

## **Entrepreneurship Education and Startups: A Case Study of Less Developed Countries**

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**Abstract.** The goal of present study is to explore entrepreneurship educational programs, which helps students in the entrepreneurial startup development. This study is cross sectional and utilizes a data set from three large Asian countries, i.e. Pakistan, India, and Bangladesh. Primary data was collected from three sources (different cities) and study is quantitative in nature. This study's sample size is 837 students and it aims to explore whether entrepreneurship education is a good means to develop entrepreneurial intention and entrepreneurial startup development among them. The study is unique in nature and it will be helpful for policymakers to diminish unemployment through entrepreneurial education design.

**Keywords:** cross sectional study, entrepreneurial education, Asian countries, entrepreneurial startup development, educational programs.

### **1. Introduction**

Technological entrepreneurship is one of the important topics highlighted in debates nowadays. Entrepreneurship education has been characterized as an important driver of sustainable socio-economic development. It plays an important role for performing productive activities efficiently and effectively by utilizing commitments, initiatives and innovative efforts (Acs et al., 2008).

Entrepreneurship is mainly all about innovation and creativity in tasks whereas entrepreneurship education can be defined as a base for polishing that innovativeness (Molle, Djarova 2009).

In developing countries fostering of entrepreneurship obtains especial significance, since it is one of drivers of enhanced development (Tkacova et al., 2018; Baltgailis 2019; Kowo et al., 2019; Girdzijauskaite et al., 2019).

The present study analyses selected universities of such less developed countries as India, Pakistan and Bangladesh. Authors choose universities, which provide entrepreneurship education and orient students towards inception of startup companies.

The purpose of present study is to identify whether the educational programs have their intended impact. India, Pakistan and Banglades were chosen since they have similar economic and social development level and therefore are comparable.

One of major problems faced by those countries is the high unemployment rate prevailing among graduates passing out each year from the institutions of higher education. The major reason behind the phenomena is the preference of the graduates in the developing countries to become hired employees instead of immersing themselves in a self-employment (e.g. Muller, Korsgaard 2017; Naushad 2018). The aim of present study is to find out whether selected universities of indicated less developed countries sufficiently significantly affect the entrepreneurial startup development.

## **2. Literature Review**

Let us recall genesis of entrepreneurship theories. Theory of Planned Behaviour was introduced by Ajzen and Fishbein in 1980 (Ajzen, Fishbein, 1980). The further developed theory of planned behavior is theory of reasoned action presented by Sheppard et al. (1988) who stated that our every action is based on some intention or some reasons. This theory explained that intention of entrepreneurship stemmed from the opinion of desirability and feasibility of a person and this relation is affected by social and cultural context. This model contains some variables of attitude toward behavior and perceived behavior control which is affected by subjective norms (Turker, Selcuk 2009). Later those theories were followed by Theory of Achievement, which was authored by McClelland in 1961 (McClelland 2010). The theory claims that individuals, which need achievement perform better. In contemporary science it is unanimously agreed that entrepreneurial activity through innovations affect economic growth of any country. Therefore, big attention is being paid to entrepreneurs' education both in developed and developing countries

(Baubonienė et al., 2018; Belas et al., 2018; Bogdanović et al., 2018; Sulphey et al., 2018; Senan 2018; Alajmi, 2019).

Let us look at the entrepreneurial education if our selected countries. Hence, in Pakistan young generation chooses path of business not having formal education in this area (William, Shahid 2016). There is just a bit more than a decade ago higher education institutions started putting emphasis on entrepreneurial education (Muhib, Khan 2010). In India entrepreneurial education enrooted five nearly a decade earlier if to compare to Pakistan (Basu 2014). In Bangladesh entrepreneurship educations has been offered by universities already several decades, alas, it seems, that there is no visible impact it on insepction business companies in this country (Azim & Akbar 2010).

Entrepreneurial education is rather wide and differently understood notion. Let us focus on thee distinguished approaches towards entrepreneurial education, i.e. Generalized Entrepreneurial Education, Motivational Entrepreneurial Education, and Augmented Entrepreneurial Education.

Generalized Entrepreneurial Education aims to develop usefulness of potential in each individual. This type of learning creates an impression that encourage the students to relate their former principles and theory of knowledge and at the same time this learning develops their practice commitment and provide them experience which lead them to understand their achieved results are successful or failed (Löbler 2006). Motivational Entrepreneurial Education is basically an education which motivate certain individual to choose entrepreneurship as his passion as chose it as his/her career. Therefore, motivational entrepreneurship education is considered as most important driver of launchin of new businesees. Augmented Entrepreneurial Education focuses on self efficacy. According classic literature, self efficacy can be defined as capabilities of an individual for the purpose of organizing and executing the specific course of action in order to tackle with particular situation (Bandura 1995; Li et al. 2017). Similarly, the self system of is mainly the combination of attitudes, abilities and cognitive skills of a particular individual. Additionally, the self system is termed as important because of its reflection on an individuals' perception of any specific situation, as well as behavior of that particular individual in various distinct situations.

