

A Study on the Impact of Personality Traits on Entrepreneurial Capacity of Undergraduates of Faculty of Management Studies of Sabaragamuwa University of Sri Lanka

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Abstract

Entrepreneurs are national assets to be motivated, cultivated, and remunerated to the greatest possible extent. During the last few decades improving entrepreneurial capacity through education has garnered much enthusiasm among academics, practitioners, and policy-makers. The level of entrepreneurial capacity in terms of an individual's feeling of being able to discover opportunities and transform them into value creating outcomes greatly influence the possibility of them being future entrepreneurs. In the preliminary investigation conducted by the researchers, it was found that the entrepreneurial capacity is noticeably low within the final year undergraduates of the faculty of Management Studies, Sabaragamuwa University of Sri Lanka (FMS, SUSL). The literature highlights the importance of studying individual's personality on entrepreneurial capacity. Therefore, the main objective of this study was to identify the impact of each big five personality trait on the entrepreneurial capacity of the undergraduates of the FMS, SUSL. Extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience are the five dimensions of big five personality traits. The research was conducted based on Positivistic research paradigm with quantitative research methodology. Further, deductive approach was applied and data was collected through a validated and a reliable questionnaire. The study sample was 137 final year undergraduates selected using the stratified random sampling technique. The data was initially analyzed using the multiple regression analysis to test the hypotheses of five personality dimensions on entrepreneurial capacity. Since all the dimensions except neuroticism were rejected from the initial model, final fitted model was developed using simple regression analysis. SPSS 21.0 software was used to analyze the data. Among all other factors, this study found that only neuroticism has a significant negative influence on entrepreneurial capacity of undergraduates. This research finding will contribute to the students, administrative staff, and academics for recognizing and mitigating the neuroticism aspect. It will assist undergraduates to become successful entrepreneurs and in turn, contribute to the growth of the country's economy and social development.

Keywords: Entrepreneurship, Entrepreneurial Capacity, Personality Traits

INTRODUCTION

Entrepreneurship is the backbone of a nation's development (Acs and Szerb, 2007; Koe et al., 2012; Schumpeter, 1934), because entrepreneurs not only contribute for economic growth but also they enormously contribute for the social development through creation of value based innovations and employment opportunities for the country. Thus, the requirement of developing entrepreneurship is a vital factor for any economy which is essentially true for a developing country like Sri Lanka as well.

Entrepreneurial capacity is the basic condition for the fulfillment of effective entrepreneurial behavior which is dealing with turning the new knowledge into realized economic value for recognized stakeholders (Collins et al., 2006). It indicates that the level of entrepreneurial capacity determines the successfulness of the entrepreneurship. Entrepreneurship paves the way for transforming a developing country to a developed country through innovations which create value for the society. Therefore, entrepreneurs act as guiding stars for economic and social development.

During the last few decades improving entrepreneurial capacity of individuals through education has gained much attention among academics, practitioners, and policy-makers all over the world (Mohamad et al., 2015; OECD, 2014). Entrepreneurial education is mainly about improving the entrepreneurial capacity of individuals through developing required skills and motivating them to start-up a business (OECD, 2014; Thrikawala, 2011). Further it is expected of education to nurture the ability and willingness of individuals to build value for themselves and for the entire society (OECD, 2014). Accordingly, most of the universities have included entrepreneurship related courses into their degree programmes.

RESEARCH PROBLEM

Undergraduates are at the seedling phase in their entrepreneurial or the career journey. There is a growing level of unemployment prevailing among graduates in Sri Lanka (Thrikawala, 2011). Even though entrepreneurship is a key solution to the ever growing problem of unemployment among graduates, majority of them in Sri Lanka does not prefer entrepreneurial career compared with other countries (Pretheeba, 2014; Perera et al., 2011; Thrikawala, 2011).

Sabaragamuwa University of Sri Lanka (SUSL) is one of the young universities in the state university system of Sri Lanka which has a proud history of 20 years. Currently the university comprises of five faculties including Faculty of Management Studies (FMS). However within the history of the FMS, the amount of entrepreneurs found among the graduates is very low (Practical Training Unit, 2012). In a background like this, the researchers conducted a preliminary investigation to identify the current level of entrepreneurial intention among the final year undergraduates of the FMS by using validated and reliable Entrepreneurial Intention Model developed by Liñán and Chen (2006). This is one of the adapted models of Theory of Planned Behavior. Professional attraction, social valuation, entrepreneurial capacity, and entrepreneurial intention are core elements of the Entrepreneurial Intention Model (Liñán and Chen, 2006).

Results of the preliminary study revealed that there is a low level of entrepreneurial intention (mean value = 3.18 in 7 point Likert Scale) among final year undergraduates of FMS in SUSL. Further it was revealed that the level of entrepreneurial capacity, one of the determinants of entrepreneurial intention, is comparatively lower (mean value = 2.72 in 7 point Likert Scale) than the other core elements of the Entrepreneurial Intention Model.

In Sri Lanka, motivating individuals to become entrepreneurs and equipping them with the right skills to translate opportunities into successful business ventures is one of the crucial elements in promoting entrepreneurship (Pretheeba, 2014).

A number of researches which have been conducted in Sri Lankan context (Examples: Pretheeba, 2014; Perera et al., 2011; Thrikawala, 2011) have highlighted the need of studying entrepreneurial ability of Sri Lankan undergraduates since the level of entrepreneurial intention is comparatively lower than the undergraduates in other Western countries.

