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

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DEBRECEN

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SECONDARY LEVELS OF SCHOOLING – THE IMPACT OF ENTREPRENEURSHIP EDUCATION**

The aim of this dissertation is to obtain a doctoral (PhD) degree
in the scientific field of “Management and Business Administration”

Written by: Syed Zaheer Abbas Kazmi certified

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DECLARATION

I, undersigned (name: **Syed Zaheer Abbas Kazmi**, date of birth: 21/03/1979) declare under penalty of perjury and certify with my signature that the dissertation I submitted in order to obtain doctoral (PhD) degree is entirely my own work.

Furthermore, I declare the following:

- I examined the Code of the Károly Ihrig Doctoral School of Management and Business Administration and I acknowledge the points laid down in the code as mandatory;
- I handled the technical literature sources used in my dissertation fairly and I conformed to the provisions and stipulations related to the dissertation;
- I indicated the original source of other authors' unpublished thoughts and data in the references section in a complete and correct way in consideration of the prevailing copyright protection rules;
- No dissertation which is fully or partly identical to the present dissertation was submitted to any other university or doctoral school for the purpose of obtaining a PhD degree.

Debrecen, May 30, 2018

Syed Zaheer Abbas Kazmi

Name

signature

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1 INTRODUCTION

1.1 Introduction

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).

Having recognized the significance of new entrepreneurial ventures to the national economy and international community at large, the career choice and entrepreneurial intentions of students specifically impacted by the entrepreneurship education is a problem area and it is a research avenue that needs more attention. In order to explore more about this issue, it is essential to assess students' entrepreneurial intents and the subsequent impacts entrepreneurship education has on these intentions. The choice a student makes thus to establish a new business venture is at the essential part of entrepreneurship. There are times which are novel and unique in the student's life cycle of his/her career wherein the chance to start a new venture is most likely, taking into consideration one of the opening 'strategic windows' to be the 'college experience'. However, university level students are normally considering career choices after their graduation or during the course of study. A review of a decade long of the entrepreneurship literature validates that prelude evidence proposes that attributes of entrepreneurship can be predisposed through the influence of entrepreneurship education however researchers affirmed the view that empirically focused research is needed in this area in the future.

The empirical investigation in this study regards as starting a new venture as an entrepreneurship career choice and investigates the impact and influence that entrepreneurship

education has on students' entrepreneurial intents to start a new venture. This thesis employs an intents-based model to respond to the below mentioned 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?

1.2 Aims of the research

An entrepreneurial intention, desirability to start a new venture and entrepreneurial self-efficacy as impacted by the entrepreneurship education is the focus of this study. The aim of the research study is assessment of impact that entrepreneurship education program has on the student's perceptions and attitudes towards the entrepreneurship and their entrepreneurial intents.

1.3 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 (university level).

1.4 Research methodology

The dissertation has utilized 4 studies. Study1 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. The data was analyzed using correlation and regression analyses for hypotheses testing

1.5 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.

1.6 Research Model

The following figure presents research model:

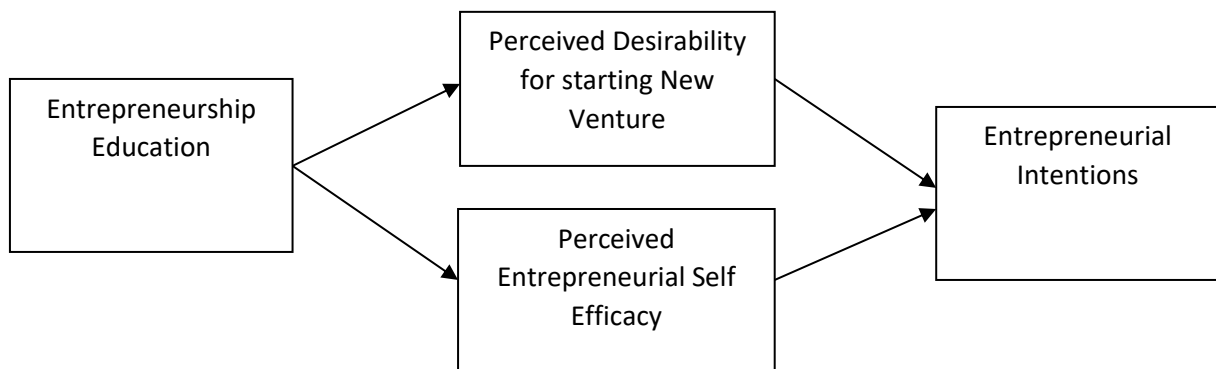


Figure 1. 1 Research Model

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 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 (university) 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.

2 LITERATURE REVIEW

2.1 Definitions of Entrepreneurship

There is no uniform definition of entrepreneur and entrepreneurship. There can be numerous definitions; as many as the number of students in this field (HÉBERT & LINK, 2006). Entrepreneurship has been defined by many researchers and authors. Every researcher analyzes the entrepreneur and entrepreneurship as per his or her own context and factors or characteristics important as per the research and analysis of the author. There has been several approaches to entrepreneur and the phenomenon of entrepreneurship as discussed earlier in the discussion of history of entrepreneurship. Economists, sociologists, psychologists, management experts and authors and scholars from different scholars have presented their views and analysis about entrepreneur and entrepreneurship. Entrepreneurs have been viewed as born and made as well. Some scholars view entrepreneurs from their personality traits, others from the behaviors they perform and the environment of the entrepreneurs. Both nature and nurture of entrepreneurs are important to distinguish between entrepreneurs and the non-entrepreneurs (KAZMI, KHAN, & NABRADI, 2017). Following table summarizes the characteristics or elements that different authors have used to define the term entrepreneur.

Table 2. 1: The Characteristics Identified by different authors to define Entrepreneur

S.No.	Author and Year of Publication	Characteristic Identified
1.	Cantillon (1755); Knight (1921); Palmer (1971); Reuters (1982); (Rosenberg, 1983)	Risk, Uncertainty, Profits
2.	Weber (1930); Schumpeter (1947); Cochran (1968); Drucker (1985); Julien (1989)	Innovation
3.	(Belshaw, 1955; M. Casson, 1982; Chandler, 1962; Cole, 1942; Ely & Hess, 1893; Leibenstein, 1968; Pearce, 1981; Wilken, 1979)	Resource Management

4.	(Brereton, 1974; Bruyat & Julien, 2001; Carland, Hoy, Boulton, & Carland, 1984; Collins, Moore, & Unwalla, 1964; Fayolle, 2008; Hebert & Link, 2009; Komives, 1974; Mancuso, 1979; Say & J.B., 1815; Schwartz, 1982; N. R. Smith, 1967; Vesper, 1980)	Value Creation
5.	(W.J. Baumol, 1968; Moffat, 1983; Storey, 1982; M. Weber, 1947)	Energetic or dynamo for economic system
6.	(L.J. Filion, 1991, 2004; Louis Jacques Filion, 2008; Longenecker & Schoen, 1975)	Visionary
	(Baty, 1981; W.B. Gartner, 1990)	Action Oriented
7.	(Hornaday & Aboud, 1971; Hornaday & Bunker, 1970; Hornady, 1992)	Leadership
8.	(Bygrave & (Eds.), 2004; L.-P. Dana, 1995; Meredith, Nelson, & P.A. Neck, 1982; Shane & Venkataraman, 2000; N. R. Smith, 1967; Stevenson & Gumpert, 1985; Timmons, 1989; Timmons & Spinelli, 2004)	Opportunity Recognition
9.	(Pinchot, 1985; Zaleznik & Vries, 1976)	Creativity
10.	(McClelland, 1961)	Control
11.	(Mintzberg, 1973; Shapero, 1975)	Change Oriented

Source: Adapted from Filion (2008) and Lall & Sahai (2008)

2.2 Brief History of Entrepreneurship

The word “Entrepreneur” has roots in the French language. The former form of this French word, *entrepreneur*, appeared in the 14th century (HOSELITZ, 1960). The French word “entreprendre” first appeared in the French dictionary ‘Dictionnaire de la langue francaise’ (DN & Yyepg, 2005). However, the concept and practice of entrepreneurship is as old as the

history of mankind. As asserted by BAUMOL (1990) that the phenomenon of entrepreneurship always existed in communities and societies. It is as old as the phenomena of goods exchange and barter systems (Hébert & Link, 2006). According to LANDRETH & COLANDER (2002) the history of economic thought existed in the works of ancient Chinese, Greek and Muslim philosophers. They argue that the ancient Chinese writer GUAN ZONG (725-645 B.C) discussed about merchants. The prominent Greek philosophers HESIOD (800 B.C) discussed about the farmers' efficiency and increasing outputs. XENOPHON (430-355 B.C) used the term *Oeconomicus*, referred to as economics. He stressed upon the efficient management system for the producer. ARISTOTLE (384 – 322 B.C) compared the barter system and the exchange for money. Entrepreneurship can be traced back in the ancient Rome even before 50 B.C, Dark Age Europe, medieval China, and the Later Middle Ages. Furthermore, in Egypt, in Alexandria, by the first century B.C, technological innovations were evident (WILLIAM J BAUMOL, 1990). According to PATRICK, JIANWEN, & HAROLD (2006) the history of entrepreneurship is marked even in the ancient times. They found that the entrepreneurship in prehistoric ancient times existed in the form of exchanges between different tribes. The purpose of these exchanges was survival; the exchange of food and tools necessary for survival. HEBERT AND LINK (1988) discussed that entrepreneurship, in the ancient and medieval periods involved risk taking. According to DE ROOVER, (1963B) the expressions of entrepreneurship were visible in Europe during early Middle Ages (500-1000 CE).

The entrepreneur in the beginning of 1000 was believed to be a merchant adventurer who borrowed loan from the capitalist by signing a contract called *mutua* (HÉBERT & LINK, 2006). The capitalist usually received higher returns (DE ROOVER, 1963A). BAUMOL (1990) notes that by the end of 11th century and the beginning of 12th century, the architect engineers were involved in constructing the bridges, palaces, fortresses and cathedrals. Technological entrepreneurial innovations in the form of water mills in France and England were common by the 11th century. these were protected by monopoly rights (BLOCH, 1935; BROOKE, 1964). Commercial adventures by Marco Polo 1274, were venturesome and entrepreneurial in nature. He explored the Far East for commercial or entrepreneurial intentions and returned successfully to Venice after this entrepreneurial journey (MARK CASSON & CASSON, 2014). In the 13th and 14th Centuries, in the city of Venice, Italy, an agent or merchandiser (entrepreneur) used to pool investments from one or more investor(s) through a contract *colleganze* or also called as *commande* (Lane, 1963). The system of banking emerged

throughout Europe in the 14th century. Christopher Columbus, in 1492 established financial support hailed from Queen Isabella I of Castile for an entrepreneurial journey aimed at having competitive advantage for the trade of in the East (SOHL & JEFFREY, 2007).

As per the findings of HEBERT & LINK (2009), the term ‘entrepreneur’ was originally applied to merchants in the 15th century. Farmers, real estate dealers and public works contractors were also considered as entrepreneurs during the 17th century. The terms “undertaker”, “adventurer” and “projector” were commonly associated with the meanings of French term “*entreprendre*”. Richard Cantillon (1680-1734), a banker from Ireland who used to work in France introduced conception of entrepreneurship formally into the economics literature. He viewed entrepreneur as self-employed and bearer of uncertainty (CANTILLON, 1755). Adam Smith (1723-1790), the progenitor of political economy, wrote about undertaker, which become famously synonymous with the more general conception of an ordinary business man. He viewed entrepreneur as a capitalist (ONCIOIU, 2012; A. Smith, 1976a, 1976b). Jean Baptiste Say (1767-1832) had a different conception about the entrepreneur. He viewed entrepreneur as a manager, an input in the production process. He attached the feature of judgement to entrepreneur (SAY, 1855). Alfred Marshall emphasized the importance of innovation to entrepreneurship; to him, innovation mean small changes. He argued that entrepreneur helps in creating the equilibrium (MARSHALL, 1920). Knight also viewed as one who assumes the uncertainty, he differentiated the manager from entrepreneur. He argued that entrepreneur assumes risk and uncertainty, which a manager does not (BULA, 2012; KNIGHT, 1921). For SCHUMPETER (1934), The entrepreneur is an innovator, brings creative disruption, and disequilibrium. The role of entrepreneur, to him involves bringing in new technologies, exploring the new use or entirely new resources or raw materials. HÉBERT AND LINK (2006) suggest that because of Schumpeter’s influence, entrepreneurship has occupied primary role in the theory of economic development. They argue that, today, in this modern age, the discipline of entrepreneurship has become centrally important for economics, management and sociology. Entrepreneur exhibits alertness to opportunities and tries to capitalize on these opportunities (KIRZNER, 1973; MISES, 1951; SHANE & VENKATARAMAN, 2000). MCCLELLAND, (1961) argued that entrepreneurs have the higher need for achievement. ROTTER, (1966) emphasized the role of internal locus of control for entrepreneurs. He asserted that entrepreneurs have higher internal locus of control, they take their own decisions and take charge of the destiny. The three main qualities or traits of entrepreneurs have been

highlighted by many researchers (HOOD & YOUNG, 1993; LORRAIN & DUSSAULT, 1988; BEGLEY & BOYD, 1987; PERRY, C., MACARTHUR, & CUNNINGTON, 1986; AHMED, 1985; BROEHL, 1978; LILES, 1974; MENGEL, 1972; DART, 1971; MEYER, WALKER, & LITWIN, 1961). SCHULTZ (1975) had a relatively border conception of entrepreneur. He asserted that students and house wives are also entrepreneurs. In his view, when students and house wives re allocate their time, they are entrepreneuring or taking advantage of the opportunities during the disequilibrium period. Hence adaptability is the main feature for entrepreneurs. Some other important characteristics or traits of entrepreneurs were accentuated by researchers (BEGLEY & BOYD, 1987; HORNADAY & ABOUD, 1971; HORNADAY & BUNKER, 1970; HORNADY, 1992; VESPER, 1980). GARTNER, (1988)) discussed that many researchers have concluded that the traits approach to view entrepreneur is not sufficient; this approach does not consider behavior performance. Societal or the cultural effects for entrepreneurial preferences, choices, attitudes and intentions are essentially important (GNYAWALI & Fogel, 1994). Societal impacts refer to the effects of society in framing or impacting an individual's decision or choice for a business start-up than that of an employee. These impacts as regarded highly important for the entrepreneurial success. MOKRY (1988) considered the local communities as a significant component in developing entrepreneurial actions. Adverse public attitude in Czech and Slovak Republics demotivated and discouraged the individuals to be entrepreneurs (SWANSON & WEBSTER, 1992). Family members relatives, and close friends have influences ion the individual's choices, preferences and decisions. They can also support and help entrepreneur to allocate the resources, raise credits, utilize the social contacts and help in various decisions making (KAO, 1993). Social norms and the cultural attitude may also be supportive to efficient business development (GRUNDSTEN, 2004). SCHOLTEN, KEMP, & OMTA (2004) maintained that perception about the entrepreneurship have a direct positive impact on entrepreneurial intent. Those cultures which support entrepreneurship; develop proper mechanisms to encourage it (VESPER, 1980).

2.3 Religious Perspectives of Entrepreneurship

Following is a very brief overview of the impacts and perspectives of religions on Entrepreneurship. Concepts of Hinduism, Judaism, Christianity and Islam are briefly discussed here.

