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A Study on Factors Influencing the Startup Intention among Students

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Abstract

Startups play a crucial role in creating employment and stimulate economic growth in Brunei Darussalam. As graduate unemployment is alarming in the country, startup can be one of the career options after they complete their study. The objective of this study is to examine the factors influencing the startup intention of higher institution students and to investigate the government role for the development of startup in Brunei. A sample of 373 students of various majors from six higher institutions (public and private) through online survey and interview to investigate the government role in influencing startup intention of students. The data from respondents will be analysed using descriptive statistics using SPSS version 22. A structural equation modelling (SEM) to test hypotheses followed by confirmatory factor analysis (CFA) to examine the validity of measurement model with the use of AMOS version 22. The result is expected to develop appropriate actions which can be recommended and explored to support and encourage their intentions for startup through formulation of relevant policies. The policies that are formulated and implemented effectively can encourage the development and growth of startups in the country.

Keywords: Students startup intention, government role, university students

1 Introduction

Brunei Darussalam is dependent on its oil and gas sector as it is a major contributor to the Gross Domestic Product (GDP). 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). Currently, much attention about entrepreneurship have been increased in Brunei and the role of young entrepreneurs has been increasingly promoted by the Bruneian government agencies like Darussalam Enterprise (DARe), *LiveWIRE* Brunei, Ministry of Economic, Manpower and Industry (MEMI) through its program i-Usahawan and Bank Islam Brunei Darussalam (BIBD) with its BIBD 360 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 to instigate the entrepreneurial mindset amongst young people, as well as an overall business startup support program should be made.

Now, the SMEs contribution to the GDP in Brunei scored an average of 72.03 per cent and in the ranked 55 out of 190 economies in the World Bank's Ease of Doing Business 2019 report. In the report added, Brunei ranked 16 for starting a business category and scored at 94.92 with improvement in areas such as starting a business, getting electricity and getting credit. In addition to that, the Bruneian government has put entrepreneurship as the main agenda in the country with availability of entrepreneurial programmes to cater the growth of entrepreneurship activity in the country.

Today, the development of technology plays a crucial part in economic growth. Dahlstrand (2007) indicated, with the emerging of technopreneurship may cause ever-growing appearance of knowledge-based SMEs. Technopreneurship is not an easy venture business. Abbas (2018) emphasized, technopreneurship requires high level of intelligence and expertise and it provides sophisticated programs to create strategic thinkers with required skills to achieve success in a competitive dynamic environment. Brunei is moving towards knowledge-based SMEs as promotion on entrepreneurship which involves technology is rising.

According to Schumpeter (1934); entrepreneurship has been long acknowledged as a major force for economic development. Most of the countries in Asia have a long history of entrepreneurship. Many studies (Kogut et al., 2010; Bowen & Clercq, 2008) proved entrepreneurship has a significantly effect on the economic prosperity of countries. Oosterbeek, Praag & Ijsselstein (2010) stated developed countries like Europe and United States are dependent on higher levels of entrepreneurship to achieve economic growth and innovation. Nurturing entrepreneurship has become an explicit policy priority for many governments (OECD, 2016). Hence, a developing country like Brunei is in need to regenerate and sustain the economic growth and boosting employment in the country. It is vital to study the factors which can influence the students' decision to become entrepreneurs and promote entrepreneurship in the country. In addition, government role in providing funding in Brunei is unlikely to have sources that directly measure this concept. Therefore, this study attempts to concurrently conduct in-depth interviews with relevant government agencies, specifically in area which deals with startup activities and understand in depth how they view the role of government in influencing the startup intention of an individual.

1.1 Problem statement

The number of people in age group of 25 to 54 years old totalled at 215, 300 people and is dominating the population in Brunei (JPKE, 2018). Omoruyi et al. (2017) found in their research about Africa, a population dominated by young people is known as "youth bulge". The government must utilise the best advantage of the young population or else they will be a burden to the country. Similarly, Brunei is experiencing the unemployment trend amongst young generation, the graduates struggle to look for jobs and some might see start-ups and self-employment are seen as a strategic solution, to create jobs and as well as, contribution to the socio-economic of the country. Thus, investigating students' intention towards career option is vital as they are moving towards employment stage in life.

