

Academic doctoral dissertation (PhD) theses

**ASSESSMENT OF THE STUDENTS' ENTREPRENEURIAL INTENTIONS AT
TERTIARY AND SECONDARY LEVELS OF SCHOOLING – THE IMPACT OF
ENTREPRENEURSHIP EDUCATION**

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Table of Contents

1	Introduction, Research Aims and Objectives, Hypotheses and Structure of the Dissertation ..	3
	Research Questions.....	5
1.1	Objectives of the research.....	5
1.2	Research Hypotheses	6
1.3	Structure of the Dissertation	6
1.4	Research Model	7
2	Materials and Methods.....	8
2.1	Research Methodology and Approach	8
2.2	Study 1 - Qualitative Research	8
2.3	Study 2 – Time 1 Empirical Data Collection	8
2.4	Study 3 – Time 2 Data Collection	9
2.5	Study 4 – Qualitative Research	10
2.6	Sample	11
2.7	Measures	11
2.7.1	Entrepreneurial Self-Efficacy.....	12
2.7.2	Perceived Desirability for Starting a New Venture.....	12
2.7.3	Entrepreneurial Intentions	13
2.8	Data Analysis.....	13
3	Main Findings and Recommendations and Directions for Future Research	15
3.1	Main Findings.....	15
3.2	Recommendations and Directions for Future Research	17
4	Main Conclusions and Novel Findings	19
	SUMMARY	21
	References	22
	LIST OF PUBLICATIONS.....	25

1 Introduction, Research Aims and Objectives, Hypotheses and Structure of the Dissertation

The purpose of this study was to study the impact of entrepreneurship education on the students' entrepreneurial intentions in Pakistan and Hungary at tertiary and secondary levels of schooling. Mediation effects of Students' entrepreneurial self-efficacy and desirability for starting new venture were also studied. The research was conducted with the help of a mix methodology approach using 4 studies. There were 2 qualitative studies employing in-depth interviews of professors and entrepreneurs from Hungary and Pakistan. Survey instrument was utilized to collect the quantitative data from the students of universities and secondary schools of Pakistan and Hungary. In total there were 1728 respondents who provided data for our research. The research concluded surprising results regarding the impact of entrepreneurship education on students' entrepreneurial intentions.

Entrepreneurship is a universal phenomenon. It brings economic growth and development worldwide positively influenced by the appearance of the new and novel business start-up ventures. These innovative small ventures have a very important part in employment generation, impacting the economies to recognize and help in entrepreneurship start-up activities because of its important key role in the economy. Traditionally, many economists have maintained the conception that entrepreneurship helps in economic development and growth (COLE, 1942; MAX WEBER, 1930) because of its profit orientation mechanism, capital outlay and the formation of new market and businesses (CANTILLON, 1755; SCHUMPETER, 1934). It has been decades, that the importance and role of entrepreneurship in the economic development of developed and developing countries have remained under research because entrepreneurship is one of the key drivers for economic development (BRAUNERHJELM, J., AUDRETSCH, & CARLSSON, 2009).

Hungary is struggling for the innovation based economy. The previous research shows that economy of Hungary has remained in stiff struggle due to rivalry between communisms and capitalism (SZERB, ACS, O'GORMAN, & TERJESEN., 2007). Following the end of cold war, which lasted for many decades, in 1990s the country was open for new state owned private sector based on definition of market economy. The private enterprises started opening and the most common form of new business was partnerships. The new chapter of liberalization and transformation has opened in 1990s with large scale privatization and transformation program known as "Kupa program"

(ADAM, 1995; SVEJNAR, 2002) . The entrepreneurship in Hungary, after change of political conditions, took many advantages. Different types of entrepreneurship such as educational entrepreneurship and entrepreneurship education started (SZIRMAI & CSAPO, 2006). Hungary has also progressed well for entrepreneurship related to technology, horticulture and farming, and mainly in wholesale and retail trade (ETCHART, HORVÁTH, ROSANDIĆ, & SPITÁLSZKY, 2014).