AUDRETSCH, BOENTE, & TAMVADA (2007) analyzed the impact of religion on entrepreneurship through a dataset of 87,000 workers in India. They concluded that Islam and Christianity influence positively and promote entrepreneurship. Hinduism, in contrast, does not promote, rather discourages entrepreneurship. The caste-system feature of the Hinduism has however variations for encouraging or discouraging for entrepreneurship from the individuals of different castes. The members of lower caste have a lower propensity for entrepreneurship. My observation, in contrast reveals that Hindus are great entrepreneurs historically. Particularly, the *Gujrati, Marwadi, Sikhs* and *Sindhis* of India are mostly involved in the entrepreneurship. Very few of these communities prefer being employed over the employment. Additionally, the Hindu population of Sindh province, Pakistan are mainly involved in grocery, supermarket, baking, stationary and garments businesses. Hinduism provides little encouragement or value to change one's situation in terms of material well-being (SINGER, 1966). As per UPPAL (2001) "The people of South Asia are deeply religious and all facets of their lives including their endeavors to achieve material advancement are affected greatly by religious beliefs and values. Hinduism, and membership to a lower caste, negatively influence an individual's choice to become an entrepreneur (AUDRETSCH & MEYER, 2009).

The Christianity's value system is based on the Ten Commandments. The five of these Commandments relate to the relationship with God, the rest five are associated with the ethical human behavior with fellow beings and the society (HALE, 1998). The Pop Ince II made a regulation or declaration that prohibited higher interest rates on loans in the 13th Century. This regulation continued up to the 16th Century (NABRADI, 2015). The Western Protestant work ethics and the view on entrepreneurship support to the entrepreneurial activity; more value in Europe in the 17th century (LIGHT, 2010). This is also asserted by ANDERSON, A. R. DRAKOPOULOU-DODD & SCOTT (2000). The church was involved in such activities which can be regarded as entrepreneurship between the 1250 and 1500. The activities included risk-taking and innovation which thus exhibit entrepreneurship (MARK CASSON & CASSON, 2014). HENLEY (2016) found a significant relationship between the Christianity

and entrepreneurship. More specifically, between entrepreneurship and evangelical or Pentecostal Christian religious affiliation. Protestants have higher tendency for entrepreneurship as compared to the Catholics and non-religious individuals (ANDERSON, A. R. DRAKOPOULOU-DODD & SCOTT, 2000; HEIJBOER, 2013; LIGHT, 2010).

BOTTICINI AND ECKSTEIN (2005, 2007) asserted the transformation in the Jewish religion about the year 70 AD to understanding the Torah. Every Jew was accountable for teaching and educating his children to recite and comprehend Jewish rules. This way, Jews gained a competitive advantage in terms of the human capital. Jewish communities in the European cities developed commercial and financial networks (BOTTICINI & ECKSTEIN, 2005). The Jewish religious values and close connections and trust between the communities stimulated and favored the entrepreneurial activities (L. P. DANA, 2006, 2009). KEISTER (2003) while discussing the reasons for high levels of wealth owned by Jews concludes her findings. She argues that the religion, Judaism; is one of the main reasons behind Jews wealth. Especially the strong emphasis accredited by Jewish economic doctrine to worldly and material pursuits (DODD & GOTSIS, 2007).

The Islamic belief system encourages and motivates to entrepreneurial activities (ADAS, 2006; KAYED & HASSAN, 2011; MUHAMMAD, MCELWEE, & DANA, 2017A). Muslim entrepreneurs, in addition to the financial or material profits, do also focus on earning the rewards for the life hereafter (CAMPANTE & YANAGIZAWA-DROTT, 2015). Islam takes into consideration the entrepreneurial, social and spiritual aspects (GÜMÜSAY, 2015). Islamic values and business ethics encourage and motivate entrepreneurship at the micro, meso and macro levels. The teachings of Islam emphasize on reasonable profits, fear of Allah, uprightness and honesty, ethics, hopefulness, endurance, public welfare, halal earnings, wider economic concerns. Islam discourages the hoardings, unusually high profits. Also trade of harmful goods is abandoned in Islam. (HOQUE ET AL., 2014). Islamic conception of business development is very encompassing. It does not only inspire the individuals to become entrepreneurs, rather directs them to pay the due share of their earnings for social welfare and poor (RAMADANI, DANA, RATTEN, & TAHIRI, 2015). Bank interest or mark-up on loans is totally *haram* or illegal in Islam. Similarly, the rich need to pay share of their earnings from money, livestock and agriculture produce to the social welfare called as *Zakat*. The rate of *Zakat* is predefined in *Qur'aan* and *Sunnah*. The zero mark-up or interest rate as per the

Islamic teachings enables the circulation of wealth. Rich or the surplus spending units of society are encouraged to participate in entrepreneurship through different kinds of investment and/or partnership types as per Islamic laws. Some of these partnership types are *Musharika*, *Mudariba*, and *Murahaba*. Rules and procedures of these and other instruments are well defined in the Islamic laws. Islam discourages the accumulation of wealth in fewer hands, thus interest is illegal. It rather, encourages the equitable distribution of wealth through the institution of *Zakat*. Ownership of land, profit and competition mechanisms are allowed in Islam. Hence Islam has a moderate system in comparison to Communism and Capitalism. Islamic economic system strives for the balance in society.

2.4 Entrepreneurship Education and Entrepreneurial Intentions

KATZ (2003) discussed that in the year 1932, Schumpeter started to teach entrepreneurship at Harvard University. Schumpeter, in collaboration with Arthur Cole established the Research Center for Entrepreneurial History in the year 1946. A year later, Myles Mace offered the first U.S course on entrepreneurship to 188 students at Harvard Business School. There has been a huge increase in the number of Entrepreneurship Education Programs (EEPs) around the world and it is still increasing (FINKLE & DEEDS, 2001; GWYNNE, 2008; KURATKO, 2005; H. MATLAY, 2005; HARRY MATLAY, 2008).

Entrepreneurship education can be used as a means for raising intentions for entrepreneurship or for stimulating the entrepreneurial behavior. This is in line with the Theory of Planned Behavior by AJZEN (1991). The skills of entrepreneurship can be gained or learned through entrepreneurship education. The entrepreneurship education is one of the key elements to build the attitudes, competencies, skills and intentions related to entrepreneurship (AKHUEMONKHAN, RAIMI, & SOFOLUWE, 2013; ELERT & HENREKSON, 2017; FALKANG & ALBERTI, 2000; FRESE, 2009; GIELNIK ET AL., 2015; HARRIS & GIBSON, 2008; HENRY, HILL, & LEITCH, 2005; KARIMI, BIEMANS, LANS, CHIZARI, & MULDER, 2016; KAZMI & NABRADI, 2017; KURATKO, 2005; MARTIN, MCNALLY, & KAY, 2013; J. MITRA & MATLAY, 2004; JAY MITRA, 2008; MOBERG, 2014; WUEBKER ET AL., 2014; KAZMI, 2016) .

Entrepreneurship is an intentional and planned behavior (BAE, QIAN, MIAO, & FIET, 2014; BIRD, 2015; N. F. KRUEGER, REILLY, & CARSRUD, 2000; SHANE & VENKATARAMAN, 2000). The entrepreneurial behavior can be predicted by measuring the entrepreneurial intentions. Entrepreneurship education has impact on the entrepreneurial intentions. When students receive entrepreneurship training and education, they form desires and their attitudes towards the entrepreneurship education improve, hence they form entrepreneurial intentions. There has been a large body of research which has investigated the impact of entrepreneurship education on intentions and the actual entrepreneurship behavior. Many intervening and moderating variables such as entrepreneurial desirability, social norms or self-efficacy has also been measured. However, the results of entrepreneurship education Programs as measured for impacts on the entrepreneurial intentions are yet not clear. Some studies have concluded the significantly positive and others have yielded insignificant results for association between the entrepreneurship education and entrepreneurial intentions (AMIRI & MARIMAEI, 2012; BAE ET AL., 2014; BAYRÓN, 2013; BOWEN & HISRICH, 1986; CHRISTINA, PURWOKO, & KUSUMOWIDAGDO, 2015; ELERT, ANDERSSON, & WENNBORG, 2015; FEKRI, SHAFIABADY, NOORANIPOUR, & AHGHAR, 2012; GHINA, 2014; GIELNIK ET AL., 2015; HADI, WEKKE, & CAHAYA, 2015; HAQUE, 2007; HENRY ET AL., 2005; HUSSAIN & NORASHIDAH, 2015; KAKOURIS & GEORGIADIS, 2016; KARIMI ET AL., 2016; KAZMI & NABRADI, 2017; KIBLER, 2013; KOLVEREID & MOEN, 1997; N. F. KRUEGER ET AL., 2000; KÜTTIM, KALLASTE, VENESAAR, & KIIS, 2014; LEOVARIDIS, FRUNZARU, & CISMARU, 2016; LIÑÁN & FAYOLLE, 2015; MARESCH, HARMS, KAILER, & WIMMER-WURM, 2016; JAY MITRA, 2008; MÖBERG, 2014; MUSTAPA & SELVARAJU, 2015; PATZELT, WILLIAMS, & SHEPHERD, 2014; PREMAND, BRODMANN, ALMEIDA, GRUN, & BAROUNI, 2016; RAUCH & HULSINK, 2015; SÁNCHEZ, 2013; SONDARI, 2014; SOUITARIS, ZERBINATI, & AL-LAHAM, 2007; UDDIN & BOSE, 2012; WEERAKOON & GUNATISSA, 2014; ZHANG, DUYSTERS, & CLOOT, 2014; ZHAO, HILLS, & SEIBERT, 2005; ZWAN, ZUURHOUT, & HESSELS, 2013). Despite the large body of research on the association and relationship between entrepreneurship education and entrepreneurial intentions; the results are not clear. The results of entrepreneurship education's impact on the intentions are rather inconclusive. There might be several reasons for the mixed results. The culture, social influences might also be important for the students to frame

entrepreneurial intentions. Similarly, the perception of entrepreneurial barriers can also hinder forming strong entrepreneurial intentions, particularly in less developed nations (MUHAMMAD, MCELWEE, & DANA, 2017B). The design, contents, and delivery methods are also important to shape the entrepreneurial intentions (LORZ, 2011). The role of instructor in this regard is highly important. The education about entrepreneurship to raise the entrepreneurial intentions. The 'about entrepreneurship' education only provides the basic or fundamental concepts about the entrepreneurship. It orients the students about the field of entrepreneurship and different facets of entrepreneurship. In contrast, the 'for entrepreneurship' education not only provides the basic concepts and theoretical foundations of entrepreneurship; it does also provide the practical exposure to students for entrepreneurship. This practical exposure to the phenomenon of entrepreneurship motivates and guides students to become future entrepreneurs. 'For entrepreneurship' education is fundamental to stimulating the students' behavior. It does encourage them to form the entrepreneurial intentions (KAZMI, 2016; KAZMI & NABRADI, 2017). The contents, course design, delivery methods and inclusion of practical activities are very important for an effective Entrepreneurship Education Program (EEP). An effective Entrepreneurship education program; that effectively impacts the entrepreneurial attitudes, competencies and intentions, stimulates the students' behavior for starting their business. Students, during their education, are in the process of thinking and decision making for their future careers. Hence the role of instructors and effective Entrepreneurship Education Program becomes vitally important for the students to help them shape up their entrepreneurial intentions. Stories of successful entrepreneurs, case studies, discussions with entrepreneurs do motivate the students to think about entrepreneurship as a career choice. Group team projects such as idea generation, business plan development, registration of a new company or initiation and launching of a business venture for some days or weeks are some of the activities which make the Entrepreneurship Education Program more effective to impact the entrepreneurial intentions of the students. Hence, Effective Entrepreneurship Program can be used as an effective means to raise the entrepreneurial intentions and consequently the actual entrepreneurship behavior. This notion is also supported by the Ajzen's (1991) famous Theory of Planned Behavior (TPB)

2.5 Entrepreneurship Education, Entrepreneurial Self-Efficacy and Entrepreneurial Intentions

Entrepreneurial Self-Efficacy can be explained as the self-confidence of belief or confidence in one's own competencies, skills and abilities related to entrepreneurship (BANDURA, 1989; M. FRESE & ZAPF, 1994; GIELNIK ET AL., 2015; KAROLY, 1993; KAZMI & NABRADI, 2017). It is the belief in one's own entrepreneurial abilities and competencies that he or she can start a business. Since entrepreneurship education develops the entrepreneurial skills and competencies in the students. Effective Entrepreneurship Education Program is essentially important for inculcating the entrepreneurial knowledge, skills, abilities and competencies in the personality of the students. Once the students recognize that they have a reasonably appropriate level of competencies, they become confident that they can initiate and manage the new ventures. This belief or confidence in their entrepreneurial competencies enables the students to form entrepreneurial intentions. Consequently, these intentions turn into the actual action or entrepreneurial behavior and the students choose entrepreneurship as employment option; they become the actual entrepreneurs. Entrepreneurial Self-Efficacy is one of the underlying mechanisms between the Entrepreneurship Education and Entrepreneurial Intentions. It interacts between the entrepreneurship education and entrepreneurial intentions in such a way that it mediates the relationship of entrepreneurship education and intentions. Hence, entrepreneurial self-efficacy is one of the mediums between entrepreneurship education and intentions. However, it is important to note here that only effective Entrepreneurship Education Programs have the ability to develop entrepreneurial self-efficacy. Since, the 'about entrepreneurship' education lacks the ability to inculcate entrepreneurial skills, competencies and abilities in the students' personalities; it shall not develop their entrepreneurial self-efficacy. Ultimately, intentions will not be impacted by such education. In contrast to 'about entrepreneurship' education programs, the 'for entrepreneurship' education programs effectively help in building entrepreneurial skills, competencies and abilities in the students personalities. Therefore, 'for entrepreneurship' education programs do promote entrepreneurial self-efficacy, which in turn stimulates the entrepreneurial intentions and actual entrepreneurship behavior or action.

