

## Enhancing Entrepreneurial Intention through an Innovative Paradigm in Digital Entrepreneurship Education: Proposing A Conceptual Model

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### Abstract

For decades, entrepreneurs' contributions have utmost importance towards national economic growth and society. Their presence creates employment opportunities, thus prosper the socio-economic development in the country. Nevertheless, Global Entrepreneurship Monitor statistics of 2017, signifying otherwise, Malaysia's entrepreneurial intention rate (17.6%) is much lower compared to other Asian countries such as Indonesia, Thailand, South Korea and Vietnam. Thus, there is a need for an investigation to determine the determinant factors affecting entrepreneur intention among local graduates. Digital entrepreneurship education is a new approach and an important challenge for education to prepare students for technological change. Digital entrepreneurship is an important opportunity through which Malaysia is attempting to encourage economic growth and job creation. Therefore, this study intends to focus on the understanding of digital entrepreneurship education and other factors such as entrepreneurial environment and entrepreneurial orientation impact on intention through entrepreneurial readiness, social norms and perceived behaviour control since the aim of Entrepreneurship Action Plan-Higher Education Institution 2021-2025 is to produce entrepreneurial graduates and sustainable, competitive graduate entrepreneurs.

**Keywords:** Entrepreneurial Intention, Digital Entrepreneurship Education, Entrepreneurial Environment, Entrepreneurial Orientation

## Introduction

Scholars worldwide have recognised that entrepreneurship is a crucial factor in the country's economic development. It is undeniable contributions to GDP growth, increment in investment and generating employment opportunities. Entrepreneurship also enables innovative development by providing economic opportunities to all social sectors, particularly to marginalised communities and less fortunate individuals in the labour market (National Entrepreneurship Policy, 2030, 2020). Therefore, Malaysia National Entrepreneurship Policy 2030 aims to increase the number of Malaysian entrepreneurs of high-quality, viable, resilient, competitive and global mind setter and make entrepreneurship a preferred career choice (NEP 2030). Nevertheless, there are some challenges and issues faced. First, current statistics relating to entrepreneurship growth, such as Malaysia's entrepreneurial intentions, suggest otherwise. For the last decade, the entrepreneurial intentions (percentage of 18-64 age group population who have entrepreneurial intentions) were already fluctuations trend of low rates with an isolated case of a dramatic peak in 2017 (17.6%) (Refer Figure 1.1) (Global Entrepreneurship Monitor Website).

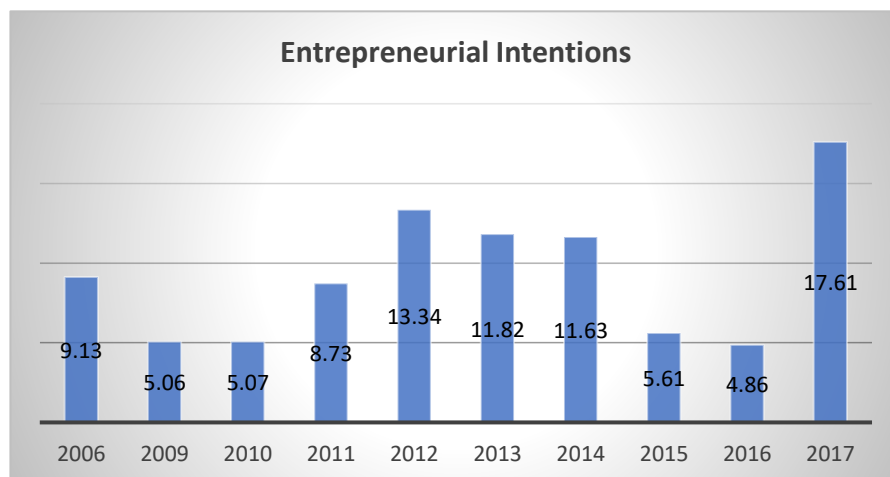


Figure 1.1: Entrepreneurial Intentions

Source: Global Entrepreneurship Monitor (2020)