Moreover, the challenges and stiff competitions for applying jobs in Brunei left graduates with lack of choices or sometime none to match their skills with the jobs. Most graduates have to accept any job opportunities available, but are often mismatched to their respective skills or face period of being unemployed. Raising awareness on high institution students to have different mindset on career option is significant and not to expect too much on getting

employed by government or private sectors after they finished their studies; but to create employment to contribute to the social and economic welfare (Ramos, 2014).

Accordingly, investigating the entrepreneurial intentions among students, being the important emerging source of entrepreneurship has been well researched by numerous scholars. Their implications bear special importance to policy makers in promoting entrepreneurship; as what Iakovleva et al. (2011) indicates, normally in the developing economies is less stable, often being marked by strong turbulence that makes choosing careers a complicated thing especially for graduates. Although much effort has been done by the Bruneian government to encourage young generation to become entrepreneurs, however, the knowledge about their intentions towards business startup is still sketchy. Moy et al. (2001) emphasized that in order to foster the growth of entrepreneurs in a country, it is imperative to understand the overall process of starting a business, specifically the 'why' and 'how' a business startup was established and operated. A research with government role as moderator is still understudied in Brunei. Thus, this study aims to investigate the moderating effect of government role on the relationship between the factors affecting the startup intention and students' startup intentions.

2 Literature review

According to Abbas (2018), when entrepreneurship meets technology, capital and supportive environment, it then moves on to a more advanced level known as technopreneurship; technology has the most important role in transforming the world since the late 20th century. The modern technologies and the creation of technological opportunities through presentation of viable products and services can be referred as technopreneurship (Blanco, 2007). Technopreneurs means technology entrepreneurs which are basically the big, small and medium enterprise ICT and multimedia companies. Technology-based entrepreneurs make use of the emergence of technology and the opportunities and challenges into businesses with technological adoption and advancement which act as a channel to expand and accelerate the businesses as well as the people.

Study of Sadriwala & Kaneez (2018) specified; entrepreneurship has the ability to cultivate the economic growth of a country. This supported a research by Bruyat and Julien (2001) which argued entrepreneurship to be the most significant economic factor driving the economy and acts as an engine (Kuratko, 2005) which stimulates the economy in new business venture and to create employment. The impact of entrepreneurship on economic growth has increasingly gained a lot of interest from economists and policy makers over the years (Dau & Cuervo-Cazurra, 2014) and policymakers around the world strongly believe the need of entrepreneurship is strongly acquired in order to have a high level of economic growth and innovation (Oosterbeek et al., 2010). Sarkar (2014) added, entrepreneurship has been considered as the engine of economic growth of a country. Entrepreneurs are those who initiate or have the idea of starting a business. Awan & Ahmad (2017) believed, entrepreneurship plays an important role to cope with economic downturns to reduce cost and adopt technology according to what the business needs. An entrepreneur can actually be trained and sought; it is believed an entrepreneur is not necessarily born but can be developed (Koe et al. 2012). Intention towards entrepreneurship plays an important role in the decision to venture into a business. Entrepreneurship can help a country to strengthen its economic position and to remain competitive in the era of globalisation. According to researchers such as Basheer & Sulphrey, 2017; Sulphrey & Alkahtani, 2017, proves that by fostering and encouraging entrepreneurship presents is a solution to the employment issues.

Van Gelderen (2008) defined entrepreneurial/ startup intention as a desire to build a business in the future. Entrepreneurial intentions specified by Thompson (2009) as “*self-acknowledged conviction by a person that they intend to set up a new business venture and consciously plan to do so at some point in the future*”. Thus, it can be concluded, a start-up intention is an indicator of one’s behaviour of conducting a business. In addition, Reynolds (2007) emphasised, entrepreneurial behaviours are dynamic and it develop over time; generally, a considerable time passes before an individual’s actions culminate into the establishment of a business. The life cycle of startup, as stated by Núñez (2007), mostly fail at the very early stage due to financial issue, poor management, technology lag, etc which can be categorised as “startup problems”. It is called “success stories” when a startup survive and grow into a successful company and contributes to the economic growth of a country (Martinsons, 2002). Hudson & Khazragui (2013) believed a black box called “valley of death” is more like myth than a well-defined stage. Zwilling (2013) referred “valley of death” in startup world as the difficulty of covering the negative cash flow in the initial stage of startup, before a product or service brings revenue to the business.