Theoretically or conceptually, the entrepreneurial self-efficacy or what BANDURA (1997) terms it as perceived self-efficacy is similar to the Perceived Behavioral Control as suggested

in the Theory of Planned Behavior by AJZEN (1991). In both of these conceptions, the sense of ability or capacity to perform a certain task or behavior is fundamental (AJZEN, 2002). It is also equivalent to perceived feasibility used by SHAPERO (1984), (ZHANG ET AL., 2014). When students perceive that they have sufficient knowledge, skills and abilities to perform the entrepreneurial task then they become confident and have strong beliefs in their competencies; their entrepreneurial self-efficacy increases and they form the entrepreneurial intentions. Entrepreneurship education is found to effectively impact and raise the entrepreneurial self-efficacy. Entrepreneurship education has positive association with the entrepreneurial self-efficacy (KARIMI ET AL., 2016; MARTIN ET AL., 2013; MOBERG, 2014; WILSON, FIONA, KICKUL, & MARLINO, 2007; ZHANG ET AL., 2014; ZHAO ET AL., 2005). However, some studies have also concluded the negative or insignificant relationship between entrepreneurship education and entrepreneurial self-efficacy (WALTER & DOHSE, 2012). Entrepreneurial self-efficacy is a very important predictor of entrepreneurial intentions. It is quite natural and obvious that if someone is not confident about himself or herself that he or she can perform a certain task then there will be very less propensity for having the intentions to perform that particular task. This self-confidence or belief in one's abilities, skills and competencies stimulates the thought process in such a way that individuals become confident about the execution and control of a certain tasks related behavior. The self-confidence or self-efficacy might not be important for the routine, simple or easier tasks. However, complex, important and challenging tasks need a reasonably good level of self-confidence or self-efficacy. Venture creation and management is a challenging and complex task. It has lot of uncertainty, requires courage and risk taking behaviors. Therefore, actual entrepreneurship and the entrepreneurial intentions involve high levels of entrepreneurial self-efficacy. Entrepreneurship Education Programs, thus need to be designed, delivered and managed in such a way that it enhances the students' entrepreneurial self-efficacy. Practical exposure of students to the entrepreneurial activities is vitally important for enhancing the entrepreneurial self-efficacy. Discussions, seminars and talks by the successful entrepreneurs can well be instituted in the Entrepreneurship Education Programs. Activities like idea challenge, opportunity identification, business plan development, business plan competition and launching of entrepreneurial ventures for some days or even weeks is very effective and impact the entrepreneurial self-efficacy. When students meet the successful entrepreneurs and listen to their stories, they develop perceptions that they can also become entrepreneurs. When

entrepreneurs reveal the hurdles, barriers and difficulties they faced while starting and managing these ventures successfully; their confidence does increase that they can also launch and manage such ventures. Participation of students in the entrepreneurial activities like idea generation, pitching the idea, business plan competition and launching the ventures as entrepreneurship simulation exercises do enhance the entrepreneurial self-efficacy of the students. The entrepreneurial self-efficacy in turn does influence the students' entrepreneurial intentions positively. These intentions are impacted by several antecedents. Entrepreneurial self-efficacy is one of the important antecedents of intentions. Students, during their entrepreneurship education or training programs, through the thought process. They get self-recognition of their skills, abilities and competencies and hence gain the entrepreneurial self-efficacy. This self-efficacy does also motivate the students to think about entrepreneurship as a career choice. Thus, entrepreneurial self-efficacy may impact the entrepreneurial intentions in the positive direction. There are several studies which assessed the relationship of entrepreneurial self-efficacy and entrepreneurial intentions (ASLAM & HASNU, 2016; BAE ET AL., 2014; BAYRÓN, 2013; CHEN, GREENE, & CRICK, 1998; DISSANAYAKE, 2014; DOUGLAS, 2013; FITZSIMMONS & DOUGLAS, 2011; HONG, HONG, CUI, & LUZHUANG, 2012; KARIMI ET AL., 2016; KAZMI & NABRADI, 2017; N. F. KRUEGER ET AL., 2000; LANS, GULIKERS, & BATTERINK, 2010; RAUCH & HULSINK, 2015; SEGAL, SCHOENFELD, & BORGIA, 2007; SHINNAR, HSU, & POWELL, 2014; WANG, WONG, & LU, 2002; WILSON ET AL., 2007; ZHANG ET AL., 2014; ZHAO ET AL., 2005). Entrepreneurial self-efficacy is impacted by the entrepreneurship education. It then in turn impacts the entrepreneurial intentions. Entrepreneurial intentions are formed before the actual entrepreneurship behavior or action. Hence, it can be argued here that entrepreneurial intentions are formed prior to the entrepreneurial actions. Hence entrepreneurial intentions are very important rather fundamental to the entrepreneurial behavior and actions. When the students have higher levels of entrepreneurial self-efficacy, they impact their own intentions through the thought process and the positive perceptions of their own abilities and skills.

2.6 Entrepreneurship Education Perceived Desirability and Entrepreneurial Intentions

Perceived desirability for starting a new business or perceived desirability for entrepreneurship as a career choice refers to an emotional judgement. Conclusions from such judgements are important for the aspiring entrepreneurs or students for taking the entrepreneurial actions (MITCHELL ET AL., 2002). When students recognize a want or desire from their inside or when they recognize and acknowledge this emotional state of the desire to start the new venture, these desires then do impact the students intentions. However the actual entrepreneurial actions may take place at the time of possibility (SEGAL, BORGIA, & SCHOENFELD, 2005; SEGAL ET AL., 2007). And when the conditions and external factors are favorable for the student to launch the actual venture or take the entrepreneurial actions. This perceived desirability for starting a new venture is a state of variability between the choice for being employed and the state of being self-employed. Hence higher the variability, closer the student gets emotionally to start his or her own business. Therefore a higher variability between being employed and self-employed, higher the perceived desirability for starting a new venture. Alternatively, the dislike for being employed in some organization may also mean that the student has higher desire for starting his or her own venture. Higher levels of perceived desirability by the student shows that he or she is more likely to start his or her own business than to work for someone or than being employed (KOLVEREID, 1996; KOLVEREID & MOEN, 1997). The students having higher perceived desirability can be predicted to start their business after graduation. Comparatively, the students with higher desirability have more chances to take entrepreneurial actions than those with lower levels of the perceived desirability. The perceived desirability is equivalent to attitude used in the Theory of Planned Behavior (AJZEN, 1991; KARIMI ET AL., 2016; ZHANG ET AL., 2014). The desires or aspirations for the entrepreneurial career are self-driven or dependent on the motivations (MCMULLEN & SHEPHERD, 2006). Students' involvement in the entrepreneurship education and training increases their levels of motivations or enhances their desires for starting the new ventures. Particularly, the 'for entrepreneurship' education programs do enhance the students' motivations and desires for starting the new business ventures. Participation in the Entrepreneurship Education Programs enables them to interact with the successful entrepreneurs, listen and read their success stories. Students do also analyze and discuss case-studies of different entrepreneurial ventures. They develop business ideas, evaluate business

opportunities, write business plans and also participate in the entrepreneurship simulation exercises. All these activities have impacts on the emotional and cognitive processes of the students. Hence, participation in the Entrepreneurship Education Programs may therefore, enhance their levels of perceived desirability for starting the new ventures (BIN YUSOFF, ZAINOL, & BIN IBRAHIM, 2015; FITZSIMMONS & DOUGLAS, 2011; FREGETTO, 2015; HONG ET AL., 2012; HUSSAIN & NORASHIDAH, 2015; KAIJUN & ICHWATUS SHOLIAH, 2015; KAZMI & NABRADI, 2017; N. KRUEGER, 1993; N. F. KRUEGER ET AL., 2000; LIÑAN, C., & RUEDA-CANTUCHE, 2011; LIÑÁN & FAYOLLE, 2015; MARESCH ET AL., 2016; MCSTAY, 2008; RAUCH & HULSINK, 2015; REITAN, N.D.; REMEIKIENE, STARTIENE, & DUMCIUVIENE, 2013; WEERAKOON & GUNATISSA, 2014; ZHANG ET AL., 2014). Since, entrepreneurial desirability of the students is impacted by the participation in the Entrepreneurship Education Programs, the perceived desirability or attitude towards entrepreneurship also impacts the entrepreneurial intentions in turn. Hence here in the relationship between entrepreneurship education and entrepreneurial intentions, the perceived desirability interacts as a mediating variable. It is the underlying mechanism between the entrepreneurship education and the intentions. The mediating role has been explored by several studies as discussed earlier. However, the results for the mediation are mixed. Some studies have shown the full support, some others have provided partial mediation support and others have shown no mediation or insignificant support for the mediation of perceived entrepreneurial desirability between entrepreneurship education and the entrepreneurial intentions.

3 MATERIALS AND METHODS

3.1 Introduction

The chapter 1 discussed introduction to dissertation including research objectives, significance of the study and the hypotheses. Chapter 2 presented the theoretical foundations of the study. It discussed the brief history of entrepreneurship, religious perspectives on entrepreneurship and definitions of entrepreneurship. It also reviewed the literature about the variables and related theories. Entrepreneurship education, intentions, perceived desirability and entrepreneurial self-efficacy were discussed in the light of research literature.

This chapter describes in detail the research method, materials and the statistical procedures and tests utilized to test the research hypotheses empirically. Empirical investigation for testing the hypotheses is imperative for the validity and generalizability. The method has capability to falsify the research model – the model developed with the help of previous literature (POPPER, 1979). This chapter discusses the sample, data sources, data collections methods, measures and analysis techniques.

3.2 Design

The research for this dissertation is divided into several studies. These are discussed here in detail:

3.2.1 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.

3.2.2 Study I - 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. The interviews were conducted in December 2015 and August 2016 for Hungary and Pakistan respectively.

3.2.3 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, Hungary. 184 questionnaires were found complete.

3.2.4 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.

3.2.5 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 in May 2018. 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.

3.3 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.

Data from the respondents of Hungary and Pakistan was collected for the purpose of making comparisons between two nations. Samples of data from Pakistan, an Asian economy and Hungary, a European country are compared to explore the similarities and differences. Following two tables describe the data collected from Pakistani and Hungarian samples, both qualitative and quantitative data:

Table 3.1 Qualitative Research

Study Number	Number of Respondents	Target group-differentiated	Method	The time of recording the interviews	The aim of the interviews
Study 1	N=10	10 University teachers 06 Pakistani and 04 Hungarians	Structured or non-structured interviews	December 2015 (Hungary) August 2016 (Pakistan)	Preliminary research for better understanding of the situation and questionnaire development
Study 4	N=9	9 Pakistani and Hungarian entrepreneur (nationality)	Structured or non-structured interviews	March – April 2018 (Pakistan) May 2018 (Hungary)	To complement the results of quantitate research

Table 3.2 Quantitative Research:

Study Number	Element number	Target group-differentiated	Method	The time of inquiry	The aim of the questionnaire
Study 2	N=726	542 Pakistani university students 184 Hungarian university students	Questionnaire	September to October 2016 Hungary and Pakistan	Primary data collection for Hypotheses testing
Study 3	N=983	523 university students and 213 secondary school students from Pakistan 98 university students and 149 secondary school students from Hungary	Questionnaire	September to December 2017 Pakistan March 2018 Hungary	Primary data collection for Hypotheses testing

3.4 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.

3.4.1 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.

3.4.2 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.

3.4.3 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.

3.5 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. The regression and correlation was used for the hypotheses testing. Regression and correlation analyses are widely used as valid analysis techniques for the purpose of hypotheses testing.

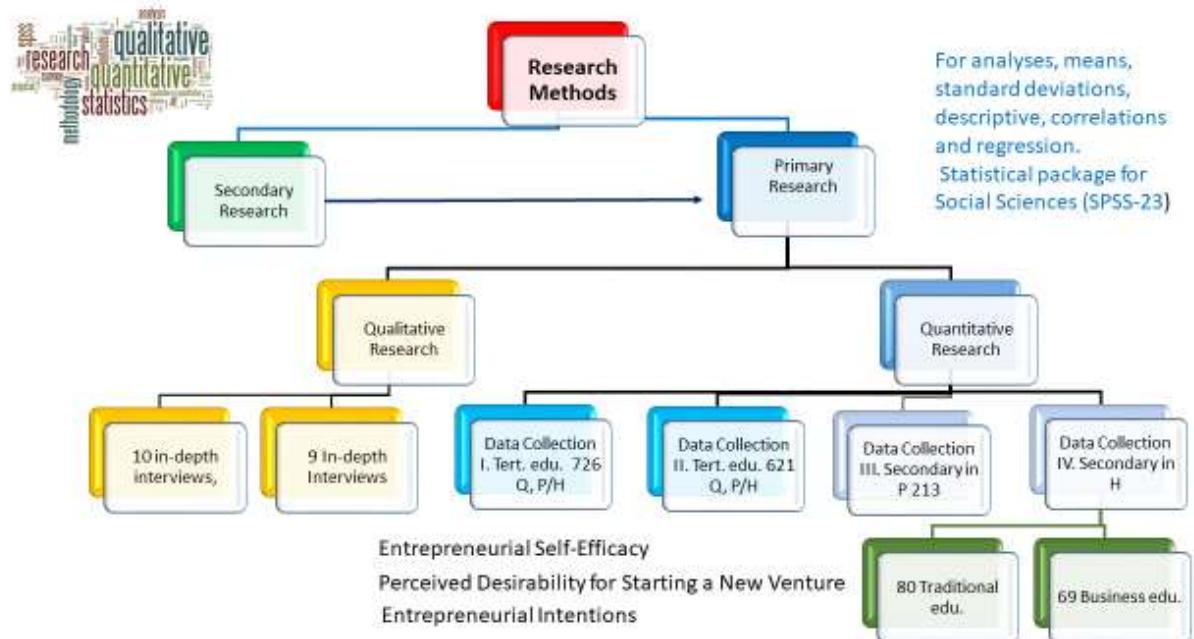


Figure 3. 1 Summary of Research Methods

4 Results and Findings

4.1 Results of Study 1

The study one included in-depth interviews of 4 university professors from Hungary and 6 from Pakistan. All of these professors were teaching business education to bachelor and master level students. Responses of the interviews were analyzed. Some of the responses are presented here after analysis. Following are some of the responses which present common themes in the interviews:

A professor from Hungary responded that:

In our business schools, the business education or entrepreneurship education is focused most of the times on theory only. Conceptual learning or theoretical base is very important, however, practice orientation is very important for creating entrepreneurs or for impacting the students' intentions to become entrepreneurs.

Another professor noted that:

Learning by doing is important. The traditional business education model has the tendency to create employees. After graduating, most of the students choose to become employees. We need to put the students in real business situations. Idea development, opportunity identification, business plan development and business registration exercises can be very useful.

Another Professor from Hungary discussed that:

Students have fear to failure. We can solve this problem by having practical exposure. Students can write the stories of successful entrepreneurs. This can be their class project or assignment. When they will meet the successful entrepreneur and discuss the success story then the students' confidence will improve and this way they will also desire to become entrepreneurs.

A senior professor from Hungary mentioned:

Our traditional business education curriculum and methodology uses examples and situations wherein the students feel themselves as employees. Most of the examples used in books or discussed by the teachers are about big companies, their success models, problems and

employees. Students, consciously or unconsciously, assume themselves as the employees. They also desire and intend to become employees. They dream to become employees of the multinational companies.

Another Professor from Hungary discussed that:

We are using a very different method to teach entrepreneurship. It is the Team Academy Approach borrowed from Finland. Students have to develop the teams. Each team consists at least of 5 members. They have to read some books each semester and write and discuss the book reviews. The teams have to launch and run the business. They are asked to do it step wise. Idea generation, opportunity analysis, business plan development and launching the venture. So here in this method of teaching, students learn by doing. They have to launch a business. So, you can say that its education for entrepreneurship because we intend to create entrepreneurs. It is not just the about entrepreneurship.

A professor from Pakistan noted that:

Currently, what we are teaching in most of the business schools is not purposed to creating entrepreneurs. We use examples and text to inculcate the concepts and theory which is very important. However, we are unfortunately not impacting the students to become entrepreneurs. Hence, most of the graduates seek jobs. Very rare of them have intentions to start their own businesses.

Another Professor from Pakistan discussed that:

Most of the business schools, now, have established the entrepreneurship incubation centers or some of them are in the process of establishing. It is very good step for promoting entrepreneurship in the country. However, the teaching methodology, has unfortunately not changed. During the whole MBA program there is only one subject of entrepreneurship, same is true for BBA.

A Professor from Pakistan mentioned that:

In Pakistan, there are many social barriers. Students prefer to have government jobs. Second priority comes for the jobs of banks or multinationals. We need to include the success stories and case-studies of local entrepreneurs. Local entrepreneurs can also be invited for the guest

lectures. This way, we can train and educate our students to become entrepreneurs. It will provide them motivation and confidence.

Another Professor from Pakistan discussed that:

We need to revise our business students' curriculum. The syllabus for MBA and BBA needs to have more subjects of entrepreneurship. Both the degree programs just have one subject related to entrepreneurship. More subjects can be included. The syllabus can be designed in such a way that it educates, motivates and encourages students to become entrepreneurs.

