
Role of entrepreneurial passion and entrepreneurial self-efficacy in developing students' intention to become an entrepreneur: An evidence from Malaysia

Muhammad Azeem Ahmad

Assistant Professor Barani Institute of Sciences

azeem@baraniinstitute.edu.pk

ArshiaHashmi

Assistant Professor, The University of Faisalabad

arshia.hashmi@tuf.edu.pk

Imran Arshad

Assistant Professor, Salim Habib University

imran.arshad@shu.edu.pk

ChiklmLoh

Lecturer, SEGI University Kota Damansara, Malaysia

lohchikim@segi.edu.my

Abstract

Using social cognitive theory as underpinning theoretical framework, the study aims to examine the role of entrepreneurial passion in influencing entrepreneurial self-efficacy among students that further leads to their intention to become an entrepreneur. Data was collected from the business and economics students of three universities located across Malaysia through a cross-sectional design. The results revealed one's entrepreneurial passion positively effects students' intention to launch a new venture after graduation. Whereas entrepreneurial self-efficacy offers an intervening mechanism that links and translates the impact of entrepreneurial passion on students' entrepreneurial intention, the relationship that is also moderated by entrepreneurial education. The study thus addresses the call by past researchers on the missing link that unfold into to one's entrepreneurial intention. Findings thereby provides the possible future directions of how person and context factors could leverage individuals' entrepreneurial self-efficacy to facilitate the process to become an entrepreneur.

Key Words: Entrepreneurial passion, Entrepreneurial Self-efficacy, Entrepreneurial Education, Entrepreneurial Intention

Introduction

Entrepreneurship has been recognized as an important attribute and engine to a country's job creation, innovation and economic growth (Cardella, Hernández-Sánchez, & Sánchez-García, 2020). Public as well as private sectors depend heavily on entrepreneurial ventures for jobs creation (Neneh, 2019). Young generation, graduate students in particular, who want to be entrepreneurs and start a new venture is a vital group in the start-ups of entrepreneurial activities (Petuskiene & Glinskiene, 2011). For this purpose, entrepreneurial intention is regarded as a potential antecedent and a key precursor to predict one's decision to become an entrepreneur (Bueckmann-Diegoli & Gutiérrez, 2020; Fuller, Liu, Bajaba, Marler, & Pratt, 2018; Kautonen, Van Gelderen & Fink 2015), and also considered as an immediate and proximal predictor of entrepreneurial behavior (Bird & Jelinek, 1988). Consequently, understanding the development of entrepreneurial intention is inevitable (Krueger & Day, 2010).

Entrepreneurial intention represents the intent to establish a new venture as well as opt it as an alternate career to formal employment (Yi, 2020). According to Ladd, Hind and Lawrence (2019), entrepreneurial intention is a kind of intentional behavior that is perceived and undertaken by university students to formulate a new business after completion of their studies. In view of the significance, several antecedents have been identified to examine their potential influence on one's entrepreneurial intention, most of which generally investigated the pre-existing entrepreneurs and already established business (Grine, Fares, & Meguellati, 2015), while literally overlooked a large segment of potential entrepreneurs i.e. university students and graduates who are considered as prime resource of future entrepreneurs (Gallant, Majumdar, & Varadarajan, 2010). In this regard, assessment of the process and predictors leading to students' entrepreneurial intention is necessary (Teixeira & Davey, 2010), particularly in Malaysian higher education institutions, wherein there is still a potential room exists to explore more in relation to students' entrepreneurial intention and the underlying mechanisms (Bazkiaei et al., 2020; Yusoff & Kamil, 2015).

By considering the afore-mentioned aspects, one key factor to determine one's entrepreneurial intention and behavior is entrepreneurial passion (Murad et al., 2020; Neneh, 2019). Individuals' high degree of entrepreneurial passion to provide innovative business solutions to customers and society, identified as foundation of having entrepreneurial behavior and intentions (Cardon & Kirk, 2015). Previous literature has also indicated that passionate entrepreneurs are more prone and committed to recognize novel opportunities for start-ups, which is an integral component of entrepreneurial intention (Jarvis, 2016; Murad et al., 2020). Therefore, entrepreneurial passion has increasingly been acknowledged as a vital attribute in understanding of how entrepreneurial intention could be developed among individuals (Biraglia & Kadile, 2017).

In addition, another factor that potentially lead individuals to develop an entrepreneurial mindset is entrepreneurial education. Ingraining entrepreneurship into the education system recognized as one of the potential ways to develop a culture of entrepreneurial mindset (Bazkiaei et al., 2020). Educating students by introducing the concept of entrepreneurship, practices and approaches especially in higher education can influence their perception, attitudes and awareness towards the business opportunities than to think of the employment options (Ajmal&Kumar, 2020; Kubberod&Pettersen, 2017). Therefore, understanding the ways entrepreneurial education better facilitates student's intent to be an entrepreneur is still a matter of great concern for scholars and practitioners all over. The study thereby addresses this call and offer fresh insights by exploring the role of entrepreneurial education in developing a strong sense of entrepreneurial intention among students as potential entrepreneurs.