Second, while the world is painfully watching the extreme implication of COVID-19 hitting hard on the business survivability and sustainability, the medium and small scales, particularly the entrepreneurial intention rate, may not be that promising. Within the ten years of 2006 to 2017, Malaysia's established business ownership in its population showed an inconsistently low trend that hardly hit 10 per cent. Another interesting observation on the entrepreneurial scenario in 2017 is that while the entrepreneurial intentions rate showed a sudden jump to almost 18 per cent, the established business ownership showed a dropped rate to the lowest point (3.8%) in the decade (refer to Figure 1.2).

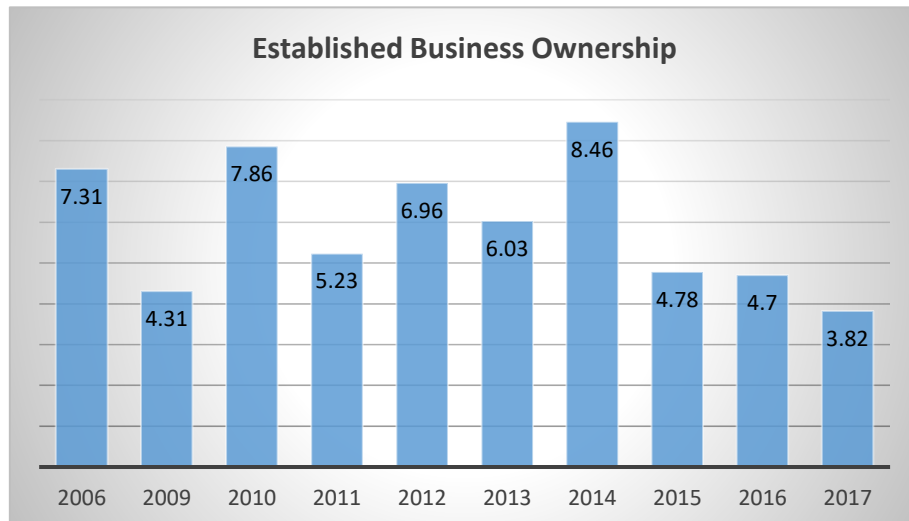


Figure 1.2: Established Business Ownership

Source: Global Entrepreneurship Monitor (2020)

Third, the recent rising trend of unemployed graduates' triggers nation concern. With the projected 300,000 graduates completing their education, the Minister predicted 75,000 (25%) of them would face disrupted work prospects for six months (Malay Mail, 2020). This figure added to 41,161 unemployed graduates (~13% total graduates) of 2019 that makeup 116,161 unemployed graduates in total for 2020 statistics. This is supported from prior report from DOSM (2020) point out that the number of unemployed people is still there in the past ten years, with fluctuating numbers expected this year 2020. The unemployment rate spiked to 5.0 per cent as the unemployed, the highest since 2010 (refer to Figure 1.3) (Al-Suraihi et al., 2020).

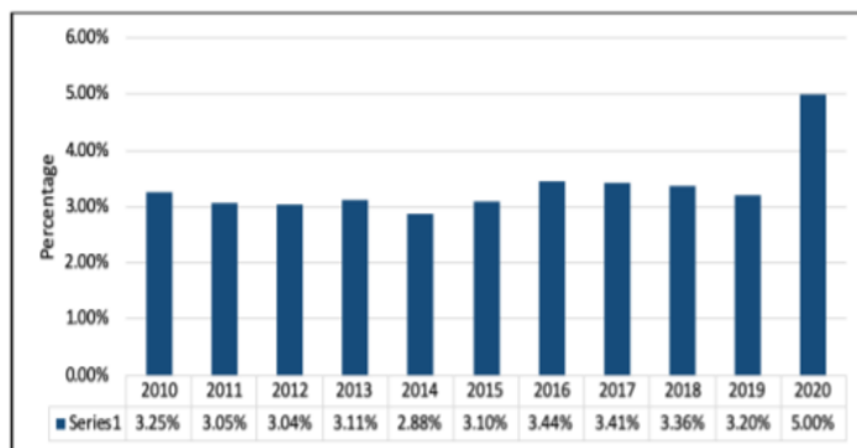


Figure 1.3: The unemployment rate in Malaysia from 2010-2020

Source: DOSM (2020) as cited in Al-Suraihi et al (2020)