Pretheeba (2014) highlighted the importance of an attitudinal change towards entrepreneurship as a vital part in higher education curriculum of Sri Lanka. The literature further highlights the importance of studying individual differences on entrepreneurial capacity (Liang et al., 2015). In this study the researchers argue that individual's personality will have an influence on entrepreneurial capacity. Therefore, the main objective of this study is to identify the impact of each big five personality trait on entrepreneurial capacity of the undergraduates of the FMS of SUSL.

LITERATURE REVIEW

An Overview of Entrepreneurial Capacity

Entrepreneurial capacity is one of the emerging concepts in economics, management, and entrepreneurship literature. Researchers view entrepreneurial capacity from different aspects like financial, technological, and human capital (Camenzuli and McKague, 2015; Leitao and Franco, 2008; Mai and Gan, 2007) as well as from different levels like individual and organizational (Leitao and Franco, 2008). Consequently, the term entrepreneurial capacity still appears irregularly and unsystematically within the literature (Hindle, 2007). However many researchers have highlighted the importance of developing the construct of entrepreneurial capacity and identifying different factors that impact entrepreneurial capacity (Liñán and Chen 2006).

Hindle (2007) formalized the concept of entrepreneurial capacity by synchronizing the two schools of thought the 'Opportunity Perspective' and the 'Value School of Innovation'. According to him 'Opportunity Perspective' is discovering and managing the opportunities and 'Value School of Innovation' is turning the existing knowledge into realized economic value for the stakeholders. Hindle (2007) defines entrepreneurial capacity as the ability of individual or grouped human actors (entrepreneurial protagonists) to evaluate the economic potential latent in a selected item of new knowledge, and to design ways to transform that potential into realizable economic value for intended stakeholders (p. 9).

Capacity involves not only the notion of ability but also the concerns of futurity and potential (Hindle, 2007). It indicates capacity comprises of latent qualities or abilities that may be developed and lead to future success or usefulness. Further, entrepreneurial capacity means not necessarily being in a firm or creating one (Hindle, 2007). It is all about ability to think and react in the transformation process of converting opportunities into realized benefits.

Entrepreneurial capacity in terms of human capital is widely believed to improve entrepreneurial performance in this dynamic business world (Leitao and Franco, 2008). Therefore, Liñán and Chen (2006) provide a hint to the entrepreneurial capacity as an individual's sense of capacity in the successful fulfillment of future firm creation behavior. Further, it is an individual's feeling of being able (self-efficacy) and, the perception about successfully performing the entrepreneurial behavior is up to the person. Entrepreneurial

capacity is the ability to endorse, purify, and drive entrepreneurial opportunities and identify, acquire, and organize resources needed to pursue those opportunities (Kuratko et al., 2005).

Theory of Planned Behavior suggests that perceived behavioral control is one of the motivational factors that influence the entrepreneurial intention (Ajzen, 1991; Krueger, 2009; Krueger and Carsrud, 1993). Perceived behavioral control is the ‘perceived ease or difficulty of performing the behavior’ (Ajzen, 1991, p. 188). Sommer and Haug (2011) found that perceived behavioral control is the most important entrepreneurial resource in the entrepreneurial process, which is quite similar to the perceived feasibility in Shapero and Sokol’s (1982) Entrepreneurial Event Model (as cited in Autio et al., 1997) and the feasible perceived self-efficacy in Krueger and Carsrud’s (1993) Intentional Model. However, looking at these concepts Liñán and Chen (2006) explain that entrepreneurial capacity is the most appropriate concept to discuss the sense of capacity of the ability and feasibility of entrepreneurs than the perceived behavioral control, perceived feasibility, or feasible perceived self-efficacy (Liñán and Chen 2006).

According to Collins et al. (2006) entrepreneurial capacity is the basic necessary and sufficient conditions for the pursuit of effective entrepreneurship behavior. Further Mitchelmore and Rowley (2010) explain that entrepreneurial capacity is important for business growth and success.

An Overview of Personality

Personality is an individual’s unique and relatively stable patterns of behavior (Allport, 1937). Personality traits are determined by both genetic makeup and environmental influences. Personality traits can predict quite accurately how people understand and view themselves, interact with others, perceive situations, solve problems, and carry out job responsibilities (Griest, n.d.).

Among the wide varieties of personality models, the ‘Big Five Personality Model’ is highly appropriate for capturing a broad picture of an individual’s personality (McCrae and John, 1992). It has five personality dimensions which are more distinct from one another (John and Srivastava, 1999). These five dimensions are extraversion vs. introversion, agreeableness vs. antagonism, conscientiousness vs. lack of direction, openness vs. closeness to experience, and neuroticism vs. emotional stability (John and Srivastava, 1999).

Big Five personality traits predict business intention, creation, and success (Brandstätter, 2011). However, Antoncic et al. (2015) explain that insufficient attention has been paid in entrepreneurship research to psychological characteristics, such as the big five personality characteristics. Further, few studies have empirically examined how individual differences influence the entrepreneurial capacity amongst students (Liang et al., 2015).