In brief, the literature on entrepreneurship still lacks the clarity in understanding of how and what kind of influential mechanism translates students' perception into intention of being an entrepreneur. Particularly examining the role of entrepreneurial passion as an antecedent, entrepreneurial education as a moderator and the intervening role of entrepreneurial alertness to translate the impact on students' entrepreneurial intention is still least attended and at its early stages of development. Therefore, it is necessary to establish a framework that offers a substantive theoretical and practical insights to address the underlying phenomenon.

Literature Review and Hypothesis Development

Effect of Entrepreneurial Passion on Entrepreneurial Intention

Passion as an important feature to trigger or drive human behavior is studied widely across disciplines and domains including entrepreneurship. It has been defined in several ways and share common themes such as intense positive feelings (Cardon, Wincent, Singh,& Drnovsek, 2009), and strong inclination (Vallerand, Houliort, & Forest, 2014) toward certain objective, goals or activity. Given that, entrepreneurial passion refers to individuals' "intense positive feelings experienced by engagement in entrepreneurial activities with roles that are meaningful and salient to the self-identity of the entrepreneur"(Cardon et al., 2009, p. 517). Cardon, Post and Forster(2017) argued that entrepreneurial passion motivates people to identify new opportunities and provide innovative solutions in the form of establishing a new venture. Entrepreneurial passion is "an attitude that encompasses a range of activities and thought processes..... it is not centered on a particular task or market but rather is a holistic sense of being within an individual" (Ratten & Miragaia, 2020, p. 62).

The empirical studies on the role of entrepreneurial passion and subsequent outcomes primarily focuses on how it impacts and leads to entrepreneurial consequences such as commitment and persistence (Fisher, Merlot, & Johnson, 2018; Stenholm & Renko, 2016), new venture growth (Drnovsek et al., 2016) and entrepreneurial intention (Murad et al., 2020). Entrepreneurial passion has been viewed as a dynamic construct that keeps on changing over time (Collewaert, Anseel, Crommelinck et al., 2016), and mainly relies on individuals' prior motives and efforts

(Gielnik, Spitzmuller, Schmitt et al., 2015). Because such passion is crucial in driving and determining various entrepreneurial outcomes (Ho & Pollack, 2014), it is thereby noted to be a critical factor for achieving high level of motivation and in predicting entrepreneurial intention (Hubner, Baum, & Frese, 2019).

For instance, Karimi (2020) while examining the direct effect of entrepreneurial passion on entrepreneurial intention among Iranian university students also showed that entrepreneurial passion helped student to develop a strong bond in relation to their intention to become an entrepreneur. Similarly, Cardon et al. (2017), also noted that entrepreneurial passion likely motivates individuals to seek for novel opportunities and develop an entrepreneurial intent to start their own venture. It has evidently been witnessed that students who feel motivated to develop passion are more likely to discover opportunities through entrepreneurial orientation and learning processes (Jabarullah & Hussain, 2019), thereby foster creativity, knowledge, entrepreneurial activity engagement and involvement among them (Sriyakul & Jermsittiparsert, 2019).

Taken an account of the past literature, the study thus hypothesizes that

H1: Entrepreneurial passion is positively related to students' entrepreneurial intention

Mediating role of entrepreneurial self-efficacy in the relationship between entrepreneurial passion and entrepreneurial intention

Self-efficacy is "an individual's belief in one's capability to organize and execute courses of action required to produce given attainments" (Bandura, 1997, p. 3). Drawing on the social cognitive theory (SCT), the individuals' behaviors and actions are highly contingent on their degree of self-efficacy (Bandura, 1986), individuals who found high at their self-efficacy level are more prone to engaged in challenging tasks and show higher resilience in face of setbacks (Bandura, 1997). Self-efficacy in this regard, "is an attribution, one of personal competence and control in a given situation" (Krueger & Brazeal, 1994, p. 94). In entrepreneurship, self-efficacy defines as a "person's belief in their ability to successfully launch an entrepreneurial venture" (McGee, Peterson, Mueller, & Sequeira, 2009, p. 965), and requires successful accomplishment of the tasks that are related to the starting and establishment of a new business activity (Hsu, Wiklund, & Cotton, 2017).

