

Comparative Studies between Indonesia and Brunei Darussalam: Moderating role of Intrinsic Motivation on Startup Intention of University Students

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Abstract— In this competitive day, youth unemployment is concerning; to address this issue, the government and other relevant agencies are making efforts to encourage young people to start businesses through entrepreneurship programs. A sample of 657 university students of various majors from selected public and private institutions through online survey used to investigate the antecedents influencing startup intention of students. Correlation coefficient was employed to determine the relationship between variables and regression method to test the hypothesis. The main findings found Indonesian sample to have positive relationship between attitude, perceived desirability of self-employment and risk-taking personality characteristics towards students' startup intention; meanwhile Bruneian sample found attitude, entrepreneurial self-efficacy and perceived desirability of self-employment to be significant towards students' startup intention. Moreover, only Bruneian sample found a significant outcome on the moderating role of intrinsic motivation affecting attitude on students' startup intention, whereas Indonesian sample found otherwise. The beneficial finding can assist the government to formulate relevant policies and provide funding for the entrepreneurial activities.

Index Terms - Brunei, Entrepreneurship, Indonesia, Intrinsic motivation, Intention-based models, Moderator, Startup intentions, University students

1 INTRODUCTION

INDONESIA is placed at the fourth being the largest population in the world. Startup in Indonesia is one of the most dynamic in Asia. Indonesia is the country known with remarkable unicorns namely Tokopedia, Bukalapak, Go-Jek and Traveloka. Gunawan (2019) stated in his article, the economic growth in Indonesia led the country to a successful digital economy. The country is projected to be the fourth largest economy in 2050 in the world. In addition, the positive economic growth made the country to experience a growing tech savvy middle class.

The country is considered as an efficiency driven economy (Zwan, Hessles, Hoogendoorn & Vries, 2013). The government in Indonesia updated its national initiative with new agenda to bring entrepreneurship programs to five more cities (Akhaya, 2019). '1001 Digital Startup Movement' was launched which comprised of the IT ministry of Indonesia and other ecosystem stakeholders in Indonesia's digital sector. The initiative is a continuation of the '1000 Startups' program which was made back in 2016. The effort was made by multiple public and private sector stakeholders to boost the entrepreneurial activities in the country. Initially, the program included ten major cities namely; Jakarta, Bandung, Surabaya, Yogyakarta, Semarang, Malang, Medan, Bali, Makassar, and Pontianak which all participants work together for meet-ups, workshops, booth camps and incubation programs.

Akhaya, (2019) added since, the program has not met its target so the new '1001 Startups' expansion to five new cities like Batam, Lombok, Padang, Balikpapan and Manado aim to focus on expanding the coverage scale and improve the startup development activities like incubation activity. Their target is to have 5,000 startups in the next five years. The government in Indonesia will assist the startup ecosystem, initiated the NextICorn Foundation which aims to provide opportunities for mature startups to get growth capital and technology and marketing support. The target is to have 20 new unicorns by

2025 in Indonesia. Currently, the country has four tech companies valued at over US\$ 1 billion.

According to an article released in 2019, Indonesia has four unicorns' business such as Tokopedia, Bukalapak, Go-Jek and Traveloka; which place the country to have the most unicorns in Southeast Asia. Among these four unicorns, two of them have successfully enter the Thai market. One of the contributions to the success of digital businesses in the country is due to the right target market; the citizens are considered as tech savvy, where the country is known to have high internet users. In Asia, Indonesia is one of the biggest hubs of investment from Venture Capitalists with funding industries such as FinTech, e-Commerce, Logistics as well as AgriTech.

On the other hand, Brunei Darussalam is dependent on its oil and gas sector as it is a major contributor to the Gross Domestic Product (GDP). According to ASEC (2017), Brunei has a population of approximately 423,000 people. A report by (Labour Force Survey, 2009) suggested that Brunei has a population which works for public at 47.7%. The country desires to reduce the dependence on oil and gas sector by looking on other sectors like entrepreneurship with a view to diversify the economy through Small, Medium Enterprises (SMEs). Much attention and concerns about entrepreneurship have been intensified through government agencies like Darussalam Enterprise (DARE) and private sectors such as Brunei Shell Petroleum (BSP) which provides special schemes to entrepreneurs. It is important to promote the development of entrepreneurship program with the supports from government and private sectors' incentives.

Economic structure in Brunei Darussalam is the smallest and the second highest-income country in ASEAN. Its wealth comes predominantly from crude oil and natural gas production, which generates more than 60% of GDP and around 90% of merchandise exports. Japan and South Korea are the principal importers of Bru-

neian mineral fuels, particularly liquefied natural gas, for which long-term supply contracts are in place.

In Brunei, the Micro, small and medium enterprise (MSMEs) are a crucial force in the country's economy, driving innovation, economic development and job creation. An article released by (Stephen; Urbano & Hemmen, 2005), more than 90 per cent of the world's businesses are MSMEs. It is an emerging market which can allocate 80 per cent of newly created jobs. In Brunei, the national vision, Wawasan Brunei 2035, the development of MSMEs is essential element in reaching the national vision, predicts a dynamic and sustainable economy with a per capita GDP amongst the top ten in the world. In addition, in order to spur the development of MSMEs and support entrepreneurship in the country especially the one involving innovative, diverse and competitive internationally. Brunei has embarked on ambitious reform agenda in ease of doing business and also establishment of a national body to support local MSMEs.

Although the Indonesian and Bruneian governments have made significant efforts to encourage young people to become entrepreneurs, little is known about their intentions for starting a business. Moreover, research with intrinsic motivation as a moderator is still understudied in Asia. Thus, this study aims to investigate the moderating effect of intrinsic motivation on the relationship between attitude and students' startup intentions. That being the case, and this chapter attempts to address this issue. In particular, this chapter intends to answer the following research questions:

1. What is the effect of attitude, social norms, self-efficacy and perceived desirability of self-employment on students' startup intention?
2. What is the effect of innovativeness and risk-taking personality characteristics on students' startup intentions?
3. Does intrinsic motivation contribute a moderating effect on the relationship between attitude and students' startup intention?

2 LITERATURE REVIEW

2.1 Startup intent of students

According to Ajzen (1991), intention is one's desire to perform a particular behaviour and Neneh (2014) added startup intention usually derived from a planned decision before business establishment and it is vital, as a starting point of new business venture. An individual's entrepreneurial competence plays a significant role in the early stage of business startup (Garzon *et al.*, 2010). Thus, it can be concluded, a start-up intention is an indicator of one's behaviour of conducting a business.

Outside of Asia, various researches on entrepreneurial intention have been extensively done. Past studies by (Erich & Schwarz, 2006; Reynolds, 2007) found entrepreneurial behaviours are dynamic and it evolve over time; normally a considerable time passes before an

entrepreneur's actions culminate into the establishment of a business. In which it will influence their attitude and to take on self-employment as a career choice. The most relevant predictor of entrepreneurial intention among students in Austria is attitude in general and attitude towards money have a strong positive effect on their intention (Erich & Schwarz, 2006). In addition, the support from university also fosters the aspiration to business startup and it influences their willingness to become an entrepreneur.