THEORETICAL RATIONAL FOR HYPOTHESES DEVELOPMENT

Personality determines an individual's unique adjustment to his/her environment (Allport, 1937). Even though personality is relatively stable, the behaviors associated with these personality types can be acquired through practice and persistent effort through training, mentoring, and coaching (Simmons, 2009). Hence it is believed that individual's personality can be developed through learning and education. Human Capital Theory explains that knowledge and learning helps individuals to increase their cognitive abilities, leading to be more productive and efficient in potential activities (Leitao and Franco, 2008). Entrepreneurial capacity is comprised of cognitive abilities mainly about to evaluate the economic potential latent in the new knowledge, and to design ways to transform that potential into realizable economic value (Hindle, 2007). Thus if a person's entrepreneurial capacity is to be developed, that can be done through changes in necessary aspects of his/her personality, which can be done through entrepreneurial education.

In the light of Human Capital Theory the researchers developed the hypothesized model to check whether each Big-five personality dimension impacts entrepreneurial capacity of final year undergraduates in SUSL.

Extraversion and Entrepreneurial Capacity

An individual with extraversion personality is social, active, talkative, outgoing, and assertive with others (John and Srivastava, 1999). Extraversion facilitates to build entrepreneurial capacity because it helps to spot latent opportunities and helps in convincing others about the viability of the idea. To be a good entrepreneur one should possess good social skills as shown by past literature. When a person is socially skillful and outgoing he/she is able to build a good network of help that will improve entrepreneurial capacity and it enhances future entrepreneurial success. Previous literature revealed that extraversion is significantly related to entrepreneurial intention among business graduates in Pakistan (Saeed et al., 2013).

Therefore, based on empirical findings the researchers propose that:

H1a: Extraversion impacts on entrepreneurial capacity

Agreeableness and Entrepreneurial Capacity

Agreeableness trait refers to which an individual is cooperative, helpful, courteous, and supportive to others (John and Srivastava, 1999). Entrepreneurs are required to lead their followers while maintaining mutual relations with stakeholders. When a person is cooperative, helpful, courteous, and supportive to others, it will enhance future entrepreneurial capacity. Cantner et al. (2011) have found that agreeable entrepreneurs have a lower probability to fail at all times from the start up of their firms. However, Caliendo et al. (2014) have found that agreeableness helps to explain entrepreneurial development in lower extent.

Therefore, based on empirical findings the researchers propose that:

***H1b:** Agreeableness impacts on entrepreneurial capacity*

Conscientiousness and Entrepreneurial Capacity

An individual with conscientiousness personality is responsible, disciplined, organized, and is a goal achiever. The most prominent personality trait to being an entrepreneur is conscientiousness (Simmons, 2009). Further an individual with conscientiousness can be expected to continue the journey of his/her business venture with very little outside influences needed to motivate him. He/she organizes scarce resources properly and is well disciplined. Cantner et al. (2011) have found that conscientiousness increases the failure hazard rate at the time of launching a firm, even if this effect diminishes over time. Further Ciavarella et al. (2004) have found that the entrepreneur's conscientiousness is positively related to long-term venture survival.

Therefore, based on empirical findings the researchers propose that:

***H1c:** Conscientiousness impacts on entrepreneurial capacity*

Neuroticism and Entrepreneurial Capacity

Neuroticism has been described as consisting of few negative attributes of personality that are nervousness, stressfulness, instability, lack of confidence, doubtfulness, and uncertainty (John and Srivastava, 1999). Those low on this trait are considered emotionally stable and are seen as self-confident, calm, even tempered, and relaxed. Entrepreneurs have to be very self-confident and resilient in the face of stress (Simmons, 2009). Antoncic (2009) has found that neuroticism negatively impacts on technological developments. Further, previous research shows that entrepreneurs are generally high in optimism (Hmieleski and Baron, 2009).

However, Caliendo et al. (2014) found that neuroticism helps to explain entrepreneurial development in lower extents.

Therefore, based on empirical findings the researchers propose that:

H1a: Neuroticism impacts on entrepreneurial capacity

Openness to Experience and Entrepreneurial Capacity

An individual with openness to experience personality is creative, sensitive, curious, cultivated, and independent minded (John and Srivastava, 1999). According to the findings of Antoncic (2009) openness to experience positively impacts on technological developments. A person with a rigid mindset is unlikely to succeed in demonstrating entrepreneurial capacity. Entrepreneurship essentially involves thinking in new ways and seeing unforeseen business opportunities and utilizing them in creative ways. Ciavarella et al. (2004) found a negative relationship between the entrepreneur's openness to experience and long-term venture survival. Further findings revealed that openness to experience is significantly related to entrepreneurial intentions among business graduates in Pakistan (Saeed et al., 2013). The empirical analysis further reveals that the trait of openness to experience helps to explain entrepreneurial development (Caliendo et al., 2014).

Therefore, based on empirical findings the researchers propose that:

H1e: Openness to experience impacts on entrepreneurial capacity

Figure 1 shows the hypothesized model of the study. Big Five Personality dimensions are considered to be the independent variables and Entrepreneurial Capacity is considered to be the dependent variable.