Launching a new business is often viewed as "an intentional act that involves repeated attempts to exercise control over the process in order to achieve the desired outcome" (Arenius & Minniti, 2005, p. 235). Thereby among the studied antecedents and constructs, entrepreneurial self-efficacy is known to be the major predictor for individuals to become an entrepreneur (Crespo, Belchior, & Costa, 2018; Newman, Herman, Schwarz, & Nielsen, 2018). Taken an account, entrepreneurial self-efficacy belief that one holds also found strongly associated with their entrepreneurial intention as it represents their planned and focused actions to become an

entrepreneur (Krueger & Brazeal, 1994). It offers strong likelihood that entrepreneurial self-efficacy affects individuals entrepreneurial intent that in turn leads to entrepreneurial actions (McGee et al., 2009). Therefore, entrepreneurial self-efficacy has been emerged as an important construct to examine its relationship with entrepreneurial intention and the subsequent outcomes (Hsu et al., 2017; Schmutzler, Andonova, & Diaz-Serrano, 2018). Empirical literature also shows strong association between entrepreneurial self-efficacy and entrepreneurial intention to startup or establish a new venture (Newman et al., 2018; Shahab, Chengang, Arbizu, & Haider, 2019).

Since, passionate entrepreneurs are committed toward the identification and exploitation of new business opportunities, self-efficacy in that case reinforces and reshapes the beliefs one hold regarding his or her ability to complete the project under consideration and achieve its objective (Nowiński, Haddoud, Lančarič, Egerová, & Czeglédi, 2019). Because, new venture causes individuals to rethink their abilities supported by a strong mindset (Bagheri & Yazdanpanah, 2017) thereby, a high level of passion also influences one's degree of efficacy and ability to become an entrepreneur (Murad et al., 2020). These actions may altogether cultivate one's strong sense to start or establish a new venture or become a successful entrepreneur. Therefore, based on the afore-mentioned rationale, the study proposes the following hypotheses

H2: Entrepreneurial self-efficacy mediates the relationship between entrepreneurial passion and students' entrepreneurial intention

Moderating role of entrepreneurial education

Entrepreneurial education in higher education has made substantial progress over time (Hindle, 2007), due to the growing demands and interest among scholars and students in entrepreneurship programs, courses and education (Kumar, 2020; Matlay, 2017; Wright et al., 2017). In this regard, education programs and courses try to encourage entrepreneurship and development of an entrepreneurial mindset to promote the establishment of new venture. In fact, several studies have demonstrated the impact of enterprise education and programs on entrepreneurship training with an aim to the create space for new ventures and business opportunities (Rae & Wang, 2015; Weber, 2012).

Keeping in view, the moderating role of entrepreneurial education is often studied in the context of learning such as via technical training courses and school education programs in higher education (Dickson & Weaver, 2008). Cho (1998) argued that entrepreneurial education is important as information, knowledge and skills about entrepreneurship inspire individuals' to start-up an innovative business venture. It provides impetus and motive to establish a business, as knowledge and competencies pertaining to enterprise formation inspires individuals to transform novel ideas into ventures (Shahab et al., 2019). From afore-stated arguments, it is evident that entrepreneurship education can develop confidence among individuals, the necessary capabilities and skills which are fundamental to launch a new venture. Since entrepreneurship education inspires one's impulse and confidence to establish a new business, thereby it changes one's

attitude, orientation and behavior toward entrepreneurship. Based on the assumptions, the study thus hypothesizes that

H3: Entrepreneurial education moderates the relationship between students' entrepreneurial passion and entrepreneurial self-efficacy

Methodology

The study used Business and Economics students enrolled in higher education institutions located across three Malaysian states (i.e. Penang, Kedah & Perlis). 257 students responded to the questionnaires. Whereby after preliminary screening of the dataset, 249 cases found usable for data analysis. Among the respondents, 52% were male and 48% were female students. Age group of 20 to 25 years comprises the largest proportion in the sample. Business students constitute about 76% of the group. While, the students studying in Penang shows the highest of proportion of about 43%.

Measures

Entrepreneurial passion was measured on a five-items scale developed by Cardon et al. (2013). The students were asked to rate their responses on a five-points Likert scale ranging from "1 = strongly disagree to 5 = strongly agree." The sample item is "I am motivated to figure out how to make existing products/services better."

Entrepreneurial self-efficacy was measured on a four-items scale conceptualized by Zhao et al. (2005). The students were asked to respond on a five-points Likert scale ranging from "1 = strongly disagree to 5 = strongly agree." The sample item is "I am convinced that I can successfully discover new business opportunities."

Entrepreneurial self-efficacy was measured on a six-items scale used by Puni, Anlesinya, & Korsorku, (2018). The students were asked to rate their responses on a five-points Likert scale ranging from "1 = strongly disagree to 5 = strongly agree." The sample item is "Entrepreneurial education increases my awareness of the different forms of businesses that I can set-up."

