



# International Journal of Supply Chain Management

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## International Journal of Supply Chain Management

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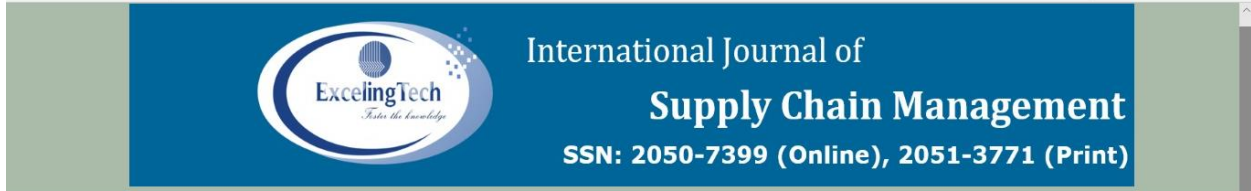
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## A Comparative Study of Malaysian and Indonesian Students' Entrepreneurial Characteristics and Career Choices Resulting from the Digital Economy

Nadiyah Abd Hamid, Florentina Kurniasari, Hakimah & Aisyah Mohamad Taib, Tengku Fairuz Tengku Embong, Nor Hasnah Mad Saheh, Norazah Md Azali, Nurshamimi Sabli

### Abstract

This paper aims to identify the effects of digital economy on students' entrepreneurial traits and entrepreneurship as career choices, comparatively between Malaysia and Indonesia. A sample of students was randomly selected from public universities and private universities in each country. Confirmatory Factor Analysis (CFA), which is the foundation of structural equation modeling (SEM), has been used. The results evidenced that the digital economy in both countries significantly influencing the entrepreneurial characteristics of the students. However, in Indonesia, the results are significant for all four dimensions of digital economy, while in Malaysia, only two dimensions are found to be significant namely social and cultural environment and the consumer and business adoption. Not only that, despite the entrepreneurial traits the students in Malaysia possessed, in contrast with Indonesian university students, it is discovered that they are reluctant to become entrepreneurs in future. Hence, both Malaysian and Indonesian governments need to keep on supporting the development of digital economy to foster the entrepreneurial traits among students. Plus, the lessons on entrepreneurship can be introduced as important subjects in universities in both countries, especially in Malaysia, to boost students' entrepreneurial interest.