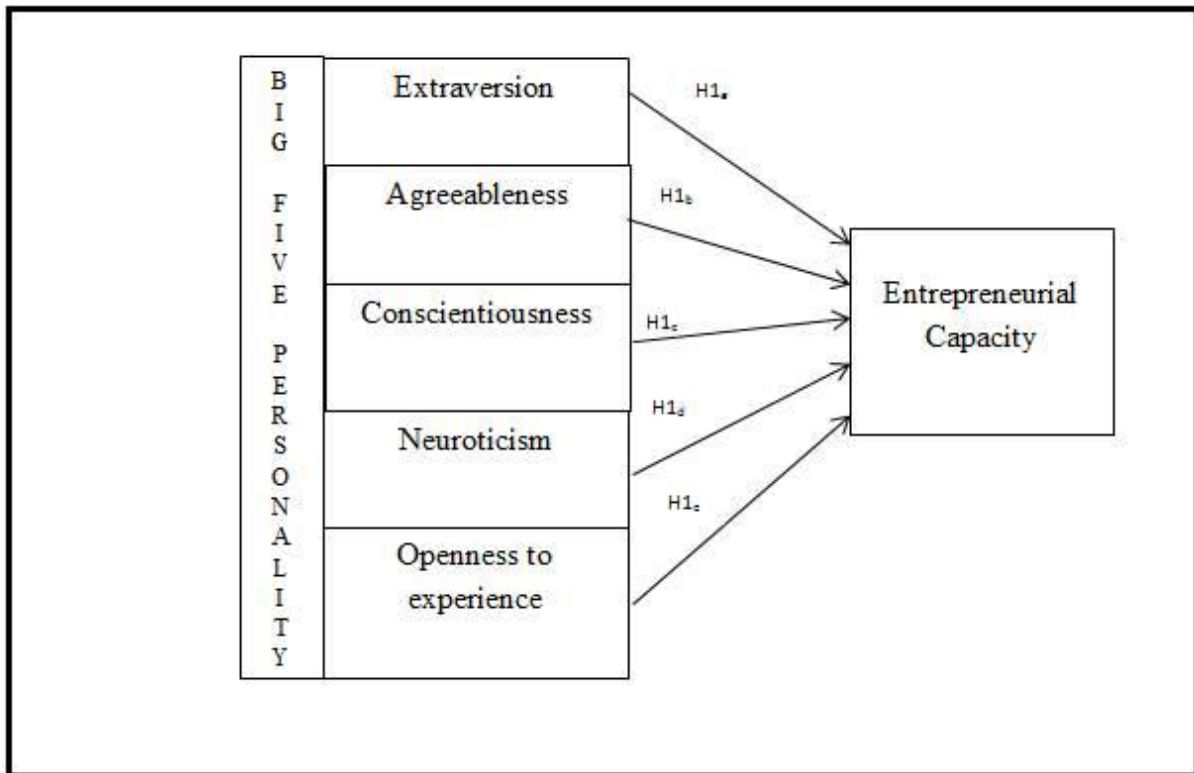


Figure 01 Conceptual Framework

METHODOLOGY

Research Philosophy

Research philosophy reflects assumptions on how a researcher sees the reality in the world (Saunders et al., 2009). Ontology and epistemology are two main assumptions in research philosophy which affect the entire process of the research (Bryman, 1984). This study was based on the objectivist ontology in positivism paradigm which denotes that reality exists externally to the social actors and it is in objective nature. Further this study was rooted in Positivistic epistemology which facilitates to examine and predict what generally happens in the social world by searching for pattern of each big five personality dimension and entrepreneurial capacity.

Research Methodology

Quantitative researchers always design and implement the empirical investigation in a manner which allows them to generalize the findings and formulate general laws with the purpose of describing some part of reality with certainty (Hanson and Grimmer, 2007). In this study the researchers wanted to find out antecedence of entrepreneurial capacity of final year

Management undergraduates of SUSL by selecting its representative sample. Therefore, the most appropriate methodology for this study was quantitative research methodology.

Research Approach

This study is driven with the deductive research approach which is facilitated by the positivistic research paradigm. In deductive approach, a researcher starts with an abstract, logical relationship among concepts and then moves toward concrete empirical evidence (Neuman, 1997 as cited in Ali and Birley, 1999). This study used validated and reliable measures to operationalize the study variables and logical relationships were established through five hypotheses and they were tested against the reality.

Research Strategy

The researchers used survey method as research strategy because it involves the structured collection of data from a sizeable population in a highly economical way and it avoids personal biases (Kothari, 2011). Further it is highly applicable in explaining personal characteristics and perception by analyzing answers using carefully developed items (Kallet, 2004). As this study involves reliable and validated scale for all the variables which are evolved around personal characteristics survey method is more appropriate.

Sample Design

Population: Population is described as the entire group of people of interest that the researcher wishes to investigate (Sekaran, and Bougie, 2010). The population of this study was 213 final year undergraduates of FMS, SUSL who studied Entrepreneurship & Small Business Management in their second year of university. Selection of the population has been made on three grounds. Firstly, it is very common to find empirical literature using undergraduates in particular, regarding research on entrepreneurial intentions (Liñán and Chen, 2006). Secondly, final year university students are about to enter the segment of the population showing highest tendency towards becoming an entrepreneur; i.e., those belonging to the 25-34 age-group and with university studies (Reynolds et al., 2002). Finally, they are about to face their professional career choice, so they may answer the EIQ more consciously (Liñán and Chen, 2006).

Sample: Sample is defined by Sekaran and Bougie (2010) as a representative sub set of the population. A researcher can go for a sample if it is impracticable to survey the whole population due to budget constraints, time constraints, and if results are needed quickly (Saunders et al., 2009). Since the population is finite and exactly known, sample size of 137 was determined by using Krejcie and Morgan (1970)'s formula (As cited in Kenpro, 2012).

Sampling Technique: Sampling frame is a prerequisite for applying a probabilistic sampling technique (Kothari, 2011). Sampling frame of the study was figured out using attendance sheets, therefore the researchers applied probability sampling technique. Main significance of probability sampling technique is every element in the population has an equal chance for being selected to the sample. Further stratified random sampling method was used to select the sample of 137 out of 213 of population by concerning the specialized degree programme of undergraduates. Table 1 illustrates the sample design of the study.