Fourth, Entrepreneurship Action Plan-Higher Education Institution 2021-2025 revealed some challenges in transforming the country into an entrepreneurial nation. Among issues and challenges highlighted, two of them are; 1) some students are reluctant to pursue entrepreneurship as a career and 2) the entrepreneurship curriculum needs to be re-designed

further. Therefore, this study will be conducted among undergraduates in public universities. The reason is based on Entrepreneurship Action Plan-Higher Education Institution 2021-2025; since the goal of entrepreneurship education in Malaysia is to produce entrepreneurial graduates as sustainable, competitive graduate entrepreneurs. Entrepreneurial graduates are graduates who have an entrepreneurial mindset, and hence all the attributes of entrepreneurs encourage 'job creators' rather than just preparing 'job seekers'.

Based on the challenge and issue discussed above, there is a need to study entrepreneurial intention and digital entrepreneurship education. In the context of higher education in Malaysia, research on entrepreneurial intention is immensely important (Al-Suraihi et al., 2020). Part of the reason for this is due to the relatively low level of entrepreneurial aspirations among students in Malaysian universities (Abbas, 2015). According to Zainal and Yong (2020), digital entrepreneurship curriculum has been incorporated into current entrepreneurship courses at Malaysian higher education institutions since 2016. This integration was due to the rapid growth of digital technologies, such as social media and websites, which have changed the job market and the business environment. In line with Industrial Revolution 4.0, digital entrepreneurship is seen as one of the emerging topics in Malaysian education (Zainal and Yong, 2020). Paray and Kumar (2019) claimed that TPB is the most used model for understanding the connection between education and intention, explaining that an individual's future behaviour is the outcome of their intentions. Readiness, subjective norms, and perceived behavioural control are three cognitive antecedents that influence the intention to perform any task. Therefore, there is a need for this research to determine the factors that affect the intention to become an entrepreneur. This research aims to develop a new comprehensive conceptual model through the Theory of Planned Behaviour (TPB) model by adding three crucial constructs for entrepreneur intention study (digital entrepreneurship education, entrepreneurial environment, and entrepreneurial orientation) that is missing in the previous TPB model. The expected new finding of this proposal will provide insightful information about several aspects that would help policymakers plan the curriculum and program that will increase graduates' intention to become an entrepreneur.

## **Literature Review**

### **Plan Behavior Theory**

Theory of Planned Behavior is often used in the literatures for analysing intentions toward entrepreneurship including Malaysia. Social-psychological theories consider intention as the best predictor of actual individual behaviour. In line with Hsu et al (2019), entrepreneur intention is defined as individuals' willingness to perform entrepreneurial behaviour, engage in entrepreneurial action, be self-employed, or establish new business. There are three preceding variables in TPB before the formation of intention and accompanied by actions. The three variables stated are attitude toward action (readiness), subjective norms, and perceived behavioural control. Based on this theory, attitude toward action is defined as the perception of self-desirability to perform a behaviour. This attitude depends on expectation and belief about the personal effect resulted from the behavior. Ajzen (1991) explained that the individual evaluates and felt satisfied or unsatisfied to perform a certain behaviour. Second, subjective norms refer to the individual belief of close friends' views on the behaviour they wish to engage in. These opinions include the family's view of their intention, such as becoming a lawyer, doctor, or entrepreneur. This rule can contribute to their motivation to achieve what they aspire to. Lastly, perceived behavioural control. Perceived behavioural