A Professor from Pakistan mentioned that:

We need to put the students in the real business situation. We can have simulation exercises for this purpose. Business plan competitions can also be important. Students can be asked to make groups and launch their mock businesses. During these competitions, investors can also be invited. They can fund the business ideas. This way we can enhance student entrepreneurship.

Another Professor noted that:

In Pakistan, the secondary and higher secondary schools mostly teach science related subjects. Entrepreneurship can be taught from the very basic levels. Success stories of successful entrepreneurs, written in the simple and interesting way can be taught in the primary schools. In the secondary schools, business or entrepreneurship education may be promoted. This can be done with support of government policy and media.

4.2 Analysis of the Qualitative Data and Conclusion

The Pakistani respondents for the interviews of study 1 have discussed that mostly business schools in Pakistan follow traditional methods of teaching. There is less use of case studies and learning by doing approaches in teaching. However, establishment of entrepreneurship

incubation centers in the business school does enhance students' intentions and motivations for becoming entrepreneur.

The Hungarian respondents have discussed about two types of teaching methods being used in the Hungarian universities for business education. One type of the education is similar to that of the Pakistani institutions. The other type of methodology is unique. It focuses on developing student teams. These teams then establish and run their business during the course of their study. Hence this method relies on learning by doing approach in teaching.

4.3 Results of Study 2 – The Data from Pakistan at Time 1

As discussed earlier, the study 2 contains quantitative analysis. In this section, descriptive are discussed followed by correlations and regression analyses for hypotheses testing and mediation. First, we present results of data from Pakistan and then Hungary.

4.3.1 Descriptive Analysis

Following figures from figure 4.1 to 4.9 present the descriptive statistics.

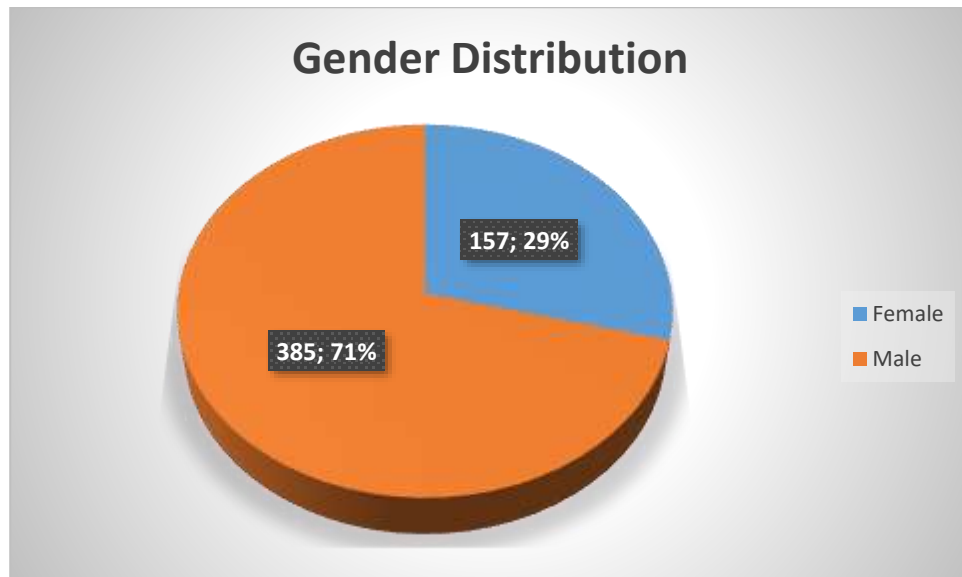


Figure 4. 1 Gender Distribution of Respondents

As can be seen in the figure, there were 71% or 385 male students and 29% or 157 female students. The total number of respondents were 542 students.

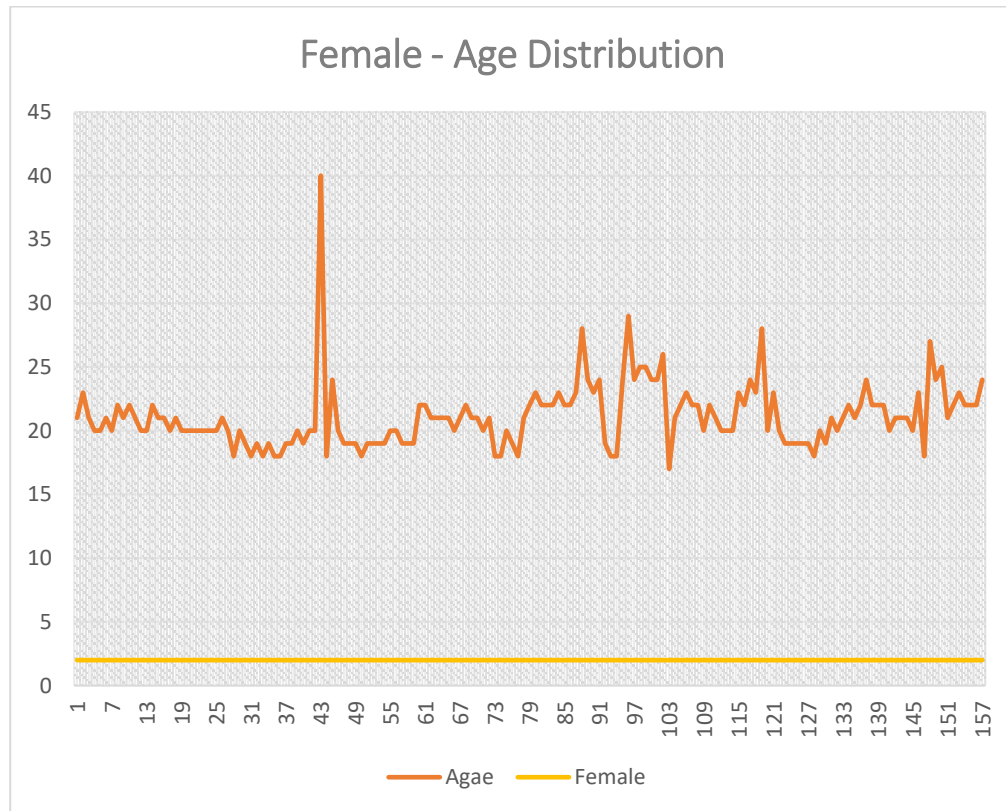


Figure 4. 2 Age Distribution of Female Respondents

The age for female respondents varied from 17 years to 43 years. Majority of the respondents were between 18 to 24 years age group. This is shown in the figure 4.2.

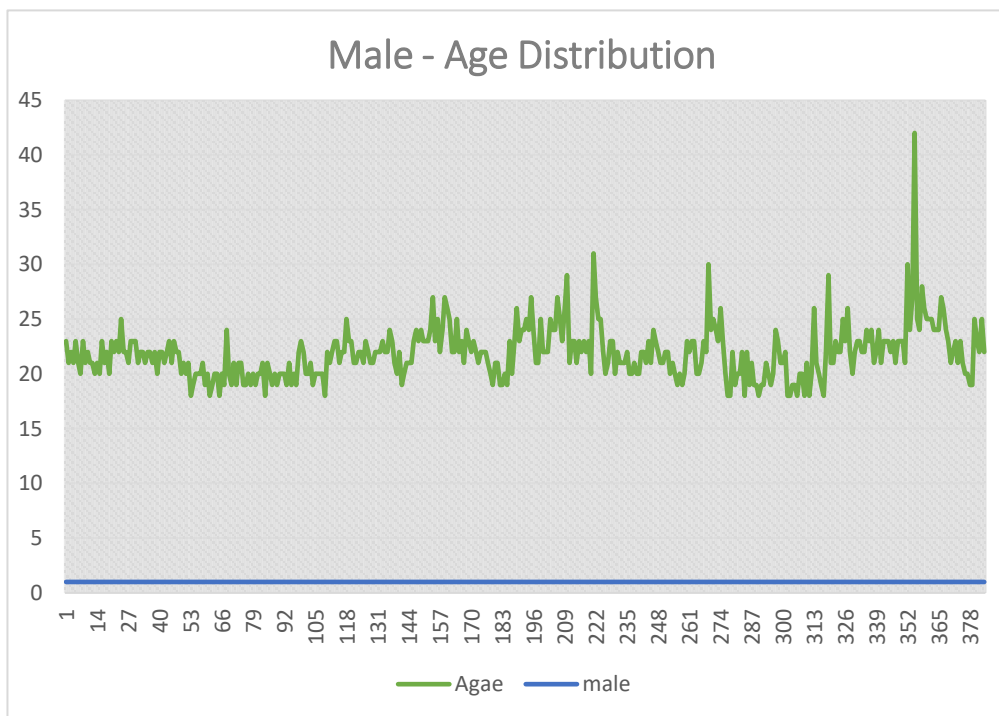


Figure 4. 3 Age Distribution of Male Respondents

As presented in the figure 4.3, the male respondents' age varied from 18 to 42 years. Majority of the male respondents were found in the age group of 19 to 24 years of age.

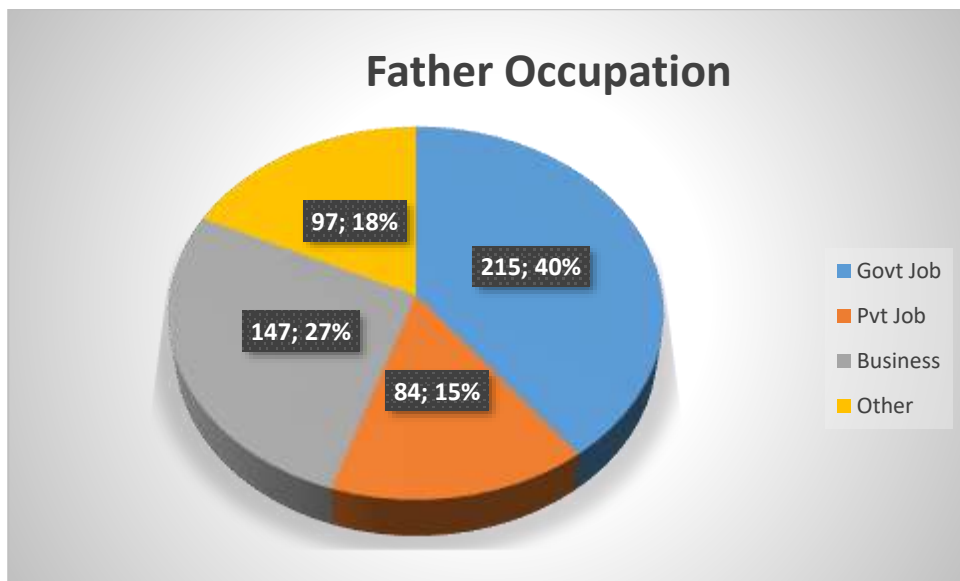


Figure 4. 4 Fathers' Occupation Distribution of Respondents

Respondents were asked to report about their fathers' occupations. As per the data presented in figure 4.4, the 40% or 215 of the respondents' fathers were having a government job. Fathers having a private job were 15% or 84 in numbers. 27% or 147 of the respondents' fathers had their own businesses or they were entrepreneurs. Fathers having other occupation were 18% or 97 in numbers. Other occupations may involve sensitive government jobs.

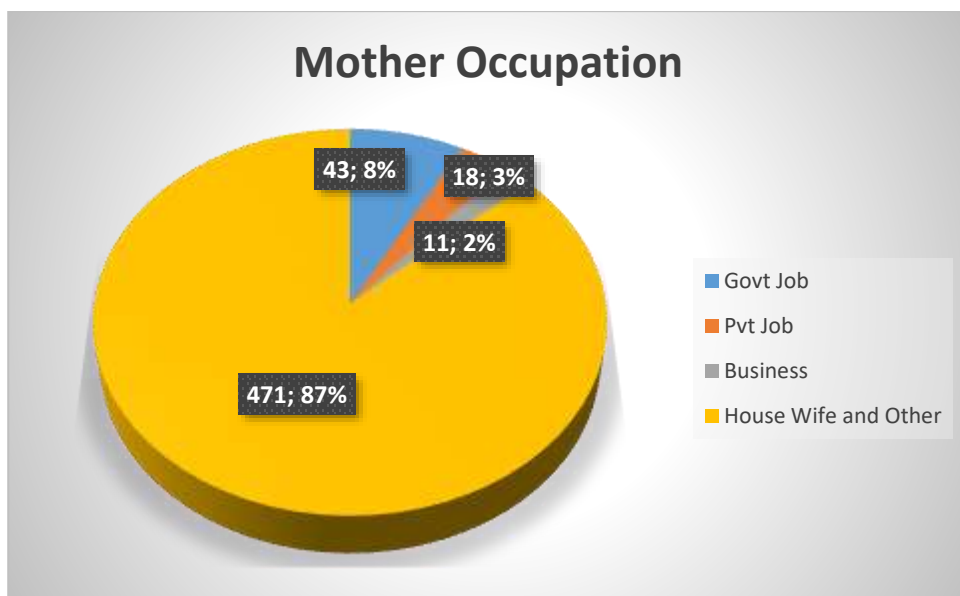


Figure 4. 5 Mothers' Occupation Distribution of Respondents

The figure 4.5 shows occupation of mothers of the respondents. 8% or 43 of the mothers are having government employment. Mothers of the respondents having a private job were only 3% or 18 mothers. Entrepreneur mothers were only 2% or 11 mothers only. Majority of the respondents' mothers i.e. 87% or 471 mothers were house wives. In the South East Asian Society of Pakistan, most of the mothers are house wives. They take care of their kids and take care of the house. Working at home, cooking, and nurturing the kids is a preferred profession of married women in Pakistan.

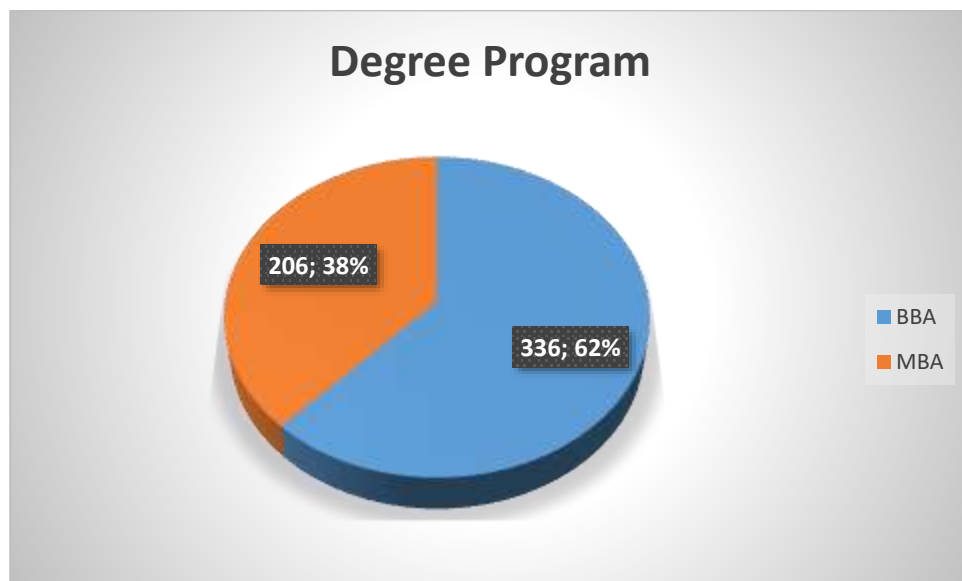


Figure 4. 6 Degree Program Distribution of Respondents

The respondents were studying in two degree programs, Bachelors in Business Administration, BBA and Masters in Business Administration, MBA. As presented in the figure 4.6, respondents studying in BBA were 62% or 336 students. The students enrolled for the MBA were 38% or 206 students.