Entrepreneurship in Pakistan has great potential. Small and medium enterprises play very significant role in a Pakistan's socio-economic development. They are major source of national economic growth and poverty alleviation. The economy of Pakistan like other developing countries is direct reflection of its small and medium enterprise sector (KHALIQUE, ISA ABU, & SHAARI, 2011). Small and medium enterprises play very significant role in a Pakistan's socio-economic development. They are major source of national economic growth and poverty alleviation. The economy of Pakistan like other developing countries is direct reflection of its small and medium enterprise sector (KHALIQUE ET AL., 2011). Pakistan has around 3.2 million small and medium enterprises as per economic census of Pakistan 2005. These SMEs constitute more than 90% of the overall private businesses in Pakistan, and they are source of around 78% of the non-agricultural workforce of the country (PBS, 2011). Nevertheless, despite of the immense potential and importance, the sector has been facing gigantic challenges and problems which have restrained the ability to take full advantages from it. These problems include low value added products, lack of an effective business information system, improper infrastructure, energy crisis, lack of long term planning, illiteracy, lack of skills and among workforce (BARI, CHEEMA, & HAQ, 2005; KHAWAJA, 2006; MUSTAFA & KHAN, 2005; ROHRA, C.I. & PANHWAR, 2009; SBP, 2010).

Research Questions

1. What is the impact of the entrepreneurship education program on students' perceived desirability of starting a new venture, their perceived entrepreneurial self-efficacy and entrepreneurial intents for starting a new venture?
2. Does students' perceived desirability of starting a new venture impact their entrepreneurial intentions?
3. Does students' entrepreneurial self-efficacy impact their entrepreneurial intentions?
4. Do the perceived desirability to start a new venture and entrepreneurial self-efficacy mediate the relationship between entrepreneurship education and entrepreneurial intents?

1.1 Objectives of the research

The objectives of this research include:

1. To measure the impact of entrepreneurship education program on the students' perceived desirability for starting new venture, their perceived entrepreneurial self-efficacy and their' entrepreneurial intents.
2. To study the influence of students' perceived desirability of starting new venture on entrepreneurial intentions.
3. To study the influence of students' entrepreneurial self-efficacy on their entrepreneurial intents
4. To provide more rationale of earlier entrepreneurial intents studies and to develop the existing literature to help a better knowledge of the antecedents of entrepreneurship behavior
5. To determine the role and importance of entrepreneurship education in forming entrepreneurial intentions at all levels of schooling i. e. primary, secondary and tertiary.

1.2 Research Hypotheses

Hypothesis 1: Entrepreneurship education will positively influence/impact students' entrepreneurial intentions.

Hypothesis 2: Entrepreneurship education will influence students' entrepreneurial self-efficacy.

Hypothesis 3: Entrepreneurship education will influence students' entrepreneurial desirability.

Hypothesis 4: Students' entrepreneurial self-efficacy will positively influence their entrepreneurial intentions.

Hypothesis 5: Students' perceived desirability for starting new venture will influence their entrepreneurial intentions.

Hypothesis 6: Entrepreneurship self-efficacy and perceived desirability will mediate the relationship between entrepreneurship education and entrepreneurial intention.

1.3 Structure of the Dissertation

Chapter 1 describes the introduction to research, research aims and objectives, research questions, research hypotheses and the research model. Chapter 2 discusses literature related to entrepreneurship education and intentionality. It starts with a brief history of entrepreneurship. Role of religion with entrepreneurship is also discussed very briefly. Literature on the main variables and their association is discussed. Entrepreneurship education and its relationship with entrepreneurial intentions, entrepreneurial self-efficacy and desirability is discussed in the light of literature from previous studies. Chapter 3 discusses methodology of the research. It has a mixed methodology as both qualitative and quantitative research designs have been utilized. Survey questionnaire was administrated for data collection. In the study 1, in-depth interviews from 4 professors of Hungary and 6 professors of Pakistan were carried out. In the study 2, questionnaire data was collected from 542 students of bachelors and master from a public sector university of Pakistan. 184 questionnaires from a public sector university of Hungary were collected for study 2. Study 3 included sample of 523 tertiary level and 213 secondary level students from Pakistan. There were 98 university level, 80 secondary level from traditional system and 69 secondary level from the business education students from Hungary for study 3. Study 4 included in-depth

interviews of 5 Pakistani and 4 Hungarian entrepreneurs. Chapter 4 discusses findings. Descriptive statistics are presented in the shape of graphs with brief description. Correlation and regression results for each study are presented in the tables with interpretation. Chapter 5 discusses conclusions and recommendations. Chapter 6 describes the main findings and novel contribution.