Entrepreneurial intention was measured on a five-items scale developed by Linan and Chen (2009). The students were asked to respond on a five-points Likert scale ranging from "1 = strongly disagree to 5 = strongly agree." The sample item is "I am ready to do anything to be an entrepreneur."

Results

Confirmatory factor analysis was carried out using AMOS 23 to assess the goodness of fit of the measurement model. For this purpose, we used three model fit indices (i.e., "Comparative fit index, CFI; Tucker-Lewis index, TLI: & Root Mean Square Error of Approximation, RMSEA")

to evaluate the validity of the proposed model. According to Hair et al. (2019), the fit values ≥ 0.95 for CFI and TLI, whereas less than 0.05 for RMSEA show a good fit model. Accordingly, the study's hypothesized model showed a better fit "(CFI = 0.96; TLI = 0.95; RMSEA = 0.05; $p < 0.000$)", which indicates that the study's research model has better aligned with the retrieved dataset (see Table 1).

Table 1 also illustrates the summary of descriptive statistics including reliability and zero-order correlation analysis of the working constructs. The mean values of all factors found above their relative midpoint ranging from $M = 3.40$ to $M = 3.56$, thus indicated that the business and economics students were generally in agreement with the statements inquired during the data collection. Moreover, the internal consistency of all scales that has been assessed using Cronbach's alpha values also fall above the threshold level of 0.70 (Nunnally, 1978), ranging from 0.82 to 0.91, thereby showing the scales used to measure the constructs are reliable. In addition, all inter-construct correlations were found significant and pointed in the hypothesized direction. Specifically, the correlation between entrepreneurial self-efficacy and students' entrepreneurial intention found stronger ($r = 0.48$) than the rest of proposed links.

Table 1: Descriptive and Reliability Statistics

	Variables	Mean	SD	1	2	3	4
1	Entrepreneurial Passion	3.44	0.71	(0.83)			
2	Entrepreneurial Self-efficacy	3.55	0.81	<i>0.43</i>	(0.82)		
3	Entrepreneurial Education	3.56	0.96	<i>0.25</i>	<i>0.29</i>	(0.91)	
4	Entrepreneurial Intention	3.40	0.85	<i>0.40</i>	<i>0.48</i>	<i>0.28</i>	(0.87)
	Fit Indices	CFA		TLI		RMSEA	
		0.96		0.95		0.05	

Correlation values in italics are significant at $P < 0.05$

Values in parenthesis are Cronbach's alpha for reliability assessment

Fit Indices: "CFA = Comparative fit index, TLI = Tucker Lewis Index, RMSEA = Root Mean Square Error of Approximation"

Path analysis was used to test our hypotheses H1 and H2. The hypotheses H1 concerns with entrepreneurial passion as an antecedent to students' entrepreneurial intention. Whereas H2 hypothesize to examine the intervening role of entrepreneurial self-efficacy in the relationship between entrepreneurial passion and entrepreneurial intention. The results indicated that entrepreneurial passion has a significant impact on students' intent to become an entrepreneur ($EF \leftarrow EP: \beta = 0.486; SE = 0.059; p < .01$) as shown in Table 3 and Figure 1. Thereby the result provided support for the corresponding hypothetical association.

Table 2: Path Analysis Results: Direct Paths

			Estimate	S.E.	C.R.	P
EF	\leftarrow	EP	.486	.059	8.262	***
EI	\leftarrow	EF	.396	.063	6.293	***

		Estimate	S.E.	C.R.	P
EI	<--- EP	.266	.067	3.992	***

***p < .001

“EP = Entrepreneurial Passion, EF = Entrepreneurial Self-efficacy, EI = Entrepreneurial Intention, EE = Entrepreneurial Education”

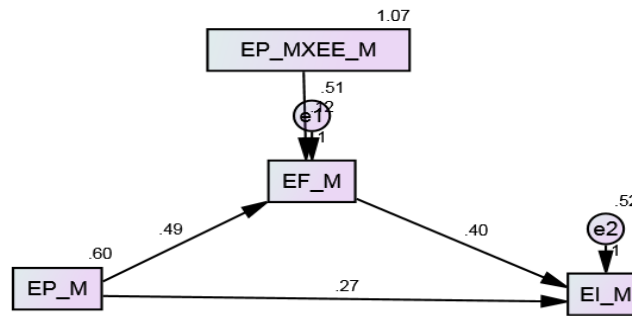


Figure 1: Path Model

Moreover, the H2 was poised to examine the intervening role of entrepreneurial self-efficacy in translating the impact of entrepreneurial passion to the entrepreneurial intent. As predicted, the result showed that the impact of entrepreneurial passion on entrepreneurial intent (WE <--- OT <--- SL: $\beta = 0.17$; $SE = 0.03$; $LLCI = 0.11$; $ULCI = 0.25$) has indirectly been influenced by the presence of entrepreneurial self-efficacy. Thus, providing support to our hypotheses H2 as well (see Table 3).