This study focuses on 8 variables which comprises of 1 dependent variable (DV); startup intention; 6 independent variables (IV); attitude, social norms, entrepreneurial self-efficacy, perceived desirability of self-employment, innovativeness and risk-taking personality characteristics; and 1 moderating variable on the role of intrinsic motivation.

Accordingly, (Krueger, 1994) tested the attitude-intentions of students and found, attitude has a significant influence toward intention. In addition, (Raposo & Paco, 2011; Schwarz *et al.*, 2009) agreed, attitude plays an important role and is one of the good predictors of entrepreneurial intention. A study by Ibrahim & Afifi (2018) believes that social norms is a strong predictor of entrepreneurial intention. Ferri *et al.* (2018) also found social norms is the strongest predictor of entrepreneurial intention. However, Kabir *et al.* (2017) agreed with researchers like (Farashah, 2013; Keat *et al.*, 2011) who found social norms has no significant relationship towards entrepreneurial intention. People's behaviour is strongly influenced by the confidence in their skills and ability to perform the behaviour in question (Ajzen, 1991). The concept of self-efficacy was developed by Bandura in 1997. Entrepreneurial intention is influenced by Perceived Behavioral Control (PBC) in Theory of Planned Behaviour (Krueger & Carsrud, 1993). Self-efficacy influences both the formation of individual's entrepreneurial intentions and the possibility of starting up a business in the future (Boyd & Vozikis, 1994).

The role of personality characteristics; need for achievement, innovativeness, locus of control and risk taking in entrepreneurial behavior and a business startup is an element that can be ignored (Zhuplev *et al.*, 1998). Moreover, a study by (Pilis *et al.*, 2007), believed that personality characteristics possess great influence on entrepreneurial intention to starting up a new business and towards being successful in running a business. Firstly, 'need for achievement' is the drive of a person to succeed. As explained by (Siti, 2009), need for achievement will determine a person's desire to do things better than others. Secondly, 'Innovativeness' as claimed by (Rotter, 1966) in previous research, entrepreneurs were more innovative than non-entrepreneurs. Thirdly, a 'locus of control' refers to an individual's general belief about whether or not the course of events depends on his or her behaviour (Rotter, 1966). Lastly, 'risk-taking' is how a person handling risk and uncertainty and be ready to bear them.

In order to be successful in business, (Colquitt *et al.*, 2007) believed, entrepreneurs must have risk-taking characteristics in them to handle challenges and tough competition to strive a success. Gatewood *et al.* (1995) believed entrepreneurs with strong achievement orientation, strong individual control and willingness to take risks, endurance and intelligence, who prefer to startup own business and become the boss of their own business rather than being controlled by others. In contrast, Gartner (1985) suggested intention or choice towards business startup is not influence by personality characteristics of an individual.

This current study aims to find out the intrinsic motivation role in influencing students' startup intention in relation to the level of entrepreneurial attitude of the students. Motivations are fundamental for the transformation of entrepreneurial intentions into entrepreneurial actions (Carsrud & Brannback, 2011). Specifically, the definition of intrinsic motivation is commonly referring to a behavioral engagement for reasons of personal interest, satisfaction, and enjoyment, intangible incentives that endogenously foster an individual to undertake a certain behavior. A study by Roos & Eeden (2013) and Soliha et al. (2014) used motivation as a moderating variable in their study to investigate if motivation can determine the strength of relationships between variables. Additionally, Vallerand et al., (2010)'s study also suggested entrepreneurial motivation can stimulate an individual's internal motivation and individual entrepreneurship. As suggested by past scholars like (Antonioli et al., 2016; Dysvik et al., 2011; Joordan, 2014; Liang et al., 2018; Roos & Van Eeden, 2013; Soliha et al., 2014) examining intrinsic motivation as a moderator could increase researchers' theoretic understanding and can provide empirical evidence on how intrinsic motivation can be a potential moderator. This calls for additional empirical work on the moderating role of intrinsic motivation so as to see if this construct plays a significant role in strengthening or reducing the relationship between attitude and startup intention.

3 METHODOLOGIES

3.1 Measures

Table 1: Hypotheses for Indonesia & Brunei Darussalam

	Description	
H1a	Attitude has a positive significant influence on startup intention.	ATT → SI
H1b	Social norm has a positive significant influence on startup intention.	SN → SI
H1c	Entrepreneurial self-efficacy has a positive significant influence on startup intention.	ESE → SI
H1d	Perceived desirability of self-employment has a positive significant influence on startup intention.	PDSE → SI
H2a	Innovativeness personality characteristic has a positive significant influence on startup intention.	INNO → SI
H2b	Risk-taking personality characteristic has a positive significant influence on startup intention.	RT → SI
H3	With the moderation of intrinsic motivation, the relationship between entrepreneurial attitude and startup intention increases.	ATT → SI (with moderation of intrinsic motivation)

Various previous studies have applied a Likert Type scale (Keat et al., 2011; Beal & Dawson, 2007; Linan & Chen, 2009; Asree et al.,

2010; Maeda, 2015). Hence, this study adopts the same method to use Likert Type rating scale in the online survey. A Likert scale is commonly used to gather data which relates to their opinion or agreement on a certain subject (Beal & Dawson, 2007). Weijters (2010) specifically picked a 5-point Likert scale to be the most appropriate to use in comparison to the 7-point Likert scale. Past scholars like (Krueger, 1994; Chen et al., 1998) used a 5-point Likert scale with "Strongly Disagree" to "Strongly Agree" to measure constructs in their research study. The scale in the online survey is categorized as 1 being "Strongly Disagree", 2 being "Disagree", 3 being "Undecided", 4 being "Agree" and lastly 5 being "Strongly Agree". The scale is used to measure constructs like entrepreneurial attitude, social norms, entrepreneurial self-efficacy, perceived desirability of self-employment, innovativeness and risk-taking personality characteristics and intrinsic motivation. The measurement for startup intention used 5-Likert scale and multiple-choice questions.

The items in the survey questionnaires were mainly adapted from past work of (Choudhary, 2017; Linan & Chen, 2009; Athayde, 2009; Asimakopoulos et al., 2019; Lonsdale et al., 2011; GEM, 2017; Hurt et al., 2013; Matlay et al., 2013; Boot & Thakor, 1994). Some of the indicators were re-worded according to the research on startup intention and motivation of Indonesian and Bruneian students.

The dependent variable of this research is startup intention. In order to measure startup intention, the validated scale by (Linan & Chen, 2009) was applied. The four scale items used to measure startup intention of students for this research. The measurement of the items in the survey questionnaire was based on 5-point scale ranging from 1 demonstrating 'Strongly Disagree' up to 5 as 'Strongly Agree'.

