Entrepreneurial Orientation and Technology Adoption as Predictors of Sustainable Entrepreneurship Values in Fintech Organizations

Raja Suzana Raja Kasim, Wan Fariza Azima Che Azman

Faculty of Entrepreneurship and Business, University Malaysia Kelantan, City Campus Pengkalan Chepa, 16100Kota Bharu, Kelantan

DOI: https://dx.doi.org/10.47772/IJRISS.2025.914MG0073

Received: 10 April 2025; Accepted: 14 April 2025; Published: 20 May 2025

ABSTRACT

The primary objectives of this paper are to examine if Entrepreneurial Orientation (EO) and technology adoption (TA) can predict Sustainable Entrepreneurship Values (SEV) among Malaysian Fintech organizations. A survey was self-administered to 294 organizations involved in payment, e-wallet, prop-tech, digital bank, blockchain, cryptocurrency, remittance, AI/data, marketplace, crowdfunding, insurtech, wealth tech, Know Your Customer (KYC), and reg-tech services offerings. Partial Least Square Structural Equation Modelling is used to analyze 121 responses. The results show that EO has a positive and significant relationship with SEV. TA, also does moderate the relationship between EO and SEV. This paper contributed to developing the extended Technology Acceptance Model and Resource-Based Theory. The SEV model explains the leadership concern for socio-economy, environment, and values by creating a game changer for Islamic digital transformation that enables micro and small enterprises to access faster socio-economic well-being and financial health.

Keywords: Entrepreneurial Orientation, Sustainable Entrepreneurship Values, Fintech, Technology Adoption, Malaysia.

INTRODUCTION

Emerging technological advancements influence the results of sustainable entrepreneurship values (SEV) among fintech organizations. Prodigious volumes of data have been generated and the obstacles and costs connected with the supply of financial services have been mitigated due to developments in computation and networking. In conjunction with network effects and economies of size and scope, these technological elements have radically altered the business models, products, infrastructures, market participants, and market structures of the fintech industry. In contrast with purely exogenous factors, technical innovations are inherently dynamic, as innovators develop the subsequent generation of technologies in response to market conditions.

Interestingly, the concept of meeting social and financial inclusion invites Fintech leaders to reconsider ways to create benefits, particularly the essential requirements that should be provided to the world's impoverished, and this is central to SEV. The primary objectives of this paper are to examine if Entrepreneurial Orientation (EO) and technology adoption (TA) can predict SEV among Malaysian Fintech organizations. This paper is framed around the development of and interactions between three key factors that are relevant for fintech: Entrepreneurial Orientation (EO); technology adoption (TA) and Fintech sustainable entrepreneurship values (SEV) outcomes. This conceptual framework captures the implications of EO and the TA under way in financial services for (a) SEV outcomes and (b) TA as a moderator between EO and SEV; and how these two aspects interact. The influence of Fintech drivers on SEV outcomes often necessitates TA action to assure congruence with the objectives and offers of Fintech, which subsequently moulds SEV outcomes; this creates a feedback loop.

LITERATURE REVIEW AND HYPOTHESIS

Entrepreneurial Orientation

The EO dimensions result organization to differentiate the three different levels of resource of action Malaysian Fintech organizations. In general, the results reveal that they are willing to take the risk, proactive, and given the autonomy to their employees. However, based on the mean score, Malaysian Fintech organizations prioritized proactive entrepreneurial action, followed by the risk-taking, and finally the autonomy.

The proactive level requires the organization to always try to take the initiative in every situation [1]. They have also excelled in identifying opportunities, and initiating actions to which other companies respond [2]. This is followed by risk taking which is considered a positive attribute for people in the organization. They are encouraged to take calculated risks with new ideas. Additionally, they emphasize exploration and experimentation for opportunities. Finally, employees in Malaysian Fintech organizations were given the independence to decide for themselves how to do their work. They also were given the freedom to communicate without interference [3].