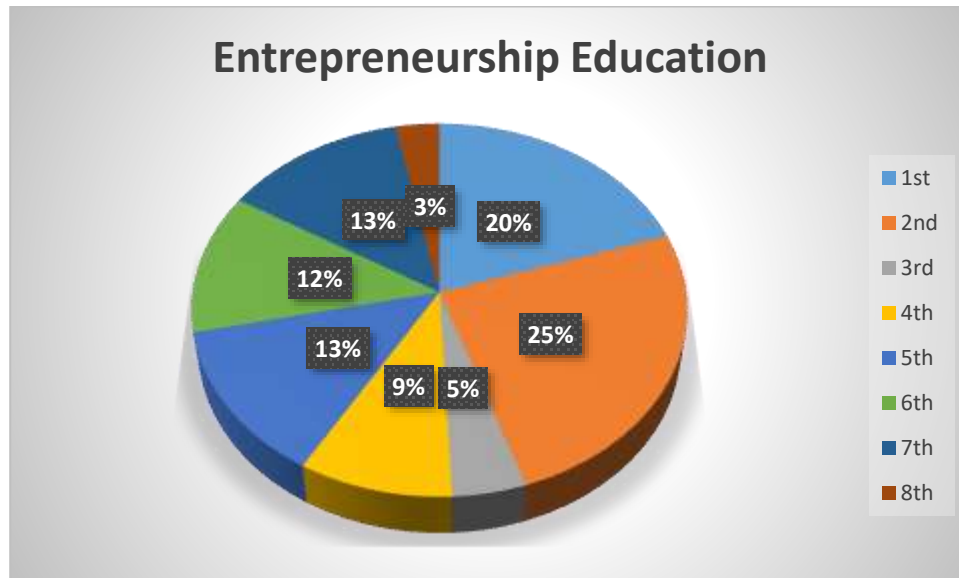


Figure 4. 7 Semester wise Entrepreneurship Education Distribution of Respondents

We measured entrepreneurship education with the progression in studies. Hence a student in the last semester will have more entrepreneurship education than a students in the 1st semester. As per figure 4.7, percentage of students in the first semester was 20% (108 students). In the 2nd semester there were 25% of the respondents or 135 students. Respondents for the 3rd semester accounted for 5% or 24 students. In the 4th semester, there were 9% of the respondents or 50 students. In the 5th semester, there were 13% or 71 students. 12% or 66 students were there in the 6th semester. In the 7th semester, there were 13% or 71 respondents. Number of students from the eighth semester who responded were 17 or 3%.

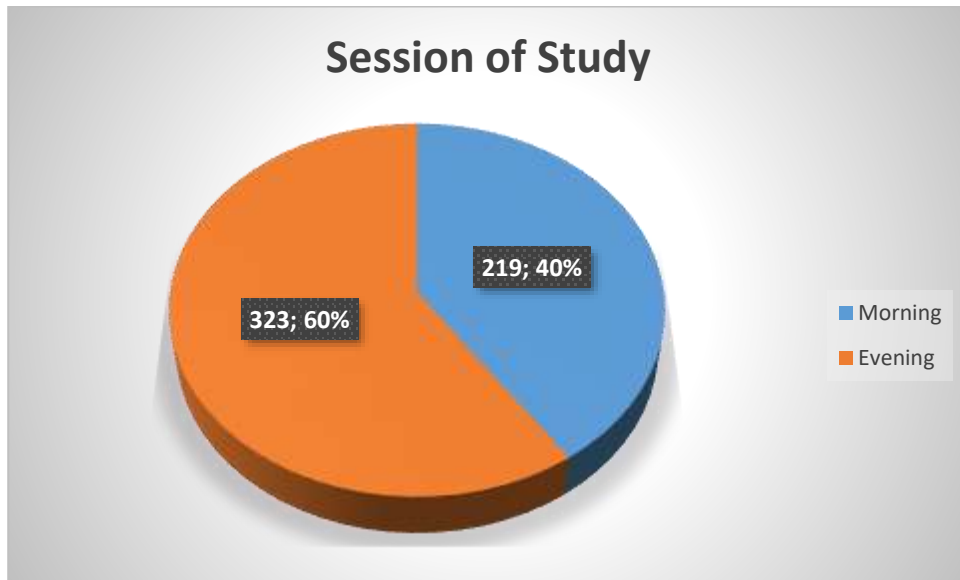


Figure 4. 8 Session of Study Distribution of Respondents

Respondents were studying in the two sessions i.e. morning and evening. The morning session starts at 8.00hrs and ends at 13.30 hrs. The evening session starts at 15.30hrs and ends at 19.00hrs. As per the figure 4.8, respondents from the morning session were 40% or 219 students. The respondents from evening session were 60% or 323 students.

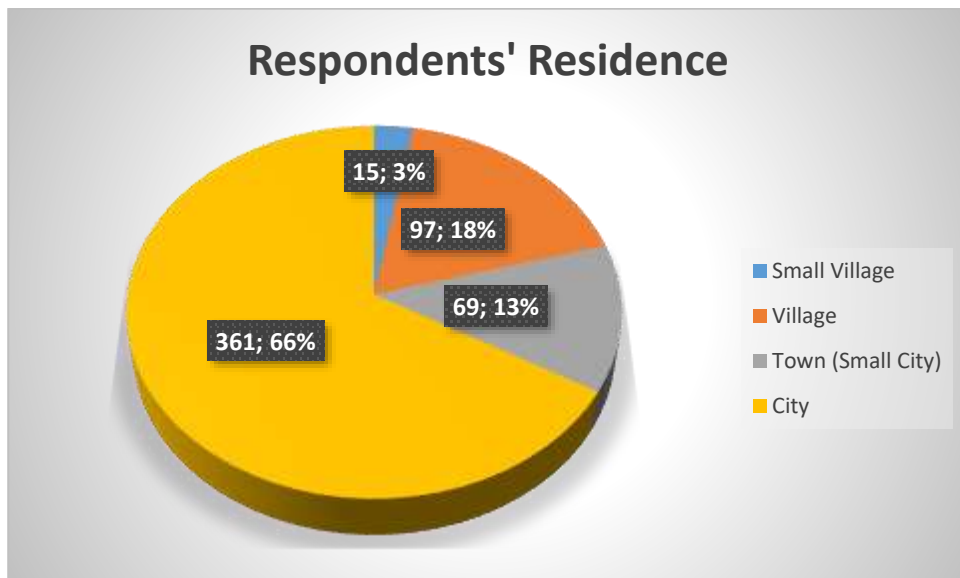


Figure 4. 9 Permanent Residence Distribution of Respondents

Figure 4.9 presents the respondents' residence. As it can be seen from the chart that highest number of respondents resided in the cities. Respondents from the small village were only 3%

or 15 students. 18% (97 students) of the respondents resided in relatively bigger villages. Respondents residing in the towns were 13% or 69 of the students. Respondents from the cities accounted for 66% or 369 of the respondents.

4.3.2 Correlation Analysis

As evident from the correlation analysis shown in Table 4.1, the correlation between entrepreneurial intention, self-efficacy and desirability are statistically significant at 1%. (Level of significance = 0.001). Therefore, positive correlation with both measures support the hypotheses H4 and H5; that Entrepreneurial Self-efficacy and Entrepreneurial Desirability are positively associated with the students' entrepreneurial intentions. However, the correlation coefficient between education and entrepreneurial intention is statistically insignificant (-.008) and indicating a negative relationship between education and entrepreneurial intentions. It is suggesting that increasing level of education decreases/discourages entrepreneurial intentions. The results for the Hypothesis 1 are surprising, detailed discussion the results is available in the discussion section. The higher level of education might motives students to have jobs in multinational firms and aspiration for social status. In the same vein, Entrepreneurial Education, the independent variable has statistically insignificant relationship with the mediators; entrepreneurial self-efficacy and entrepreneurial desirability. Hence the results do not support our hypotheses H2 and H3. These correlation results suggest that we cannot test the mediation paths as per the conditions of Barron and Kenny (1986)

Table 4. 1 Means, Standard Deviations and Correlations

	Means	S.D	Ent. Intention	Ent. Education	Ent. Desirability	Ent.Self- Efficacy
Ent. Intention	3.864	0.781	1.00			
Ent. Education	3.76	2.25	-0.008	1.00		
Ent. Desirability	3.83	0.684	0.623**	0.029	1.00	
Ent.Self- Efficacy	7.723	1.47	0.295**	0.079	0.285**	1.00

**significant at the 0.01 level (2 tailed), N=542

4.3.3 Regression Analysis

It is evident from the Table 4. 2 that the impact of Entrepreneurship Education on the Entrepreneurial Intentions is insignificant (β -0.008). Beta coefficient, coefficient of determination, t-statistics and F statistics all are insignificant. Hence, the Hypothesis H1 is rejected. These are surprising results. Explanation and reasoning for these unusual results is provided in the discussion.

Table 4. 2 Regression Results for Entrepreneurial Education and Intention (H1)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Education	-0.008	0.002	-0.85	0.034	0.853

Predictor: Ent. Education, Outcome: Ent. Intention

Table 4.3 clearly describes that the relationship between Entrepreneurship Education and Entrepreneurial Self Efficacy is insignificant statistically ($\beta=0.051$). This leads us to reject the Hypothesis 2 of the study. However, the results here for this hypothesis have improved a bit than those of the hypothesis 1 but still they are not significant statistically.

Table 4. 3 Regression Results for Entrepreneurship Education and Ent. Self-Efficacy (H2)

Ent. Self-Efficacy					
	β	R Squared	t	F	Sig.
Ent. Education	0.051	0.004	1.84	0.34	0.066

Predictor: Ent. Education, Outcome: Ent. Self-efficacy

As per the regression results shown in Table 4.4, we reject the hypothesis H3. Statistically, there is no significant relation between entrepreneurship education and students perceived entrepreneurial desirability for starting the new venture ($\beta=0.029$).

Table 4. 4 Regression Results for Entrepreneurship Education and Ent. Desirability (H3)

Ent. Desirability					
	β	R Squared	t	F	Sig.
Ent. Education	0.029	0.001	0.672	0.451	0.502

Predictor: Ent. Education, Outcome: Ent. Desirability

Regression results for the hypothesis H4 are shown in the Table 4.5. The beta coefficient is significant ($\beta = 0.295$ at $p<0.01$). Hence there is a significant positive impact of Entrepreneurial Self-efficacy on the students' Entrepreneurial Intentions. The change of 1 unit in the Entrepreneurial Self-Efficacy brings 0.295 change in the students' Entrepreneurial Intentions. Other measures, t-statistic, F and R squared are also significant. Hence the hypothesis H4 is accepted.

Table 4. 5 Regression Results for Entrepreneurial Self-efficacy and Entrepreneurial Intentions (H4)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Self-Efficacy	0.295***	0.087	7.204	51.899	0.00

Predictor: Ent. Self-Efficacy, Outcome: Ent. Intention

The Table 4.6 below discusses regression results for the Entrepreneurial Desirability and Entrepreneurial Intentions, Hypothesis H5. As evident from the results, hypothesis H5 is accepted. The relationship between Entrepreneurial Desirability and Entrepreneurial Intentions is statistically significant ($\beta = 0.387$ at $p < 0.01$). The relationship is positively significant. A change of 1 unit in the Entrepreneurial desirability brings 0.387 change in the Entrepreneurial intentions.

Table 4. 6 Regression Results for Entrepreneurial Desirability and Entrepreneurial Intentions (H5)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Desirability	0.387***	0.387	18.573	344.955	0.00

Predictor: Ent. Desirability, Outcome: Ent. Intention

As per the conditions of Baron and Kenny (1986), we cannot test the mediation paths as the direct relationship of independent variable with the mediators, dependent variable and the relationship of mediators with the dependent variable are not correlated significantly. However, for the purpose of more clarity and confirmation, we used the Hayes (2013) method for testing the mediation paths. Results were insignificant statistically. Hence the hypothesis H6 is also rejected.

Therefore for this data the Hypotheses H4 and H5 are accepted and hypotheses H1, H2, H3 and H6 are rejected. The results show that Entrepreneurship Education has no significant impact on the students' entrepreneurial intentions. It does not also impact the entrepreneurial self-efficacy and desirability. Entrepreneurial self-efficacy and desirability however have the significant positive association with students' entrepreneurial intentions. Entrepreneurial self-efficacy and desirability do not mediate the relationship between entrepreneurship education and students' entrepreneurial intentions.

4.4 Results of Study 2 – The Data from Hungary at Time 1

4.4.1 Descriptive Statistics

Descriptive statistics are discussed here:

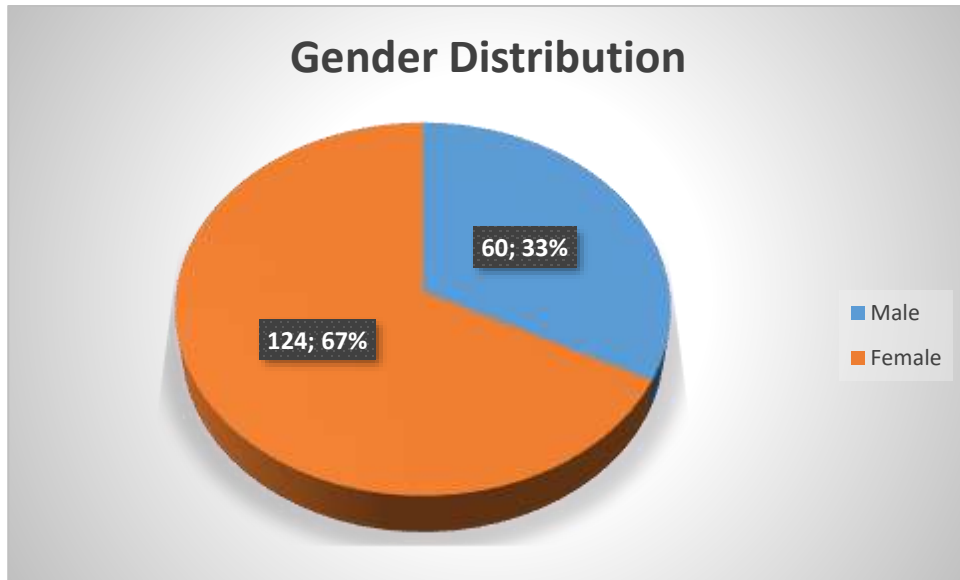


Figure 4. 10 Gender Distribution of Respondents

As can be seen in the figure 4.10, there were 33% or 60 male students and 67% or 124 female students. The total number of respondents were 184 students.