1.4 Research Model

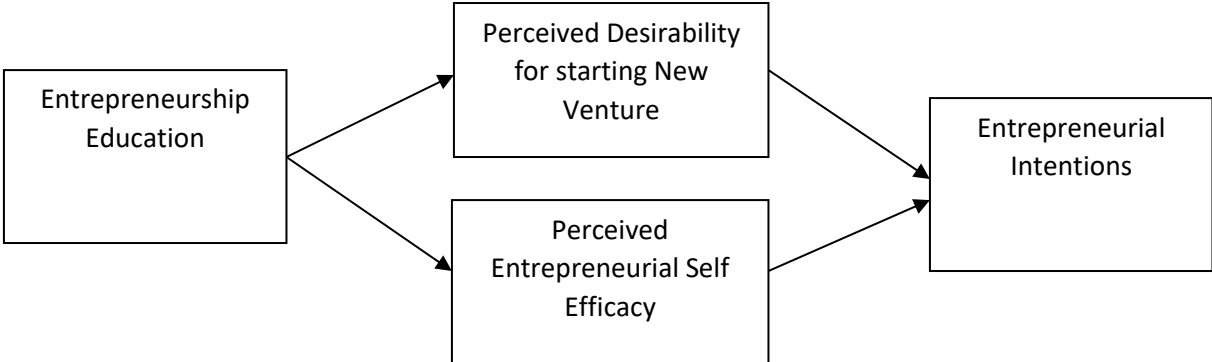


Figure 1. 1 Research Model

2 Materials and Methods

2.1 Research Methodology and Approach

The research approach utilized for this study is a mixed method approach. It includes both qualitative and quantitative primary data. Interviews and self-reported questionnaires were administered for data collection. Time lag data collection techniques are used.

2.2 Study 1 - Qualitative Research

After the extensive literature review and discussions with the research supervisor and some other researchers it was decided that the interviews are very important. Interviews provide more clarity and understandings about the subject under study or research (POLE & LAMPARD, 2002). Hence questions for the interview were designed in consultation with the supervisor. The structure in-depth interviews were conducted from the professors of business management and entrepreneurship from Hungary and Pakistan. 4 professors from Hungary and 6 from Pakistan were interviewed. The duration of interviews was about 45 to 80 minutes. With the permission of respondents, the interviews were recorded through the audio device. Later these interviews were listened again for the purpose of analysis. Besides this, the researcher also responses in the diary. These interviews were analyzed using the qualitative analysis methods. Language of the interview was English for the Hungarian professors. However for one of the very senior professors, translator helped as the respondent could not respond in English. The translator was also a very senior professor in the same university, director of the institute. For the Pakistani professors, Urdu language was used. The professors and researchers are very fluent in the Urdu language. However, the responses were noted in English language.

2.3 Study 2 – Time 1 Empirical Data Collection

Empirical data was collected using a survey questionnaire. The questionnaire was adapted. The validity and reliability of the instrument was tested before administering it. Its reliability and validity are discussed in the measures' section. During September to October 2016, the survey was administered in Hungary and Pakistan. In Pakistan, the questionnaires were distributed to BBA and

MBA students of a public sector university in Islamabad. Faculty members, Head of the Department and Dean very kindly allowed the researcher to distribute the questionnaires to the students. BBA students from semester 1 to semester 8 and MBA students from the semester 1 to 5 filled in the questionnaire during the break. This break during the class lectures was allowed by the teachers upon the request of the researcher. Students were briefed about some sections of the survey and were requested to provide the genuine responses. 620 survey forms were distributed. 542 questionnaires were found completely filled in.

During the same period, 220 questionnaires were distributed to the bachelors and master students of a public sector university of Debrecen, Hungry. 184 questionnaires were found complete.

2.4 Study 3 – Time 2 Data Collection

The same questionnaire survey was repeated in the year 2017 during September to December 2017 in Pakistan. 620 questionnaires were distributed to the BBA and MBA students of the same university in Islamabad, Pakistan. Researcher personally administered the questionnaires with the help of faculty members. The questionnaires were collected by the faculty members. 523 questionnaires were found completely filled.

During the same time 260 questionnaires were distributed to the secondary school students. The students of class 9th 10th, 11th and 12th. These students were studying general science, premedical and pre engineering majors. None of these students had a major or even a non-credit course on business or entrepreneurship. The college adopts the syllabus recommended by the Federal Board of Intermediate and Secondary Education, Islamabad. The college is owned and operated by a Non-Governmental Organization (NGO). The college has accommodation or hosteling facility and students reside there in the hostels. Principal of the college was contacted. He kindly granted the permission to get the questionnaires filled. The college is located in the outskirts of the federal capital, Islamabad. The researcher, himself drove to the college. Vice Principal and faculty helped in completing the survey. Researcher briefed the students shortly about the survey and its purpose. Within a period of about 30 minutes the survey was completed. 213 questionnaires were found complete.

During March 2018, 145 questionnaires were distributed to the students of the same public sector university in Debrecen. The questionnaires were distributed in the beginning of a class lecture.

