

Impact of Entrepreneurship Education on Entrepreneurial Intentions of Undergraduates: An Empirical Study

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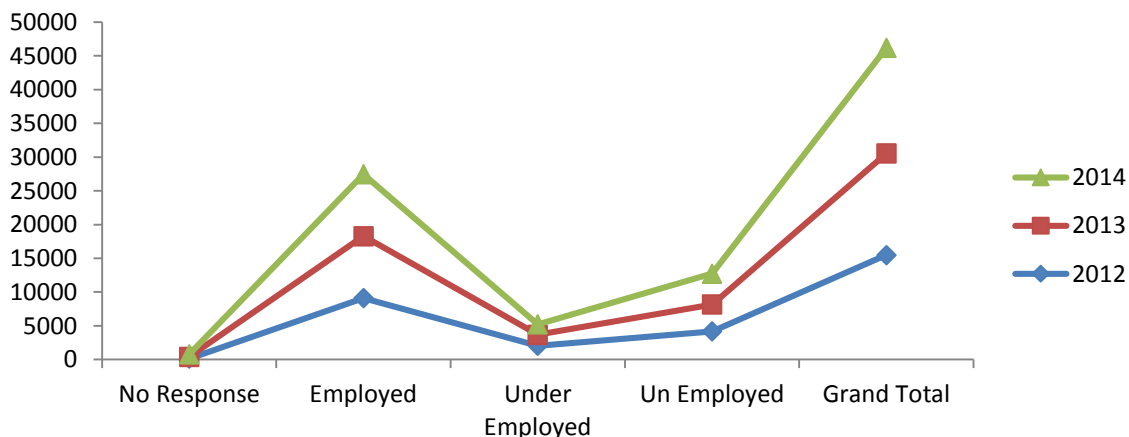
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Background

Entrepreneurship Education (EE) is a focal point in the promotion of entrepreneurship awareness. Today, the Sri Lankan Government is facing a critical issue of providing employment opportunities for all graduates. As Ranasinghe and Logendra (2015) observe that un-employment among educated segments of labour market is much higher than less educated workers. Also as, Nawaratne (2012) identify the two key problems are graduate unemployment and under employment. Moreover, according to the HETC Reports this situation is more or less same for three consecutive years. See the following figure 1.

Looking at the Graduate employment statistics of Higher education the average rate of un-employment and under employment is 41 percent. This is an important issue in developing country like Sri Lanka where the role of entrepreneurship development is more important than that in developed countries so far as the creation of self-employment opportunities and reduction of unemployment situations are concerned.

Figure 1: Graduate Employability (2012-2014)



Source: HETC Reports, Sri Lanka

Research Problem

A Great deal of recent research has focused on the use of variations on methods of entrepreneurship education (EE). Thus, the body of knowledge in this area is still at the evolving stage (Sivarajah & Achchuthan 2013). On the other hand despite the inclusion of entrepreneurship education (EE) to university curriculum (Kumara 2012); local universities produce less than 5 percent of entrepreneurs (Perera, 2012 cited in Dissanayake 2013:40). However EE is limited and its ability to fully assess the self-employment opportunities; This means that the decision to engage in self-employment opportunity is very much challenging task for all graduates in Sri Lanka (Ummah 2009). Based on the above situation, this study focuses on understanding the problem of 'Why graduates are not entrepreneurial?'

From the above broad problem, the following research question is formulated. "To what extent participation of entrepreneurship education programs (EEP) motivate entrepreneurial intentions of undergraduates in Sri Lanka?"

Objectives

The core objective of the study is:-

To explore relationship between participation of EEP and identify its impact on entrepreneurial intentions; the specific objectives were developed:-

To find-out whether undergraduates who participate in the entrepreneurial education are more likely to have perceived entrepreneurial motivation (PEM) that promotes positive attitudes, subjective norms and perceived behavioural control towards entrepreneurial intention (EI).

To examine undergraduates' attitudes, subjective norms and perceived behavioural control mediates the association between perceived entrepreneurial motivation (PEM) and entrepreneurial intention (EI).

To elucidate the variations of EEP on EI and strategies for identified challenges.