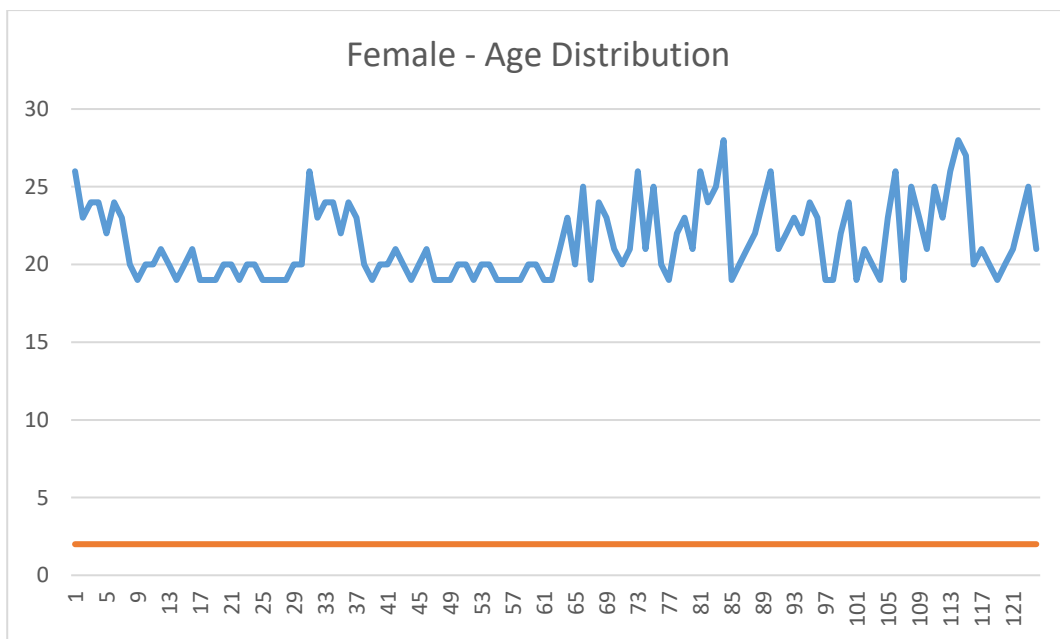


Figure 4. 11 Age Distribution of Female Respondents

The age for female respondents varied from 19 years to 28 years. Majority of the respondents were between 20 to 23 years age group. This is shown in the figure 4.11.

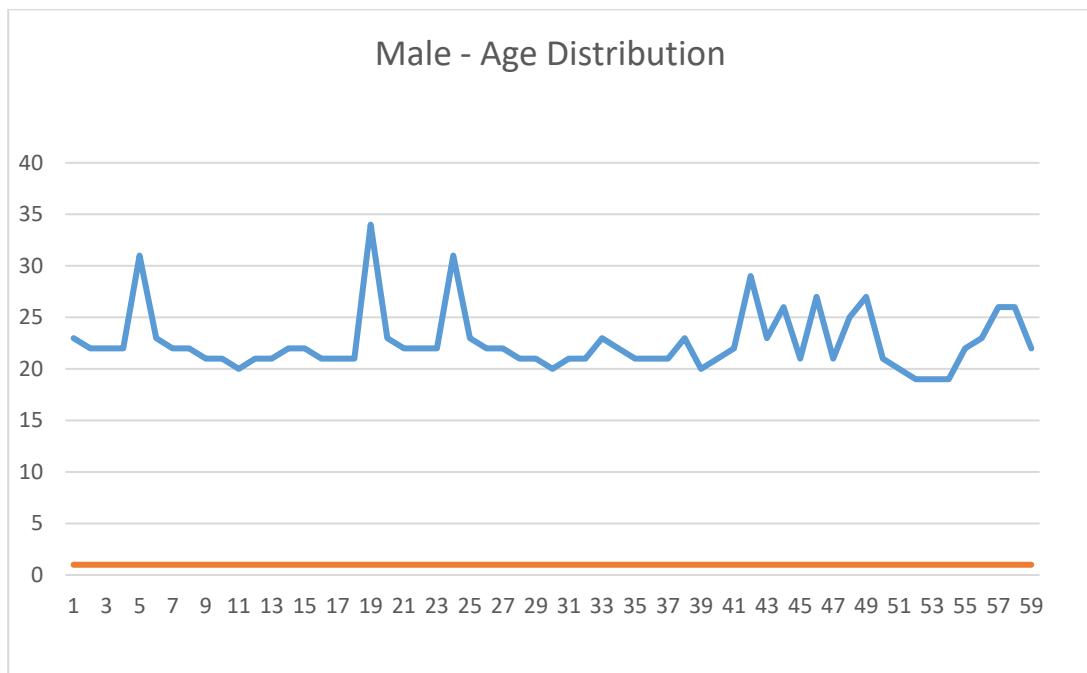


Figure 4. 12 Age Distribution of Male Students

As presented in the figure 4.12, the male respondents' age varied from 19 to 34 years. Majority of the male respondents were found in the age group of 20 to 25 years of age.

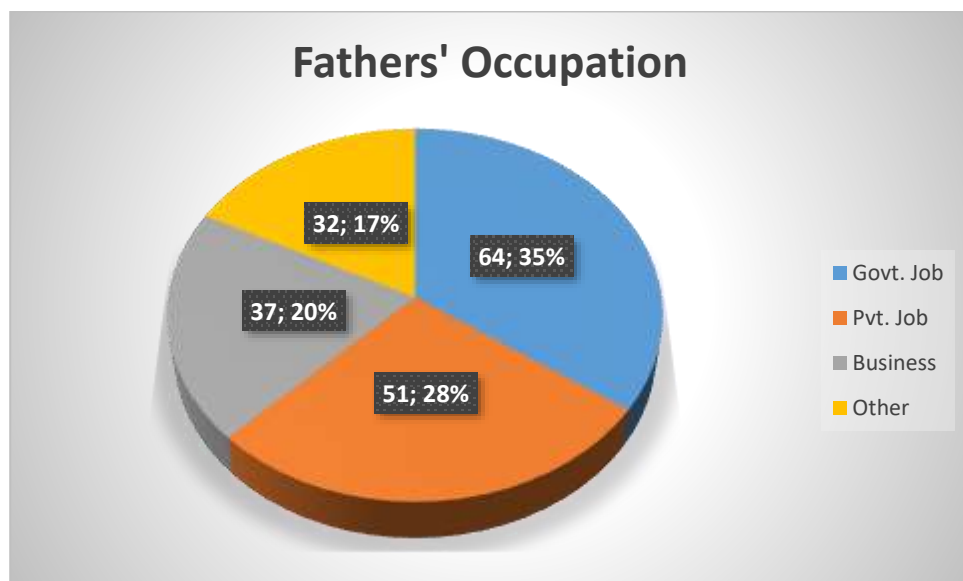


Figure 4. 13 Respondents' Father Occupations

As per the data presented in figure 4.13, the 35% or 64 of the respondents' fathers were having a government job. Fathers having a private job were 27% or 51 in numbers. 20% or 37 of the respondents' fathers had their own businesses or they were entrepreneurs. Fathers having other occupation were 17% or 32 in numbers.

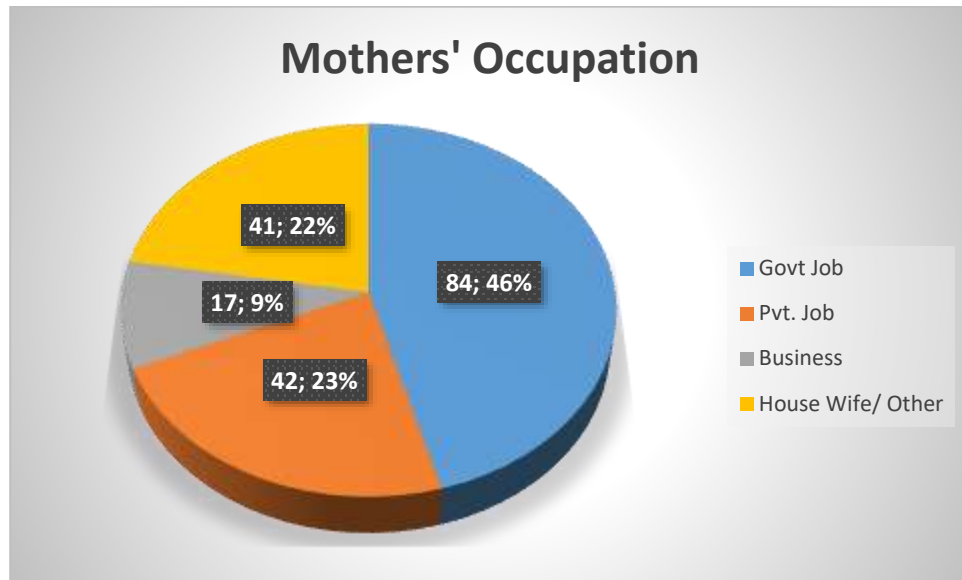


Figure 4. 14 Respondents' Mothers' Occupations

The figure 4.14 shows occupation of mothers of the respondents. 46% or 84 of the mothers are having government employment. Mothers of the respondents having a private job were 23% or 42 mothers. Entrepreneur mothers were 9% or 17 mothers only. 22% or 41 mothers were house wives or having other professions.

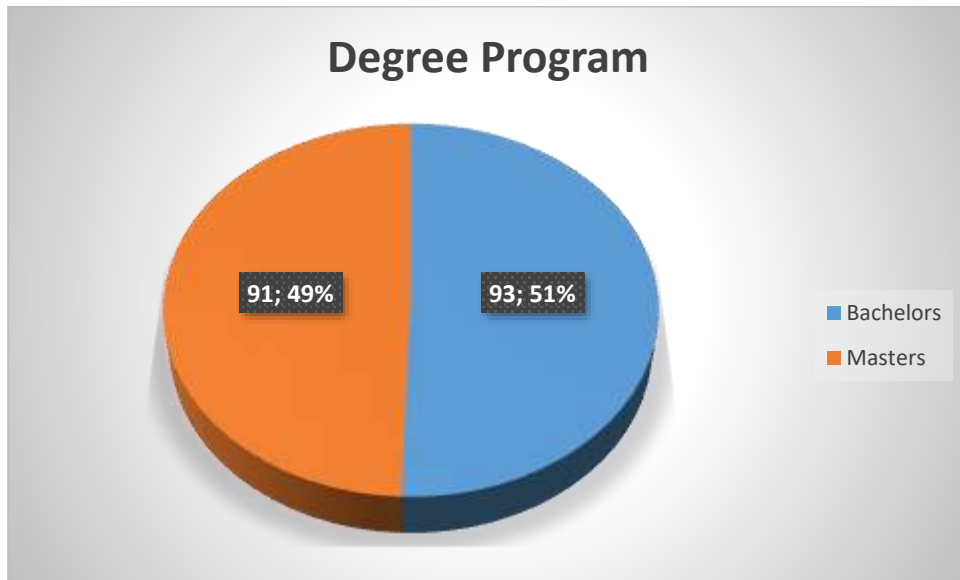


Figure 4. 15 Degree Program of the Respondents

The respondents were studying in two degree programs, Bachelors Masters in Business. As presented in the figure 4.15, respondents studying in BA were 51% or 93 students. The students enrolled for the MA were 49% or 91 students.

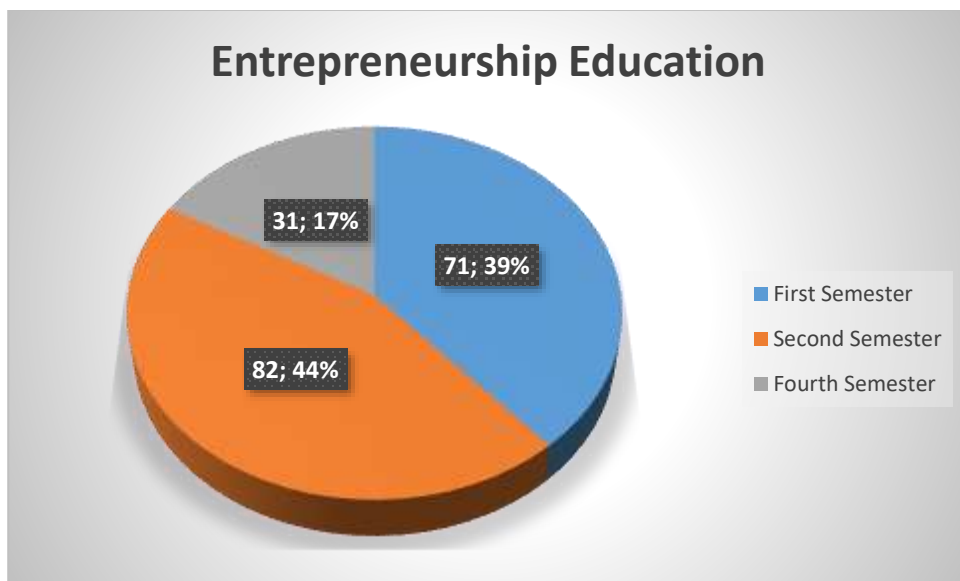


Figure 4. 16 Entrepreneurship Education of the Respondents

As per figure 4.16, percentage of students in the first semester was 39% (71 students). In the second semester there were 42% of the respondents or 82 students. In the fourth semester, there were 17% of the respondents or 31 students.

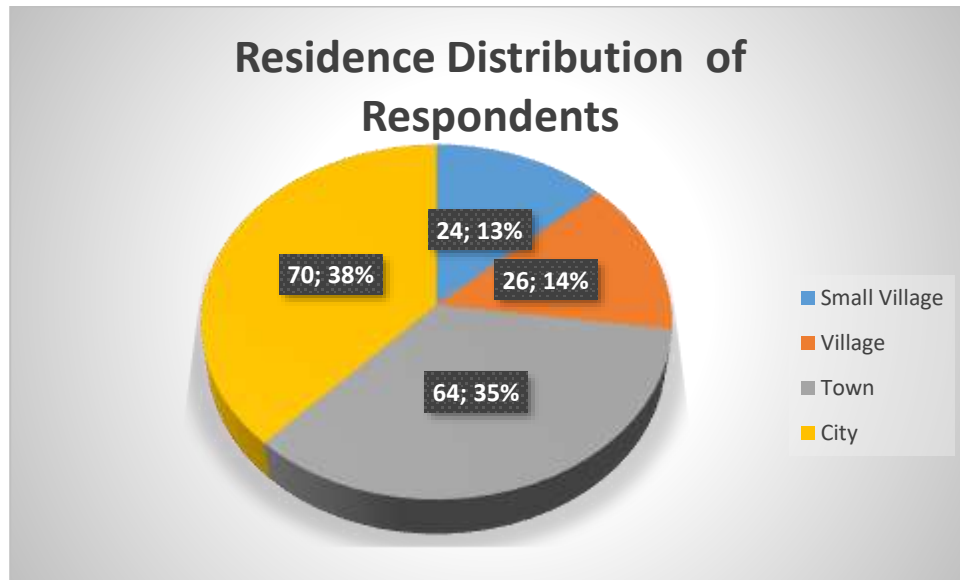


Figure 4. 17 Residence Distribution of the Respondents

Figure 4.17 presents the respondents' residence. As it can be seen from the chart that highest number of respondents resided in the cities. Respondents from the small village were 13% or 24 students. 14% (26 students) of the respondents resided in relatively bigger villages. Respondents residing in the towns were 35% or 64 of the students. Respondents from the cities accounted for 38% or 70 of the respondents.

4.4.2 Correlation Analysis

Table 4. 7 Means, Standard Deviations and Correlations

	Means	S.D	Ent. Intention	Ent. Education	Ent. Desirability	Ent.Self-Efficacy
Ent. Intention	3.22	0.955	1.00			
Ent. Education	1.94	1.019	-0.025	1.00		
Ent. Desirability	3.42	0.760	0.788**	0.025	1.00	
Ent.Self-Efficacy	7.85	1.714	0.343**	-0.082	0.368**	1.00

**significant at the 0.01 level (2 tailed), N=184

The Table 4. 7 describes, means, standard deviations and correlation results. It can be seen that the correlation between entrepreneurial intention, self-efficacy and desirability are statistically significant at 1%. (Level of significance = 0.001). Therefore, positive correlation with both measures support the hypotheses H4 and H5; that Entrepreneurial Self-efficacy and Entrepreneurial Desirability are positively associated with the students' entrepreneurial intentions. However, the correlation coefficient between education and entrepreneurial intention is statistically insignificant (-.025) and indicating a negative relationship between education and entrepreneurial intentions. It is suggesting that increasing level of education decreases/discourages entrepreneurial intentions. The results for the Hypothesis 1 are surprising, detailed discussion the results is available in the discussion section. The higher level of education might motives students to have jobs in multinational firms and aspiration for social status. In the same vein, Entrepreneurial Education, the independent variable has statistically insignificant relationship with the mediators; entrepreneurial self-efficacy and entrepreneurial desirability. Hence the results do not support our hypotheses H2 and H3. These correlation results suggest that we cannot test the mediation paths as per the conditions of Barron and Kenny (1986).