Students were requested to return the filled questionnaires in the office of the secretary of the institute. Both, the lecture hall and the secretary office are located in the same building. 98 questionnaires were found completely filled in by the students.

During the same time period, 100 questionnaires were distributed to the secondary school students in Debrecen, Hungary. The questionnaires were translated in the Hungarian language for the convenience and understanding of the students. The translations were completed by the Hungarian national PhD students. These students have very good level of proficiency in English. Hungarian is their mother language. They are students of business and economics for the PhD. After the translation by PhD students, it was reviewed and edited by a very senior professor. The survey was completed with the help of secondary school teachers. Two of the teachers were wives of the professors of the university. Hence it became convenient and easier to collect the data from the secondary school students. After completion of the survey, 80 questionnaires were found completely filled.

90 questionnaires were distributed in another type of secondary school. The school is situated about 15 kilometers from Debrecen in Pallag. Here, the students also receive business and agriculture education. Economics, Business and Entrepreneurship are among the majors for these students. Here also the questionnaires in Hungarian language were used. The researcher, with his doctoral father - the supervisor drove to the college. One of the senior faculty members was handed over the survey forms. She returned the completed questionnaires after 2 days. 69 questionnaires were found completely filled.

2.5 Study 4 – Qualitative Research

During March and April 2018, interviews of Pakistani entrepreneurs were conducted. Objective of the interviews was to assess the antecedents of entrepreneurial intentions and behavior. Specifically to explore the role of entrepreneurship education in forming entrepreneurial intentions and entrepreneurial action. Semi-structured in depth interviews were conducted. Duration of the interviews ranged from 50 to 90 minutes. Respondents were asked to discuss in detail, their success story or the entrepreneurial journey. In about 25 to 35 minutes, the entrepreneurs completed their success stories. After the completion of their story; researcher asked open ended and informal questions to explore the role of education and underlying mechanisms in the formation of

entrepreneurial intentions and actions. From Pakistan, 4 young entrepreneurs at the ages of about 30 years and 1 senior entrepreneur at about 70 years of age were interviewed. As the researcher resided in Hungary during this period; the interviews were conducted via the social media i.e. Facebook Live and You Tube. Language of the interviews for Pakistani respondents was Urdu.

From Hungary, 3 young entrepreneurs and 1 senior entrepreneur was interviewed. The language of the interview was English for the Hungarian respondents. The interviews were recorded via video camera and were listened several times for analysis.

2.6 Sample

Sample for the study 1, qualitative research included university professors of a public university in Islamabad Pakistan and in Debrecen, Hungary. For the study 2, survey, the sample included bachelors and masters students of the faculty of management sciences of a public sector university of Islamabad Pakistan and the bachelors and masters students of the business and economics of a public sector university of Debrecen Hungary. For the study 3, sample included the bachelors and masters students of a public sector university of Islamabad, Pakistan and the secondary school students of a college in Islamabad Pakistan. For Hungary, the sample for this study included the bachelor and master level students of a public sector university, secondary school students of a school in Debrecen and Pallag, Hungary. For the study 4, sample comprised of successful entrepreneurs from Pakistan and Hungary.

2.7 Measures

Interviews for the qualitative data collection were semi-structured. For the quantitative data collection; survey instrument was used for collecting data on Entrepreneurial Self Efficacy, Perceived desirability for creating a new venture and entrepreneurial intentions. Entrepreneurship education was indicated by the respondents through the semester of their degree. Respondents were asked to report their current semester of study in the classification data of questionnaire. A student in the first semester in comparison to the last semester was considered as having less exposure to having the business education or entrepreneurship education.

2.7.1 Entrepreneurial Self-Efficacy

Entrepreneurial Self-Efficacy was measured using the 12 items. The scale was developed by M. FRESE ET AL. (2007). this scale is developed on the basis of the theoretical contributions of BANDURA (1989). The scale has predictive validity in African settings as well. It has been used by many researchers including GIELNIK ET AL. (2015). Entrepreneurial Self-Efficacy is the confidence related to specific entrepreneurial tasks. The items of this measure are related to different entrepreneurial tasks. An item of the scale is mentioned here for an *example* “How confident are you that you can identify the opportunities well.” Respondents answered the scale items on an 11- point Likert scale. The scale ranges from “0” to “10”, where “0” means “not at all confident” and “10” means “very confident”. Internal validity of the scale was measured at both times i.e. study 2 and study 3. The internal validity for Pakistani and Hungarian respondents at the time of study 2 was Cronbach’s Alpha = 0.91 and 0.93 for Pakistani and Hungarian respondents. At the time of study 3, the Cronbach’s Alpha was 0.92 for Pakistani respondents and 0.90 for Hungarian respondents. For the secondary school respondents it was .89 and 0.86 for Hungarian and Pakistani respondents respectively.