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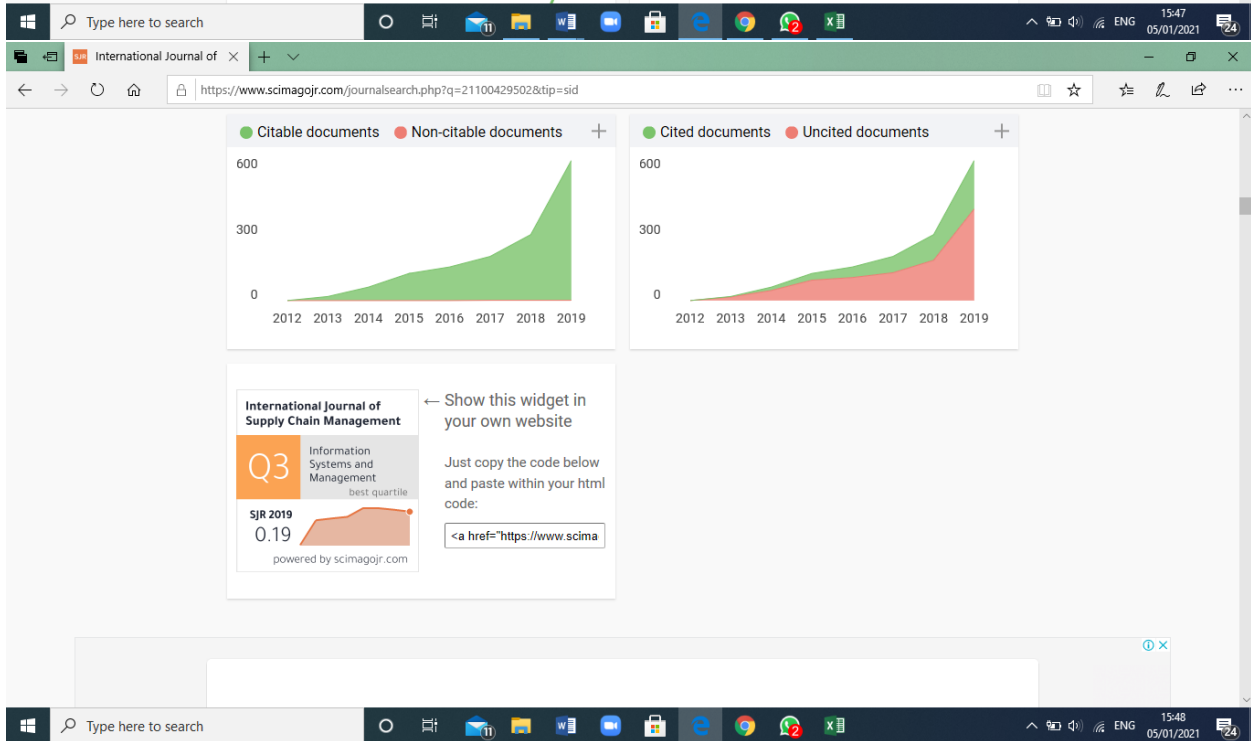
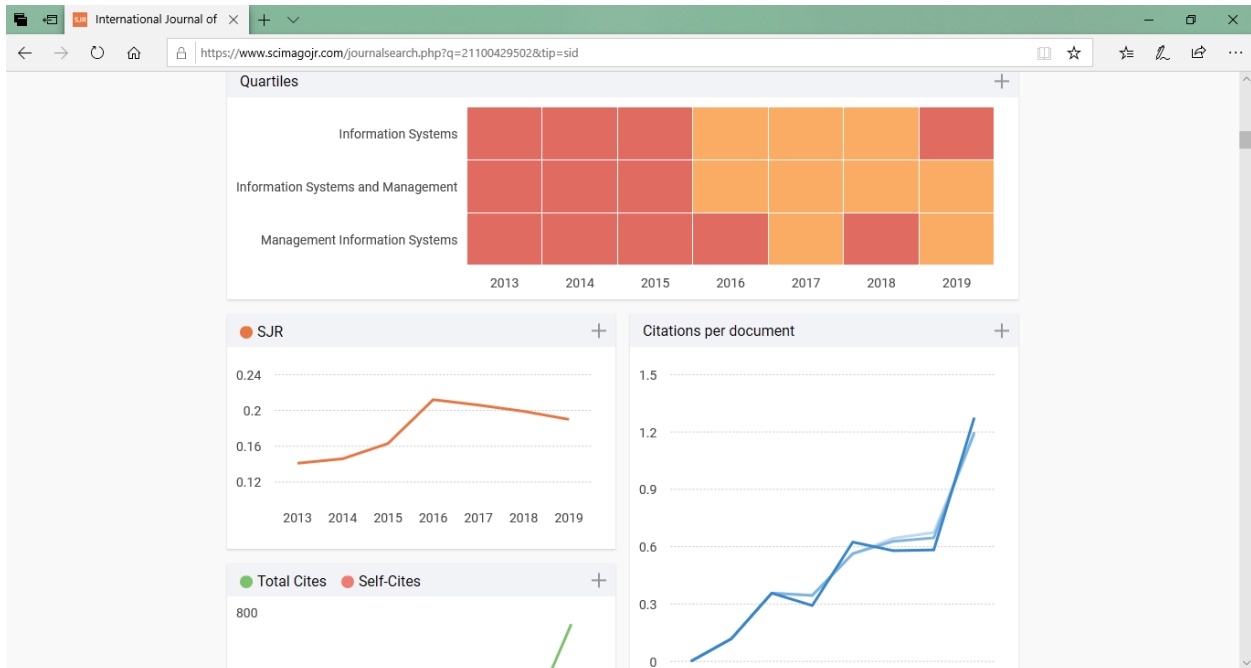
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# A Comparative Study of Malaysian and Indonesian Students' Entrepreneurial Characteristics and Career Choices Resulting from the Digital Economy

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**Abstract**— This paper aims to identify the effects of digital economy on students' entrepreneurial traits and entrepreneurship as career choices, comparatively between Malaysia and Indonesia. A sample of students was randomly selected from public universities and private universities in each country. Confirmatory Factor Analysis (CFA), which is the foundation of structural equation modeling (SEM), has been used. The results evidenced that the digital economy in both countries significantly influencing the entrepreneurial characteristics of the students. However, in Indonesia, the results are significant for all four dimensions of digital economy, while in Malaysia, only two dimensions are found to be significant namely social and cultural environment and the consumer and business adoption. Not only that, despite the entrepreneurial traits the students in Malaysia possessed, in contrast with Indonesian university students, it is discovered that they are reluctant to become entrepreneurs in future. Hence, both Malaysian and Indonesian governments need to keep on supporting the development of digital economy to foster the entrepreneurial traits among students. Plus, the lessons on entrepreneurship can be introduced as important subjects in universities in both countries, especially in Malaysia, to boost students' entrepreneurial interest.