The moderating factor is intrinsic motivation. The intention to start a business for accomplishment, make full use of abilities, another way to make a living and to grow and develop as a person. Four individual items were used to assess intrinsic motivation by using a 5-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Furthermore, all items were adapted from adapted from Thakor (1994).

Table 1.1: Constructs' Cronbach Alpha

INDONESIAN SAMPLE	
Variable	Cronbach's alpha
Startup Intention	.872
Attitude	.828
Social Norms	.759
Entrepreneurial self-efficacy	.889
Perceived desirability of self-employment	.824
Intrinsic Motivation	.883
Innovativeness personality characteristics	.845
Risk-taking personality characteristics	.839
BRUNEIAN SAMPLE	
Variable	Cronbach's alpha
Startup Intention	.876
Attitude	.727
Social Norms	.724
Entrepreneurial self-efficacy	.882
Perceived desirability of self-employment	.705
Intrinsic Motivation	.866
Innovativeness personality characteristics	.708
Risk-taking personality characteristics	.795

All of the scales have good reliability scores within the past studies. According to (Heo *et al.*, 2015; Mathieu & Jean, 2013), Cronbach alpha values which recorded more than .70 indicates good internal consistency in the questions. As depicted in *Table 1.1*, Indonesian sample shows only the construct of social norms was moderately low with Cronbach alphas of .759. Meanwhile, Bruneian sample have few constructs with Cronbach alpha values of .727 (attitude), .724 (social norms), .705 (perceived desirability of self-employment), .708 (innovativeness personality characteristics) and .795 (risk-taking personality characteristics). A general accepted rule with Cronbach's alphas of between .60 and .70 indicates an acceptable level of reliability (Benson & Clark, 1982).

3.2 Exploratory Factor Analysis, KMO & Bartlett's Test

Cunningham (2012) suggested Exploratory Factor Analysis (EFA) is commonly performed to examine the relationship of a set of items which measures a latent variable. Next, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity were used to assess the suitability of the data for factor analysis. According to Field (2009), the KMO is useful to indicate if the sample is large enough to reliably extract factors. He added, if the value of KMO is near to 1, a factor can probably be extracted, since the opposite pattern is visible. So, KMO values of .50 and .70 are mediocre, values between .70 and .80 are good, values between .80 and .90 are great and above .90 are superb. As for Indonesian sample, the KMO values obtained was .807. The KMO value obtained for this dataset fell within values between .80 and .90 which is great, thereby indicating that the sample data was great for the conduct of confirmatory factor analysis. Results can be seen in *Table 1.2*.

Table 1.2: KMO and Bartlett's Test for determining sample adequacy (Indonesian & Bruneian sample)

INDONESIAN SAMPLE	
Measure	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.807
Bartlett's Test of Sphericity	
Approx. Chi-Square	577.001
Degree of Freedom	6
Significance	.000
BRUNEIAN SAMPLE	
Measure	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.822
Bartlett's Test of Sphericity	
Approx. Chi-Square	684.333
Degree of Freedom	36
Significance	.000

The factor analysis was performed with IBM SPSS version 20 software. *Table 1.3* displays the Exploratory factor analysis and factor loadings. The results of EFA conclude four items relate with startup intention (SI) construct, attitude (ATT) and social norms (SN), six items with entrepreneurial self-efficacy (ESE), five items with perceived desirability of self-employment (PDSE), four items with intrinsic motivation (IM), seven items with innovativeness (INNO) and risk-taking (RT) personality characteristics.

Exploratory factor analysis (EFA) was carried out on items SI1 to SI4, ATT1 to ATT4, SN1 to SN4, ESE1 to ESE6, PDSE1 to PDSE5, IM1 to IM4, INNO1 to INNO5 and RT1 to RT7. The results have shown some interesting results and met the objective of EFA as the process extracted expected nine constructs. Hence, adequacy of the online survey was established. There were 2 items like IM5 and IM6 were deleted from intrinsic motivation construct because of their poor factor loadings, and so the remaining items would be useful to build the constructs in the structural equation model on the next level of data analysis. The online survey as evaluated with sample of university students emerged reliable and construct valid in this study. The items measure the same underlying construct and all items are adequately contributing towards the construct validity of the startup intention survey.

Table 1.3: Exploratory factor analysis

INDONESIAN SAMPLE					
Construct	Items	Factor Loadings	Communality	Eigen Value	Percentage Variance (%)
SI	SI1	.779	.608	2.893	72.3
	SI2	.884	.781		
	SI3	.838	.703		
	SI4	.895	.801		
ATT	ATT1	.780	.608	2.641	66.0
	ATT2	.764	.583		
	ATT3	.860	.739		
	ATT4	.843	.711		
SN	SN1	.659	.435	2.351	58.8
	SN2	.869	.755		
	SN3	.788	.621		
	SN4	.735	.541		
ESE	ESE1	.750	.562	3.872	64.5
	ESE2	.798	.638		
	ESE3	.838	.702		
	ESE4	.833	.694		
	ESE5	.833	.694		
	ESE6	.763	.583		
PDSE	PDSE1	.752	.565	3.001	60.0
	PDSE2	.725	.526		
	PDSE3	.824	.679		
	PDSE4	.755	.569		
	PDSE5	.813	.661		
IM	IM1	.841	.707	3.834	63.9
	IM2	.884	.781		
	IM3	.790	.687		
	IM4	.815	.664		
INNO	INNO1	.770	.719	2.305	57.6
	INNO2	.815	.738		
	INNO3	.777	.767		
	INNO4	.704	.706		
	INNO5	.768	.791		
RT	RT1	.747	.638	2.119	52.1
	RT2	.791	.712		
	RT3	.650	.722		
	RT4	.830	.764		
	RT5	.782	.694		
	RT6	.824	.665		
	RT7	.763	.679		

4 ANALYSES

BRUNEIAN SAMPLE					
Construct	Items	Factor Loadings	Communality	Eigen Value	Percentage Variance (%)
SI	SI1	.779	.608	2.893	72.3
	SI2	.884	.781		
	SI3	.838	.703		
	SI4	.895	.801		
ATT	ATT1	.780	.608	2.641	66.0
	ATT2	.764	.583		
	ATT3	.860	.739		
	ATT4	.843	.711		
SN	SN1	.659	.435	2.351	58.8
	SN2	.869	.755		
	SN3	.788	.621		
	SN4	.735	.541		
ESE	ESE1	.750	.562	3.872	64.5
	ESE2	.798	.638		
	ESE3	.838	.702		
	ESE4	.833	.694		
	ESE5	.833	.694		
	ESE6	.763	.583		
PDSE	PDSE1	.752	.565	3.001	60.0
	PDSE2	.725	.526		
	PDSE3	.824	.679		
	PDSE4	.755	.569		
	PDSE5	.813	.661		
IM	IM1	.841	.707	3.834	63.9
	IM2	.884	.781		
	IM3	.790	.687		
	IM4	.815	.664		
INNO	INNO1	.770	.719	2.305	57.6
	INNO2	.815	.738		
	INNO3	.777	.767		
	INNO4	.704	.706		
	INNO5	.768	.791		
RT	RT1	.747	.638	2.119	52.1
	RT2	.791	.712		
	RT3	.650	.722		
	RT4	.830	.764		
	RT5	.782	.694		
	RT6	.824	.665		
	RT7	.763	.679		

3.4 Sample

Data are collected from a sample of 657 university students. University students were chosen because more research on younger generation is needed as they are the new entrants in the labour force and will be working with other generations. Online survey questionnaires were delivered through email of university students in Indonesia and Brunei Darussalam. The study managed to gather 284 respondents for Indonesia which took about four months from January 2020 to May 2020. Meanwhile, for Bruneian sample managed to gather 373 respondents which took about four months from January 2020 to May 2020.