Theoretical Approach

Early works by Kolvereid (1996) identified Aizen's Theory of Planned Behaviour (TPB) can be used to for employment status choice intentions. It is empirically tested and validated in numerous studies (Krueger et al. 2000; Fayolle et al. 2006; Linan et al. 2011). In particular, 'the cognitive variables influencing intention are called motivational "antecedents" by Ajzen (1991 cited in Linan & Cohard 2015:79). In the TPB, three variables precede the formation of intention, which itself predicts behavior: 1) the subject's attitude toward a given behavior-ATT, 2) subjective norms-SN, i.e. the subject's perception of other people's opinions of the proposed behaviour, and 3) the subject's perception of his or her control over the behavior-PBC (Ranasinghe & Fonseka 2011:198). In effect the respondents from developing countries score higher on the theory's antecedents of entrepreneurial intentions –ATT, SN, and PBC – than respondents from developed countries (Lakova et al. 2011:353). This follows that there are studies to test the entrepreneurial intention among undergraduates in Sri Lanka (Ummah 2009; Dissanayake 2013); less attention has been given for influence of TPB to

understand the cognitive profile of the undergraduates (Surangi 2009; Pretheeba 2014); Thus in this study TPB is applied.

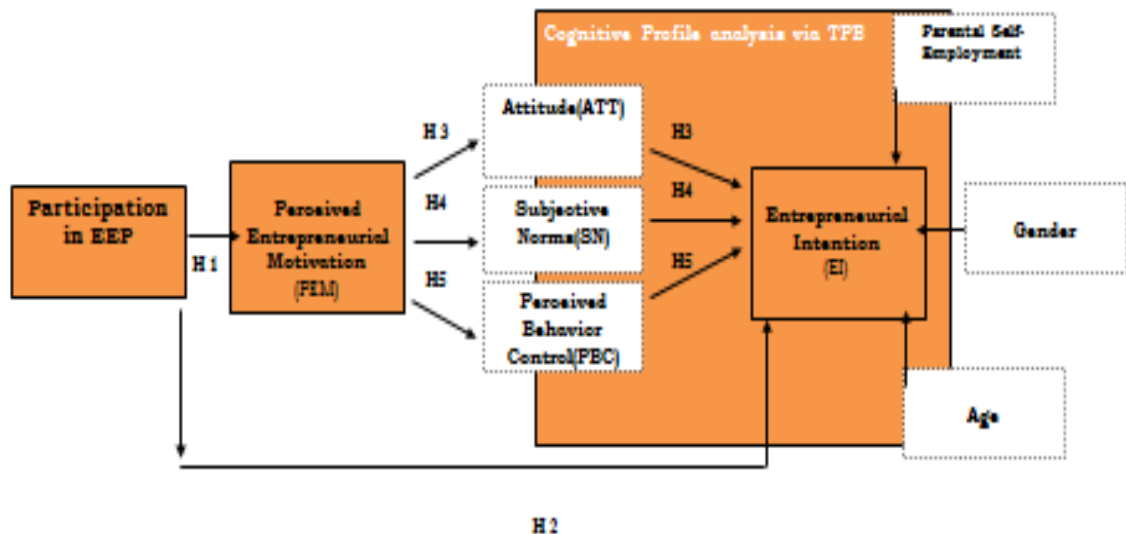
Conceptual Framework

The conceptual framework in figure 2, is developed by the researchers based on Ukraine study (Solesvik 2013:257); data analysis is mainly guided by six hypotheses. It is assumed that there is a significant association between key control (EEP) independent (PEM), mediating (ATT, SN, PBC) and dependent variables (EI). Other Control variables denote Parental-Self-employment, Gender and Age.