**Keywords**— *Career Choices, Digital Economy, Entrepreneurial Characteristics, Indonesia, Malaysia*

## 1. Introduction

The rapid growth in Information and Communication Technologies (ICT) is fundamentally changing the structures of the economy globally with growing speed, especially by providing an ocean of information [1]. A digital economy can be considered as an economy based on the digitization of information and the respective information and communication infrastructure, while the

developments of the digital economy will have an elementary impact on economic systems and how economic values will be created [2].

The ICT infrastructure supported the development of business and this can be ascertained through the emergence of electronic commerce (e-commerce) to perform business transactions. Even though there is no universal accepted definition of e-commerce according to Ngai & Wat [3], Kalakota & Whinston [4] highlighted several valid definitions of e-commerce from different perspectives. For examples, from an online perspective, e-commerce provides the capability of buying and selling products and information on the internet and other online services, while from business process perspective, e-commerce could be defined as the application of technology toward the automation of business transactions and workflow [4].

Based on fact that time is extremely valuable, the importance of e-commerce keeps increasing for every business in all countries including in the two neighbouring nations, Malaysia and Indonesia, to improve their competitiveness since e-commerce would enable companies to connect with their trading partners for "just in time production" and "just in time delivery" [3]. In Malaysia, e-commerce's future seems to be bright [5]. However, sufficient consumer trust and confidence is a must, and this is supported by a study which discovered that the consumers' attitude towards online shopping is influenced by e-commerce experience [5,6]. In Indonesia, Kurnia [7] discovered a growth of e-commerce adoption. However, it is found that high cost of internet access in Indonesia and low internet penetration due to low transmission speed capacity [7].

Apart from that, entrepreneurship is very crucial for the growth of economy of every country, especially for developing countries including Malaysia and Indonesia. This is because entrepreneurship considered to be an important mechanism for economic development through employment, innovation and welfare effects [8]. Since entrepreneurs play vital role in the national economics, students which representing the younger generation, should be encouraged to make entrepreneurs as their occupations in future. From the occupational view, synonyms for entrepreneurs are business owners, proprietors, and self-employed [9].

The significance of entrepreneurship as the career choices among the students is recognised by the Malaysian government through the belief in entrepreneurship education and training which will create enormous business opportunities and equip graduates with innovative enterprise skills [10]. The Indonesian government also enforce the higher education system to introduce the entrepreneurship as part of their academic curriculums based on the expectation that plenty of the innovative idea generation and start-up ventures will be arising from the universities.

Therefore, the purpose of the current study is to identify the relationship between the digital economy towards the entrepreneurial characteristics of the university students and the career choices among them, comparatively between Malaysia and Indonesia. Since the digital economy consists of four respective dimensions i.e. connectivity and ICT infrastructure, business environment, social and cultural environment, and consumer and business adoption, the specific objectives of the study are to examine the influence of the four dimensions of digital economy on entrepreneurial characteristics of the university students, and to investigate the effect of the students' entrepreneurial characteristics into entrepreneurship as career choices.

As the importance of entrepreneurship to the economic development of countries could not be denied, the findings of this study are crucial for Malaysian and Indonesian government since government involvement is needed to formulate strategies and take essential initiatives to support the growth of ICT and e-commerce, especially to increase the interests of teenagers to become credible entrepreneurs in future that will yield handsome profits from businesses, which consequently contribute to the prosperity of the countries. As both Malaysia and Indonesia are Asian developing countries, plus both countries are facing fast growth in e-commerce, it is worthwhile comparing the results of these two countries.

The rest of the paper is organized as follows. Section 2 includes a discussion on literature review, while section 3

contains the research framework of the study. In section 4, the research methodology of this study will be included to explain on the way this research has been carried out. The results from the hypothetical tests in both nations will be presented in section 5 together with the discussions on the obtained results. In the later part of this paper, the conclusion of the study will be provided.

## 2. Literature Review

### 2.1 E-commerce in Malaysia and Indonesia

Businesses and government play important roles in the development of e-commerce in every country, including Malaysia. Interestingly, Malaysian small and medium-sized enterprises (SMEs) depend on government incentives, to provide adequate infrastructure for them to start doing business electronically [11]. In Indonesia, one of the initiatives taken by the government in supporting the growth of ICT and e-commerce include developing measures to support small and medium-sized enterprises (SMEs) involvement in ICT and e-commerce [7]. Rahayu & Day [12] evidenced that the determinant factors that influence Indonesian SMEs in adopting e-commerce are perceived benefits, technology readiness, owners' innovativeness, owners' IT ability and owners' IT experience.