Online surveys are time and cost efficient for populations larger than 300 (Uhlig *et al.*, 2014). The respondents can be easily emailed and distributed through an online survey (Andrews *et al.*, 2003). The survey was self-constructed with the use of online Google Form site. The questions will mostly be a closed ended question, with the use of Likert scale questions where the respondent is required to complete the survey which needs them to indicate the extent to which they agree or disagree. The respondents were emailed with brief information on the research's objectives and a link to the online survey.

Hypotheses are tested by means of hierarchical multiple regression analysis using IBM SPSS version 20. Scholars like (Seva *et al.*, 2010; Armstrong, 2011; Nathans *et al.*, 2012; Klees, 2016 & Martin, 2018) have highlighted the importance of using regression analysis. Before deciding on employing regression analysis in a study, there are few important assumptions which needs to be met; firstly, the dependent variable; for this study is startup intention should be measured on a continuous scale. Secondly, the study has to have two or more independent variables (can be either continuous or categorical variable). Thirdly, independence of observations. The fourth one is linear relationship between dependent variable and each of the independent variables and linear relationship between the dependent variable and the independent variables collectively. Next, the data of the study must not have any issue of multicollinearity, as well as there are no significant outliers and the data is normally distributed.

Considering that none of the assumptions mentioned have been violated, therefore regression output was generated through the following phases which was conducted in IBM SPSS version 20. Under the "Analyse" command, click on "Regression" and choose "Linear". Select from the listings "Startup intention (SI)" in the dependent variable box and "Attitude (ATT)", "Social norms (SN)", "Entrepreneurial self-efficacy (ESE)", "Perceived desirability of self-employment (PDSE)", "Intrinsic motivation (IM)", "Innovativeness personality characteristic (INNO)", "Risk-taking personality characteristic (RT)" in the independent variable box. Click on "Statistics", select "Model fit" and "Estimates", "R squared change" and "Collinearity diagnostics" and click "Continue". The outputs can be obtained from model summary table known as "Anova" and Coefficients table which generated through the command mentioned earlier. The results are interpreted in the following discussion section.

Table 1.4: Results of Multiple Regression Analysis

INDONESIAN SAMPLE					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.810 ^a	.657	.648	.51194	1.848
BRUNEIAN SAMPLE					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.634	.402	.388	.55231	1.913

As shown in Table 1.4 reports how well the regression equation fits the data which means how well it predicts the dependent variable. The table indicates outcome for Indonesian sample that the regression model depicts the dependent variable significantly well. With the value of $p < .0005$, which is less than .05, indicates that overall, the regression model statistically significantly predicts the outcome variable, so it is a good fit for the data.

Table 1.4 provides the R and R² values. The R² value indicates how much of the total variation in the dependent variable; startup inten-

tion, can be explained by the eight independent variables; attitude, social norms, entrepreneurial self-efficacy, perceived desirability of self-employment, intrinsic motivation, innovativeness and risk-taking personality characteristics. The R value represent the simple correlation and is .810 for Indonesian sample, which indicates a good degree of correlation. In this case, for Indonesian sample; 65.7% can be explained, which portrays that is there is no auto correlation among the respondents as the figure is in the arrangement of 1.5 or 2.5 (Lewis-Beck, 2015). In addition, the Durbin-Watson esteem is 1.848 (Indonesian sample).

On the other hand, The R value for Bruneian sample is .634, which also indicates a moderately good degree of correlation. 40.2% for Bruneian sample can be explained, which is moderately good result. In addition, the Durbin-Watson esteem is 1.913 (Bruneian sample).

Table 1.5: ANOVA table

INDONESIAN SAMPLE						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	138.444	7	19.778	75.463	.000
	Residual	72.336	276	.262		
	Total	210.780	283			
BRUNEIAN SAMPLE						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.213	7	8.888	29.135	.000
	Residual	92.429	303	.305		
	Total	154.643	310			
a. Dependent Variable: SI						
b. Predictors: (Constant), ATT, SN, ESE, PDSE, IM, INNO, RT						

Table 1.5: ANOVA table indicates outcome for both Indonesian and Bruneian sample appears to have a value of $p < .000$, This indicates both samples found that the regression model depicts the dependent variable significantly well. With the value of $p < .0005$, which is less than .05, indicates that overall, the regression model statistically significantly predicts the outcome variable, so it is a good fit for the data.

Table 1.6: Coefficients (Indonesian & Bruneian sample)

INDONESIAN SAMPLE						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.473	.210		-2.250	.025
	ATT	.493	.071	.407	6.901	.000
	SN	.040	.067	.033	.589	.556
	ESE	.032	.059	.030	.545	.586
	PDSE	.332	.062	.302	5.369	.000
	IM	.143	.065	.105	1.782	.076
	INNO	.198	.080	.163	3.515	.001
	RT	.125	.056	.101	1.543	.062
BRUNEIAN SAMPLE						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.613	.397		-1.543	.124
	ATT	.380	.054	.371	7.003	.000
	SN	.034	.061	.026	.554	.580
	ESE	.116	.057	.091	2.029	.043
	PDSE	.307	.064	.241	4.793	.000
	IM	.040	.051	.039	.784	.434
	INNO	.141	.087	.084	1.629	.104
	RT	.155	.062	.021	2.494	.310

Accordingly, standardized coefficients which are referred as beta weights “beta” column in the table. The beta weight measure how much the outcome variable increases when the predictor variable is increased by one standard deviation assumes that other variables in the model are held constant. It is a beneficial measure to rank the predictor variables based on their contribution in explaining the outcome variable.

As shown in Table 1.6, attitude beta value recorded for Indonesian sample is .407 with a significant value of .000 which is lower than rule of thumb; So, the attitude is found to have a positive significant impact on startup intention for Indonesian students. Social norms beta value is .033 with an insignificant value of .556 which is higher than the rule of thumb. Hence, social norm is found to have a positive insignificant impact on startup intention for Indonesian student. Entrepreneurial self-efficacy beta value is .030 with an insignificant value of .586 which is higher than rule of thumb. Thus, entrepreneurial self-efficacy found to have a positive insignificant effect on startup intention. Perceived desirability of self-employment beta value is .302 with a significant value of .000. This construct found to have a positive significant effect on startup intention.