As a strategic resource of the organizations, the results of this study were aligned with what [4] that identified EO as the multi-dimensions that confronting Malaysian Fintech organizations. As shown in the results of this study, the appropriate solution to the issues that arise in every business process depends on resources and the ability to act on those resources to deal with the issue of sustainability values in every entrepreneurial activity and achieve competitive advantage. Therefore, in the Fintech industry in Malaysia, it appears that proactiveness is the most important factor in the construction of entrepreneurial sustainability values.

Sustainable Entrepreneurship Values

In this paper, Sustainable Entrepreneurship Values (SEV) is defined as new approach to how Fintech organizations act towards the access of the values created from the environmental, socio-economic, and inclusively beneficial outcomes. SEV concerns issues that reduce environmental impacts. Most researchers recognise environmental sustainability as an approach to consolidate production manners towards meeting consumer awareness and orientation to perform in certain ethical practices [5, 6]. [7] states that sustainable entrepreneurs lead organizations in creating a corporate value system that tackles traditional sustainability practices with ways to solve environmental and social problems. Subsequently, [8] argue that ecological and environmental goals represent different practices and issues that are not necessarily related to profit generation alone, therefore, they claim that the solution to this problem lies in the practice of sustainability in the long-term stage.

Next, the second sub-construct is on social and economic values. social values are divided into two subdomains (internal and external). This approach is supported by numerous past studies [9]. The reason behind these differences is to help entrepreneurs better organize their SEV processes and plans as well as create values that promote social change in the business environment [10]. After all, for organizations to be able to promote social change, they first need to build a mechanism that promotes goals in this direction [7].

Therefore, this construction item focuses on providing employees with equal opportunities that will help them meet their individual needs as well as impact their quality of life [11]. Organizations should also commit to providing a sustainable and responsible innovation society [12] as well as working forward to improve the quality of life of the workforce, their families, the local community, the community, and the world in general as well as the next-generation [13].

Apart from that, economic values should be focus while keeping in mind the previous two dimensions [14]. Organizations should also identify the factors that foster entrepreneurial opportunities correspondingly with the various production regulations [15]. In conjunction with, they also must aim to maximize profits while also raising social expectations among their stakeholders [7]. For instance, Fintech promotes zakat and sadaqa activities to financially support underprivileged populations by generating money flow and offers Mudaraba and Murabaha concepts to enable start-ups and SMEs to either restore employment or initiate business [16].

Finally, the bottom 40 (B40) values which is represented by an emerging low-income consumer base home to 4 billion people in the world [17]. In Malaysia, the concept is known as "Bottom 40" market value. An understanding of the income distribution structure is critical to grasp the B40 market's value opportunity. The B40, M40, and T20 tiers represent the country's population (32.7 million), consisting of the Bottom 40%, Middle 40%, and Top 20% households respectively, with income thresholds potentially changing over time [18].

At the top tier, the T20 group represents wealthy or affluent customers with the highest income in the country. Most of them are business owners, top executives, and professionals that have a higher standard of living and access to luxury products and services. M40 at the middle refers to the middle-income consumers typically consists of semi-professionals, managers, and executives. They serve as a test-tube for next-generation technologies and products that enable more sustainable ways of life with higher standard of living compared to the B40 group [19].

Technology Adoption (TA)

Particular attention has been paid to the technology acceptance model (TAM) in the field of technology adoption (TA) research, which was established by Davis in 1989 [20, 21]. The term 'adoption' is employed synonymously with 'usage' and 'acceptance' in this research. Voluntariness to embrace or accept new technology is the definition of TA; thus, willingness is a crucial success factor in technology adoption [22].

TA may also be described as societal acceptance, intent to use, integration, and disposition toward the implementation of new technologies [21, 23]. Diverse scholars have put out the TAM [21] in an effort to forecast the adoption of particular new technologies through the evaluation of its usability and practicality. Nevertheless, the first TAM is not without its constraints, as it could overlook the fundamental assumptions that shape individuals' perspectives on contemporary technologies [21].