Meanwhile, the two important factors for SMEs in Malaysia to adopt e-commerce are SME location, where SMEs need to be in a location with good public transportation services and efficient delivery methods, and the manager's experience of living abroad, to gain experience of buying and selling on the Internet [13]. With the growing number of online shoppers and sales volumes in Malaysia, the examples of top e-commerce websites in the Malaysian attractive e-commerce market are Lazada, 11street, Lelong.my, Shopee, and Zalora [14]. On the other hand, the awareness of Indonesia's people towards the internet is increasing and evidenced by a popular e-commerce sites named as Kaskus [15]. Originally, Kaskus is an online community forum for Indonesian people, but in its development the website becoming more popular since people can buy and sell anything they want without any charge [15]. Other than Kaskus, the examples of top e-commerce websites in Indonesia are Lazada, Traveloka, Zalora, and Rumah123.com [16].

### 2.2 Entrepreneurial Interests of Students

As entrepreneurship is an important career option for young generations, especially students, their interests to be entrepreneurs in the future need to be taken into consideration. A study in Asian countries, which include Indonesia, Japan, South Korea, Taiwan, and Thailand, revealed the underlying factors of students'

entrepreneurial intentions, whereby in the study, entrepreneurial intentions is defined as a process of information-searching used to achieve a new venture [17]. The demographic factors including lower age and male in gender, environmental factors including capital access, information access, and social network, and personality factors, specifically self-efficacy, are some of the determining factors of entrepreneurial intentions among those students [A7].

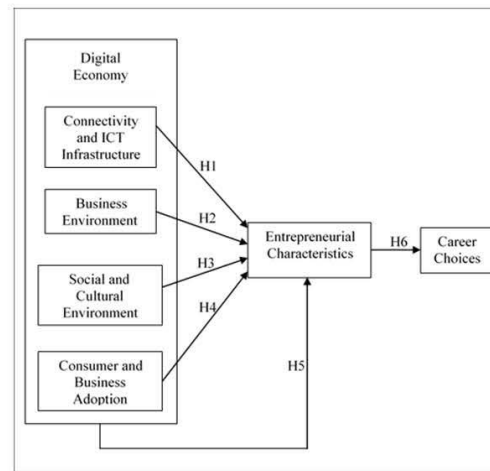
In Malaysia, it is unveiled that both educational support and relational support are vital in developing the entrepreneurial intentions of the students [18]. Educational support is important since universities play significant role to encourage the flow of creative ideas, essential entrepreneurial skills and adequate knowledge of entrepreneurship processes, which will create the interests of students towards entrepreneurship [18]. Meanwhile, relational support including support of friends, parents and other family members, for examples by providing financial, informational, physical and moral support, would likely give courage and confidence for students who may be willing to become an entrepreneur [18]. Another study in Malaysia brought out three significant factors that motivate students to become entrepreneurs, which were identified as the origin of the students, the presence of family members already involved in entrepreneurial activities, and educational background [19].

On the other hand, a study conducted by Kartika [20] which compared the level of entrepreneurial interests of Indonesian students and Taiwanese students, interestingly showed that students in Indonesia are more interested in being entrepreneurs in future compared to the Taiwanese students. The freedom and independence at work is the main motivation, while gender difference and education degree do not bring any significant impact to their level of entrepreneurial interests [20]. Another study in Indonesia revealed the factors impacting the students' entrepreneurial intentions by using theory of planned behaviour [21]. The students' attitudes toward entrepreneurial behaviour, specifically attitude toward achievement and challenge, brought significant impact towards the entrepreneurial intention of the students [21]. Not only that, the students' perceived behaviour control, which consists of self-efficacy and creativity, also found to be an influencing factor to the entrepreneurial intentions [21]. However, the findings of this study highlighted that rather than those internal factors, the entrepreneurial intentions among students affected most by the subjective norm factor, i.e. external environment or surrounding which include the support from family and friends [21].

### 3. Research Framework

Figure 1 illustrates the research framework suggesting the relationship between the four dimensions of digital economy towards entrepreneurial characteristics and entrepreneurial characteristics towards career choices.

Figure 1. Research Framework



Economist Intelligence Unit [22] highlighted in its report that, the digital economy could be classified into four respective dimensions for clearer understanding. The first dimension is connectivity and technology infrastructure, which can be used to evaluate the extent to which individuals can access the internet and mobile networks [22]. While the second dimension is the general business environment [22]. The strength of the economy, political stability, taxation, stability, competition policy, the labour market, and openness to trade and investment, are among the indicators selected by the Economist Intelligence Unit for the evaluation purpose [22].

In evaluating the next dimension, which is social and cultural environment, in order to be able to utilize internet services, education including the education infrastructure provided by the schools and government is a stipulation, together with technical skills indicated by familiarity with information technology (IT) applications, assessment of entrepreneurship, and the innovation levels [22]. The fourth dimension which is consumer and business adoption, the Economist Intelligence Unit [22] referred to the amount that businesses and consumers spend on accessing ICT services, the extent and range of internet features used by consumers, their online purchasing activity, and the use of online public services that have been made available by both consumer and business.