Intrinsic motivation beta value is .105 with an insignificant value of

INDONESIAN SAMPLE										1083
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.771	.594	.591	.55194	.594	205.454	2	281	.000	1.718
2	.771	.594	.591	.55215	.001	.785	1	280	.376	

.076. Hence, intrinsic motivation found to have a positive insignificant on startup intention. Innovativeness personality characteristic beta value is .163 with significant value of .001, and is found to have positive significant impact on startup intention. Risk-taking personality characteristic beta value is .101 with an insignificant value of .062 which is higher than the rule of thumb. Therefore, risk-taking personality characteristic has a positive insignificant effect on startup intention.

Moreover, as depicted in *Table 1.6*, attitude beta value recorded for Bruneian sample with a beta value of is .371 with a significant value of .000; so, the attitude is found to have a positive significant impact on startup intention for Bruneian students. Social norms beta value is .026 with an insignificant value of .580 which found to be higher than the rule of thumb. Hence, social norms are found to have a positive insignificant effect on startup intention. On the other hand, entrepreneurial self-efficacy beta value recorded at .091 with a significant value of .043. Hence, entrepreneurial self-efficacy is found to have a positive significant impact on startup intention for Bruneian student. Perceived desirability of self-employment beta value is .241 with a significant value of .000. This construct found to have a positive significant effect on startup intention.

Intrinsic motivation beta value is .039 with a significant value of .434. Hence, intrinsic motivation found to have a positive insignificant on startup intention. Innovativeness personality characteristic beta value is .084 with insignificant value of .104, and is found to have positive insignificant impact on startup intention. Risk-taking personality characteristic beta value is .021 with a significant value of .310 which is higher than the rule of thumb. Therefore, risk-taking personality characteristic has a positive insignificant effect on startup intention.

4.1 MODERATION TESTING

“R Square Change” shows the increase in variation explained by the addition of the interaction term; the change in R².

Model 2 shown in *Table 1.7* for Indonesian sample, the interaction between intrinsic motivation accounted for significantly more variance than just attitude and intrinsic motivation by themselves, R² change is .001, p = .376, indicating that there is potentially insignificant moderation between attitude and intrinsic motivation on startup intention for Indonesian sample.

For Bruneian sample under the section of Model 2 shown in *Table 1.7* with the interaction between intrinsic motivation accounted for significantly more variance than just attitude and intrinsic motivation by themselves, R² change is .015, p = .007, indicating that there is potentially significant moderation between attitude and intrinsic motivation on Bruneian students’ startup intention.

Table 1.7: Model summary Indonesian & Bruneian sample

BRUNEIAN SAMPLE										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.589	.346	.342	.57284	.346	81.634	2	308	.000	1.991
2	.601	.362	.362	.56705	.015	7.317	1	307	.007	

a. Predictors: (Constant), ZIM, ZATT
b. Predictors: (Constant), ZIM, ZATT, Int
c. Dependent Variable: SI

Table 1.8: ANOVA table (Indonesian & Bruneian sample)

INDONESIAN SAMPLE						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.796	.033		115.896	.000
	ZATT	.554	.040	.642	13.972	.000
	ZIM	.171	.040	.198	4.302	.000
2	(Constant)	3.806	.035		109.282	.000
	ZATT	.551	.040	.638	13.818	.000
	ZIM	.164	.040	.190	4.060	.000
	Int	-.019	.021	-.035	-.886	.376

BRUNEIAN SAMPLE						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.527	.032		108.591	.000
	ZATT	.332	.035	.471	9.539	.000
	ZIM	.158	.035	.223	4.523	.000
2	(Constant)	3.498	.034		102.942	.000
	ZATT	.320	.035	.453	9.195	.000
	ZIM	.167	.035	.236	4.814	.000
	Int	.083	.031	.125	2.705	.003

a. Dependent Variable: SI

For Indonesian sample, there are four paths (SN → SI, ESE → SI and INNO → SI) were found to be not statistically significant whereas the paths of (ATT → SI, PDSE → SI and RT → SI) were found to be significant. The moderating role of intrinsic motivation affecting attitude towards startup intention of Indonesian sample was not significant and hence, rejected the hypothesis. In contrast, Bruneian sample found only three paths (SN → SI, INNO → SI and RT

→ SI) were found to be not statistically significant while the paths of (ATT → SI, ESE → SI and PDSE → SI) were found to be significant. The moderating role of intrinsic motivation affecting attitude towards startup intention of Bruneian sample was significant and thus, supported the hypothesis.

Table 1.9: Coefficients for Moderator

INDONESIAN SAMPLE										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.771	.594	.591	.55194	.594	205.454	2	281	.000	1.718
2	.771	.594	.591	.55215	.001	.785	1	280	.376	
BRUNEIAN SAMPLE										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.589	.346	.342	.57284	.346	81.634	2	308	.000	1.991
2	.601	.362	.362	.56705	.015	7.317	1	307	.007	

“R Square Change” shows the increase in variation explained by the addition of the interaction term; the change in R².

Model 2 shown in Table 2.0 for Indonesian sample, the interaction between intrinsic motivation accounted for significantly more variance than just attitude and intrinsic motivation by themselves, R² change is .001, p = .376, indicating that there is potentially insignificant moderation between attitude and intrinsic motivation on startup intention for Indonesian sample. On the other hand, Bruneian sample shown an interaction between intrinsic motivation to be significantly more variance than just attitude and intrinsic motivation by themselves, R² change is .001, p = .007, indicating that there is insignificant moderation between attitude and intrinsic motivation on startup intention for Bruneian sample.

5 FINDINGS

Table 2.0: Hypotheses outcomes

No	Description	INDONESIA	BRUNEI
H1a	Attitude has a positive significant influence on startup intention.	Supported	Supported
H1b	Social norm has a positive significant influence on startup intention.	Rejected	Rejected
H1c	Entrepreneurial self-efficacy has a positive significant influence on startup intention.	Rejected	Supported
H1d	Perceived desirability of self-employment has a positive significant influence on startup intention.	Supported	Supported
H2a	Innovativeness personality characteristic has a positive significant influence on startup intention.	Rejected	Rejected
H2b	Risk-taking personality characteristic has a positive significant in-	Supported	Rejected

	fluence on startup intention.		
H3	Intrinsic motivation moderates the relationship between entrepreneurial attitude and startup intention.	Rejected	Supported

5.1 Research Question 1

What is the effect of attitude, social norms, entrepreneurial self-efficacy and perceived desirability of self-employment on students’ startup intention?

To answer the first research question, this study has developed four hypotheses to measure the effects of determinants on startup intention. As shown in Table 1.8, Indonesian sample found constructs of attitude (H1a) and perceived desirability of self-employment (H1d) were found to have positive influence and significantly linked with startup intention. Meanwhile, Bruneian sample found constructs of attitude (H1a), entrepreneurial self-efficacy (H1c) and perceived desirability of self-employment (H1d) were found to have positive influence and significantly linked with startup intention.