Perceived usefulness (PU) and perceived ease of use (PEOU) are deemed inadequate predictors of technology adoption, as stated in reference [24]. Additionally, there are two substantial aspects that warrant consideration: perceived danger and perceived trust. SEV might be estimated by a Fintech platform utilizing an extended TAM of perceived risk and trust. This factor significantly impacts the adoption of technology [23]. Indeed, prior international research has investigated the significance of perceived trust and risk as crucial determinants in the adoption of Fintech [21]. Conversely, a wider TAM may also influence the decision of leadership to use Fintech [25, 26]. From this standpoint, extended TAM might be deemed suitable for investigating the moderating influence of TA among Fintech businesses in Malaysia.

TA is defined as the organization's deliberately made decision to implement financial technology [21, 22, 23]. As a result, the objective of this study is to investigate the function of TA as a moderator between EO and SEV within the Fintech sector of Malaysia.

Conceptual Framework

Figure 1 illustrates the conceptual framework utilized to transform the previously mentioned relationship into the hypotheses of this research endeavor. The conceptual framework of this study comprises three constructs: EO, TA, and SEV. These structures concurrently function as the theoretical foundation of the research. The TA serves as the moderating variable in this research, whereas the EO represents the predictor variable. SEV is the outcome variable.

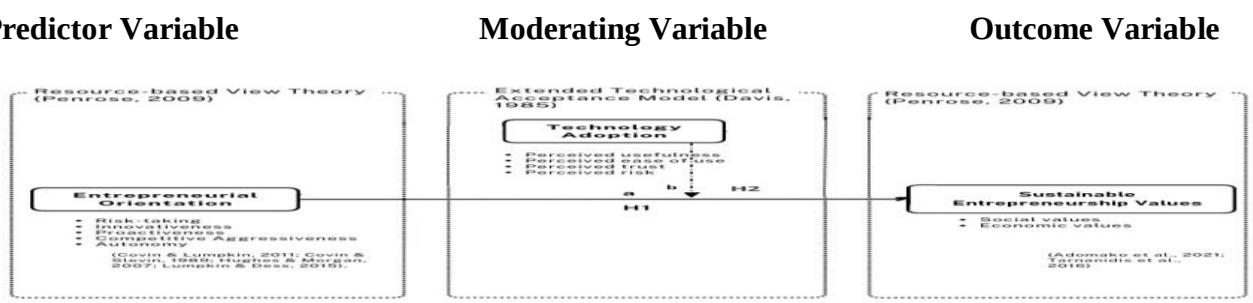

Fig. 1. The Conceptual Framework

In illustrating the extent to which both EO and SEV have good linkages between them, the relationship is indicated by the direction of the arrow (a) which tested H1. Arrow (b) indicates the TA act as moderator in the relationship between EO and SEV (which tested H2). Thus, the following highlights the hypothesis of this study:

H_1: there is a significant relationship between EO and SEV pursued.

H_2: there is a positive relationship between EO and SEV moderated by TA.

RESEARCH METHODOLOGY

The descriptive correlational research design is utilized in this article. In order to collect input regarding the correlation between variables, a survey paper is employed. A clarification of the phenomenon is achieved by analyzing descriptive data collected via surveys. The primary objective of a correlational analysis is to examine the mediating role that the dependent and independent variables may play [27]. The examination of possible associations between variables allows for the classification of relationships into distinct groups using the methodology and data [28].

To research the relationship between TA, Fintech sustainability, and EO, the population of Fintech enterprises in Malaysia is analyzed in this article. Thus, the organizational level serves as the unit of analysis. Fintech offerings and organizations that participated in this study included payment, e-wallet, prop-tech, digital bank, blockchain, cryptocurrency, remittance, AI/data, marketplace, crowdfunding, insurtech, wealthtec, Know Your Customer (KYC), and reg-tech.

This study involved the participation of 260 Malaysian Fintech organizations out of a total population of 294 Fintech organizations. Out of the 260 questionnaires that were issued, 126 (48.5 percent) were returned. However, 121 (46.5 percent) were considered usable and were analyzed thereafter.