According to Zimmerer et al. [23], there are eight entrepreneurial traits essential for entrepreneurs. The first

characteristic is desire for responsibility, which means that entrepreneurs need to feel responsible for the business they start [23]. The next characteristic is preference for moderate risk as entrepreneurs are calculated risks takers [23]. Another trait for entrepreneurs is confidence in their ability to succeed since they must always be optimistic about their chance for success [23]. Desire for immediate feedback, which is also one of the entrepreneurs' characteristics, brought the idea that they are continuously looking for feedback on their ideas and business [23]. Apart from that, Zimmerer et al. [23] explained that entrepreneurs must have high level of energy, which means that entrepreneurs are more energetic than the average person. Meanwhile, another three characteristics entrepreneurs necessarily need to possess are future orientation, skill at organizing, and value achievement over money, which means that they need to be able to visualize business opportunities in the future, know how to gather the right team and resources, and care not only money, but also doing what seems impossible [23].

#### 4. Research Methodology

Malaysia and Indonesia are countries that are selected for this comparative study. A sample of students was randomly selected from public universities and private universities in each country. In Malaysia, from the 295 respondents, 152 students are from public universities while 143 students are from private universities. Whereas in Indonesia, 50 students from the 350 respondents are from national universities while 300 are from private universities. The questionnaire survey consisted of two sections, while the first section asking on the demographic profiles of the respondents such as type of university, age, and gender. The next section concentrated on the research objectives to identify the entrepreneurial characteristics and career choices of the students. The questions are answered on a 5-point likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Cronbach's alpha is used as a measure of the internal consistency reliability. The alpha coefficient is ranging from 0.00 to 1.00, and need to exceed 0.5 to show acceptable reliability [24]. Referring to this study, the questionnaire could be considered as reliable since the values of Cronbach's alpha are greater than 0.5 for each variable.

Confirmatory Factor Analysis (CFA), which is the foundation of structural equation modeling (SEM) according to Brown [25], has been used in this study to analyse the relationship between the latent variables included in the framework of the research. The significance degree of every coefficient that represents hypothesized causal relation must reach  $\alpha = 0.05$  and  $t\text{-value} \geq 1.96$  to show significant hypothetical

relationships. The accuracy of the statistical model is justified by using the Goodness of Fit (GOF), based on the discrepancy value and to be more accurate, the sample approximation need to be large [26]. The following table shows the results for GOF testing in this research:

**Table 1.** Design Summary for Goodness of Fit Testing Model

GOF Indicator	Estimated Value	Malaysia		Indonesia	
		Testing Result	Conclusion	Testing Result	Conclusion
<i>Absolute Fit Value</i>					
GFI	GFI > 0.90	0.690	Marginal Fit	0.90	Good Fit
RMSEA	RMSEA < 0.08	0.158	Marginal Fit	0.048	Good Fit
<i>Incremental Fit Value</i>					
NNFI	NNFI > 0.90	0.668	Marginal Fit	0.98	Good Fit
NFI	NFI > 0.90	0.728	Marginal Fit	0.97	Good Fit
AGFI	AGFI > 0.90	0.570	Marginal Fit	0.89	Marginal Fit
RFI	RFI > 0.90	0.660	Marginal Fit	0.96	Good Fit
IFI	IFI > 0.90	0.752	Marginal Fit	0.98	Good Fit
CFI	CFI > 0.90	0.750	Marginal Fit	0.98	Good Fit

In order to measure the strength of relationship between the variables, Pearson's correlation coefficient analysis is used. The value of the correlation coefficient is ranking from -1 to 1 [27]. The positive and negative signs of the correlation coefficient indicate the direction of the relationship. From the result of the analysis, all the items have weak positive relationship with each other since all the Pearson values are greater than 0.0 but below 0.5.

#### 5. Results and Discussions

The structural diagram in Figure 2, Figure 3, Figure 4, and Figure 5 shows the data analysis used to create the Structural Equation Model, i.e. Eq. (1), Eq. (2), Eq. (3), and Eq. (4), for Entrepreneurial Characteristics and Career Choices for both countries as follows:

Structural Equations (Malaysia)

$$\begin{aligned}
 EC &= 0.0103*ICT + 0.0370*BE + 0.0663*SCE \\
 &\quad (0.0332) \quad (0.0424) \quad (0.0319) \\
 &\quad 0.309 \quad 0.873 \quad 2.079 \\
 &+ 0.662*CBA, \text{ Errorvar.} = 0.527, R^2 = 0.473 \\
 &\quad (0.0493) \quad (0.032) \\
 &\quad 13.434 \quad 16.273
 \end{aligned} \tag{1}$$



$$\begin{aligned}
 CC &= 0.184*EC + 0.0369*ICT + 0.232*BE + 0.370*SCE \\
 &(0.102) \quad (0.128) \quad (0.143) \quad (0.0937) \\
 &1.794 \quad 0.289 \quad 1.623 \quad 3.951
 \end{aligned}$$