4.4.3 Regression Analysis

It is evident from the Table 4. 8 that the impact of Entrepreneurship Education on the Entrepreneurial Intentions is insignificant (β -0.025). Beta coefficient, coefficient of determination, t-statistics and F statistics all are insignificant. Hence, the Hypothesis H1 is rejected. These are surprising results. Explanation and reasoning for these unusual results is provided in the discussion.

Table 4. 8 Regression Results for Entrepreneurial Education and Intention (H1)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Education	-0.025	0.001	-0.341	0.116	0.733

Predictor: Ent. Education, Outcome: Ent. Intention

Table 4.9 clearly describes that the relationship between Entrepreneurship Education and Entrepreneurial Self Efficacy is insignificant statistically ($\beta = -0.082$). This leads us to reject the Hypothesis 2 of the study. The relationship is negative however, insignificant statistically.

Table 4. 9 Regression Results for Entrepreneurship Education and Ent. Self-Efficacy (H2)

Ent. Self-Efficacy					
	β	R Squared	t	F	Sig.
Ent. Education	-0.082	0.007	-1.11	1.232	0.268

Predictor: Ent. Education, Outcome: Ent. Self-efficacy

As per the regression results shown in Table 4.10, we reject the hypothesis H3. Statistically, there is no significant relation between entrepreneurship education and students perceived entrepreneurial desirability for starting the new venture ($\beta = 0.025$).

Table 4. 10 Regression Results for Entrepreneurship Education and Ent. Desirability (H3)

Ent. Desirability					
	β	R Squared	t	F	Sig.
Ent. Education	0.025	0.001	0.340	0.116	0.734

Predictor: Ent. Education, Outcome: Ent. Desirability

Regression results for the hypothesis H4 are shown in the Table 4.11. The beta coefficient is significant ($\beta = 0.343$ at $p < 0.01$). Hence there is a significant positive impact of Entrepreneurial Self-efficacy on the students' Entrepreneurial Intentions. The change of 1 unit in the Entrepreneurial Self-Efficacy brings 0.343 change in the students' Entrepreneurial Intentions.

Other measures, t-statistic, F and Adjusted R squared are also significant. Hence the hypothesis H4 is accepted.

Table 4. 11 Regression Results for Entrepreneurial Self-efficacy and Entrepreneurial Intentions (H4)

Ent. Intention					
	β	Adjusted R2	t	F	Sig.
Ent. Self-Efficacy	0.343***	0.118	4.931	24.319	0.00

Predictor: Ent. Self-Efficacy, Outcome: Ent. Intention

The Table 4.12 below discusses regression results for the Entrepreneurial Desirability and Entrepreneurial Intentions, Hypothesis H5. As evident from the results, hypothesis H5 is accepted. The relationship between Entrepreneurial Desirability and Entrepreneurial Intentions is statistically significant ($\beta = 0.788$ at $p < 0.01$). The relationship is positively significant. A change of 1 unit in the Entrepreneurial desirability brings 0.788 change in the Entrepreneurial intentions.

Table 4. 12 Regression Results for Entrepreneurial Desirability and Entrepreneurial Intentions (H5)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Desirability	0.788***	0.621	17.25	298.775	0.00

Predictor: Ent. Desirability, Outcome: Ent. Intention

As per the conditions of Baron and Kenny (1986), we cannot test the mediation paths as the direct relationship of independent variable with the mediators, dependent variable and the relationship of mediators with the dependent variable are not correlated significantly. However, for the purpose of more clarity and confirmation, we used the Hayes (2013) method for testing the mediation paths. Results were insignificant statistically. Hence the hypothesis H6 is also rejected.

Therefore for this data the Hypotheses H4 and H5 are accepted and hypotheses H1, H2, H3 and H6 are rejected. The results show that Entrepreneurship Education has no significant impact on the students' entrepreneurial intentions. It does not also impact the entrepreneurial self-efficacy and desirability. Entrepreneurial self-efficacy and desirability however have the significant positive association with students' entrepreneurial intentions. Entrepreneurial self-efficacy and desirability do not mediate the relationship between entrepreneurship education and students' entrepreneurial intentions.

4.5 Results of Study 3 – The Data from Pakistan at Time 2

The study 3 contains tertiary (university level) and secondary level students' data both from Pakistan and Hungary. First here we present data from Pakistan and then from Hungary

4.5.1 Descriptive Statistics of Tertiary Level Students Data

The descriptive statistics of respondents are presented here with the help of graphs and brief descriptions.

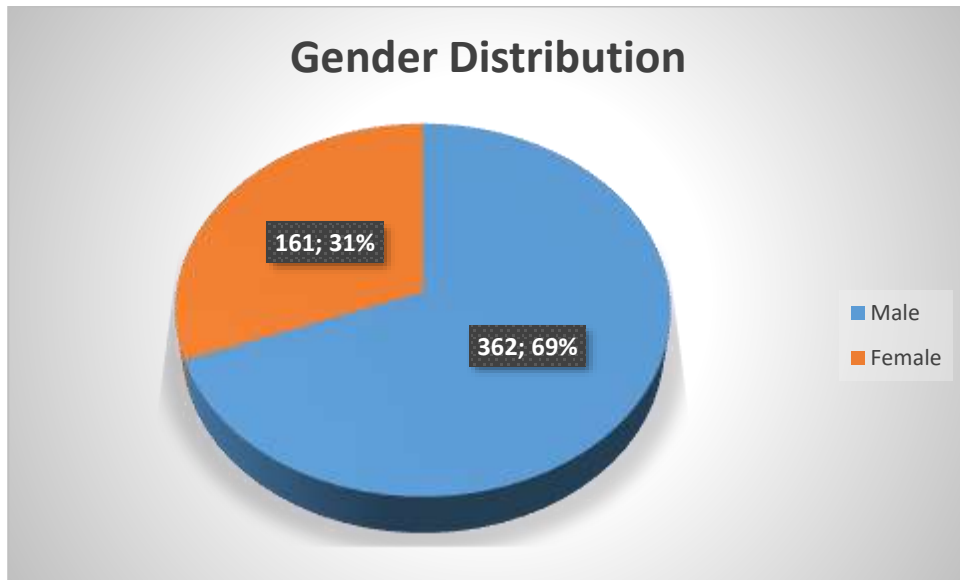


Figure 4. 18 Gender Distribution of Respondents

The figure 4.18 presents gender distribution of the respondents. The male respondents were 69% or 362 male students. The female participants were 31% or 161 female students. The total number of respondents were 523 students.

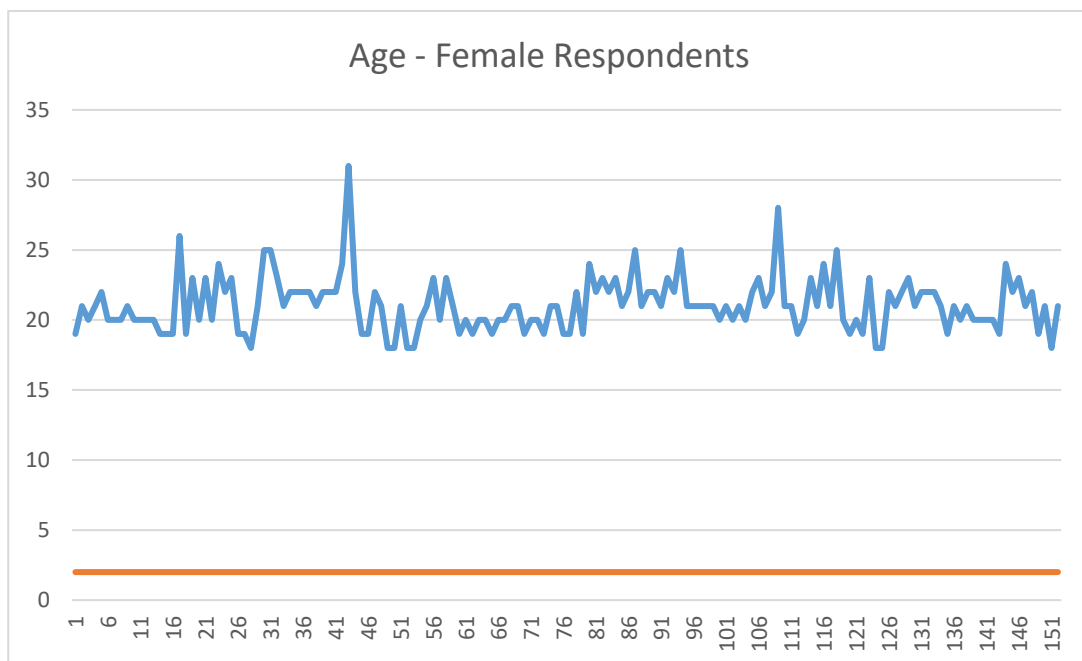


Figure 4. 19 Age Distribution of Female Respondents

The age for female respondents varied from 18 years to 31 years. Majority of the respondents were between 19 to 24 years age group. This is shown in the figure 4.19

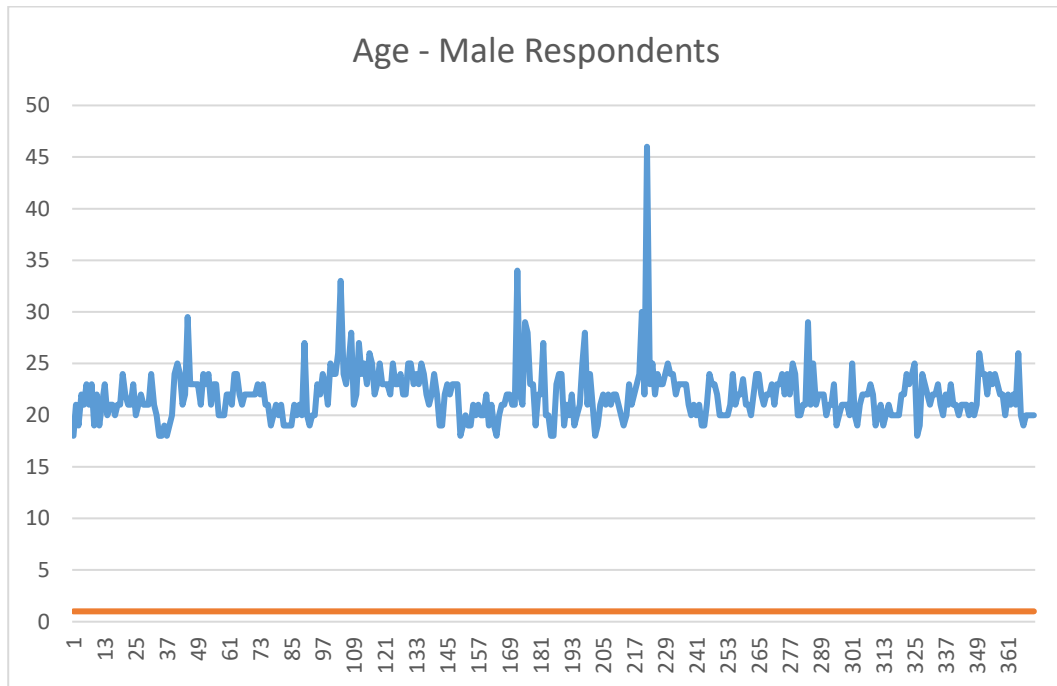


Figure 4. 20 Age Distribution of Male Respondents

As presented in the figure 4.20, the male respondents' age varied from 18 to 46 years. Majority of the male respondents were found in the age group of 20 to 25 years of age.

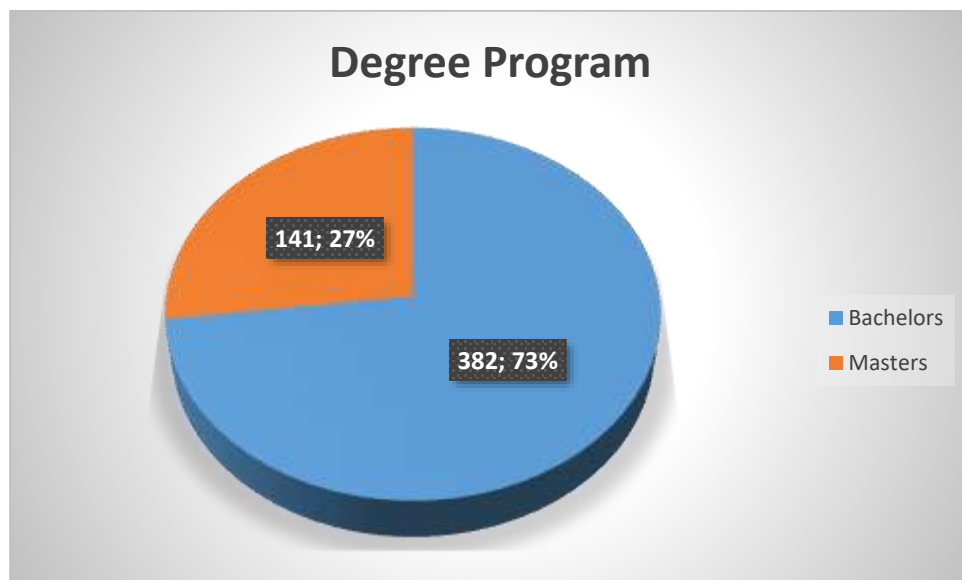


Figure 4. 21 Degree Program of Respondents

The respondents were studying in two degree programs, Bachelors in Business Administration, BBA and Masters in Business Administration, MBA. As presented in the figure 4.21, respondents studying in BBA were 73% or 382 students. The students enrolled for the MBA were 27% or 141 students.

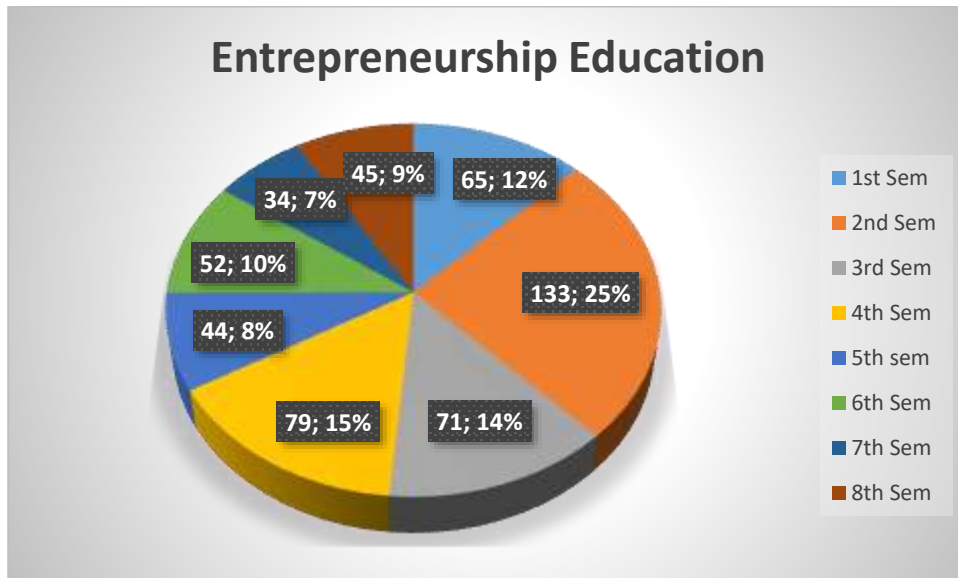


Figure 4. 22 Semester wise Entrepreneurship Education Level of Respondents

As discussed earlier, we measured entrepreneurship education with the progression in studies. Hence a student in the last semester will have more entrepreneurship education than a students in the first semester. As per figure 4.22, percentage of students in the 1st semester was 12% (65 students). In the 2nd semester there were 25% of the respondents (133 students). Respondents for the 3rd semester accounted for 14% (71 students). In the 4th semester, there were 15% of the respondents (79 students). In the 5th semester, there were 8% (44 students). 10% or 52 students were there in the 6th semester. Number of students from the 7th semester were 34 students or 7% of the respondents. Respondents from 8th semester were 45 or 9% of the respondents.