FINDINGS

Partial Least Squares Structural Equation Modeling (PLS-SEM)

Reliability Analysis. A value greater than 0.7 was determined by the examination of Cronbach's Alpha for the IFL, TA, and SEV of Fintech organizations. All items utilized in the creation of the model were deemed reliable, according to the findings of this study [29]. The loadings of the indicators were distinct in the context of composite reliability, and it was ascertained that all values over 0.7 held true for each item in the final model (see Table 1). When the numbers above 0.7, it is possible to consider the dependability of the indicators as satisfactory [29].

Table 1. EOQ Measurement Model.

Construct	Items	Outer loading	α	CR	AVE
SEV	SEV1	0.881	0.954	0.963	0.787
	SEV10	0.954			
	SEV2	0.909			
	SEV3	0.943			
	SEV4	0.725			
	SEV5	0.787			

	SEV9	0.956			
EO	EO10	0.824	0.977	0.980	0.841
	EO11	0.864			
	EO2	0.950			
	EO3	0.956			
	EO4	0.933			
	EO6	0.952			
	EO7	0.910			
TA	TA2	0.918	0.979	0.983	0.904
	TA3	0.972			
	TA4	0.954			
	TA5	0.965			
	TA6	0.934			
	TA9	0.958			

Following this, the AVE values for all constructions, as shown in Table 1, surpass 0.5, which signifies that the convergent validity is adequate [29]. The findings indicated that a specific construct accounted for almost 50% of the variability observed in its indicators [30, 31, 32]. In addition, the AVE report and outer loadings attest that the construct measures have achieved a sufficient level of convergent validity and have satisfied the convergent validity criteria utilized in evaluating the measurement model presented in this research.

The most recent method for assessing the discriminant validity of constructs and ascertaining the true correlation between reliable latent variables is the Heterotrait-Monotrait Ratio (HTMT) [31]. Assessing the possibility of indiscriminate validity among concepts is seen as a challenging endeavor [33, 34]. In addition, the HTMT criterion preserved the discriminant validity of the constructs and advocated for the requirement that none of the confidence intervals for the constructs contain one (1) or unity [33, 34]. Table 2 provides confirmation that there is no evidence to suggest the absence of discriminant validity, as all constructs in this study satisfy the measuring criteria that are consistent with prior research, using a significance level of 0.90.

Table 2. FSEVQ Heterotrait-Monotrait Ratio (HTMT).

Construct	IFL	SEV	TA	TA*EO
EO				
SEV	0.639			
TA	0.723	0.330		
TA*EO	0.868	0.331	0.697	

Path Coefficients. As the path relationship between the model's constructs, path coefficients are anticipated in the structural model (see Table 3). A regression coefficient (β) was also utilized to analyse each path association. Entrepreneurial Orientation (EO) produced a substantial link, as indicated by the result (SEV, t-value = 9.921, p-value = 0.000). A further significant link was revealed by a weak association between technology adoption and SEV (TA→SEV; t-value = 1.735, p-value = 0.083) [30, 35]. The structural and bootstrapping models of this paper are illustrated in Figures 2 and 3, respectively.

Table 3. Mean, STDEV, T-Values, and P-Values.

Hy-pothe-ses	Path	ß	T Statistics	P Values	Result
H_1	EO→SEV	1.465	9.921	0.000	Supported