2.1 Entrepreneurial intention and Behaviour theories

Intention towards entrepreneurship plays an important role in the decision to make a business. Engle et al. (2010) defined entrepreneurial intention as the decision to start a new business with proper planning and lead by an accomplishable objective. Thompson (2009) added, it is a level that can range from low, medium to high level on intention in performing businesses. Similarly, startup intention (SI) is a desire to build a business in the future.

The study on students’ startup intention has not been well tested in Brunei in reference to the studies to Bruneian context for its relevancy and accuracy. Little information is known on determinants affecting business startup intention and to verify the relationship between determinants and students’ startup intention. Therefore, based on scanty study of the determinants of students’ startup intention, this study would investigate to what extent does government role moderate the determinant of Start-up intention among university students in Brunei Darussalam.

2.2 Theoretical framework of this study

The aim of this paper is to investigate the startup intention of Bruneian students in the context of three intention-based models; Theory of Planned Behavior, Entrepreneurial Event Theory and Social Cognitive Theory and additional items such as personality characteristics, motivational factors and a moderation effect of government role. Studies considering for moderation effects and government roles are still inadequate in the context of Brunei. Government play an important role in influencing the entrepreneurial intention of an individual. Thus, this research attempts to investigate the moderating effects of government role on the factors and startup intention.

The study will be based on 8 variables that are divided into: one dependent variable, six independent variables and one moderating role. The dependent variable is the Startup Intentions of students at selected private and public institutions in Brunei. The independent variable in this study are the factors affecting intention, with the following components: attitude, social norms, self-efficacy, perceived desirability of self-employment, motivation, and personality characteristics. Government role is the moderating variable. The model is depicted in Figure 1.