In our research we admit that all approached towards entrepreneurial education positively affect entrepreneurship developement, which in our case is estimated in number of insepcted new companies. As well, we want to find out, which apprach to entrepreneurial education has the most significant result.

### **3. Research Methodology**

Methodology of presented study represents the methods, strategies and approaches used by researchers for study and it also explains the sample, data set collection of study. Research technique used in the study is quantitative in nature and deductive approach was utilized by researcher in which hypothesis were tested for to validate the results. The population of study was universities students of three selected countries India, Pakistan and Bangladesh, and sample taken from the population was three leading universities students of each country. So, the total number of universities was nine. Researchers distributed 100 questionnaires in each university and total sample set was 900. The response rate was 93%, since 837 respondents filled in the questionnaire.

Sample of students selected from Pakistan Universities was from Quaid-i-Azam University Islamabad, Fatimah Jinnah University Rawalpindi and Islamic University Islamabad.

Sample of students selected from Indian Universities was from Indian Institute of Technology Delhi (IITD), University of Delhi and University of Calcutta.

Sample of students selected from Bangladesh Universities was from University of Dhaka, Chittagong University and North South University.

The time horizon selected by researchers is cross sectional in which researchers collected data in one point in time in year 2017. Statistical technique used by researcher is Andrew F. Hayes PROCESS technique, which is extension of SPSS software. Researchers used structured questionnaire for analysis. Sampling technique used for the study was non-Probability sampling technique of Convenience sampling. Reliability analysis of study shows that all variables were reliable and accurate. All variables Cronbach's Alpha value was more than 70%, what shows that items were reliable and can be used for further analysis. In questionnaire researchers asked of some demographic/ personal information of students, which is also presented in Table 1.

Table 1 shows that respondents were more male than female as male were 58% and female customer were 42% only. More students were from the age group of 21 to 30 and 31 to 40 as their percentages were 37.2% and 36.9% respectively, what shows that more students belonged to the age group of 21-30 years. "Program" of study shows that most of the students were doing masters studies in selected universities as their percentage was 43.8%. At the end researchers used convenient sampling that's why the students who were conveniently available from selected university were chosen as respondent. University of Dhaka from Bangladesh students' response rate is higher than

other universities (Table 1).

Table 1: Demographic profile of sample

Questions	Options	Frequency	Percent	Mean	Standard Deviation
Gender	Male	485	57.9	1.753	0.431
	Female	352	42.0		
Age	Below 20	113	13.5	1.804	0.910
	21-30	312	37.2		
	31-40	309	36.9		
	41& above	103	12.3		
Program	Under graduate	289	34.5	3.167	1.079
	Master	367	43.8		
	Doctoral	83	9.9		
	Diploma	98	11.7		
University (Country)	Quaid-i-Azam University Islamabad	94	11.2	1.678	0.731
	Fatimah Jinnah University Rawalpindi	95	11.3		
	Islamic University Islamabad	92	10.9		
	Indian Institute of Technology Delhi	89	10.6		
	University of Delhi	93	11.1		
	University of Calcutta	92	10.9		
	University of Dhaka	98	11.7		
	Chittagong University	93	11.1		
	North South University	91	10.8		

Source: developed by the researcher through SPSS Analysis.

#### 4. Empirical Analysis

The empirical analysis of study shows the correlation and regression results of study that what data is suggested about existing variable relationship. The correlation analysis shows that how much variables are depending upon each other while regression analysis shows that one-unit change in independent variable cause how much change in dependent variable. Table 2 provides some useful tests used to validate the hypothesis of present study.

Table 2: Correlation analysis

Variables	Mean	S. D	GEE	MEE	AEE	ETD
Generalized Entrepreneurial Education	1.906	0.639	1			
Motivational Entrepreneurial Education	1.909	0.553	0.445*	1		
Augmented Entrepreneurial Education	2.005	0.673	0.378*	0.365*	1	
Entrepreneurial start-up Development	1.929	0.611	0.577*	0.526*	0.539*	1

\*Correlation is significant at the 0.01 (99%) level, \*\*Correlation is significant at the 0.05 (95%) level, \*\*\*Correlation is significant at the 0.10 (90%) level

Source: Developed by Researcher through SPSS Analysis.