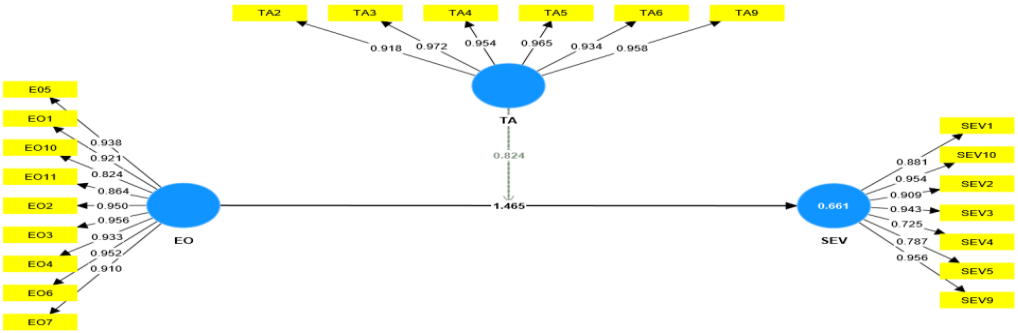

Fig. 2. The Structural Model

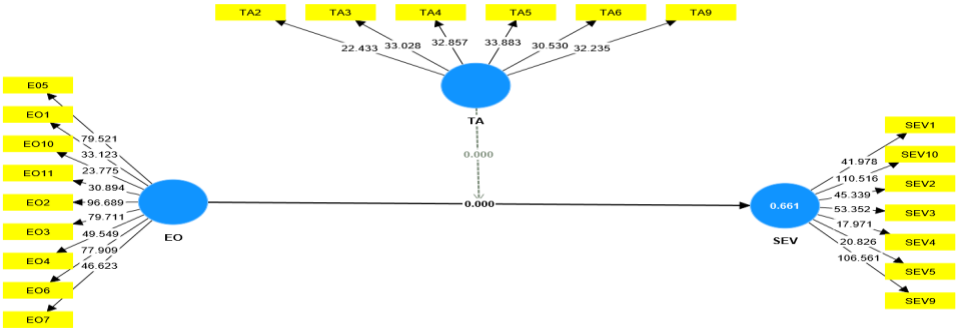

Fig. 3. The Bootstrapping Model.

Moderation Analysis

The methodology incorporates the magnitude of the moderating impact (β-value), the t-value, and the significance of the p-value [36, 37, 38]. The bootstrapping technique indicates that TA and SEV are negatively correlated (TA→SEV), t-value = 1.735, p = 0.083). The result further extends that TA does not have as significant moderation path between the relationship of EO and SEV (TA*IFL→SEV, t-value = 1.293, p-value = 0.196) as demonstrated in Table 4.

Table 4. Mean, STDEV, T-Values, and P-Values.

Hy-pothe-ses	Path	ß	T Statistics	P Values	Result
H_2	TA*EO→SEV	0.824	5.247	0.000	Support-ed

The simple slope analysis in Figure 4 figures out that TA does significantly moderate the relationship between EO and SEV. Additionally, there is a large f2 impact size with 0.443 value and significant p-value with 0.000 respectively. The graph of moderation indicated that the red line is 1 standard deviation below the mean, the blue line is the mean, and the green line is 1 standard deviation above the mean. The graph of moderation

shows that it is sloping bottom to top (upwards) from right to left. Thus, it can be interpreted that the positive relationship between EO and SEV is dampened by TA. This is because the mean green line is sloping upward and steeply positive that is strengthened by TA. Thus, it is confirmed that TA does moderate the relationship between EO and SEV.