control has overlapping views with Bandura (1986) concerning the perceived self-efficacy is the individual evaluation of his ability to act. Bandura (1986) specified that self-efficacy influences self-efficacy, including "enactive mastery", hands-on experience, and learning through imagination and psychology. Ajzen (1991) described that perceived behavioural control could consistently predict individual behaviour to achieve a specific goal. According to Dickson and Weaver (2008), the higher the individual perceived control the higher the perception towards opportunity. Understanding an individual's intention towards entrepreneurship is important in developing many entrepreneurs because entrepreneurs are made, not born (Mellor et al., 2009). Individuals will embark on entrepreneurship only when they demonstrate a sufficient level of intention towards entrepreneurship. Furthermore, it is worth studying entrepreneurial intention because it is a reliable predictor of entrepreneurial behaviour and measuring actual entrepreneurial behaviour is difficult (Li and Wu, 2019).

### **Digital Entrepreneurship Education**

The Ministry of Higher Education of Malaysia recognises the importance of entrepreneurship to the promotion of the economy, so it has taken the initiative to make all students in the country's public and private universities and technical and vocational education and training (TVET) must accept entrepreneurship subjects. Entrepreneurship education is one of the knowledge transfer processes for creating entrepreneurs (Permatasari and Anggadwita, 2019). According to Zainal and Yong (2020), the rise of emerging technology has altered the work market and the business landscape in general. As a result, it's crucial to recognise the new opportunities it brings, especially in the field of entrepreneurship education since it is important for educators to prepare their students with technological change (Zainal and Yong, 2020; Permatasari and Anggadwita, 2019). Moreover, the establishment of technology-based entrepreneurship education courses is extremely important because technology provides students with more opportunities to connect with peers and entrepreneurial educators (Permatasari and Anggadwita, 2019). According to Hull et al (2007, p. 293), digital entrepreneurship is defined as "a subcategory of entrepreneurship in which some or all of what would be physical in a traditional organisation has been digitised". This indicates that digital entrepreneurship education is a subcategory of entrepreneurship education that emphasises the use of digital technology while imparting entrepreneurial knowledge and skills (Zainal and Yong, 2020). While there is much interest in digital entrepreneurship, thus far, has not been enough research on this concept (Zainal and Yong, 2020; Yaghoubi et al., 2017). Few studies have focused on the intersection of digital entrepreneurship and education. Furthermore, there is a paucity of studies on digital entrepreneurship education. A study undertaken by Tiwari et al (2017) notes that there is a positive relationship between entrepreneurship education and entrepreneur intention. Therefore, it is essential to study digital entrepreneurship education to enhance entrepreneurial intention among undergraduates.

### **Entrepreneurial Environment**

The idea of including an entrepreneurial environment in the search for intention is not new (Al-Suraihi et al., 2020). Despite that, research on the entrepreneurial environment is ever popular until now (Bullough et al, 2021; Essel et al., 2020; Qazi et al., 2020). In the late 1980s, Bird (2015) concluded that with the individual change, social, political, and economic change creates a context for entrepreneurship. This can be proved in the study conducted by Davidsson (2015) presents a model of the entrepreneurial process and explains that the process should correspond to the individual's characteristics, the opportunity and the

environment. Entrepreneurship cannot be fully understood without reference to the socio-cultural and institutional context in which it appears and develops (Kallas, 2019) One of the schools of thought in entrepreneurship studies focuses on environmental conditions as a factor influencing the desire to embark on an adventure. It is believed that entrepreneurship is a process that encompasses social, cultural and economic contexts (Astuti and Martdianty, 2012). The environment in which the potential entrepreneur is found influences the decision-making process when starting a new company.