The correlation analysis shows the variable dependency upon each other. In present study the SPSS analysis shows, firstly, the mean and standard deviation of variables. Correlation value should be less than 0.80; if it exceeds the limit, variables dependency also increased. In present study correlation between motivational entrepreneurial education and generalized entrepreneurial education is 0.445, which is moderate correlation between both variables and shows no dependency on each other. The correlation between augmented entrepreneurial education, generalized entrepreneurial education and motivational entrepreneurial education is 0.378 and 0.365 respectively, what shows a weak correlation between variables. And the last one is entrepreneurial startup development correlations with other independent variables is less than 0.6 which shows moderate correlation among variables.

Regression analysis in this study shows how much independent variables (Generalized Entrepreneurial Education, Motivational Entrepreneurial Education and Augmented Entrepreneurial Education) impact dependent variable (Entrepreneurial startup development). In the present study multiple regression analysis was used because there three independent variables. The regression model of study is given below:

**Equation:**

$$\text{Entrepreneurial Startup Development} = \alpha + \beta_1 (\text{Generalized Entrepreneurial Education}) + \beta_2 (\text{Motivational Entrepreneurial Education}) + \beta_3 (\text{Augmented Entrepreneurial Education}) + e \tag{1}$$

Table 3: Regression analysis

Variables	Un- standardized Coefficient	Standardized Coefficient	R <sup>2</sup>	T	Sig	VIF
Constant	0.002			0.046	0.032	
Generalized Entrepreneurial Education	0.458	0.421	0.447	3.662	0.004	2.147
Motivational Entrepreneurial Education	0.578	0.525	0.574	4.736	0.001	3.098
Augmented Entrepreneurial Education	0.541	0.491	0.544	2.150	0.000	2.445

Source: Developed by researcher through SPSS analysis.

Table 3 shows that Generalized, Motivational and Augmented Entrepreneurial Education have significant impact on Entrepreneurial startup development. Their values are 0.004, 0.001 and 0.000 respectively, which is less than 0.05 ( $P < 0.05$ ). T values of variables are positive which shows that Generalized, Motivational and Augmented Entrepreneurial Education positively affect the entrepreneurial startup development. R square value shows that one-unit changes in independent variable cause how much change in dependent variable. In present study one unit change in Generalized, Motivational and Augmented Entrepreneurial Education cause 0.447, 0.574, 0.544 respectively change in entrepreneurial startup development.

Beta value of variables shows that how strong the relationship between variables is. In presented study Generalized Entrepreneurial Education beta value is 0.458, which shows that there is 0.458 or 45.8 percent strong relationship between Generalized Entrepreneurial Education and entrepreneurial startup development. Motivational Entrepreneurial Education beta value is 0.578, which shows that there is 0.578 or 57.8 percent strong relationship between Motivational Entrepreneurial Education and entrepreneurial startup development. Augmented Entrepreneurial Education beta value is 0.541, which shows that there is 0.541 or 54.1 percent strong relationship between Augmented Entrepreneurial Education and entrepreneurial startup development. VIF value should be less than 10. Its value is 2.147, 3.098 and 2.445, which shows that the data is not collinear. The beta value is positive, what shows the positive impact of Entrepreneurial education in the universities on

entrepreneurial startup development.

## 5. Conclusions

In a nutshell, present study purpose was to identify effect of different entrepreneurial education programs, which are supposed to foster students' intentions to engage into entrepreneurial activities, which would result then in new business inception. In presented study data was collected from Asian region; a sample was taken from India Pakistan and Bangladesh universities' students. Sample of study included nine universities; from each country researchers choose three universities on convenience sampling basis. The study is quantitative in nature; researchers utilized Statistical Package of Social Sciences (SPSS) Andrew F. Hayes PROCESS technique for analysis purpose. There are three independent variables which represent three different approaches towards entrepreneurial education. The researchers analyzed impact of each approach on entrepreneurial startup development. Hence, the independent variables are: Generalized Entrepreneurial Education, Motivational Entrepreneurial Education and Augmented Entrepreneurial Education, and dependent variable of study is Entrepreneurial startup development. Results indicated that there is positive and significant relationship between Generalized Entrepreneurial Education, Motivational Entrepreneurial Education, and Augmented Entrepreneurial Education and Entrepreneurial startup development. Further, it was found out that Motivational entrepreneurship education has greater impact on dependent variable than other two educational approaches. Researchers recommend that universities should offer new entrepreneurship programs and courses for their students and use motivational technique. Through Motivational entrepreneurship education students are motivated to choose entrepreneurship as way of life. This study will be helpful for policy makers of every country in designing the entrepreneurial education.

**Research limitations.** It has to be admitted that there might be vague boundaries between Generalized Entrepreneurial Education, Motivational Entrepreneurial Education and Augmented Entrepreneurial Education. Besides, study performed with another sample can lead to different results. Despite those research limitations exist, we believe that obtained results are novel, contribute to theory and have practical implications.

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