Table 3: Mediation Analysis Results

	Entrepreneurial Intention			
	Estimates	SE	Lower	Upper
Total effect of EP on EI	0.44	0.06	0.32	0.57
Direct Effect of EP on EI	0.27	0.06	0.14	0.40
Indirect Effect of EP on EI via EF	0.17	0.03	0.11	0.25

Note. BC = bias corrected (5,000 bootstrapping samples); CI = confidence interval

EP = Entrepreneurial Passion, EF = Entrepreneurial Self-efficacy, EI = Entrepreneurial Intention, EE = Entrepreneurial Education

H3 proposed the moderating role entrepreneurial education playson the relationship between entrepreneurial passion and entrepreneurial self-efficacy. The findings indicate thatentrepreneurial education further strengthened the positive associationbetween

entrepreneurial passion (EP) and entrepreneurial self-efficacy (EF) (EF <--- EP_x_EE: $\beta = 0.16$; $SE = 0.06$; $p < .01$), which is also presented in Figure 1 and Table 4.

Table 4: Moderation Result

B	SE	t	P
EP_M	.4366	.0613	7.1243 .0000
EE_M	.1638	.0480	3.4110 .0008
INTERACT	.1611	.0596	2.7023 .0074
P < .01			

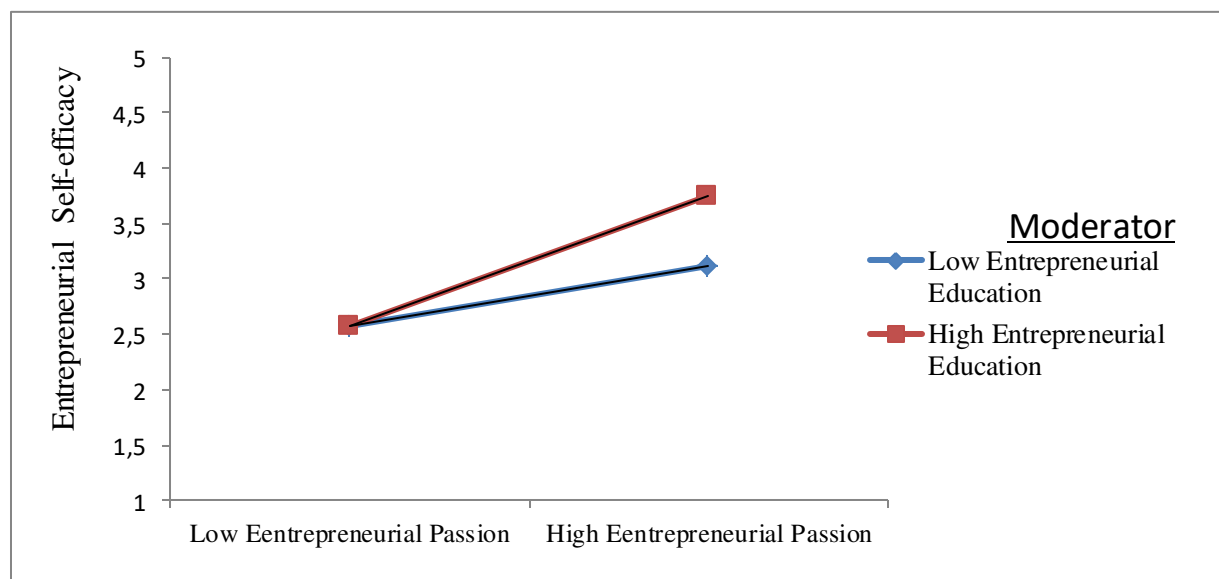


Figure 1: Moderation Plot

Discussion

This study aimed to examine the role of entrepreneurial passion and entrepreneurial self-efficacy on entrepreneurial intention, that in turn, moderated by the students' participation in entrepreneurial education. The results confirmed the significant and positive contribution of entrepreneurial passion, entrepreneurial self-efficacy and entrepreneurship education in stimulating students' intent to establish a new venture and to become an entrepreneur. Previous research already has delineated the positive role of entrepreneurial passion in influencing one's intention to launch a new business in near future (Campos, 2017; Neneh, 2019). Moreover, it has also been observed in prior research that entrepreneurial passion is a key precursor to determine individuals' level of entrepreneurial self-efficacy and the degree of their intent to be an entrepreneur (Cardon et al., 2013; Murad et al., 2020). It suggests that entrepreneurial passion boosts entrepreneurial intent among business and economics students in particular to become an entrepreneur.