(2)

$$\begin{aligned}
 &- 0.00190*CBA, \text{Errorvar.} = 0.662, R^2 = 0.338 \\
 &(0.0761) \quad (0.136) \\
 &-0.0250 \quad 4.875
 \end{aligned}$$

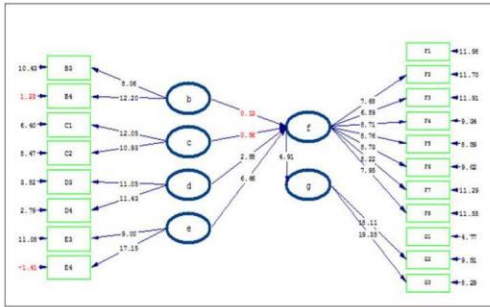


Figure 2. Structural Diagram (T Value) for Malaysia

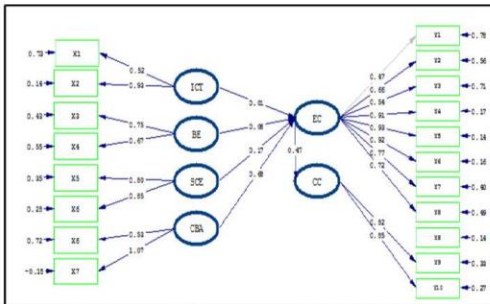


Figure 3. Structural Diagram (Standardized) for Malaysia

Structural Equations (Indonesia)

$$\begin{aligned}
 EC &= 0.39*ICT + 0.40*BE + 0.52*SCE \\
 &(0.045) \quad (0.067) \quad (0.058) \\
 &5.38 \quad 6.75 \quad 8.95
 \end{aligned}$$

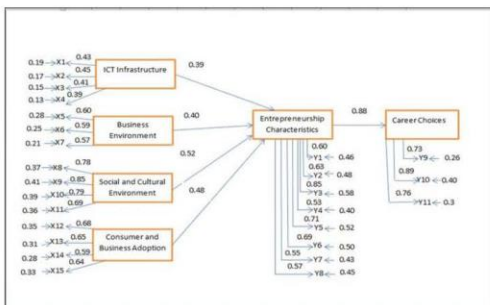
(3)

$$\begin{aligned}
 &+ 0.48*CBA, \text{Errorvar.} = 0.59, R^2 = 0.41 \\
 &(0.053) \quad 0.073 \\
 &7.98 \quad 9.34
 \end{aligned}$$

$$\begin{aligned}
 CC &= 0.88*EC + 0.39*ICT + 0.40*BE + 0.52*SCE \\
 &(0.074) \quad (0.046) \quad (0.068) \quad (0.063) \\
 &11.21 \quad 6.83 \quad 8.74 \quad 7.98
 \end{aligned}$$

(4)

$$\begin{aligned}
 &+ 0.48*CBA, \text{Errorvar.} = 0.63, R^2 = 0.57
 \end{aligned}$$



$$\begin{aligned}
 &(0.056) \quad 0.043 \\
 &7.65 \quad 10.06
 \end{aligned}$$

Figure 4. Structural Diagram (T Value) for Indonesia

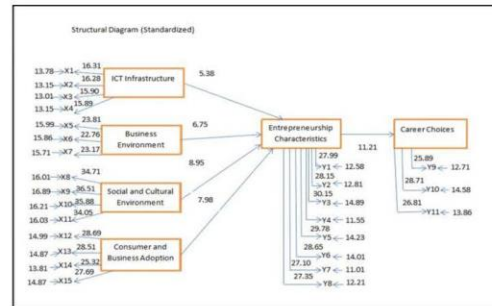


Figure 5. Structural Diagram (Standardized) for Indonesia

In Malaysia, the results for all hypothetical tests indicates that some of the hypotheses, which are H3, H4, and H5 are supported by data, while some are not. On the other hand, the result in Indonesia shows that all hypotheses, which are H1, H2, H3, H4, H5, and H6, tested are supported by data. Table 2 shows the results of the hypotheses testing.