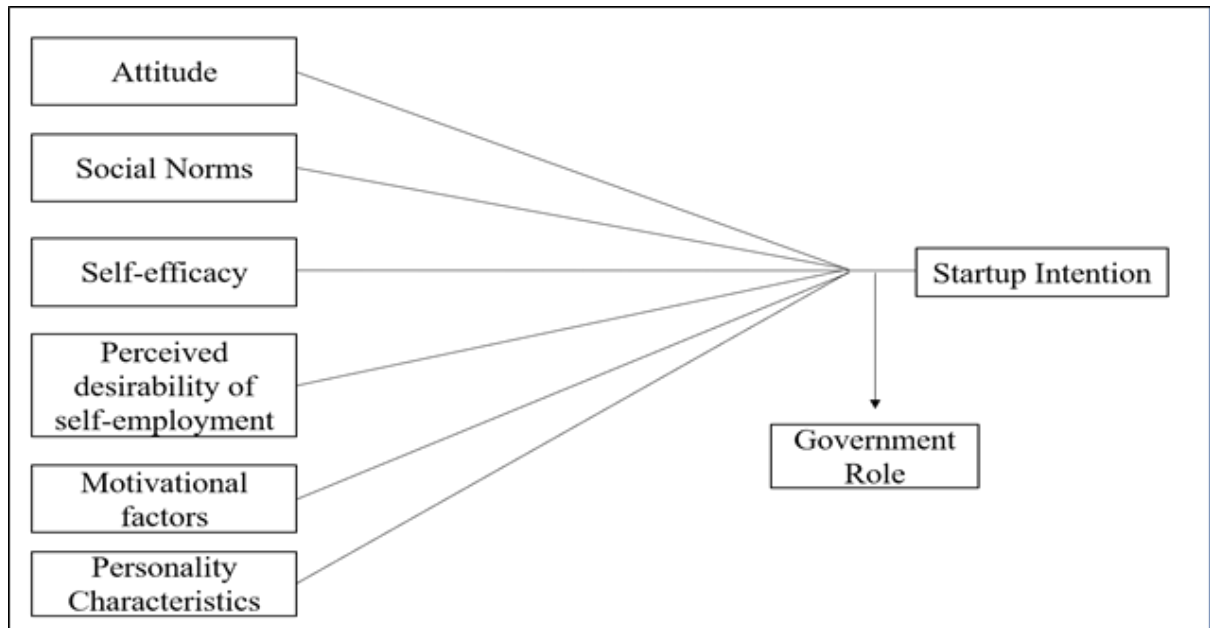


Fig. 1. Start-up Intention Proposed Research Framework

2.3 Hypotheses Development

Krueger & Brazeal (1994) tested the attitude-intentions of students and found, attitude has a significant influence toward intention. do Paco et al. (2011) agreed, attitude plays an important role in entrepreneurial intention. Schwarz et al. (2009) supported similar idea that, attitude is one of the good predictors of entrepreneurial intention and (Kabir, Haque & Sarwar, 2017) confirms the relationship between attitude and entrepreneurial intention is statistically significant. Schlaegel & Koenig (2014) found in their research that the stronger the attitude towards targeted behavior, the stronger the desirability of self-employment and the entrepreneurial intention. This proves studies which claims, human attitude has a strong and direct influence on intention is true. Hence, the following hypotheses is developed:

H1: Attitude has a significant influence on startup intention.

A recent study of (Essa & Ibrahim; 2018 and Ferri et al.; 2018) found that social norms is the strong predictor of entrepreneurial intention. Moreover, some researchers proved there is a positive relationship between social norms and entrepreneurial intention (Maes et al., 2014; Kolverid & Isaksen, 2006). However, Krueger et al. (2000) failed to find positive relationship between entrepreneurial intention and social norms. Similarly, other scholars (Linan & Chen, 2009; Carsrud & Brannback, 2011, Keat et al., 2011; Farashah; 2013 and Kabir, Haque & Sarwar; 2011) also found that social norms were not significantly associated with entrepreneurial intent. These contradicting results made this variable obliges further investigation. So, the following hypothesis is proposed:

H2: Social norm has a significant influence on startup intention.

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). Chen, Greene & Crick (1998) found empirical evidence that entrepreneurial self-efficacy was positively

related to students' intention towards startup. Scholars like Ahlin et al.; 2014 & Wilson et al.; 2007) referred self-efficacy as the self-confidence of an individual in their skills and abilities to perform certain action in a given domain. Markham et al. (2002) suggested the reliability of self-efficacy to predict career options of an individual. Ajzen (1991) 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 in 1997. Krueger & Carsrud (1993) and Indarti & Kristiansen (2003) believed that entrepreneurial intention is influenced by self-efficacy. It is evident from the literatures of (Segal et al., 2005, Wang et al., 2011 & Oyugi, 2015) that investigated the relationship between self-efficacy and career choices, found higher level of self-efficacy leads to higher level of entrepreneurial intention of an individual. Many scholars referred PBC to self-efficacy (Shook & Bratianu, 2010; Moriano et al., (2011). Thus, the hypothesis below is proposed:

H3: Self-efficacy has a significant influence on startup intention.

According to Goetz et al., (2012) self-employment has a positive effect on economy of a country, as well as effect on per capita growth and poverty reduction. Ozaralli & Rivenburgh (2016) found that entrepreneurial career among family members gives the opportunity to obtain business skills, confidence and experience which contribute to the intention for starting up a business. Previous researchers such as Shapero (1984) and Peterman & Kennedy (2003) found that family background significantly influence the entrepreneurial intention. A recent study by Chaudhary (2017) confirms that self-employed family background has a positive influence on entrepreneurial intent, which supports Alsos et al. (2011)'s research which also agree that individual with business background among family members has a significant role in influencing the development of entrepreneurial intention. In addition, Kolvereid (1996) anticipated that high level of perceived desirability of self-employment is associated with the choice of an individual intent for self-employment or other job options. But, Nguyen (2018) in her recent research proven otherwise – do not have significant influence. This obliges further investigation on these opposing results. Therefore, the following hypotheses is developed:

H4: Perceived desirability of self-employment has a significant influence on startup intention.