Likewise, H2 concerns with the intervening role of entrepreneurial self-efficacy in the path between students' entrepreneurial passion and entrepreneurial intention, which is found in support of the view. The result thus found parallel to the findings reported by the past researchers, whereby they demonstrated the positive implications of entrepreneurial self-efficacy whereby it cultivates one's abilities and confidence to recognize business opportunities around and encourages them to establish them in an effective and successful manner (Kumar & Shukla, 2019; Murad et al., 2020). As self-efficacy represents one's belief about to achieve a specific objective under consideration and maximizes the outcomes, thereby it posits that individuals with high degree of efficacy and self-confidence are more inclined to accomplish certain tasks and objectives in hand. Therefore, the result also indicates that the business and economics students are more likely to establish a new venture, when their level of efficacy towards the new business opportunities is high. In other words, the impact of entrepreneurial passion on entrepreneurial intention would be translated effectively if it supported by the students' efficacy to be an entrepreneur.

Moreover, in H3, it was proposed that entrepreneurship education moderated the relationship between entrepreneurial passion and entrepreneurial self-efficacy which indicates as predicted that entrepreneurial education moderates and strengthen the corresponding relationship. The findings found similar to the studies wherein they indicted entrepreneurship is vital and effectively contributes to one's intent to start a new business (Matlay, 2017; Shahab et al., 2019; Wright et al., 2017). It implies that through entrepreneurial education, individuals acquire multi-faceted talent and skills necessary for the establishment of a new venture (Neck & Greene, 2011), that subsequently help students to achieve their entrepreneurial outcomes (Puni et al., 2018). It further implies that when students acquire skills in entrepreneurship, their confidence to recognize and succeed in developing entrepreneurial start-ups becomes high and thereby promote entrepreneurial intention and behaviors.

In brief, the study concludes that entrepreneurial passion positively affects students' intention to become an entrepreneur. It further concludes that students' extent of entrepreneurial self-efficacy provides an effective mechanism to transform students' passion into intent to launch a new business. Furthermore, it also confirms the role of entrepreneurial education as a moderator to influence the studied relationship. The study therefore in sum, contributes to the existing body of change literature by simultaneously examining the person (passion and efficacy) and context factor (education) to demonstrate the path and mechanism that is crucial to impact students' intent to become an entrepreneur.

Limitations and Future Research

Despite of the empirical contributions of the study, the findings of the study should be understood with certain limitations. First the findings are based on the cross-sectional research design and single source data that restrain our claim of causal relationship reported in this study.

In support of the view, more research is needed particularly via longitudinal or dyadic design to validate the study findings. Second, the findings of the study are only subject to the students of three Malaysian universities, therefore, there is also more research needed across other universities and cultures to confirm the generalizability of the model

References

- Ajmal, M. & Kumar, T. (2020). Using DIALANG in assessing foreign language proficiency: The interface between learning and assessment. *Asian ESP Journal*, 16 (2.2), 335 - 362.
- Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. *Small business economics*, 24(3), 233-247.
- Bagheri, A., & Yazdanpanah, J. (2017). Novice Entrepreneurs' entrepreneurial self-efficacy and passion for entrepreneurship. In *Iranian Entrepreneurship* (pp. 73-89). Springer, Cham.
- Bandura, A. (1997). Self-efficacy: The exercise of control.
- Bandura, A. (1986). Fearful expectations and avoidant actions as coeffects of perceived self-inefficacy.
- Bazkiaei, H. A., Heng, L. H., Khan, N. U., Saufi, R. B. A., & Kasim, R. S. R. (2020). Do entrepreneurial education and big-five personality traits predict entrepreneurial intention among universities students?. *Cogent business & management*, 7(1), 1801217.
- Bird, B., & Jelinek, M. (1989). The operation of entrepreneurial intentions. *Entrepreneurship theory and practice*, 13(2), 21-30.
- Biraglia, A., & Kadile, V. (2017). The role of entrepreneurial passion and creativity in developing entrepreneurial intentions: Insights from American homebrewers. *Journal of small business management*, 55(1), 170-188.
- Bueckmann-Diegoli, R., & Gutiérrez, H. S. M. (2020). The development of entrepreneurial alertness in undergraduate students. *Education+ Training*.
- Campos, H. M. (2017). Impact of entrepreneurial passion on entrepreneurial orientation with the mediating role of entrepreneurial alertness for technology-based firms in Mexico. *Journal of small business and enterprise development*.
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. (2009). The nature and experience of entrepreneurial passion. *Academy of management review*, 34(3), 511-532.
- Cardon, M. S., Gregoire, D. A., Stevens, C. E., & Patel, P. C. (2013). Measuring entrepreneurial passion: Conceptual foundations and scale validation. *Journal of business venturing*, 28(3), 373-396.
- Cardon, M. S., & Kirk, C. P. (2015). Entrepreneurial passion as mediator of the self-efficacy to persistence relationship. *Entrepreneurship theory and practice*, 39(5), 1027-1050.
- Cardon, M. S., Post, C., & Forster, W. R. (2017). Team entrepreneurial passion: Its emergence and influence in new venture teams. *Academy of management review*, 42(2), 283-305.
- Cardella, G. M., Hernández-Sánchez, B. R., & Sánchez-García, J. C. (2020). Women entrepreneurship: A systematic review to outline the boundaries of scientific literature. *Frontiers in psychology*, 11, 1557.

