 14(2), 293–314. https://doi.org/10.1007/S10257-015-0284-5/FIGURES/2

Rubiyanti, N., Mohaidin, Z., Murshid, M.A. (2022). Purchasing Behaviour: Mediating Roles of Brand Personality and Religiosity in the Purchase of Halal Cosmetics. Global Journal Al-Thaqafah (Special Issue), pp. 113–120.

Sabilla, A.M., Pradana, M., Idris, M. (2022). Analyzing the Effectiveness of Online Learning from Students' Perspective. Educational Administration: Theory and Practice, 28(4), pp. 61–73.

Salsabila, A. A., Fakhri, M., Silvianita, A., Wardhana, A., & Saragih, R. (2021). The effect of organizational culture and work motivation on employee job satisfaction. In Proceedings of the International Conference on Industrial Engineering and Operations Management (Vol. 8, pp. 5724-5731).

Salwa, M., & Susanty, A. I. (2016). Measuring employee readiness for knowledge management in PT. Mineral Indonesia. Pertanika Journal of Social Science and Humanities, 24, 27-34.

Susanto, E., Hendrayati, H., Rahtomo, W. R., & Prawira, M. F. A. (2022). Adoption of Digital Payments for Travelers at Tourism Destinations. African Journal of Hospitality, Tourism and Leisure, 2022, 11(2), pp. 741–753.

Ullah, S., Hussain, S., Rustandi Kartawinata, B., Muhammad, Z., & Fitriana, R. (2022). Empirical nexus between Chinese investment under China–Pakistan Economic Corridor and economic growth: An ARDL approach. Cogent Business & Management, 9(1), 2032911.

Willayat, F., Saud, N., Ijaz, M., Silvianita, A., & El-Morshedy, M. (2022). Marshall–Olkin Extended Gumbel Type-II Distribution: Properties and Applications. Complexity, 2022.

Wilson, N. (2019). The Impact Of Perceived Usefulness And Perceived Ease-Of-Use Toward Repurchase Intention In The Indonesian E-Commerce Industry. Jurnal Manajemen Indonesia, 19(3), 241–249. https://doi.org/10.25124/JMI.V19I3.2412

Zaman, U., Florez-Perez, L., Farías, P., Abbasi, S., Khwaja, M. G., & Wijaksana, T. I. (2021). Shadow of your former self: exploring project leaders' post-failure behaviors (resilience, self-esteem and self-efficacy) in high-tech startup projects. Sustainability, 13(22), 12868. https://doi.org/10.3390/su132212868

Zhao, Y., Wang, L., Tang, H., & Zhang, Y. (2020). Electronic word-of-mouth and consumer purchase intentions in social e-commerce. Electronic Commerce Research and Applications, 41, 100980. https://doi.org/10.1016/J.ELERAP.2020.100980