2.7.2 Perceived Desirability for Starting a New Venture

It is important to differentiate the constructs of entrepreneurial intention and desirability (ARMITAGE & CONNOR, 2001). The measure of perceived desirability shows the respondents’ attitude towards new venture creation or self-employment. The scale of perceived Desirability for self-employment was adapted on the basis the measure developed by KRUEGER (1993). One of the questions used in this measure, for example reads: “The idea of owning my own business is very appealing to me”. Responses were recorded on a 5 point Likert scale from 1 “Strongly Disagree” to 5 “Strongly Agree.” The validity measure reported satisfactory results. For the study 2, Cronbach’s Alpha were 0.86 and 0.82 for Hungarian and Pakistani respondents. For the study 3, it was 0.84 and 0.83 for Pakistani and Hungarian university students, respectively. For the secondary school students, it was 0.85 and 0.81 for Hungarian and Pakistani respondents respectively.

2.7.3 Entrepreneurial Intentions

For measuring the entrepreneurial intentions, the scale was adapted from (LIÑÁN & CHEN, 2009). One of the 7 items for example is: “My professional goal is to become an entrepreneur”. The responses were recorded on a 5 point Likert scale from 1 “Strongly Disagree” to 5 “Strongly Agree.” The validity measure reported satisfactory results. For the study 2, Cronbach’s Alpha were 0.96 and 0.93 for Hungarian and Pakistani respondents. For the study 3, it was 0.97 and 0.95 for Pakistani and Hungarian university students, respectively. For the secondary school students, it was 0.95 and 0.92 for Hungarian and Pakistani respondents respectively.

2.8 Data Analysis

Qualitative data was analyzed by classifying and recording the responses in the categories. The analysis and interpretation of the qualitative data was performed in hermeneutic manner. It is in line with the qualitative data analysis techniques (SMYTHE & SPENCE, 2012; SPIGGLE, 1994).

For the quantitative data analyses, means, standard deviations, descriptive, correlations and regression analyses were used. Statistical package for Social Sciences (SPSS-23) was used for performing the analyses. Correlation and regression analyses were used for the purpose of determining relationship between variables and for hypotheses testing.

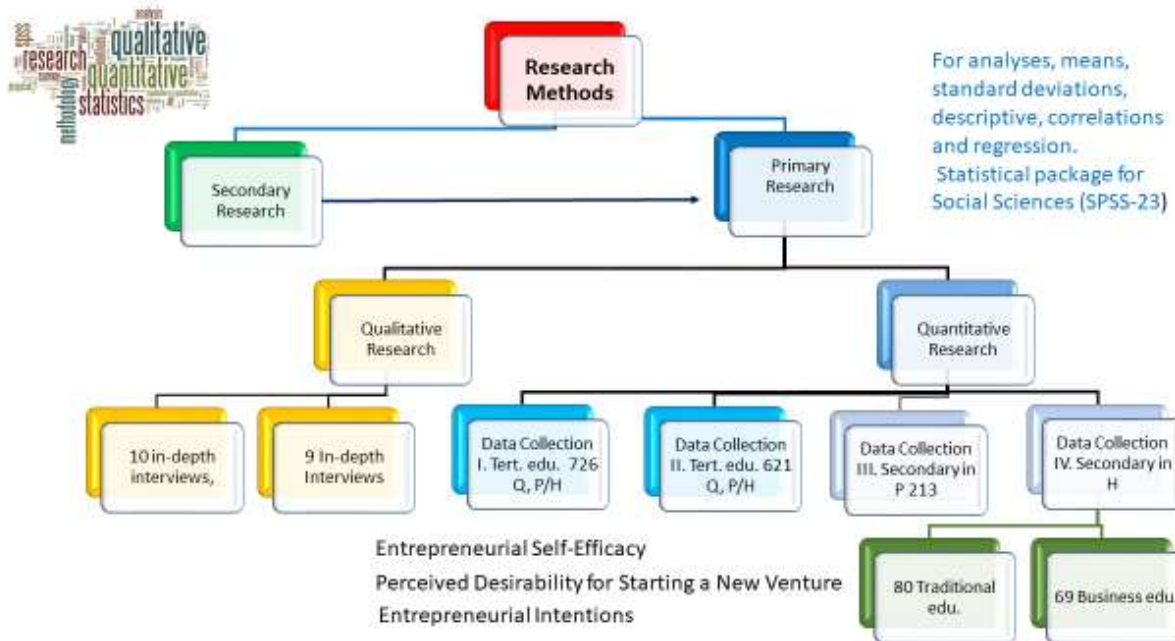


Figure 2.1 Summary of Research Methods

3 Main Findings and Recommendations and Directions for Future Research

Main results and recommendations are summarized and discussed here in this section.