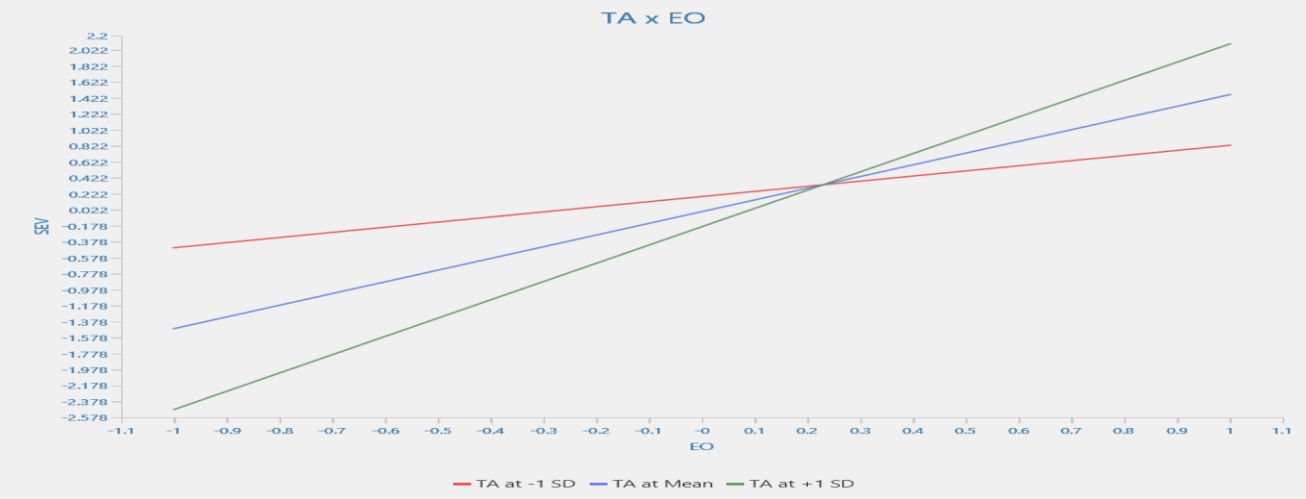

Fig. 4. The Bootstrapping Model.

TA does moderate the relationship between EO and SEV in Malaysian Fintech organizations. This paper has expanded the current flow of knowledge by utilizing SmartPLS-SEM 4.1.0.3 path modelling as an analysis tool to examine the relationship between EO and SEV with moderation role of TA in Malaysian Fintech organizations.

From the model of this paper, Fintech organizations should scrutinise the aisle of Islamic leadership to be able to developed an imperative SEV business model. They also need to strive to exchange the ability in an effective manner to collaborate based on technology relationship.

CONCLUSION

With the expansion in scale, intricacy, interdependence, and potential consolidation of Fintech operations, policymakers must intensify their efforts to ensure financial stability, protect data, and promote equitable competition between conventional and Islamic fintech solutions. Legal, regulatory, and supervisory frameworks—along with technological and financial infrastructures—must be reevaluated and fortified in order to foster the growth of a thriving fintech sector that adheres to the aims of shariah policy. A survey was self-administered to 294 organisations involved in payment, e-wallet, prop-tech, digital bank, blockchain, cryptocurrency, remittance, AI/data, marketplace, crowdfunding, insurtech, wealthtech, Know Your Customer (KYC), and reg-tech services offerings. About 121 responses have been analyzed into statistical analysis. The result indicated that designing an effective SEV model has ramifications from the viewpoints of the economy, society, and the environment. The results show that EO has a positive and significant relationship with SEV. TA, in addition, does moderate the relationship between EO and SEV. This paper contributed to developing the extended Technology Acceptance Model and Resource-Based Theory. The implications highlight how the SEV model shapes the functions of EO and TA, where these organizations are lauded for their services to solve financial inclusion issues and offer sustainable solutions to micro-enterprises and fringe borrowers from the informal sector. The SEV model explains the leadership concern for socio-economy, environment, and values by creating a game changer for Islamic digital transformation that enables micro and small enterprises to access faster socio-economic well-being and financial health.

ACKNOWLEDGEMENT

The Fundamental Research Grant Scheme from the Ministry of Higher Education Malaysia supported this research. The grant code is FRGS/1/2023/SS04/UMK/02/1.