H1a: Attitude has a positive significant influence on startup intention.

Both Indonesia and Brunei found that attitude has a positive significant influence on startup intentions. Attitude has a positive relationship towards entrepreneurial intention (Ajzen, 2001). According to him, the more favorable the attitude towards entrepreneurship, the more likely an individual to develop his/ her intentions towards performing the behavior. Scholars (Yang, 2013; Schlegel & Koenig, 2014) believed that by having positive attitude will positively influence an individuals’ intention towards entrepreneurship. This strong empirical for the association of attitude and entrepreneurial intention was supported by literature of (Krueger, 1994; Raposo & Paco, 2011; Schwarz *et al.*, 2009; Krueger & Carsrud, 1993). Recent study like Kabir *et al.*, (2017) also confirms the relationship between attitude and entrepreneurial intention is statistically significant.

In addition to that, (GERA, 2017)’s report also claimed 49.3 per cent of respondents believed there is strong relationship between attitude and the formation of entrepreneurial intention. This proves studies which claims, human attitude has a strong and direct influence on intention is true. In this study, the attitude was found to be a significant determinant of startup intention with a standardized coefficient of .352 (p < .001). Hence, Hypothesis H1a was supported and the findings were found to be consistent with attitude towards behavior as has been explained in earlier chapters.

H1b: Social norm has a positive significant influence on startup intention.

Both Indonesia and Brunei rejected this hypothesis and found that social norm has a positive insignificant influence on startup intention. Social norms can be referred as the perceived social pressure to perform or not to perform a behavior (Ajzen, 1991). The social pressure referring to family, close relatives and friends which surrounds an individual. Past studies by (Ferri *et al.*, 2018; Kolvereid & Isaksen, 2006; Krueger & Kickul, 2006) found in their research that social norm is a strong predictor of entrepreneurial intention. However, scholars like (Kabir *et al.*, 2017; Farashah, 2013; Keat *et al.*,

2011; Linan & Chen, 2009; Elfving, 2009; Fitzsimmons & Douglas, 2011; Carsrud & Brannback, 2011) who found social norms has no significant relationship towards entrepreneurial intention. In addition, the findings by Linan & Chen (2009) claimed that there was indirect effect of social norms on entrepreneurial intention. Bagheri & Pihie (2014) emphasised that there might be a possibility of intervention of other factors which could potentially affect the entrepreneurial intentions of the students.

However, this study replicated the outcome of prior studies like (Elfving *et al.*, 2009; Fitzsimmons & Douglas, 2011) to have insignificant influence of social norms towards entrepreneurial intention. With the standardized coefficient value of .029. This also consistent with the previous argument in findings of (Elfving *et al.*, 2009) that social norms proved to perform questionable role as a predictor of entrepreneurial intention. The findings suggested that although family, colleagues and friends are influential determinants of intentions, in the Bruneian context, this study could not find any positive relationship, which possibly due to cultural differences. Thus, both Indonesian and Bruneian sample rejected hypothesis H1b.

H1c: Entrepreneurial self-efficacy has a positive significant influence on startup intention.

Indonesia rejected the idea of entrepreneurial self-efficacy to influence startup intention of university students in the country. Indarti & Krinstiansen (2003) found self-efficacy influence entrepreneurial intention and many researchers such as (Shook *et al.*, 2010; Moriano *et al.*, 2011) referred PBC to self-efficacy. Schwarz *et al.* (2009) emphasised that people's behaviour is strongly influenced by the confidence in their skills and ability to perform the behaviour in question. The concept of self-efficacy was developed by (Bandura, 1997). Entrepreneurial intention is influenced by Perceived Behavioral Control (PBC) in Theory of Planned Behaviour (TPB) as suggested by (Krueger & Carsrud, 1993). Hence, Indonesian sample rejected hypothesis (H1c) for this study.

On the other hand, Brunei found a positive significant influence of social norm on startup intention of university students in the country. This study found a result which supported the significant influence of entrepreneurial self-efficacy on the students' startup intention. The standardized coefficient was .092 ($p < .05$). This finding is consistent with past studies like (Shook *et al.*, 2010; Fitzsimmons & Douglas, 2011) which found a significant influence of entrepreneurial self-efficacy on entrepreneurial intentions. In addition, GERA (2017) found that more than half of the respondents with 52.3% to have direct association between entrepreneurial self-efficacy and entrepreneurial intentions. This confirmed that this construct is a significant indicator in framing startup intentions of students' startup intentions of Bruneian university students. This means that by increasing entrepreneurial self-efficacy could be utilised to enhance the entrepreneurial activity in the Bruneian economy. It is believed that self-efficacy can be improved by a supportive environment which individuals assess their capabilities with regard to the availability of resources and opportunities in the environment. Thus, Bruneian sample supported hypothesis (H1c) for this study.

H1d: Perceived desirability of self-employment has a positive significant influence on startup intention.

Both Indonesia and Brunei supported the hypothesis on the construct

of perceived desirability of self-employment to influence on startup intention of university students of both countries. According to Krueger & Carsrud (1993), "Perceived desirability" can be defined as the degree to which an individual finds the prospects to start a business is attractive. This suggests that the attractiveness of an individual towards entrepreneurship to be their career option. According to Shapero (1984) in their Entrepreneurial Event Theory, the perceived desirability of self-employment was depicted as a determinant of entrepreneurial intention. The impact of perceived desirability comes from family, education, social support and culture. Study by Chen *et al.*, (1998) found perceived desirability of self-employment to be a strong predictor of entrepreneurial intentions.

Next is the perceived desirability of self-employment construct with .302 for Indonesian sample and .323 for Bruneian sample which also had a positive influence on startup intention. Therefore, this supported H1d that the students have strong desirability towards self-employment which leads to strong intention for them to go for self-employment rather than waiting to get employed as government or private companies' employees. Therefore, perceived desirability of self-employment is a significant influencer in framing startup intentions of university students in Indonesia and Brunei. Thus, both Indonesian and Bruneian sample supported hypothesis H1d.

5.2 Research Question 2

What is the effect of innovativeness personality characteristics and risk-taking personality characteristics on students' startup intention? To answer the second research question, this study has developed two hypotheses to measure the effects of these two constructs on startup intention.

H2a: Innovativeness personality characteristics have a positive significant influence on startup intention.

Both Indonesia and Brunei rejected that innovativeness personality characteristics to significantly influence the university students' startup intention. The role of personality characteristics; need for achievement, innovativeness, locus of control and risk taking in entrepreneurial behavior and a business startup is an element that can be ignored (Zhao & Seibert, 2006). Pilis *et al.*, (2007) studied personality characteristics as predictors for entrepreneurial intention to starting up a new business and towards being successful in running a business. Innovativeness personality characteristic as claimed by (Mueller & Thomas, 2001) in previous research, entrepreneurs were more innovative than non-entrepreneurs.