Hypothesis Development

- H1:** Participation in EEP has an impact on students' entrepreneurial intention (EI)
- H2:** Students who participate in the EEP are more likely to have higher PEM
- H3:** Students who participate in the EEP are more likely to have positive Attitudes (ATT) that promotes PEM towards entrepreneurial intention
- H4:** Students who participate in the EEP are more likely to have positive subjective norms (SN) that promotes PEM towards entrepreneurial intention
- H5:** Students who participate in the EEP are more likely to have positive perceived behavior control (PBC) that promotes PEM towards entrepreneurial intention
- H6:** ATT, SN and PBC mediates the association between PEM and EI

Figure 2: Conceptual Framework of the Study



Source: Adopted from (Solesvik 2013)

Methodology

This research is a cross sectional study that employed a quantitative approach had taken place during November 2016 to June 2017; as most studies adopting TPB have used the quantitative method (Malebana 2014). The main tool of the investigation will be survey method using convenience and purposive sampling method. This sample was easily

obtained and consisted of people who had to make decisions regarding their future careers upon completion of their studies (Gird & Bagraim 2008; Malebana 2014). The population of the study comprise of final year undergraduates registered for BMS. Sp Program (153) and B.B.Mgt. HRM (Sp.) Program (90) at Open University of Sri Lanka and University of Kelaniya, Sri Lanka. However only 150 undergraduates attended the lectures. 140 Survey participants completed the questionnaires yielding response rate of 93.3 percent.

Data Collection

Questionnaire Design and Measures

Based on the entrepreneurial intention questionnaire solely designed for TPB and motivational scales the researchers' developed the study questionnaire with six key factors which influence entrepreneurial intention based on theoretical and empirical review (Liñán & Chen 2009; Linan & Rodriguez 2016; Solesvik 2013). Before preceding the main survey; the researchers conducted a reliability analysis and consistency check; Cronbach's Alpha (α) show a good reliability with pilot survey ($\alpha > 0.7$) and final survey ($\alpha > 0.8$); the result clarify a clear indicator Garson (2009 cited in Malebana 2014:134); Thus reliability of the sample study questionnaire proven. The analytical tools of the data are descriptive statistics, Pearson's correlations, simple linear regression and hierarchical multiple regressions using SPSS 23.

Results & Discussion

Descriptive Analysis

This study reveal that the 140 students who are participants (13.6 percent)/non participants (86.4 percent) of entrepreneurship optional programs. Also 94 percent of the respondents were falling under youth category; 30 percent are males and 70 percent are females; only 27.9 percent influenced by entrepreneurial parents. The tested results of the study of independent (ATT, SN and PBC), Mediating (PEM), Control variables and dependent variable (EI) are as follows:

Table 1: Results of Descriptive Statistics

Independent & Dependent	Respondents	Minimum	Maximum	Mean	SD
EEP (Control)	140	1.67	4.50	3.5214	±0.71884
PEM Independent)	140	1	5	3.7129	±0.83220
ATT (Mediating)	140	1.40	5	3.7514	±0.79959
SN (Mediating)	140	1	5	3.8357	±0.88463
PBC(Mediating)	140	1.33	5	3.2083	±0.82092
EI (Dependent)	140	1	5	3.0614	±1

Source: Survey Data 2017

In order to calculate the association between key variables average values of the dispersion is computed. According to the table 1; mean averages of the independent and mediating variables are greater than three (>3). This means moderate level of effect can

be observed EEP, PEM, ATT, SN and PBC. On the other hand mean average of EI>3 and SD=±1; which indicates perfect agreement level entrepreneurial intention of the population taken for the study. Hence Pearson's correlations and hierarchical multiple regressions were conducted to examine the effects and variation of key variables on EI.

Correlation Analysis

Table 2: Pearson's Correlation analysis Results

Relationship	R	P	Hypothesis
PEM & EEP	0.423**	$\rho=0.000$	H1 accepted
EEP & EI	0.167*	$\rho=0.048$	H2 accepted
ATT & EI	0.587**	$\rho=0.000$	H3 accepted
PBC & EI	0.438**	$\rho=0.000$	H4 accepted
SN & EI	0.321**	$\rho=0.000$	H5 accepted

Standardized 'r' correlation coefficients. * $p<0.05$, ** $p<0.01$, *** $p<0.001$

Source: Survey Data 2017

Table 2 presents the Pearson's correlation test and significant association can be observe between participation of entrepreneurship education (EEP) and perceived entrepreneurial motivation ($0.423<0.01$);while weak positive relationship ($0.167<0.01$) between EEP on EI.