REFERENCES

1. Hughes, M., & Morgan, R. E. (2007). Deconstructing the relationship between entrepreneurial orientation and business performance at the embryonic stage of firm growth. Industrial Marketing Management, 36(5), 651-661. https://doi.org/10.1016/j.indmarman.2006.04.003.
2. Dhliwayo, S. (2014). Entrepreneurship and competitive strategy: an integrative approach. Journal of Entrepreneurship, 23(1), 115-135. https://doi.org/10.1177/0971355713513356.
3. Al Shehab, N., & Hamdan, A. (2021). Artificial intelligence and women empowerment in Bahrain. In Applications of Artificial Intelligence in Business, Education and Healthcare (pp. 101-121). Springer. https://doi.org/10.1007/978-3-030-72080-3_6.
4. Lumpkin, G. T., & Dess, G. G. (2015). Entrepreneurial orientation. Wiley encyclopedia of management, 1-4. https://doi.org/10.1002/9781118785317.weom030030.
5. Cohen, D. A., Inagami, S., & Finch, B. (2008). The built environment and collective efficacy. Health and Place, 14(2), 198-208. https://doi.org/10.1016/j.healthplace.2007.06.001
6. Gallardo-Vázquez, D., & Isabel Sánchez-Hernández, M. (2014). Structural analysis of the strategic orientation to environmental protection in SMEs. BRQ Business Research Quarterly, 17(2), 115-128. https://doi.org/10.1016/j.brq.2013.12.001
7. Tarnanidis, T., Papathanasiou, J., & Subeniotis, D. (2016). Critical success factors in the TBL concept of sustainable entrepreneurship. International Journal of Decision Support Systems, 2(1-3), 38-53. https://doi.org/10.1504/IJDSS.2016.081734
8. Parrish, B. D., & Tilley, F. (2016). Sustainability entrepreneurship: charting a field in emergence. In Making Ecopreneurs (pp. 21-41). Routledge.
9. Richomme-Huet, K., & De Freyman, J. (2014). What sustainable entrepreneurship looks like: An exploratory study from a student perspective. In Social Entrepreneurship (pp. 155-177). Springer. https://doi.org/10.1007/978-3-319-01396-1_7
10. Majid, I. A., Latif, A., & Koe, W.-L. (2017). SMEs' intention towards SE. European Journal of Multidisciplinary Studies, 2(3), 24-32. https://doi.org/10.26417/ejms.v4i3.p24-32
11. Quazi, A. M., & O'Brien, D. (2000). An empirical test of a cross-national model of corporate social responsibility. Journal of Business Ethics, 25(1), 33-51. https://doi.org/10.1023/A:1006305111122
12. Belz, F. M., & Binder, J. K. (2017). Sustainable entrepreneurship: a convergent process model. Business Strategy and the Environment, 26(1), 1-17. https://doi.org/10.1002/bse.1887
13. Crals, E., & Vereeck, L. (2005). The affordability of sustainable entrepreneurship certification for SMEs. International Journal of Sustainable Development and World Ecology, 12(2), 173-183. https://doi.org/10.1080/13504500509469628
14. Soto-Acosta, P., Cismaru, D.-M., Vătămănescu, E.-M., & Ciochină, R. S. (2016). Sustainable entrepreneurship in SMEs: A business performance perspective. Sustainability, 8(4), 342. https://doi.org/10.3390/su8040342
15. Turker, D. (2009). Measuring corporate social responsibility: A scale development study. Journal of Business Ethics, 85(4), 411-427. https://doi.org/10.1007/s10551-008-9780-6
16. Rabbani, M. R., Ali, M. A. M., Rahiman, H. U., Atif, M., Zulfikar, Z., & Naseem, Y. (2021). The response of islamic financial service to the Covid-19 pandemic: The open social innovation of the financial system. Journal of Open Innovation: Technology, Market, and Complexity, 7(1), Article 85. https://doi.org/10.3390/JOITMC7010085
17. Prahalad, C., & Hart, S. L. (2000). Raising the bottom of the pyramid: Strategies for sustainable growth. http://www. ima. kth. se/utb/mj1501/pdf/prahalad. pdf, checked on, 15(05), 2012.
18. Department of Statistics Malaysia, DOSM. (2022). Department of statistics Malaysia press release report of household income and basic amenities survey 2022. Retrieved from https://www.dosm.gov.my/v1/index.php?r=column/pdfPrev&id=RUZ5REwveU1ra1hGL21JWVlPRmU2Zz09
19. Prahalad, C., & Hart, S. (2002). Strategy+ business. The Fortune at the Bottom of the Pyramid, 26, 2-14. https://doi.org/10.19177/reen.v1e220081-23
20. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS quarterly, 13(3), 319-340. https://doi.org/10.2307/249008