The construct of innovativeness personality characteristics was found to have insignificant influence on startup intention, where innovativeness obtained beta value of .105 and is insignificant, this characteristic failed to influence startup intention and this rejected hypothesis H2a for both samples. This suggests that university students in Indonesia and Brunei have low innovativeness as part of their personality characteristics, hence low intention towards startup. This finding is in line with Shapero's 1982 study, the result was insignificant and obtained a negative link between an innovativeness personality characteristic and startup intention of the students. The standardized of coefficient was -.112 between the innovative personality characteristic and startup intention of university students in Brunei. Thus, both Indonesian and Bruneian sample rejected hy-

pothesis H2a for this study.

H2b: Risk-taking personality characteristics have a positive significant influence on startup intention.

Indonesian sample supported this hypothesis whereas Bruneian sample failed to prove that having risk-taking personality characteristic play an important role in influencing Bruneian university students towards startup intention. Risk-taking personality characteristic refers to how a person handling risk and uncertainty and be ready to bear them. This supports the idea of (Gatewood *et al.*, 1995) who believed entrepreneurs should have strong willingness to take risks, endurance and intelligence, and have the ability to startup own business and become the boss of their own business rather than being controlled by others. Entrepreneurs must have risk-taking characteristics in them in order to handle difficulties and tough competition to strive a success, especially in the business world. It is believed that the more innovative an individual, the more they were inclined towards entrepreneurship (Mueller & Thomas, 2001). Research by Sexton & Bowman-Upton, (1990) found that students who engaged in entrepreneurship courses were more innovative than students of business admin courses. Gartner (1985) believed otherwise; it is not an effective indicator for their choice towards business startup.

Indonesian sample found a beta value of .163 for the construct of risk-taking personality characteristic, implying that high risk-taking personality characteristics was associated with high startup intention amongst university students in Indonesia. Hence, Indonesian sample supported hypothesis H2b for this study.

However, Bruneian sample found an insignificant relationship between risk-taking personality characteristics with startup intention of Bruneian university students. The construct of risk-taking personality characteristics found a standardized coefficient of .033, and proved to obtained insignificant link between risk-taking personality characteristic and startup intention of Bruneian university students. Hence, hypothesis H2b was rejected in this study for Bruneian sample.

5.3 Research Question 3

Does intrinsic motivation contribute a moderating effect on the relationship between attitude and the students' startup intention?

In order to answer the third research question, this study has developed one hypothesis to measure the moderation effect of intrinsic motivation on students' attitude and students' startup intention. For hypotheses (H3), Indonesian sample failed to support the construct of intrinsic motivation moderates the relationship between attitude towards students' startup intention, whereas Bruneian sample found intrinsic motivation moderates the attitude of Bruneian university students' attitude towards startup intention.

Indonesia found intrinsic motivation to moderately influence the relationship between attitude and the university students' startup intention. Motivation is a label for the determinants of the choice to initiate effort on a certain task, to expend a certain amount of effort and the choice to persist in expending effort over a period of time (Campbell & Pritchard, 1976). Scholars like (Schachter & Rich, 2011; Fayolle & Linan, 2014) defined motivation briefly as the purpose of psychological cause of an action. Studies categorise motiva-

tion into two types; intrinsic and extrinsic motivation. Al-Swidi *et al.*, (2012) suggests that intrinsic motivation refers to the driving force which comes from within and is in the form of awareness on the relevance of the work that an individual is performing. Intrinsic motivation comprises of three internal constructs of curiosity, involvement and preference for challenge. Whereas, extrinsic motivation refers to a driving force which emanates from outside, and is in the form of what made an individual to carry out the work to a higher level.

Motivational factors have a significant influence on entrepreneurial intention (Choudhary, 2017). Moy *et al.*, (2001) believed, motivation play an important role for a person to have high desire towards starting up a new venture. Motivational factors can also be an initial push for self-employment, security, wealth as suggested (Zhuravlev, 1998). Factors like intrinsic and extrinsic motivation drives a person to have the passion to start a business (Simola, 2011). Achchuthan & Kandaiya (2013) proposed in their research that motivational factors are an under studied determinant of entrepreneurial intentions and found in their research that motivation had a significant influence on entrepreneurial intention. It is also stated; the intrinsic motivation has stronger effect rather than extrinsic motivation. As argued by (Bagozzi *et al.*, 1989) in his research, the Theory of Planned Behavior and Entrepreneurial Event Theory ignored the motivational factor as an antecedent of intention. However, Carsrud & Brannback, (2011) emphasised in their study that the is link between motivation, intention and action.

This research is in line with past studies which the result was found that intrinsic motivation has significant positive relationship towards startup intention. The standardized coefficient was .126 ($p < .01$). University students were motivated intrinsically such as being their own boss, high status and self-actualisation. Thus, this confirmed hypothesis H2 and is consistent with past studies as mentioned earlier.

In contrast, for Bruneian university students failed to prove the hypothesis on moderating role of intrinsic motivation to influence on the relationship between attitude and university students' startup intention. Past scholars like (Schacter *et al.*, 2011; Fayolle *et al.*, 2011) defined motivation briefly as the purpose of psychological cause of an action and is the process of stimulating people to actions to accomplish the goals. As defined by Oudeyer & Kaplan (2009), "intrinsic motivation, centrally involved in spontaneous exploration and curiosity, is a crucial concept in developmental psychology".

This research found that intrinsic motivation does not moderates the relationship between attitude and students' startup intention. The standardized coefficient was .376. This study implies that university students in Indonesia were not motivated intrinsically such as being their own boss, high status and self-actualisation. This could be the reason of not supported to be a businessperson and have no interest in venturing into business. As proven in H1b "Social norm has a positive significant influence on startup intention" was rejected. This implies that Indonesian sample has lower level of supports from family and friends towards starting up a business. This indirectly affects their motivation from within and have lesser confidence to do own business. Thus, this rejected hypothesis H3 for Indonesian sample.

6 DISCUSSIONS

6.1 Body of knowledge contribution

The novelty of this research lies in its contribution to the entrepreneurial discipline by developing an integrated model. This research investigated the startup intention of Indonesian and Bruneian university students. The literature suggested the proven power of 'Theory Planned Behaviour' in predicting entrepreneurial intention. Equally important was the 'Entrepreneurial Event Theory', which was also used extensively in this field to predict entrepreneurial intentions. The proposed integrated conceptual model of this research combined the determinants of these two theories and intrinsic motivation was added as an additional determinant. Motivation proved a significant indicator of startup intention in this research study. Therefore, the integrated model of this research, which included intrinsic motivation as an additional determinant, is a contribution in the entrepreneurial discipline.