Table 2. Results of Hypotheses Testing

Hypotheses	Results in Malaysia and Indonesia
H1	<p>Malaysia</p> <p><b>There is no significant effect between connectivity and ICT infrastructure into entrepreneurial characteristics of the university students.</b> This is because the t-value is &lt; 2 (0.309 &lt; 2), with the rate of effect of only 0.01.</p>
	<p>Indonesia</p> <p><b>There is a significant effect between connectivity and ICT infrastructure into the entrepreneurial characteristics of the university students.</b> This is because the t-value is &gt; 2 (5.38 &gt; 2), with the rate of effect of 0.39.</p>
H2	<p>Malaysia</p> <p><b>There is no significant effect between business environment into entrepreneurial characteristics of the university students.</b> This is because the t-value is &lt; 2 (0.873 &lt; 2), with the rate of effect of only 0.08.</p>
	<p>Indonesia</p> <p><b>There is a significant effect between business environment into entrepreneurial characteristics of the university students.</b> This is because the t-value is &gt; 2 (6.75 &gt; 2), with the rate of effect of 0.40.</p>
H3	<p>Malaysia</p> <p><b>There is a significant effect between social and</b></p>

	<p><b>cultural environment into entrepreneurial characteristics of the university students.</b> This is due to the t-value <math>&gt; 2</math> (<math>2.079 &gt; 2</math>), while the rate of effect of 0.17 shows that the social and cultural environment dimension has the second highest effect into entrepreneurial characteristics.</p> <p style="text-align: center;">Indonesia</p> <p><b>There is a significant effect between social and cultural environment into entrepreneurial characteristics of the university students.</b> This is due to the t-value <math>&gt; 2</math> (<math>8.95 &gt; 2</math>). Since the rate of effect is 0.52, it is shown that social and cultural environment dimension has the greatest effect into entrepreneurial characteristics among all the four dimensions.</p>
H4	<p style="text-align: center;">Malaysia</p> <p><b>There is a significant effect between consumer and business adoption into entrepreneurial characteristics of the university students.</b> This is reflected by the t-value <math>&gt; 2</math> (<math>13.434 &gt; 2</math>). With the contribution rate of 68%, consumer and business adoption has the greatest effect among all the four dimensions.</p>
	<p style="text-align: center;">Indonesia</p> <p><b>There is a significant effect between consumer and business adoption into the entrepreneurial characteristics of the university students.</b> This is reflected by the t-value <math>&gt; 2</math> (<math>7.98 &gt; 2</math>), With the contribution rate of 48%, consumer and business adoption process is the second highest dimension in affecting the entrepreneurial characteristics among the university students.</p>
H5	<p style="text-align: center;">Malaysia</p> <p><b>There is a significant effect between all dimensions of Malaysia's digital economy into entrepreneurial characteristics of the university students.</b> This is proved by the t-value <math>&gt; 2</math> (<math>16.273 &gt; 2</math>), while the contribution rate of 32% evidenced that the four dimensions have powerful effect into entrepreneurial characteristics when taken together.</p>
	<p style="text-align: center;">Indonesia</p> <p><b>There is a significant effect between all dimension of Indonesia's digital economy into the entrepreneurial characteristics of the university.</b> This is proved by the t-value <math>&gt; 2</math> (<math>9.34 &gt; 2</math>), while the contribution rate of 73% evidenced that the four dimensions have powerful effect into entrepreneurial characteristics when taken together.</p>
H6	<p style="text-align: center;">Malaysia</p> <p><b>There is no significant effect between entrepreneurial characteristics into career choices.</b> This is because the t-value is <math>&lt; 2</math> (<math>1.794 &lt; 2</math>), with the contribution rate of 47%.</p>
	<p style="text-align: center;">Indonesia</p> <p><b>There is a significant effect between entrepreneurial characteristics into career choices.</b> This is because the t-value is <math>&gt; 2</math> (<math>11.21 &gt; 2</math>), with the contribution rate of 88%.</p>

Based on the result, H5 to be specific, when the four dimensions of digital economy aggregated into a single measure, it is proven that its effect into entrepreneurial characteristics is significant for both countries. However, the effect of the digital economy towards the students' entrepreneurial characteristics in Indonesia is greater compared to in Malaysia since the contribution rate is 73% in Indonesia compared to only 32% in Malaysia. The underlying reason could be due to only two dimensions of digital economy in Malaysia found to be significantly affecting the entrepreneurial characteristics of the students, while all four dimensions of digital economy in Indonesia significantly affecting the students' entrepreneurial characteristics. The result in Indonesia supported by previous study which revealed that innovation, technology, and economic growth give significant impact on entrepreneurial activities [28].

In Malaysia, only social and cultural environment dimension and consumer and business adoption dimension are significantly affecting the entrepreneurial characteristics of the university students, while connectivity and ICT infrastructure dimension and business environment dimension bring no significant impact. Among the four dimensions of digital economy in Malaysia, it is found that consumer and business adoption has the greatest effect on the students' entrepreneurial traits. This is in line with the findings from previous study which identified that the rate of internet users in Malaysia is increasing, as well as the rate of online spending and new technologies adoption [29].