According to scholars like Sesen & Pruett (2014); Vardhan & Biju, (2012) and Worch, (2007), studies on entrepreneurial motivation has been gathered with different methods and one of them is intrinsic and extrinsic motivation. Choudhary (2017) found that motivational factors have a significant influence on entrepreneurial intention. The motivational factors like tolerance to ambiguity, egoistic passion, propensity to take risk (Shane et al., 2003) and these motivational factors as suggested by (Haus et al., 2013; Linan & Chen, 2009), for entrepreneurship proved to vary among human groups. 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 by Zhuvlev et al. (1998) and factors like intrinsic and extrinsic motivation drives a person to have the passion to start a business (Simola, 2011). It is also stated; the intrinsic motivation has stronger effect rather than extrinsic motivation. As argued by Bagozzi in his research in 1989, the Theory of Planned Behavior and Entrepreneurial Event Theory ignored the motivational factor as an antecedent of intention. So, the following hypotheses is proposed:

H5: Motivational factors (intrinsic/ extrinsic) has significant influence on startup intention.

Zhao & Seibert (2006) explained 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. However, Pilis & Reardon (2001) studied personality characteristics as predictors for entrepreneurial intention to starting up a new business and towards being successful in running a business. Study by Fini et al. (2009) believed personality characteristics like passion, optimism, tenacity and confidence have positive influence on entrepreneurial intention Barbosa et al. (2007) suggested individual's risk propensity is an important factor that might impact startup intentions. Lee and Anderson (2007) believed, entrepreneurs must have risk-taking characteristics in them to handle challenges and tough competition to strive a success. However, other researchers like Gartner (1985) believed otherwise, those with personality characteristics are not an effective indicator for their choice towards business startup. Therefore, the following hypotheses is proposed:

H6: Personality characteristic has a significant influence on startup intentions.

The government and private sectors support in terms of funding helps to contribute to the growth of business startup (Türker & Selçuk, 2009). It was found in their research that public, private and non-government bodies have an important influence to engage people in entrepreneurial activities. Denanyoh et al. (2015) supported the same idea, in Ghana, the study found positive relationship between supports from government and entrepreneurial intention. Hence, the hypotheses below is developed:

H7: Government role moderates the influence of the determinant of startup intention.

2.4 Significance of study

The theoretical contribution is a model which will be design for this study which empirically investigated in the context of Brunei. This proposed research is important both theoretically and practically and investigating a well-extensively used model; Theory of Planned Behavior, aided with another two theories; Social Cognitive Theory and Entrepreneurial Event Theory; within an Asian cultural context is useful for the generalisability of the theories and revising the models might contribute valuable information to strengthen the explanation capability of these theories. The practical contribution comes from the findings which will develop valuable insight for policymakers and startups/ entrepreneurs.

- Significance for Policymakers

This research provides an important insight for relevant government agencies and policymakers like DARE, which could potentially inform them:

1. To create appropriate programmes and incentives to encourage business startup. E.g. Creative and technological industry.
2. Amend specific educational reforms and approaches i.e. to invest into relevant professional and tertiary education to develop the job and technological skills and importantly, encouragement of creativity and entrepreneurship i.e. expansion of policies which enable this sector.

3. The findings should make an important contribution to the field of entrepreneurship in Brunei, particularly in gaining more interests among the younger generation to take on business startup.

- Significance for startups/ entrepreneurs/ founders

The findings will assist startup founders, to understand more students' intention towards startup, the perception of barriers in setting up a startup and the required competencies or capabilities to manage the startup. Moreover, some other benefits are to enhance diversification and expand the local economy, an entice investment and talent from industry. Brunei's economic development could be further achieved because of the ability of a successful startup would increase the return of investment made by the government.