The empirical analysis demonstrated that all hypotheses' relationships were significant with the exception of social norm, entrepreneurial self-efficacy, innovativeness personality characteristics and intrinsic motivation for Indonesian sample. In contrast, Bruneian sample demonstrated that attitude, entrepreneurial self-efficacy, perceived desirability of self-employment and intrinsic motivation were significant. Moreover, all determinants of startup intention explain 41.4 per cent of the variation in startup intention, which is more than the 30-45% in previous studies of entrepreneurial intentions (Gelderen *et al.*, 2008; Linan & Chen, 2009; Schlaegel & Koenig, 2014; Kolvereid & Isaksen, 2006). This holistic model provided additional explanatory power and a more comprehensive understanding of the process through which entrepreneurial intentions develop. Therefore, a major contribution of this thesis is to show that a holistic integrated model could be further examined in different cultural and economic environments.

Additionally, the findings also explained innovativeness and risk-taking personality characteristics. However, the relationship between entrepreneurial personality characteristics and entrepreneurial intention in the intention-behaviour model was found to be insignificant contribution in the entrepreneurship discipline.

As a conclusion, this study assisted to facilitate a more inclusive understanding on the determinants of startup intention. More importantly, this study found a beneficial starting point in examining startup intention in developing country; Brunei Darussalam because most of the previous studies were empirically conducted in neighboring countries like Malaysia and Indonesia and other developed countries. Therefore, this study helped to add a new valuable knowledge to the literature of startup intention.

6.2 Practical contribution

The findings of this study reveal important implications for policymakers and startup founders. The findings indicate that startup founders/ entrepreneurs in Brunei can evaluate the significant determinants that influence the intention towards startup, namely attitude, entrepreneurial self-efficacy, perceived desirability of self-employment, risk-taking personality characteristics and intrinsic motivation. These were confirmed as determinants of startup intention among university students in Asian context.

The findings highlighted that the importance of university students having the abovementioned factors could influence their decision if they wish to go for business startup. Hence, it might be useful for relevant government bodies and private sector to formulate suitable training, programs, workshops and business courses to develop the specific characteristics for startup founders or potential startup founders in Indonesia and Brunei Darussalam.

In addition, this study also supports the idea that social pressure did not influence their perception and motivation. Moreover, findings suggested that Indonesian and Bruneian students with previous entrepreneurial work experience had the required attitude, desirability and entrepreneurial self-efficacy, which could be enhanced by further opening avenues in this direction, for instance, by providing entrepreneurship training which could develop relevant skills for business startups. Learning by experience, consequently, will reflect a greater confidence in prospective entrepreneurs to start their own business (Kolvereid & Isaksen, 2006).

With positive influence of predictors such as attitude, entrepreneurial self-efficacy, perceived desirability of self-employment and intrinsic motivation on students' startup intention. Practically, detail suggestions to increase these indicators on startup intention may be channeled to the policymakers as well as to the students' families and friends. These following actions might be useful for policymakers to work together with other related government bodies: (1) To convince students that having their own business is the other option for their career; (2) To convince university students that career as entrepreneur is also attractive; (3) To convince university students to go for startup if they have the opportunity; (4) To convince university students that being an entrepreneur would entail great satisfactions; and (5) To convince university students if they go for startup, they will certainly be successful providing with support from the government and relevant agencies.

In addition, by understanding determinants of startup, any related agencies can advance their entrepreneurial activities and programs by incorporating relevant training, which will strengthen the perceptions or intentions of students toward startup. Thus, as suggested by (Klapper & Tegtmeier, 2010), the students may feel more encouraged and confident to venture on business startup.

Moreover, for the policymakers both in Indonesia and Brunei could also have the strategic idea by allocating resources to industries where these students were more inclined to admit preference would be a constructive economic policy step. The contribution of this thesis lies in the suggestions, which policy makers and financial supporters can utilise to allocate resources to these industries and prioritise them in their policies. To have a deeper understanding on the startup intention of Indonesian and Bruneian university students could be a valuable study providing practical solutions to job creation programs among university students.

In conclusion, the finding which proved a positive relationship between attitude and intrinsic motivation towards students' startup intention is useful for policymakers in Indonesia and Brunei Darussalam, as it can allow them to establish formal entrepreneurial policies; in turn providing a better entrepreneurial environment and facilitating startup creations in Indonesia and Brunei. The students can be given enhancement of knowledge on entrepreneurship, which will

encourage them to be self-employed. Hence, the Indonesian and Bruneian government should provide the funds and supporting infrastructures for young generations as part of the effort to facilitate new venture creations for these younger generations. Additionally, the findings could also support policymakers to establish more effective startup incentives and programs in the future.

6.3 Limitations of the research

Despite making an important contribution to the field, this paper has limitations that must be addressed. This report has a limitation of generalisation, which was due to non-representative sampling. Although caution was exercised while sampling, as the respondents were heterogeneous with different streams, variety of content and subject areas. This study focused on a university student which are studying full time or part time in public and private institutions. This study ignored other heterogeneous aspects of the respondents and other modes of acquiring education. This resulted in a narrow scope for the study. Future studies are recommended to use the framework developed for this research and assess its impact on a wide array of educational programmes. This would probably be useful in widening the scope of study and generalising the results.

The next limitation was due to the geographic location selected for the research. To address this limitation, it is recommended that this same study be replicated by increasing the number of samples and not focusing on specific study programs. This could contribute to greater generalisability of the findings.

In addition, time constraint is another limitation in this study. Since startup intention is the best predictor of entrepreneurial behavior amongst university students, this research study only focused on the intention but not the actual action. This mainly due to difficulties arise and time-efficient to quantify action. As that would requires a longer time and need more data to run. Hence, this research was unable to conduct in a longitudinal period to have a more comprehensive result.

For recommendation for future studies should include to not mainly focused on startup intention, but on the actual startup action. Thus, to assess the effectiveness of entrepreneurial programs might be the most explicit way to measure the impact of determinants on startup intention, and finally, the actual startup actions. So, future research should address research questions which focus on “students’ actual startup creation”, which focusing on the entrepreneurial action where the students are already involved with startup, and it is no longer about their intention towards startup.

In conclusion, this study has investigated the variables (attitude, social norms, entrepreneurial self-efficacy, perceived desirability of self-employment, intrinsic motivation, innovativeness and risk-taking personality characteristics), as well as demographic factors which influence students’ startup intention. The limitations and some recommendations are stated earlier to support future researchers. Future studies might want to conduct future research with in-depth knowledge on this topic. It is because in Asian countries like Indonesia and Brunei whom the government is encouraging the younger generation to venture onto startup and/ or small and medium enterprises, as it has a very important position in the rapidly changing socio-economic environment. Moreover, entrepreneurs play a vital role in supporting the development of any nation as they will

indeed contribute to the effort of reducing unemployment rate in a country. To conclude, this study should provide policymakers, startup founders or entrepreneurs with useful knowledge to understand how an individual’s behavior will have an influence on intention to be an entrepreneur.

ACKNOWLEDGMENT

The authors wish to thank Universiti Teknologi Brunei for the opportunity and believe in the capability to carry this research out in Brunei. Moreover, special thanks to relevant supervisors and universities which contributed in the completion to the article.

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