According to Al-Suraihi et al (2020), entrepreneurial orientation (EO) comes from Miller (1983), consisting of three dimensions: innovation, proactivity and risk-taking. It was then further popularised by Covin and Slevin (1989) in their model of the Entrepreneurial Strategic Attitude (ESP). Lumpkin and Dess (1996) later refined entrepreneurial orientation to a five-dimension model, which incorporates autonomy, innovation, risk-taking, proactivity, and competitive aggressiveness. Therefore, the key dimensions that characterise entrepreneurial orientation are:

- Willingness to innovative
- Proactive behaviour regarding marketplace opportunities
- Risk-taking
- The propensity to act autonomously
- The tendency to be aggressive toward competitors

In recent years, researchers have suggested that entrepreneurial orientation may also be considered an individual-level construct (Robinson and Stubrud, 2014). Such suggestions have given researchers a new level and new room to examine entrepreneurial orientation from the individual perspective. Additional studies that examined individual entrepreneurial orientation trends agreed that individual entrepreneurial orientation is a multidimensional construct and contain similar elements to firm-level entrepreneurial orientations (Koe, 2016).

### **Developing New Conceptual Framework**

The conceptual framework is created to structure the theoretical framework and establish the research problem. Figure 1.4 depicts the proposed conceptual framework namely Digital Entrepreneurship Education Entrepreneurial Intention (DEEEI) model specifying the relationship between selected independent variables and the dependent variable. This paper is to investigate the impact of Digital Entrepreneurship Education, entrepreneurial environment, entrepreneurial orientation, entrepreneurial readiness, subjective norm and perceived behaviour control on intention to become entrepreneur.

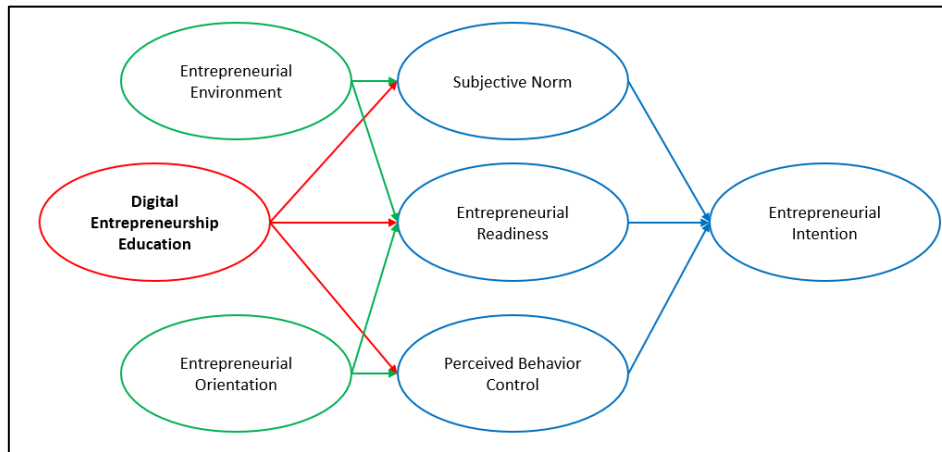


Figure 1.4: Conceptual Framework of DEEEI Model

### Conclusion

Previous research on entrepreneurship intention is primarily being studied along with theory planned behaviour in a variety of ways (Paray and Kumar, 2020) and it has emerged as an essential research paradigm (Paray and Kumar, 2020). Intention is proven to be the best predictors of an individual's planned behaviour, majorly when behaviour is hard to observe (Paray and Kumar, 2020). This study is to propose a new model by adding three important constructs for entrepreneurial intention study (digital entrepreneurship education, entrepreneurial environment and entrepreneurial orientation) that were missing in the theory planned behaviour model. Since this paper is just a research project proposal, the following step is to execute Exploratory Factor Analysis (EFA) using pilot data and Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) using the data collected from fieldwork. This analysis is crucial to confirm the relationship among the constructs.