3.1 Main Findings

The dissertation has discussed 4 studies. Study 1 and study 4 are qualitative in nature. The study 2 and study 3 are quantitative. Study 1 analyzed interviews of 10 university professors from Hungary and Pakistan. Study 2 analyzed the quantitative data of 726 university students. In this study, 542 students participated from Pakistan and 184 from Hungary. In the study 3, we analyzed data of 983 students. From Pakistan, 523 university students and 213 secondary school students participated in the survey. From Hungary, 98 university students, 80 students from the traditional education system and 69 students from the secondary school of business education participated. Study 4 analyzed interviews of 9 successful entrepreneurs from Pakistan and Hungary. Therefore, in total we had data from 1728 respondents including 19 interviews.

Results are quite surprising. We hypothesized in the hypothesis H1 that Entrepreneurship Education has positive relationship with Entrepreneurial intentions. Surprisingly, the results show that there is no relationship between entrepreneurship education and intentions from all samples except one. Only the results of study 3 from secondary school data show significant relationship of the variables. However, the results show a negative relationship, hence we reject the hypothesis H1. Similar surprising results were also found in some other studies including these (OOSTERBEEK, VAN PRAAG, & IJSSELSTEIN, 2008); (HESSEL OOSTERBEEK, VAN PRAAG, & IJSSELSTEIN, 2010); (HEJAZINIA, 2015) and (KARIMI ET AL., 2016).

The reasons for surprising results can be several. One of the important reason to be discussed here is that our sample included students of bachelors and master for university level, from all semesters, and grade 9th to 12th for secondary level. The university students were studying business education. The business education or entrepreneurship education is targeted as “about entrepreneurship” and not “for entrepreneurship”. In the whole bachelor and master program, there is only one subject of entrepreneurship, wherein students make business plans and generate ideas. Hence the business education which is focused on “about entrepreneurship” does not impact the students’

entrepreneurial intentions. This has also been emphasized by the respondents of the qualitative study 1 during the in depth interviews. Previous studies also highlighted the fact for more practice oriented entrepreneurship education (JONES & ENGLISH, 2004; KÜTTIM ET AL., 2014). The results from secondary school of Pakistan show negative relationship between education and entrepreneurial intentions. The results are reasonable, because, in Pakistan, most of the students during this age dream to become a doctor, engineer, or military person. Hence education decreases their motivations to become an entrepreneur.

The hypotheses H2 and H3 are also rejected on the basis of results as entrepreneurship education is found to have insignificant impact on the students' entrepreneurial self-efficacy and desirability for starting a new venture. These results are however surprising but given the fact as discussed earlier that the type of education matters. Business or entrepreneurship education is unfortunately, not focused on "for entrepreneurship". It is focused on the "about entrepreneurship" in most of the cases. Thus it does not enhance the students' skill set, confidence and attitudes necessary for becoming entrepreneur. These results are in line with V. SOUITARIS, ZERBINATI, & AL-LAHAM, (2007); R. WEBER, (2012) and Walter & Dohse, (2012).

Hypotheses H4 and H5 are accepted on the basis of correlation and regression results for all data samples. Entrepreneurial self-efficacy and desirability are positively correlated with the entrepreneurial intentions. Although entrepreneurship education, as per the results has enhanced entrepreneurial self-efficacy and desirability, however, students might have been already confident and desiring for entrepreneurship, hence these variables are positively associated with the entrepreneurial intentions. These results are supported by many studies including DISSANAYAKE, (2014); KARIMI ET AL., (2016); RAUCH & HULSINK, (2015); KOLVEREID, (1996); KOLVEREID & MOEN, (1997).

The hypothesis H6, which relates to the mediation analysis was rejected. As per the conditions laid down by BARON & KENNY, (1986), we cannot test the mediation until unless all the paths are significantly correlated. In our case, the independent and dependent variables were not related significantly, also the relationship between independent variable and mediators was insignificant, and hence we cannot test the mediation. Therefore hypotheses H6 is also rejected. In the table 5.1 below, summary of the hypotheses which are accepted and rejected is presented.