Regression Analysis

Table 3: Regression Analysis Results on Key Variables

Relationship	Regression Analysis (R^2)	Adjusted R^2	B	P	Hypothesis
PEM & EEP					H1 accepted
EEP & EI			EEP 0.193*	0.023	H2 accepted
ATT & EI			ATT 0.463**	0.000	H3 accepted
PBC & EI			PBC 0.289**	0.000	H4 accepted

SN & EI			0.149>0.05	0.061	H5 rejected
Base Model	(0.080*)	0.053,p<0.05>	Gender 0.175*	0.043	
Complete Model	(0.459, p<0.01) F=13.899	0.426,p<0.01	PEM= -.012	0.870	Mediation effect;H6 accepted

Standardized ‘β’ Regression Coefficients. *p<0.05, **p<0.01, *p0.001**

Source: Survey Data 2017

The results of the regression(table 3)of the base model show that control variables only account for the least variance ($R^2=8$ percent) in EI compared to the complete model (theoretical antecedents of EI, control variables and PEM); Adjusted R square is 0.053.The result indicates that 5.3 percent of variation of EI is explained by control variables; According to table ANOVA table in the regression analysis, Significant P value <0.05.Therefore at least one of the control variables will be significant and contribute to explain the variation of EI. Thus; EEP ($\beta= 0.193, p<0.05$), Gender ($\beta=0.175, p<0.05$), had a significant positive effect on EI. EEP accounts for 1.93 percent variance on the EI. The p value is less than <0.05 accept the hypothesis; therefore H1 and H2 accepted. However impact of EEP on EI is very weak ($p<0.05$); this result is insignificant when compared to the complete model; this is an important issue.

Moreover in the complete model R^2 is higher than the base model; regression which accounted for $R^2=46$ percent. As per Aizen’s justification (1991:189)‘ It is in the range of predictive power of the TPB between $R^2 =0.43-0.94$ ’ (Cited in Lorz 2011:77); This means that the application of the data set exhibit that adjusted R^2 is 0.426.This follows that Attitude towards entrepreneurship shows positive relationship ($\beta=0.463$) while Perceived behavior control has a weak positive relationship towards EI ($\beta=0.289$); however Social norms were found to be non- significant; thus H3 and H4 accepted on the other hand H5 is rejected.

Mediating Effect

On the other hand the value of partial correlation coefficient between PEM= $-.041 >0.05$; not significant and the correlation without controlling for ATT, SN & PBC is significant then this implies that the relationship between PEM and EI is completely mediated by ATT, SN & PBC (the students cognitive profile); Conversely in the complete regression research model PEM has no effect (-0.012) on EI where adjusted R^2 increases to 0.426; Perfect mediation takes place between if an independent variable has no effect on dependent variable (Solesvik 2013); thus which confirms mediation effect and H6 hypothesis confirmed. As the $F>10$ with $p=0.000$, the validity of the estimated regression line is established.

Objective Analysis

In this study though Students participation of EEP on PEM is moderately positive effect; EEP on EI show weaker impact. Due to majority of the students are non-participants (86.4 percent) resulted the weaker impact; this means that the core objective was achieved despite insignificant result. This follows that Attitude towards entrepreneurship shows positive relationship while Perceived behavior control has a weak positive relationship towards EI however Social norms were found to be non- significant ; As reported by the regression results confirmed that conceptualized mediation of attitudes (ATT), subjective norms (SN) and perceived behavior control (PBC) of the PEM and EI .Predictive power of the TPB is proven; this indicates that some of the specific objectives were achieved; therefore this study is consistent with findings of Solesvik (2013).

Conclusions and Recommendations

This point to the conclusion that due to undergraduates' perception they still do not consider entrepreneurship as a profession and that only a few will begin a business immediately after graduation. This is a problem, which leads the society and the economy as a whole to find the significance of owning or establishing a new business which has constituted a research area and demand further attention. It is the responsibility of Education policy makers to understand the importance of how students to be selected to and motivate them to become entrepreneurs.

Limitations and Further Research

The study is limited to 140 students registered for entrepreneurship optional programs at two public universities. Researchers' attempt to explore the impact of participation of entrepreneurship education on entrepreneurial intention and the result generated interest for further research with a larger and different sample representing higher education in Sri Lanka.

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