Table 1: Sample Design

| Composition of the Population | | Composition of the Sample | |
|-------------------------------|-------------------------------------|---|--------------------------|
| B.Sc. Degree Programme | Number of final year undergraduates | Application of Stratified Random Method | Final Sample Composition |
| Business Management | 61 | $61/213 * 137$ | 39 |
| Marketing Management | 61 | $61/213 * 137$ | 39 |
| EcoBusiness Management | 60 | $60/213 * 137$ | 39 |
| Tourism Management | 31 | $31/213 * 137$ | 20 |
| Total Population | 213 | Total Sample | 137 |

Measures: The dependent variable of entrepreneurship capacity was measured using the modified questionnaire which was developed by Linan and Chen (2006). There are six items to measure entrepreneurial capacity. Among them, five items are there to measure the level of feeling of being able (self-efficacy) to and one item to measure the level of perception about behavior controllability (successfully performing the behavior is up to the person) (Liñán and Chen 2006). Respondents were asked to complete the answers using a 7 point Likert scale ranging from 1 to 7, 1 being 'strongly disagree' and 7 being 'strongly agree'. "I'm prepared to start a viable firm" are sample item of entrepreneurial capacity.

The independent variables of big five personality traits were measured using a 5 point Likert scale which was developed by John and Srivastava (1999), 1 being 'strongly disagree' and 5 being 'strongly agree'.

Data Collection: Self-administered questionnaire was developed using validated and reliable scales to collect the data from sample. Hence this study was entirely based on primary data. The researchers distributed the questionnaire among randomly selected final year undergraduates in four degree programmes according to the allocated proportion. However only 115 questionnaires were returned and among them 6 questionnaires were not able to use for analyzing due to having some missing values. Therefore final sample size was 109 and final response rate was 80%.

Data Analysis Methods: Before testing the hypothesized model the researchers conducted preliminary analyzes such as descriptive statistics, normality, reliability, validity, and correlations of the variables. Then multiple regression analysis was initially used to test the hypothesized model. As a result of having non-significant variables, finally fitted model had to be developed using simple regression analysis. IBM SPSS Statistics version 21 was used as a software packages in data analysis.

DATA ANALYSIS

Sample Profile

The researchers carried out percentage analysis of demographic data of the selected sample to get an idea of the sample profile. Majority of the respondents (74%) was in the age of 22–24 years. Out of that, majority of the respondents (83%) was females. Further it was found that Majority of the respondents (65%) does not have entrepreneurial background in family.

Preliminary Data Analysis

Reliability: Reliability means the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable (Joppe, 2000 as cited in Golafshani, 2003). In order to be reliable Cronbach's Alpha value should be more than 0.7. Table 2 shows results of the reliability test. As the Cronbach's Alpha values are higher than 0.7, all these variables can be considered as reliable.

Table 2: Reliability Test

| Variables | No. of deleted items | Final no. of items | Cronbach's Alpha |
|--------------------------|-----------------------------|---------------------------|-------------------------|
| Entrepreneurial Capacity | - | 6 | 0.74 |
| Extraversion | 4 | 4 | 0.70 |
| Agreeableness | 1 | 8 | 0.75 |
| Conscientiousness | 1 | 8 | 0.71 |
| Neuroticism | - | 8 | 0.76 |
| Openness to experience | - | 9 | 0.74 |

Normality: To assess the Normality, the researchers used the Normality probability plot and the Kolmogorov Smirnov Test. To measure the normality hypothesis was developed as H_0 : The Dependent variable follows a normal distribution and H_1 : The dependent variable does not follow a normal distribution. The researchers used 0.05 as the significance level. If the output p value is greater than 0.05 there is not enough evidence to reject H_0 . Since the output p value is greater than 0.05 ($p=0.102$), there is not enough evidence to reject H_0 . Finally the researchers ascertained that the entrepreneurial capacity follows a normal distribution.

Validity: Validity refers whether an instrument actually measures what it was designed to measure (Randolph and Crawford, 2013). KMO Bartlett's test was used to check the validity of the study. Since the value generated is above the value of 0.5 it indicates the adequate validity (Randolph and Crawford, 2013). Table 3 shows results of the validity test. As the values are greater than 0.5 all these variables are considered to be validated.

Table 3: Validity Test

| Variables | Final no. of items | KMO Bartlett's Test |
|--------------------------|---------------------------|----------------------------|
| Entrepreneurial Capacity | 6 | 0.63 |
| Extraversion | 4 | 0.61 |
| Agreeableness | 8 | 0.64 |
| Conscientiousness | 8 | 0.61 |
| Neuroticism | 8 | 0.68 |
| Openness to experience | 9 | 0.67 |

Hypotheses Testing

H1_a : Extraversion impacts on entrepreneurial capacity of final year undergraduates

To test the hypothesis H1_a the researchers used the 0.05 as alpha value. If the output p value is less than the critical p value (0.05) there is enough evidence to reject H0_a. The output p value (0.072) is greater than the critical p value (0.05). Therefore the researchers do not have enough evidence to reject H0_a. According to that the researchers can say that extraversion does not impact entrepreneurial capacity of final year undergraduates in SUSL.