- Cho, B. (1998). Study of the effective entrepreneurship education method and its process. *Business education research*, 2(1), 27-47.
- Collewaert, V., Anseel, F., Crommelinck, M., De Beuckelaer, A., & Vermeire, J. (2016). When passion fades: Disentangling the temporal dynamics of entrepreneurial passion for founding. *Journal of management studies*, 53(6), 966-995.
- Crespo, N. F., Belchior, R., & Costa, E. B. (2018). Exploring individual differences in the relationship between entrepreneurial self-efficacy and intentions. *Journal of small business and enterprise development*, 27 (1), 1-30.
- 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(4), 467-483.
- Drnovsek, M., Cardon, M. S., & Patel, P. C. (2016). Direct and indirect effects of passion on growing technology ventures. *Strategic entrepreneurship journal*, 10(2), 194-213.
- Fisher, R., Merlot, E., & Johnson, L. W. (2018). The obsessive and harmonious nature of entrepreneurial passion. *International journal of entrepreneurial behavior & research*, 24 (1), 22-40.
- Fuller, B., Liu, Y., Bajaba, S., Marler, L. E., & Pratt, J. (2018). Examining how the personality, self-efficacy, and anticipatory cognitions of potential entrepreneurs shape their entrepreneurial intentions. *Personality and individual differences*, 125, 120-125.
- Gallant, M., Majumdar, S., & Varadarajan, D. (2010). Outlook of female students towards entrepreneurship. *Education, business and society: Contemporary middle eastern issues*, 3(3), 218-230.
- Gielnik, M. M., Spitzmuller, M., Schmitt, A., Klemann, D. K., & Frese, M. (2015). "I put in effort, therefore I am passionate": Investigating the path from effort to passion in entrepreneurship. *Academy of management journal*, 58(4), 1012-1031.
- Grine, F., Fares, D., & Meguellati, A. (2015). Islamic spirituality and entrepreneurship: A case study of women entrepreneurs in Malaysia. *The Journal of happiness & well-being*, 3(1), 41-56.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis: Pearson new international edition*: Pearson Higher Ed.
- Hindle, K. (2007). Teaching entrepreneurship at university: from the wrong building to the right philosophy. *Handbook of research in entrepreneurship education*, 1(1), 104-126.
- Ho, V. T., & Pollack, J. M. (2014). Passion isn't always a good thing: Examining entrepreneurs' network centrality and financial performance with a dualistic model of passion. *Journal of management studies*, 51(3), 433-459.
- Hsu, D. K., Wiklund, J., & Cotton, R. D. (2017). Success, failure, and entrepreneurial reentry: An experimental assessment of the veracity of self-efficacy and prospect theory. *Entrepreneurship theory and practice*, 41(1), 19-47.
- Hubner, S., Baum, M., & Frese, M. (2019). Contagion of entrepreneurial passion: Effects on employee outcomes. *Entrepreneurship theory and practice*, 44(6), 1112-1140.

- Jabarullah, N. H., & Hussain, H. I. (2019). The effectiveness of problem-based learning in technical and vocational education in Malaysia. *Education+ training*, 61(5), 552-567.
- Jarvis, L. C. (2016). Identification, intentions and entrepreneurial opportunities: an integrative process model. *International journal of entrepreneurial behavior & research*, 22(2), 182-198.
- Karimi, S. (2020). The role of entrepreneurial passion in the formation of students' entrepreneurial intentions. *Applied economics*, 52(3), 331-344.
- Kautonen, T., Van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship theory and practice*, 39(3), 655-674.
- Krueger Jr, N. F., & Day, M. (2010). Looking forward, looking backward: From entrepreneurial cognition to neuroentrepreneurship. In *Handbook of entrepreneurship research* (pp. 321-357). Springer, New York, NY.
- Krueger Jr, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship theory and practice*, 18(3), 91-104.
- Kubberød, E., & Pettersen, I. B. (2017). Exploring situated ambiguity in students' entrepreneurial learning. *Education+ training*, 59 (3), 265-279.
- Kumar, T. (2020). Assessing language need and proficiency of English graduates of Prince Sattam Bin Abdulaziz University for designing pre-placement training and workshops. *Asian ESP Journal*. 16(4), 153-168.
- Kumar, R., & Shukla, S. (2019). Creativity, proactive personality and entrepreneurial intentions: examining the mediating role of entrepreneurial self-efficacy. *Global business review*, 1-18.
- Ladd, T., Hind, P., & Lawrence, J. (2019). Entrepreneurial orientation, Waynesian self-efficacy for searching and marshaling, and intention across gender and region of origin. *Journal of small business & entrepreneurship*, 31(5), 391-411.
- Liñán, F., & Chen, Y. W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, 33(3), 593-617.
- Li, C., Murad, M., Shahzad, F., Khan, M. A. S., Ashraf, S. F., & Dogbe, C. S. K. (2020). Entrepreneurial passion to entrepreneurial behavior: Role of entrepreneurial alertness, entrepreneurial self-efficacy and proactive personality. *Frontiers in psychology*, 11:1611.
- Matlay, H. (2017). Entrepreneurial learning: new perspectives in research, education and practice. *Education+ training*, 59(7/8), 907-912
- McGee, J. E., Peterson, M., Mueller, S. L., & Sequeira, J. M. (2009). Entrepreneurial self-efficacy: Refining the measure. *Entrepreneurship theory and practice*, 33(4), 965-988.
- Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: known worlds and new frontiers. *Journal of small business management*, 49(1), 55-70.