Table 3. 1 Summary of the Hypotheses Results

Hypotheses	Results
H1: Entrepreneurship education will positively influence students' entrepreneurial intentions.	Rejected
H2: Entrepreneurship education will positively influence students' entrepreneurial self-efficacy.	Rejected
H3: Entrepreneurship education will positively influence students' entrepreneurial desirability.	Rejected
H4: Students' entrepreneurial self-efficacy will positively influence their entrepreneurial intentions.	Supported
H5: Students' perceived desirability for starting new venture will positively influence their entrepreneurial intentions.	Supported
H6: Entrepreneurship self-efficacy and perceived desirability will mediate the relationship between entrepreneurship education and entrepreneurial intention.	Rejected

3.2 Recommendations and Directions for Future Research

The study has important implications and recommendations for the researchers, academicians, policy makers, entrepreneurs and the students.

The business education or what it is known as entrepreneurship education, needs to be revised and updated. Most of the syllabus and contents of the entrepreneurship education programs are designed in such a way that it enhances students' desire, confidence and intentions for becoming an employee. The current traditional business or entrepreneurship education being taught in the business schools of Pakistan and Hungary mainly focuses on the theory and concepts. It is not focused on practice or learning by doing methods of teaching. For an effective Entrepreneurship Education Program, we need to include the success stories and case studies of successful entrepreneurs. The teaching method needs to be enriched with practical exposure of students to the activities, assignments and projects related to entrepreneurship. Currently, the traditional business education curriculum and method is focused on "about entrepreneurship". We need to orient it to "for entrepreneurship". Also, the Team method of learning can be customized as per the local needs and it can largely benefit us to raise the attitude and intentions of graduates to become entrepreneurs than to become employees. We also need to include more subjects related to entrepreneurship. At present, in most of the business schools of the two countries, only one subject related to entrepreneurship is being taught for bachelor and master degree programs. More subjects related

to entrepreneurship need to be included in the curriculum. Invitation of entrepreneurs for the guest lectures, business plan competitions, development of more entrepreneurship incubation centers will also enhance entrepreneurial intentions of the students.

There is a dire need to teach entrepreneurship at all levels of schooling. When students come to university, they have pre-occupied intentions. Hence introduction of entrepreneurship education at all levels and all types of schooling will enhance entrepreneurship culture. Entrepreneurship helps in creating employment, reducing poverty and boosts economic development. Thus macroeconomic and education policy makers need to focus on more intense and practical solutions for teaching entrepreneurship education. It shall not be restricted to business schools only. Rather, doctors, engineers, social scientists, lawyers, natural sciences students, they all can benefit from entrepreneurship. An engineer can become a very successful entrepreneur, same is the case for other disciplines. Hence, entrepreneurship education will benefit all of them. Policy makers do also need to note that media can be very effective vehicle for promoting entrepreneurship. Social media can also be effectively utilized in this regard. Documentaries, success stories, discussions and media talks can be arranged utilizing the electronic, print and social media to enhance entrepreneurial culture.

Results of the current study are surprising, hence it invites attention of the researchers for future research. More studies can be carried out to confirm these results. Additionally, experimental and longitudinal designs can also be employed for having better understanding of the relationship between the variables. Future research may also focus on comparing different types of entrepreneurship education programs. The current study collected data from two cities only; Islamabad, Pakistan and Debrecen, Hungary. Samples of future studies can be widened to include respondents from more countries. Future research may also focus on comparing data from different countries with the data from Pakistan and Hungary.

4 Main Conclusions and Novel Findings

The objective of author was to find the impact of entrepreneurship education on entrepreneurial intentions. Mediation effects of entrepreneurial self-efficacy and desirability were also analyzed. After the careful literature review, data collection and data analyses. It was found that entrepreneurship education has no significant relationship with the entrepreneurial intentions of students. Results also indicated that entrepreneurship education has no relationship with or impact on the students' entrepreneurial self-efficacy. As per the results of our study, entrepreneurship education failed to impact the students' desirability for starting new venture. Entrepreneurial self-efficacy was found to have positive relationship with the students' entrepreneurial intentions. Similarly, entrepreneurial desirability for starting new venture was statistically significant and positively associated with the students' entrepreneurial intentions of the students. Keeping in view the correlation and regression results, Hypotheses 4 and 5 were accepted. Hypotheses 1, 2, 3 and 6 were rejected on the basis of results.