21. Jaziri, R., & Miralam, M. (2019). Modelling the crowdfunding technology adoption among novice entrepreneurs: an extended TAM model. Entrepreneurship and Sustainability Issues, 6(4), 2159-2179. https://doi.org/10.9770/jesi.2019.6.4(42)
22. Kamal, S. A., Shafiq, M., & Kakria, P. (2020). Investigating acceptance of telemedicine services through an extended technology acceptance model (TAM). Technology in Society, 60, 101212. https://doi.org/10.1016/j.techsoc.2019.101212
23. Fernando, E., Surjandy, Meyliana, & Touriano, D. (2018). Development and Validation of Instruments Adoption Fintech services in Indonesia (Perspective of Trust and Risk). 3rd International Conference on Sustainable Information Engineering and Technology, SIET 2018 – Proceedings, 283-287. https://doi.org/10.1109/SIET.2018.8693192
24. Zhong, Y. P., Oh, S., & Moon, H. C. (2021). Service transformation under industry 4.0: Investigating acceptance of facial recognition payment through an extended technology acceptance model. Technology in Society, 64, Article 101515. https://doi.org/10.1016/j.techsoc.2020.101515
25. Amoako-Gyampah, K. (2007). Perceived usefulness, user involvement and behavioral intention: an empirical study of ERP implementation. Computers in Human Behavior, 23(3), 1232-1248. https://doi.org/10.1016/j.chb.2004.12.002
26. Racherla, P., & Friske, W. (2012). Perceived 'usefulness' of online consumer reviews: An exploratory investigation across three services categories. Electronic Commerce Research and Applications, 11(6), 548-559. https://doi.org/10.1016/j.elerap.2012.06.003
27. Tan, L. Y. C. (2014). Correlational Study. In W. F. Thompson (Ed.), Music in the social and behavioral sciences: An encyclopedia (pp. 269-271). Thousand Oaks: SAGE Publications. http://hdl.handle.net/10497/18115
28. Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. Industrial Management and Data Systems, 117(3), 442-458. https://doi.org/10.1108/IMDS-04-2016-0130
29. Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long Range Planning, 46(1-2), 1-12. https://doi.org/10.1016/j.lrp.2013.01.001
30. Hair Jr, J. F., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. European Business Review, 26(2), 106-121. https://doi.org/10.1108/EBR-10-2013-0128
31. Ab Hamid, M., Sami, W., & Sidek, M. M. (2017). Discriminant validity assessment: Use of Fornell & Larcker Criterion versus HTMT criterion. Journal of Physics: Conference Series, 890(1), 012163. https://doi.org/10.1088/1742-6596/890/1/01216
32. Basbeth, F., Razik, M. A. B., & Ibrahim, M. A. H. (2018). Four Hours Basic PLS-SEM. First edition, iPRO Publication Ltd, Malaysia
33. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the academy of marketing science, 43, 115-135. https://doi.org/10.1007/s11747-014-0403-8
34. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24. https://doi.org/10.1108/EBR-11-2018-0203
35. Kline, R. B. (2023). Principles and Practice of Structural Equation Modeling. Guilford Publications. https://dl.icdst.org/pdfs/files4/befc0f8521c770249dd18726a917cf90.pdf
36. Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 3.0: An Updated Guide and Practical Guide to Statistical Analysis. Pearson Malaysia Sdn Bhd
37. Henseler, J., & Chin, W. W. (2010). A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling. Structural Equation Modeling, 17(1), 82-109. https://doi.org/10.1080/10705510903439003
38. Memon, M. A., Cheah, J. H., Ramayah, T., Ting, H., Chuah, F., & Cham, T. H. (2019). Moderation analysis: Issues and guidelines. Journal of Applied Structural Equation Modeling, 3(1), 1-11. https://doi.org/10.47263/JASEM.3(1)01 (2019).