Meanwhile in Indonesia, the dimension of digital economy that give the highest effect towards the students' entrepreneurial characteristics is the social and cultural environment. This data supported by a study done by Cordova [30] who highlighted that environment is vital for entrepreneurial success. Apart from that, the interest in entrepreneurship found to be motivated through culture, family, and friend business [30].

Differently in Malaysia, the social and cultural environment dimension give the second highest effect on the entrepreneurial characteristics of the students. This is supported by Mohamad et al. [31], where they discovered that entrepreneurship can be cultivated through education, whether through formal education such as through entrepreneurship degree and entrepreneurial programs, or informal entrepreneurship education such as running own business. Another study also found that entrepreneurship education is the recognized key factor to enhance the students' desirability of self-employment [32]. Meanwhile, the second highest dimension affecting the entrepreneurial traits of the students in Indonesia is the consumer and business adoption, and this is highlighted by Penambunan-Ferse & Breiter [33], where they agreed

that the number of ICT devices users, specifically cell phone, is increasing very fast in Indonesia.

Another dimension that found to be significantly affecting the students' entrepreneurial characteristics in Indonesia, but not significant in Malaysia, is connectivity and ICT infrastructure dimension. This is supported by a study which stated that the ICT infrastructure will create more recognition of entrepreneurial opportunities [34]. However, this situation is not supported in Malaysia based on the result. Business environment dimension, is another dimension of digital economy that give significant impact to the entrepreneurial traits of the students only in Indonesia. The business environment in Indonesia are growing abundantly, therefore affecting the entrepreneurial personality of the students [30].

Lastly, the result discovered that the entrepreneurial characteristics of the students in Malaysia have no significant effect into entrepreneurship as career choices among them. They do not choose to become an entrepreneur in future, but consider working in private or public sectors even though the students are possessing the entrepreneurial traits. This is due to the reasons that the interest of a person for an entrepreneurial career relies on other factors as well such as opinions, perceptions of risks and rewards, parental support, motivation, values, the environment and attitudes towards self-employment and entrepreneurship, not only on entrepreneurial characteristics [35]. Apart from that, this could be due to the failure of entrepreneurship programmes conducted in Malaysia in influencing students to take up entrepreneurial challenges, since the education in Malaysia is not matching students' skill expectations with skill acquisition [36].

In contrast, the entrepreneurial traits of students in Indonesia significantly affect their choices to become entrepreneurs in future. This is supported by Zhao et al. [37] which asserted that individual's confidence in his or her ability to successfully perform entrepreneurial roles and tasks, or known as self-efficacy, positively related to students' intentions to start their own business. Moralista & Delariante [38] also highlighted that creativity, which mainly considered in entrepreneurial self-efficacy, lead to the entrepreneurial intentions among the students.

## 6. Conclusions

The results evidenced that the digital economy in both countries significantly affecting the entrepreneurial characteristics of the students, which therefore increasing the importance of the role of both Malaysian government and Indonesian government to keep on supporting the development of digital economy in the country, by focusing on each dimension, especially the social and

cultural environment dimension and the consumer and business adoption dimension. Consequently, students, which representing the younger generations, will be able to absorb and use ICT for economic and social benefit in future, which will contribute to the rapid growth of the economy of both countries since the growth of digital economy is important for businesses to remain competitive. This is supported by previous study that proved the development of technology or technology advances resulting from globalization, influence the students' awareness on the existence of entrepreneurial opportunities, therefore tend to choose entrepreneurship career due to the convenience of e-commerce, online business, latest technology, and others [39].

However, it is discovered that the university students in Malaysia reluctant to become an entrepreneur in future despite the entrepreneurial traits the students possessed, contrarily with Indonesian university students. Hence, the higher institution of learning in Malaysia need to provide more educational support to increase the students' understanding level on entrepreneurship, which consequently increase their interests to opt entrepreneurs as their future career. It is discovered by previous study that the readiness for entrepreneurship education within the internal environment of public universities remains insufficient and requires improvements, even though the results of their research indicate that Malaysian students' entrepreneurial willingness and capabilities are strong [40].

For that reason, from now onwards, academic institutions in Malaysia must consider inspiring students to choose careers in entrepreneurship, for example by designing entrepreneurship education programmes and courses that shift the students' focus from theoretical concepts to practical skills, as suggested by Mustafa et al. [41]. Not only universities in Malaysia, Indonesian universities should also concentrate on entrepreneurship education to boost the entrepreneurial interest among the students, since the role of education in Indonesia in assisting students to consider starting business as one of career alternatives has been proven [42].

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