H1_b Agreeableness impacts on entrepreneurial capacity of final year undergraduates

To test the hypothesis H1_b the researchers used the 0.05 as alpha value. If the output p value is less than the critical p value (0.05) there are enough evidence to reject H0_b. The output p value under the SPSS (0.065) is greater than the critical p value (0.05). Therefore the researchers do not have enough evidence to reject H0_b. According to that the researchers can say that agreeableness does not impact entrepreneurial capacity of final year undergraduates in SUSL.

H1_c Conscientiousness impacts on entrepreneurial capacity of final year undergraduates

To test the hypothesis H1_c the researchers used the 0.05 as alpha value. If the output p value is less than the critical p value (0.05) there are enough evidence to reject H0_c. The output p value under the SPSS (0.093) is greater than the critical p value (0.05). Therefore the researchers do not have enough evidence to reject H0_c. According to that the researchers can say that conscientiousness does not impact on entrepreneurial capacity of final year undergraduates in SUSL.

H1_d Neuroticism impacts on entrepreneurial capacity of final year undergraduates

To test the hypothesis H1_d the researchers used the 0.05 as alpha value. If the output p value is less than the critical p value (0.05) there are enough evidence to reject H0_d. The output p value under the SPSS (0.002) is less than the critical p value (0.05). Therefore the researchers have enough evidence to reject H0_d. According to that the researchers can say that neuroticism impacts on entrepreneurial capacity of final year undergraduates in SUSL.

H1_e Openness to experience impacts on entrepreneurial capacity of final year undergraduates

To test the hypothesis H1_e the researchers used the 0.05 as alpha value. If the output p value is less than the critical p value (0.05) there are enough evidence to reject H0_e. The output p

value under the SPSS (0.067) is greater than the critical p value (0.05). Therefore the researchers do not have enough evidence to reject H₀. According to that the researchers can say that openness to experience does not impact entrepreneurial capacity of final year undergraduates in SUSL.

Developing a Final Fitted Model

Regression analysis is a powerful and flexible procedure for analyzing associative relationships between dependent variable and one or more independent variables (Sykes, 1992). The researchers developed five hypotheses as how each big five personality dimension (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to experience) impacts on entrepreneurial capacity of final year undergraduates in SUSL. Since there are five independent variables and one dependent variable in the hypothesized model, the researchers initially conducted a multiple regression analysis.

However result of the hypotheses testing shows that, except for neuroticism all the other four dimensions (Extraversion, Agreeableness, Conscientiousness, and Openness to experience) were rejected, as p-values of these variables were greater than the critical p value of 0.05. Therefore all the rejected variables were eliminated to develop the final fitted model using a simple regression analysis. Equation 2 shows the final fitted model of the study which was prepared based on the simple regression format given in equation (1).

$$E(Y_i / X_i) = \beta_0 - \beta_1 X_{1i} + \varepsilon_i \quad (1)$$

\hat{Y}_i = Dependent variable of Entrepreneurial Capacity (EC)

$\hat{\beta}_0 + \hat{\beta}_1$ = Regression Coefficient

X_1 - Independent variable of Neuroticism

ε_i - Randomness error

$$E(EC / Neuroticism) = 1.52 - 0.48 \text{ Neuroticism} \quad (2)$$

$$\beta_0 = 1.52$$

It is expected that the entrepreneurial capacity will increase by 1.52, when neuroticism remains as zero.

$$\beta_1 = -0.48$$

It is expected that the entrepreneurial capacity will decrease by 0.48, when the neuroticism increases by one unit.

Regression Test

Under the Regression test ANOVA output has to be tested. To test that the researchers have to develop the Hypothesis as H_0 : Final Fitted model is not significant and H_1 : Final Fitted model is significant. Under ANOVA test the researchers used the 0.05 as alpha value. If the output p value of correlation is less than the critical p value (0.05) there is enough evidence to reject H_0 . The output ANOVA p value (0.004) is less than the critical p value (0.05). Therefore the researchers have enough evidence to reject H_0 . According to that the researchers can say that the final fitted model is significant.

Adjusted R Squared

In statistic the coefficient of determination (R^2) indicate that how well data points fit a line or curve. According to SPSS output, the Adjusted R^2 value is 57.4% it means that 57.4% of variance of entrepreneurial capacity can be explained through neuroticism.

DISCUSSION

Results of the study revealed that the neuroticism has a negative impact on entrepreneurial capacity of final year undergraduates of FMS, SUSL. It indicates that when neuroticism increases entrepreneurial capacity tends to decrease. This finding aligns with Antoncic (2009) who has found that neuroticism negatively impacts on technological developments, as such innovations come through entrepreneurial capacity. Further Hmieleski and Baron (2009) also found that entrepreneurs are generally high in optimism. Contextual reason for negative impact might be due to uncertainty among students of their future prospects due to interrupted education caused by strikes, pickets, conflicts, and other disturbances that are common for Sri Lankan university system as well which increases neuroticism and results in reducing the level of entrepreneurial capacity.

All the other four dimensions (Extraversion, Agreeableness, Conscientiousness, and Openness to experience) do not significantly impact on entrepreneurial capacity of this FMS, SUSL context. Even though previous researchers found that these four variables are significant in several other contexts (Examples: Caliendo et al., 2014; Cantner et al., 2011; Ciavarella et al., 2004; Saeed et al., 2013; Simmons, 2009) this study reveals that there is no evidence to prove such impacts in SUSL context. It indicates differences of these personalities do not influence the level of entrepreneurial capacity. Irrespective of these personality types, there seems to be a prevailing negative attitude towards entrepreneurship

even though it can be one of the best options for addressing unemployment among graduates in Sri Lanka.