3 Methodology/Materials

3.1 Population

Bryman and Bell (2003) defined study population as "the whole group that the research focuses on". A sample size should be large enough which can sufficiently describe the phenomenon of interest and address the research question at hand. Hence, the population for this research is the university students. As of statistics released by JPKE in 2017, total number of students studied in higher institutions amounted at 12,135 students, both public and private institutions in Brunei Darussalam. Using the Krejcie and Morgan's sample size calculation which based on $p = 0.05$ where the probability of committing type of error is less than 5% or to be accurate $p < 0.05$ and a population size of 12,135 students, thus, the required sample size should be 373 students. Those enrolled in different courses because not all business-related students will consider entrepreneurship for career option, but rather researching within students' specialised field.

3.2 Sampling techniques

A probability sampling is chosen for this research to avoid bias. Popescu et al. (2016) suggests that a probability sampling will represent each unit of the population to have an equal chance of being selected in the sample. According to Wanjohi (2012), there are four types of probability sampling; simple random, systematic sampling, cluster sampling and lastly, stratified sampling.

For this research, a stratified sampling will be employed due to variation within the population to ensure every stratum is represented effectively. A stratified sampling allows researcher to improve research precision. The population is divided into strata with element like gender, ethnicity, education level and, so on. A random sample of population will be collected from each stratum to ensure that all relevant strata is included in the sample.

3.3 Data collection strategy

This study will employ both qualitative and quantitative approach through an online survey and interviews. A quantitative method usually uses close-ended questionnaires to gather, analyse and interpret the data. Respondents will receive an email with brief information on the research's objectives and a link to the survey. The survey will be self-constructed with

the use of online Google Form site. The use of Likert scale questions which required the respondents to complete the survey and indicate the extent to which they agree or disagree.

In addition, a qualitative method like interview usually use open-ended questionnaires to obtain, analyse and interpret the data. The interviewees will be a representative from Startup Development Team of DARE, *LiveWIRE* Brunei, Ministry of Energy, Manpower and Industry (i-Usahawan) and Bank Islam Brunei Darussalam (BIBD SME 360) specifically to investigate on the role of government influence on students' startup intention. The questions will consist of structured open-ended questions to investigate the government role. It will be recorded and conducted in Bahasa Melayu and English Language, depending on the respondents' preferences. It is required to have voluntary participation in the interview and assured the respondents of confidentiality. Consent will be obtained from respondents to record the interview.

3.4 Measurement instrument and operationalization of variables

The online questionnaires are to be developed by referring to past literatures in entrepreneurial/startup intentions like seven-point Likert-scale design question with extremes "Strongly Disagree" and "Strongly Agree" and gender is to be measured using a binary scale (male and female). A total of ninety items in the questionnaire which are divided into five sections and attempt to include the measurement of the relevant variables for this research: attitude, social norms, self-efficacy, perceived desirability of self-employment, motivation, personality characteristics, and government role. The instrument for the above study is adapted from literature Choudhary (2017), Ndofirepi, Rambe and Dzansi (2018) and Linan and Chen (2006).

3.5 Data analysis method

This study will use Statistical Package for Social Sciences (SPSS) and Analysis of Moment Structures (AMOS) to analyse the data collected. SPSS version 22 will be used to perform the descriptive statistics like means, standard deviation, Cronbach's alphas and will be generated in order to have better understanding on the level of agreement of the respondents with respect to the proposed variables. Reliability analysis will also be used to test all the questions in survey if they are reliable or not with the study. Sekaran (2003) stated a Cronbach's alphas of variables which are higher than 0.8 is good for scale reliability which indicates the respondents answered the questions without bias, with consistent and stable.

In addition, a two-way approach will be applied for model validation. The structural equation modeling (SEM) with the use of AMOS to test the research questions and hypotheses in this study. This will be followed by confirmatory factor analysis (CFA) using AMOS to examine the validity of the measurement model. Hair et al., (2011) suggested, SEM is a useful statistical tool to test theories and conceptual models of the study empirically. In addition, SEM will determine the relationship among the hypotheses in the research framework is significant based on the data collected. Moreover, AMOS will be used to analyse qualitative data from interviews which will be transcribe and coded based on pre-determined theme.

4 Results/ Findings

This paper is expected to have findings which contribute valuable insights to the policymakers, educators, practitioners and related government agencies as discussed above.

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