**References**

- Abbas, L. N. (2015). Entrepreneurial intention among Malaysian engineering graduates: Male versus female. *Journal of Technical Education and Training*, 7(2): 54-59.
- Ajzen, I. (1987). Attitude, traits, and actions: Dispositional prediction of behavior in social psychology. *Advances in Experimental Social Psychology* 20:1-63.
- Ajzen, I. (1991). The theory of planned behavior, *Organizational Behavior and Human Decision Processes*, Volume 50, Issue 2, December 1991, p. 179-211.
- Al-Suraihi, A. H. A., Ab Wahab, N., & Al-Suraihi, W. A. (2020). The Effect of Entrepreneurship Orientation on Entrepreneurial Intention among Undergraduate Students in Malaysia. *Asian Journal of Entrepreneurship*, 1(3), 14-25.
- Astuti, R. D., & Martdianty, F. (2012). Students' entrepreneurial intentions by using theory of planned behavior: The case in Indonesia. *The South East Asian Journal of Management*, 6(2): 100-112.
- Bandura, A. (1986). *Social Foundation of Thought and Action: A Sociocognitive View*, Englewood Cliffs, NJ: Prentice Hall.
- Bird, B. (2015). Entrepreneurial intentions research: A review and outlook. *International Review of Entrepreneurship*, 13(3), 143-168.
- Bullough, A., Guelich, U., Manolova, T. S., & Schjoedt, L. (2021). Women's entrepreneurship and culture: gender role expectations and identities, societal culture, and the entrepreneurial environment. *Small Business Economics*, 1-12.
- Covin, J. G., & Slevin, D. P. (1989a). Small Firms in Hostile and Benign Environments. *Strategic Management Journal*, 10(1), 75-87.
- Davidsson, P. (2015). Entrepreneurial opportunities and the entrepreneurship nexus: A re-conceptualization. *Journal of business venturing*, 30(5), 674-695.
- Dickson, P. H., Solomon, G. T., & Weaver, K. M. (2008). Entrepreneurial selection and success: does education matter? *Journal of Small Business and Enterprise Development*, 15(2), 239-258. doi:10.1108/14626000810871655.
- Dickson, P. H., & Weaver, K. M. (2008). The role of the institutional environment in determining firm orientations towards entrepreneurial behavior. *International Entrepreneurship and Management Journal*, 4, 467-483.
- Essel, E. O., Min, W., Essel, C. H., & Dumor, K. (2020). Unemployment blues: analysis of the dual mediating effects of knowledge and perception on entrepreneurial intentions in the environment. *SAGE Open*, 10(3), 2158244020936218.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G\* Power 3.1: Tests for correlation and regression analyses. *Behavior research methods*, 41(4), 1149-1160.
- Gefen, D., Rigdon, E. E., & Straub, D. (2011). Editor's comments: an update and extension to SEM guidelines for administrative and social science research. *Mis Quarterly*, iii-xiv.
- Global Entrepreneurship Monitor statistics of 2017 (2020). Available at: <https://www.gemconsortium.org/report/gem-2017-2018-global-report>
- Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2014). *Multivariate Data Analysis* (7th ed.). United States: Pearson Education Limited.
- Hassan, H., Sade, A. B., & Rahman, M. S. (2020). Shaping entrepreneurial intention among youngsters in Malaysia. *Journal of Humanities and Applied Social Sciences*.
- Hsu, D. K., Burmeister-Lamp, K., Simmons, S. A., Foo, M. D., Hong, M. C., & Pipes, J. D. (2019). "I know I can, but I don't fit": Perceived fit, self-efficacy, and entrepreneurial intention. *Journal of Business Venturing*, 34(2), 311-326.