RECOMMENDATIONS

In order to improve the level of entrepreneurial capacity of undergraduates, SUSL should pay more attention towards reducing neuroticism of undergraduates. Counseling programmes will provide proper guidance to enhance the emotional stability of students. Further emotional learning lessons can be introduced to existing curricular of the faculty in order to stabilize the emotions of the undergraduates. It is recommended to eliminate feelings of uncertainty among the students by addressing the problems faced by them at grass root level rather than allowing them to develop into mass scale. Further training should be provided to improve the emotional intelligence aspects among the students to provide compromised solutions to the problems they face.

CONTRIBUTIONS AND LIMITATIONS

This study offers several contributions to the entrepreneurship literature. Entrepreneurial capacity is still an emerging concept. Hence, this study provides the contribution to investigate an under researched area. Apart from the knowledge contribution the current study will provide practical insights to SUSL as well.

Among the limitations the main limitation of this study is an application of cross-sectional data. Secondly, in reliability testing some items had to be deleted.

FUTURE DIRECTIONS

For the future researchers, it is better if this research can be expanded to several other management faculties in different universities of Sri Lanka or several other faculties in the same university which can represent a larger population. Further it is better if each characteristic of each dimension of big-five personality was tested as each dimension contains several personality characteristics of which some might be differently impacting entrepreneurial capacity.

CONCLUSION

Findings in this study provide useful insights on improving entrepreneurship capacity among final year Management undergraduates of SUSL. It was found those high in neuroticism tend

to have lower entrepreneurial capacity. If the students, administrative staff, and academics will take necessary initiatives to recognize and mitigate this aspect, it will facilitate to improve entrepreneurial capacity of them and it will pave the way for them to become successful entrepreneurs in future and in turn, contribute to the growth of the country's economy and social development.

REFERENCES

- Acs, Z. J., and Szerb, L. (2007), "Entrepreneurship, economic growth and public policy", *Small Business Economics*, Vol. 28, pp.109-122.
- Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50, pp.179-211.
- Ali, H., and Birley, S. (1999), "Integrating deductive and inductive approaches in a study of new ventures and customer perceived risk", *Qualitative Market Research: An International Journal*, Vol. 2, No.2, pp.103-110.
- Allport, G.W., 1937. *Personality* (pp. 173-181). New York: Holt.
- Antoncic, B., (2009), "The entrepreneur's general personality traits and technological developments". *World Academy of Science, Engineering and Technology*, Vol. 53, No.3, pp.236-241.
- Antoncic, B., Kregar, T. B., Singh, G., and DeNoble, A. F. (2015), "The big five personality-entrepreneurship relationship: evidence from Slovenia", *Journal of Small Business Management*, Vol. 53, No. 3, pp.819-841.
- Autio, E., Keeley, R.H., Klofsten, M. and Ulfstedt, T. (1997): "Entrepreneurial intent among students: Testing an intent model in Asia, Scandinavia and USA", *Frontiers for Entrepreneurship Research Conference*, Babson College.
- Brandstätter, H., 2011. Personality aspects of entrepreneurship: A look at five meta-analyses. *Personality and individual differences*, 51(3), pp.222-230.
- Bryman, A. (1984), "The debate about qualitative and quantitative research: a question of method or epistemology?" *The British Journal of Sociology*, Vol. 35, No.1, pp.75-92.
- Caliendo, M., Fossen, F. and Kritikos, A.S., 2014. Personality characteristics and the decisions to become and stay self-employed. *Small Business Economics*, 42(4), pp.787-814.
- Camenzuli, A., and McKague, K. (2015), "Team micro franchising as a response to the entrepreneurial capacity problem in low-income markets", *Social Enterprise Journal*, Vol. 11, No.1, pp.69-88.
- Cantner, U., Silbereisen, R.K., and Wilfling, S. (2011), "Which big-five personality traits drive entrepreneurial failure in highly innovative industries?" *Friedrich Schiller University Jena, Department of Economics*, pp. 1-36.
- Ciavarella, M.A., Buchholtz, A.K., Riordan, C. M., Gatewood, R.D., and Stokes, G.S. (2004), "The big five and venture survival: is there a linkage?", *Journal of Business Venturing*, Vol.19, pp.465-483.

Collins, L. A., J. S. Alison, et al. (2006). Discovering entrepreneurship: An exploration of a tripartite approach to developing entrepreneurial capacities. *Journal of European Industrial Training*. 30(2/3): 188.

Griest, D. L., (n.d.), Management Psychology Group and eTest, Inc.

Golafshani, N. (December, 2003), "Understanding reliability and validity in qualitative research", *Qualitative Report*, Vol. 8, No. 4, pp. 597-607.

Hanson, D., and Grimmer, M. (2007), "The mix of qualitative and quantitative research in major marketing journals 1993-2002", *European Journal of Marketing*, Vol. 41, No.1/2, 58-70.

Hindle, K. 2007. Formalizing the concept of entrepreneurial capacity. Refereed Proceedings of the 2007 ICSB World Conference. Finland: Turku School of Economics. (CD format precludes sequential pagination).

Hmieleski K. M., and Baron R. A. (June, 2009), "Entrepreneurs' optimism and new venture performance: a social cognitive perspective", *Academy of Management*, Vol.52, No.3, pp.473-488.