Conventionally, entrepreneurship education is believed to impact the entrepreneurial intentions of the students. However, as per our results, entrepreneurship education has no relationship with the entrepreneurial intentions of the students. The results are surprising yet novel. These results call for future research in the area of intentionality and entrepreneurship education. The results have important theoretical contribution as they challenge the conventionality related with the entrepreneurship education and entrepreneurial intentions. Results also found no significant relationship between entrepreneurship education and students' entrepreneurial self-efficacy. Hence, the conventional relationships have been challenged by these results. There are few studies, as discussed previously, which have similar results. However, studies employing sample of 1728 respondents from two countries and having respondents from secondary and tertiary levels of education are rare. In our research, entrepreneurship education has no relationship with the students' desirability to start new venture. Students' entrepreneurial self-efficacy and desirability for starting new venture are, however, significantly positive correlation with the students' entrepreneurial intentions. This fact calls us to focus on the content and method of entrepreneurship education. Hence the study has yielded important and novel contributions for the researchers, academicians and policy makers.

The study is also unique in the aspect that no study is known to the researcher's best of knowledge which employed samples from Pakistan and Hungary. A South Asian Economy is compared with a European economy. Also data from secondary school students and tertiary level students in one such study is important contribution to research on entrepreneurship attitudes, education and intentionality.

SUMMARY

The study was aimed at exploring the impact of entrepreneurship education on students' entrepreneurial intentions. Two underlying mechanisms were also studied as mediators. Chapter 1 of the dissertation describes an overview of the topic. It also discusses aims and objectives of the research and hypotheses of the study. Chapter 2 discusses literature related to entrepreneurship education and intentionality. It starts with a brief history of entrepreneurship. Role of religion with entrepreneurship is also discussed very briefly. Literature on the main variables and their association is discussed. Entrepreneurship education and its relationship with entrepreneurial intentions, entrepreneurial self-efficacy and desirability is discussed in the light of literature from previous studies. Chapter 3 discusses methodology of the research. It has a mixed methodology as both qualitative and quantitative research designs have been utilized. Survey questionnaire was administered for data collection. In the study 1, in-depth interviews from 4 professors of Hungary and 6 professors of Pakistan were carried out. In the study 2, questionnaire data was collected from 542 students of bachelors and master from a public sector university of Pakistan. 184 questionnaires from a public sector university of Hungary were collected for study 2. Study 3 included sample of 523 tertiary level and 213 secondary level students from Pakistan. There were 98 university level, 80 secondary level from traditional system and 69 secondary level from the business education students from Hungary for study 3. Study 4 included in-depth interviews of 5 Pakistani and 4 Hungarian entrepreneurs. Chapter 4 discusses findings. Descriptive statistics are presented in the shape of graphs with brief description. Correlation and regression results for each study are presented in the tables with interpretation. Hypotheses 4 and 5 are accepted whereas hypotheses 1, 2, 3 and 6 are rejected on the basis of results. Chapter 5 discusses conclusions and recommendations. Chapter 6 describes the main findings and novel contribution.

It is briefly concluded from the research that entrepreneurship has no significant relationship with students' entrepreneurial intentions, entrepreneurial self-efficacy and entrepreneurial desirability. However, students' entrepreneurial self-efficacy and desirability are positively associated with the students' entrepreneurial intentions. The study recommends for future research employing experimental designs for better understanding of the relationships. Academicians and policy makers need to look into an entrepreneurship education curriculum which enhances students' entrepreneurial intentions.

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LIST OF PUBLICATIONS



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List of publications related to the dissertation

Articles, studies (5)

1. **Kazmi, S. Z. A.**: Perceived Barriers to Youth entrepreneurship in Pakistan and Hungary.
International Journal of Engineering and Management Sciences = Műszaki és Menedzsment Tudományi Közlemények. 3 (3), 382-391, 2018. EISSN: 2498-700X.
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4. **Kazmi, S. Z. A.**: The Impact of Leader-Member Mutual Tenure on Employee Level Outcomes - The Mediating Role of Leader-Member Exchange Quality.
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6. **Kazmi, S. Z. A.**: A Comparative Analysis Of Entrepreneurship Education In The Universities Of Hungary And Pakistan - Current State Of Affairs, Problems, Challenges And Recommendations For The Future.
In: EDULEARN16 Proceedings. Ed.: L Gómez Chova, A López Martínez, I Candel Torres, International Academy of Technology, Education and Development, Valencia, 4405-4411, 2016. ISBN: 9788460888604



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7. Asad, M., Hasnain, M., **Kazmi, S. Z. A.**: The Role of Performance Appraisal, Awareness and Knowledge in Creating Employee Commitment, the Moderating Effect of Perceived Leaders Integrity.
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The Candidate's publication data submitted to the IDEa Tudóstér have been validated by DEENK on the basis of Web of Science, Scopus and Journal Citation Report (Impact Factor) databases.

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