- Hull, C. E., Hung, Y. T. C., Hair, N., Perotti, V. & DeMartino, R. (2007). Taking advantage of digital opportunities: A typology of digital entrepreneurship. *International Journal of Networking and Virtual Organisations*, 4 (3), 290–303. <https://doi.org/10.1504/IJNVO.2007.015166>
- Kallas, E. (2019). Environment-readiness entrepreneurship intention model: The case of Estonians and the Russian-speaking minority in Estonia. *Sage Open*, 9(1): 1-15.
- Koe, W. L. (2016). The relationship between Individual Entrepreneurial Orientation (IEO) and entrepreneurial intention. *Journal of Global Entrepreneurship Research*, 6(1), 1-11.
- Li, L., & Wu, D. (2019). Entrepreneurial education and students' entrepreneurial intention: does team cooperation matter?. *Journal of Global Entrepreneurship Research*, 9(1), 1-13.
- Lumpkin, G. T., & Dess, G. G. (1996). The entrepreneurial clarifying it construct and linking orientation. *Academy of Management Review*, 21(1), 135–172.
- Malay Mail (2020), "Higher education minister foresees 75,000 fresh grads struggling to get jobs in Covid-19 era". Available at: <https://www.malaymail.com/news/malaysia/2020/09/28/higher-education-minister-foresees-75000-fresh-grads-struggling-to-get-jobs/1907493>
- Mellor, R., Coulton, G., Chick, A., Bifulco, A., Mellor, N. and Fisher, A. 2009. *Entrepreneurship for everyone*. London: Sage Publications.
- Miller, D. (1983). The Correlates of Entrepreneurship in Three Types of Firms. *Management Science*, 29(7), 770–791. <https://doi.org/10.1287/mnsc.29.7.770>.
- National Entrepreneurship Policy 2030 (2020). Available at: <https://www.medac.gov.my/admin/files/med/image/portal/NEP2030-Final.pdf>
- New Strait Times. (2019), "New policy to drive entrepreneurs", available at [www.nst.com.my/news/nation/2019/07/503403/new-policy-drive-entrepreneurs](http://www.nst.com.my/news/nation/2019/07/503403/new-policy-drive-entrepreneurs)
- Paray, Z. A., & Kumar, S. (2020). Does entrepreneurship education influence entrepreneurial intention among students in HEI's? *Journal of International Education in Business*.
- Permatasari, A., & Anggadwita, G. (2019). Digital Entrepreneurship Education in Emerging Countries: Opportunities and Challenges. *Opening Up Education for Inclusivity Across Digital Economies and Societies*, 156-169.
- Qazi, W., Qureshi, J. A., Raza, S. A., Khan, K. A., & Qureshi, M. A. (2020). Impact of personality traits and university green entrepreneurial support on students' green entrepreneurial intentions: the moderating role of environmental values. *Journal of Applied Research in Higher Education*.
- Robinson, S., & Stubberud, H. A. (2014). Elements of entrepreneurial orientation and their relationship to entrepreneurial intent. *Journal of Entrepreneurship Education*, 17(2), 1–12.
- Shariff, M., & Aniza, R. (2021). *Entrepreneurship Action Plan Higher Education Institutions 2021-2025*.
- Sutter, C., Bruton, G.D. and Chen, J. (2019), "Entrepreneurship as a solution to extreme poverty: a review and future research directions", *Journal of Business Venturing*, Vol. 34 No. 1, pp. 197-214.
- Tiwari, P., Bhat, A. K., & Tikoria, J. (2017). Relationship between entrepreneurship education and entrepreneurial intentions: A validation study. In *Entrepreneurship Education* (pp. 171-188). Springer, Singapore.
- Farani, Y. A., Karimi, S., & Motaghed, M. (2017). The role of entrepreneurial knowledge as a competence in shaping Iranian students' career intentions to start a new digital

business. *European Journal of Training and Development*, 41 (1), 83–100.  
<https://doi.org/10.1108/EJTD-07-2016-0054>

Zainal, N. T. A., & Yong, K. (2020). Examining the Digital Entrepreneurship Education Effectiveness on Soft Skills among Undergraduates. *Manu: Jurnal Pusat Penataran Ilmu Dan Bahasa*, 31(1), 139-151.