John, O. P., and Srivastava, S. (1999), "The big-five trait taxonomy: History, measurement, and theoretical perspectives", *Handbook of Personality: Theory and Research*, Vol. 2, pp. 102-138.

Kallet, R. H. (2004), "How to write the method section of a research paper", *Respiratory Care*, Vol. 49, pp.1229-1232.

Kenpro (August, 2012). Sample size determination using Krejcie and Morgan table.

<http://www.kenpro.org/sample-size-determination-using-krejcie-and-morgan-table/>. 2016.07.07

Koe, WL, Sa'ari, JR, Majid, IA & Ismail, K 2012, 'Determinants of entrepreneurial intention among millennial generation', *The 2012 international (spring) conference on Asia Pacific business innovation and technology management, Pattaya, Thailand, Procedia - social and behavioral sciences*, 40, pp. 197-208.

Kothari, C. R. (2011), *Research Methodology: Methods and Techniques*. New Age International, isbn8122415229.

Krueger, N.F., and Carsrud, A.L. (1993), "Entrepreneurial intentions: Applying theory of planned behavior", *Entrepreneurship and Regional Development*, Vol. 5, pp. 315-330.

Krueger, N., 2009. Entrepreneurial intentions are dead: Long live entrepreneurial intentions. In *Understanding the entrepreneurial mind* (pp. 51-72). Springer New York.

Kuratko, D. F., Ireland, R. D., et al. (2005). A Model of Middle-Level Managers' Entrepreneurial Behavior. *Entrepreneurship, Theory and Practice*. 29(6): 699-716.

Leitão, J. and Franco, M., 2008. Individual entrepreneurship capacity and performance of SMEs. *Available at SSRN 1118257*.

Liang, C.-T., Chia, T.-L., and Liang, C. (2015), "Effect of personality differences in shaping entrepreneurial intention", *International Journal of Business and Social Science*, Vol. 6, No. 4, pp.166-176.

Liñán, F., and Chen, Y.-W. (2006), Testing the Entrepreneurial Intention Model on a Two-Country Sample.

- Mai, Y., and Gan, Z. (2007), “Entrepreneurial opportunities, capacities and entrepreneurial Environments”, *Chinese Management Studies*, Vol. 1, No. 4, pp. 216-224.
- McCrae, R. R., and John, O. P. (1992), “An introduction to the factor model and its applications”, *Journal of Personality*, Vol.60, pp.175-215.
- Mitchelmore, S., and Rowley, J. (2010), “Entrepreneurial competencies: a literature review and development agenda”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 16 (2) 92 -111.
- Mohamad, N., Lim, H.-E., Yusof, N., and Soon, J.-J. (2015), “Estimating the effect of entrepreneur education on graduates’ intention to be entrepreneurs”, *Education + Training*, Vol. 57, pp. 874-890.
- OECD (November, 2014). Capacity building seminar: promoting entrepreneurial education in schools, Potsdam, Germany. <http://www.oecd.org/education/cbsentrepreneurialeducationpotsdam.htm>. 2016.09.12
- Perera, K.H., Jayarathna, L.C.H. and Gunarathna, R.R.P.K., 2011. The Entrepreneurial Intention of Undergraduates in Sri Lankan Universities. *Kelaniya, University of Sri Lanka Kelaniya*.
- Practical Training Unit (December, 2012). Feedback records of employability of graduates in FMS, SUSL.
- Pretheeba, P., 2014. Predicting entrepreneurial intention among business and engineering students in Sri Lanka. *Ruhuna Journal of Management and Finance*, 1(1).
- Randolph, J. J., and Crawford, L. M. (2013), “Factorial validity and reliability of the sense of community in online courses scale”, *Journal of Interactive Online Learning*, Vol. 12, No. 2, pp. 54-71.
- Reynolds, P.D., Bygrave, W.D., Autio, D. & Hay, M. (2002). Global Entrepreneurship Monitor. 2002 summary report, Ewin Marion Kauffman Foundation, Kansas City.
- Saeed, R., Nayyab, H. H., Rashied, H., Lodhi, R. N., and Musawar, S., Iqbal, A. (2013), “Who is the most potential entrepreneur? A case of Pakistan”, *Middle-East Journal of Scientific Research*, Vol. 17, No. 9, pp.1307-1315.
- Saunders, M., Lewis, P., and Thornhill, A. (2009), *Research methods for business students*, 5th edn, England: Pearson Education.
- Schumpeter, J. A. (1934), *The theory of economic development*, Cambridge, MA: Harvard University Press.
- Sekaran, U. and Bougie, R. (2010), *Research methods for business: A skill building approach* (5th ed.). West Sussex, UK: John Wiley & Sons Ltd.
- Simmons, B. L. (2009). Entrepreneurs and the big five. <http://www.bretlsimmons.com/2009-07/entrepreneurs-and-%e2%80%9cthe-big-five%e2%80%9d/>. 2016.09.14
- Sommer, L. and Haug, M. (2011). Intention as a Cognitive Antecedent to International Entrepreneurship: Understanding the Moderating Roles of Knowledge and Experience. *International Entrepreneurship Management Journal*, 7, 111-142
- Sykes, A.O., 1992. The Inaugural Coase Lecture; An Introduction to Regression. *Analysis*. *Chicago Working Paper in Law & Economics*.

Thrikawala, S., 2011. The determinants of entrepreneurial intention among academics in Sri Lanka. *International Proceedings of Economics Development & Research*, 4, pp.p454-468.