- Neneh, B. N. (2019). From entrepreneurial alertness to entrepreneurial behavior: The role of trait competitiveness and proactive personality. *Personality and individual differences*, 138, 273-279.
- Newman, A., Herman, H. M., Schwarz, G., & Nielsen, I. (2018). The effects of employees' creative self-efficacy on innovative behavior: The role of entrepreneurial leadership. *Journal of business research*, 89, 1-9.
- Nowiński, W., Haddoud, M. Y., Lančarič, D., Egerová, D., & Czeglédi, C. (2019). The impact of entrepreneurship education, entrepreneurial self-efficacy and gender on entrepreneurial intentions of university students in the Visegrad countries. *Studies in higher education*, 44(2), 361-379.
- Nunnally, J. C. (1978). *Psychometric Theory*, 2nd ed.
- Petuskiene, E., & Glinskiene, R. (2011). Entrepreneurship as the basic element for the successful employment of benchmarking and business innovations. *Engineering economics*, 22(1), 69-77.
- Puni, A., Anlesinya, A., & Korsorku, P. D. A. (2018). Entrepreneurial education, self-efficacy and intentions in Sub-Saharan Africa. *African journal of economic and management studies*, 9 (4), 492-511
- Rae, D., & Wang, C. L. (Eds.). (2015). *Entrepreneurial learning: new perspectives in research, education and practice*. Routledge.
- Teixeira, A. A., & Davey, T. (2010). Attitudes of higher education students to new venture creation: A preliminary approach to the Portuguese case. *Industry and higher education*, 24(5), 323-341.
- Ratten, V., & Miragaia, D. (2020). Entrepreneurial passion amongst female athletes. *Journal of small business & entrepreneurship*, 32(1), 59-77.
- Renko, M., & Stenholm, P. (2016). Bricolage and the development of entrepreneurial identity (summary). *Frontiers of entrepreneurship research*, 36(4), 5.
- Schmutzler, J., Andonova, V., & Diaz-Serrano, L. (2019). How context shapes entrepreneurial self-efficacy as a driver of entrepreneurial intentions: A multilevel approach. *Entrepreneurship theory and practice*, 43(5), 880-920.
- Shahab, Y., Chengang, Y., Arbizu, A. D., & Haider, M. J. (2019). Entrepreneurial self-efficacy and intention: do entrepreneurial creativity and education matter?. *International journal of entrepreneurial behavior & research*, 25 (2), 259-280.
- Sriyakul, T., & Jermsittiparsert, K. (2019). The mediating role of entrepreneurial passion in the relationship between entrepreneur education and entrepreneurial intention among university students in Thailand. *International journal of innovation, creativity and change*, 6(10), 193-212.
- Vallerand, R. J., Houliort, N., & Forest, J. (2014). Passion for work: Determinants and outcomes. *Oxford handbook of work engagement, motivation, and self-determination theory*, New York: Oxford University Press.
- Weber, R. (2012). Evaluating entrepreneurship education. *Springer Science & Business Media*.

- Wright, M., Siegel, D. S., & Mustar, P. (2017). An emerging ecosystem for student start-ups. *The journal of technology transfer*, 42(4), 909-922.
- Yi, G. (2020). From green entrepreneurial intentions to green entrepreneurial behaviors: The role of university entrepreneurial support and external institutional support. *International entrepreneurship and management journal*, 1-17.
- Yusuf, B. N. M., & Kamil, S. (2015). Relationships of big five personality traits and locus of control on entrepreneurship intentions among students in higher learning institutions. *Global journal of research in social sciences*, 2(1), 65-73.
- Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of applied psychology*, 90(6), 1265-1272.