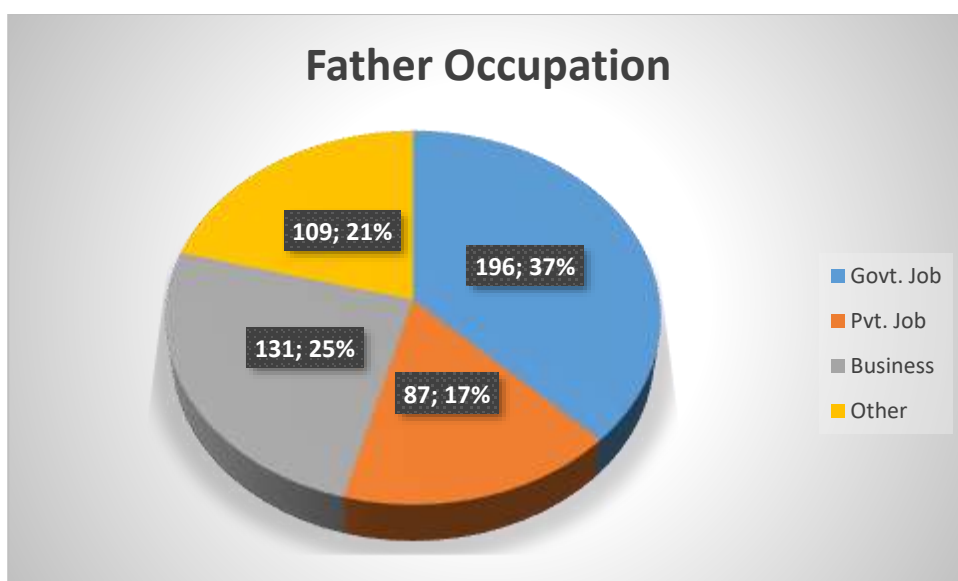


Figure 4. 23 Occupation of the Respondents' Fathers

Respondents were asked to report about their fathers' occupations. As per the data presented in figure 4.23, the 38% or 196 of the respondents' fathers were having a government job. Fathers having a private job were 17% or 87 in numbers. 25% or 131 of the respondents' fathers had their own businesses or they were entrepreneurs. Fathers having other occupation were 20% or 109 in numbers. Other occupations involve sensitive government jobs like military or small farming etc.

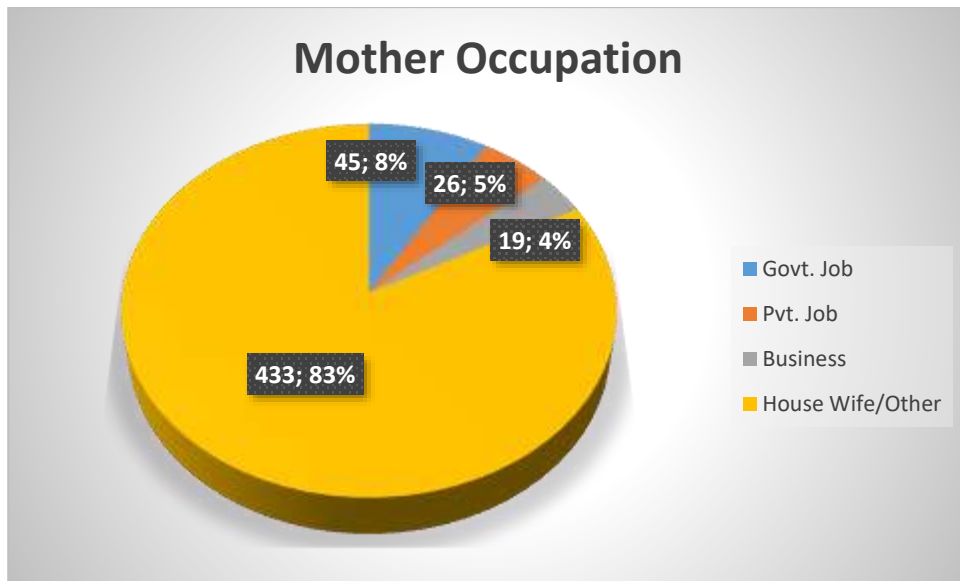


Figure 4. 24 Occupation of the Respondents' Mothers

The figure 4.24 shows occupation of mothers of the respondents. 9% or 45 of the mothers are having government employment. Mothers of the respondents having a private job were 5% or 26 mothers. Entrepreneur mothers were only 4% or 19 mothers only. Majority of the respondents' mothers i.e. 82% or 433 mothers were house wives. As discussed in the previous study at Time 1 data working at home, cooking, and nurturing the kids is a preferred profession of married women in Pakistan.

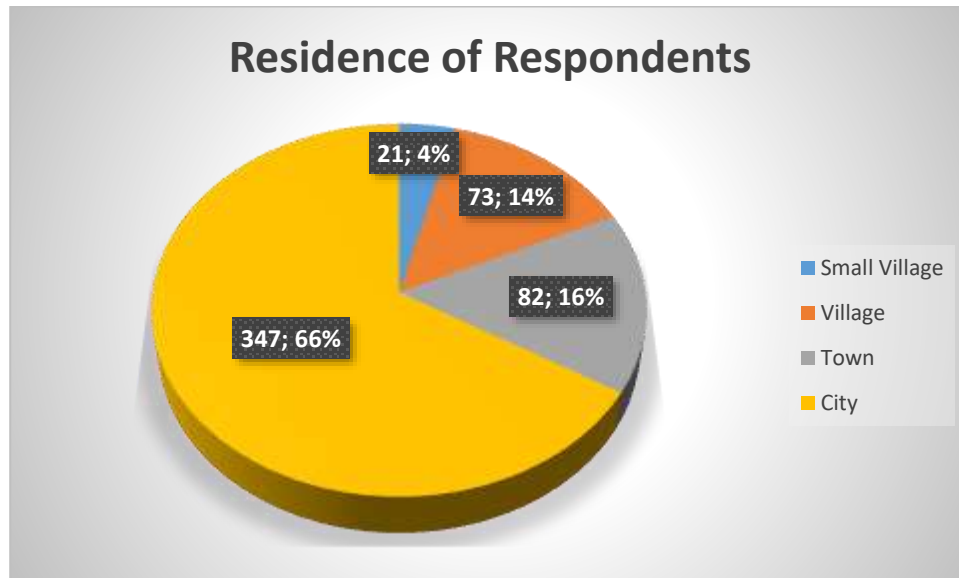


Figure 4. 25 Residence Distribution of the Respondents

Figure 4.25 presents the respondents' residence. As it can be seen from the chart that highest number of respondents resided in the cities. Respondents from the small village were only 4% or 21 students. 14% (73 students) of the respondents resided in relatively bigger villages. Respondents residing in the towns were 17% (91 students). Respondents from the cities accounted for 65% (338 of the respondents)

4.5.2 Correlation Analysis

The table 4.13 presents means standard deviations and inter correlations between the variables. The correlation between entrepreneurial intentions, self-efficacy and desirability are statistically significant at 1%. (Level of significance = 0.001). Therefore, positive correlation with both measures support the hypotheses H4 and H5; that Entrepreneurial Self-efficacy and Entrepreneurial Desirability are positively associated with the students' entrepreneurial intentions. However, the correlation coefficient between education and entrepreneurial intention is statistically insignificant (0.011). The results for the Hypothesis 1 are surprising, detailed discussion the results is available in the discussion section. In the same vein, Entrepreneurial Education, the independent variable has statistically insignificant relationship with the mediators; entrepreneurial self-efficacy and entrepreneurial desirability. Hence the results do not support our hypotheses H2 and H3. These correlation results suggest that we cannot test the mediation paths as per the conditions of Barron and Kenny (1986).

Table 4. 13 Means, Standard Deviations and Correlations

	Means	S.D	Ent. Intention	Ent. Education	Ent. Desirability	Ent.Self- Efficacy
Ent. Intention	3.91	0.83	1.00			
Ent. Education	3.81	2.15	0.011	1.00		
Ent. Desirability	3.91	0.77	0.632**	0.035	1.00	
Ent.Self- Efficacy	7.09	1.71	0.313**	0.040	0.228**	1.00

**significant at the 0.01 level (2 tailed), N=523

4.5.3 Regression Analysis

It is evident from the Table 4.14 that the impact of Entrepreneurship Education on the Entrepreneurial Intentions is insignificant (β 0.011). Beta coefficient, coefficient of determination, t-statistics and F statistics all are insignificant. Hence, the Hypothesis H1 is rejected. These are surprising results. Explanation and reasoning for these unusual results is provided in the discussion.

Table 4. 14 Regression Results for Entrepreneurial Education and Intention (H1)

	Ent. Intention				
	β	R Squared	t	F	Sig.
Ent. Education	0.011	0.001	0.251	0.063	0.802

Predictor: Ent. Education, Outcome: Ent. Intention

Table 4.15 clearly describes that the relationship between Entrepreneurship Education and Entrepreneurial Self Efficacy is insignificant statistically ($\beta=0.040$). This leads us to reject the Hypothesis 2 of the study.

Table 4. 15 Regression Results for Entrepreneurship Education and Ent. Self-Efficacy (H2)

Ent. Self-efficacy					
	β	R Squared	t	F	Sig.
Ent. Education	0.040	0.002	0.909	0.826	0.364

Predictor: Ent. Education, Outcome: Ent. Self-efficacy

As per the regression results shown in Table 4.16, we reject the hypothesis H3. Statistically, there is no significant relation between entrepreneurship education and students perceived entrepreneurial desirability for starting the new venture ($\beta=0.035$).

Table 4. 16 Regression Results for Entrepreneurship Education and Ent. Desirability (H3)

Ent. Desirability					
	β	R Squared	t	F	Sig.
Ent. Education	0.035	0.001	0.793	0.629	0.428

Predictor: Ent. Education, Outcome: Entrepreneurial Desirability

Regression results for the hypothesis H4 are shown in the Table 4.17. The beta coefficient is significant ($\beta = 0.313$ at $p<0.01$). Hence there is a significant positive impact of Entrepreneurial Self-efficacy on the students' Entrepreneurial Intentions. The change of 1 unit in the Entrepreneurial Self-Efficacy brings 0.313 change in the students' Entrepreneurial Intentions. Other measures, t-statistic, F and R squared are also significant. Hence the hypothesis H4 is accepted.

Table 4. 17 Regression Results for Entrepreneurial Self-efficacy and Entrepreneurial Intentions (H4)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Self-Efficacy	0.313***	0.098	19.155	56.547	0.00

Predictor: Ent. Self-Efficacy, Outcome: Ent. Intention

The Table 4.18 below discusses regression results for the Entrepreneurial Desirability and Entrepreneurial Intentions, Hypothesis H5. As evident from the results, hypothesis H5 is accepted. The relationship between Entrepreneurial Desirability and Entrepreneurial Intentions is statistically significant ($\beta = 0.627$ at $p < 0.01$). The relationship is positively significant. A change of 1 unit in the Entrepreneurial desirability brings 0.387 change in the Entrepreneurial intentions.

Table 4. 18 Regression Results for Entrepreneurial Desirability and Entrepreneurial Intentions (H5)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Desirability	0.627***	0.393	18.350	336.720	0.00

Predictor: Ent. Desirability, Outcome: Ent. Intention

As per the conditions of Baron and Kenny (1986), we cannot test the mediation paths as the direct relationship of independent variable with the mediators, dependent variable and the relationship of mediators with the dependent variable are not correlated significantly. However, for the purpose of more clarity and confirmation, we used the Hayes (2013) method for testing

the mediation paths. Results were insignificant statistically. Hence the hypothesis H6 is also rejected.

Therefore for this data the Hypotheses H4 and H5 are accepted and hypotheses H1, H2, H3 and H6 are rejected. The results show that Entrepreneurship Education has no significant impact on the students' entrepreneurial intentions. It does not also impact the entrepreneurial self-efficacy and desirability. Entrepreneurial self-efficacy and desirability however have the significant positive association with students' entrepreneurial intentions. Entrepreneurial self-efficacy and desirability do not mediate the relationship between entrepreneurship education and students' entrepreneurial intentions.

4.5.4 Descriptive Statistics of Secondary Level Students Data

Descriptive statistics are presented here:

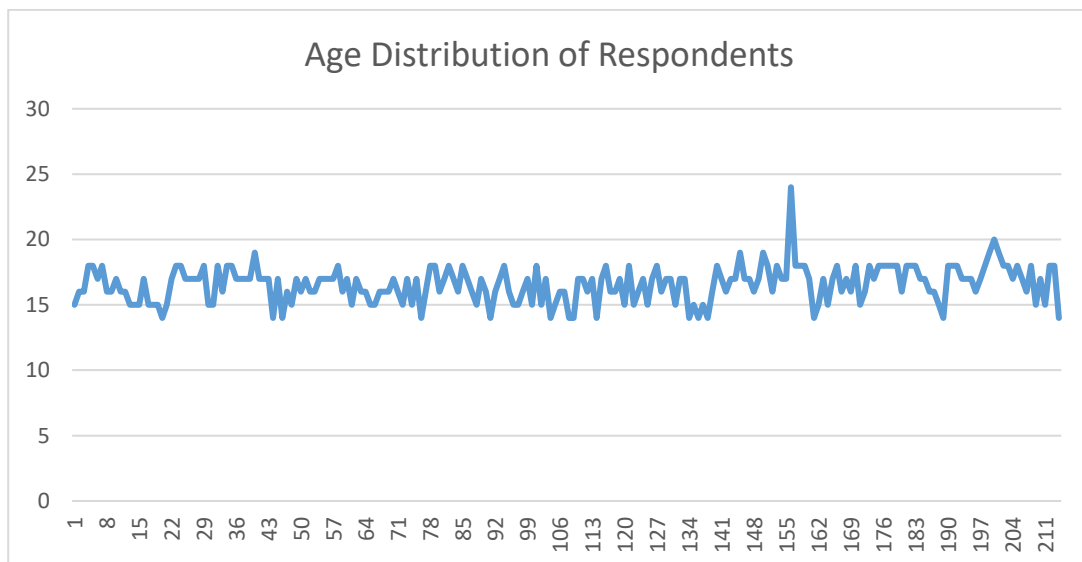


Figure 4. 26 Age Distribution of Respondents

There were no female respondents for this sample of the data. The college is exclusively for the boys. In Pakistan, the residential educational intuitions are exclusively either for the male students or for the female students. As presented in the figure 4.26, the respondents' age varied from 14 to 18 years.

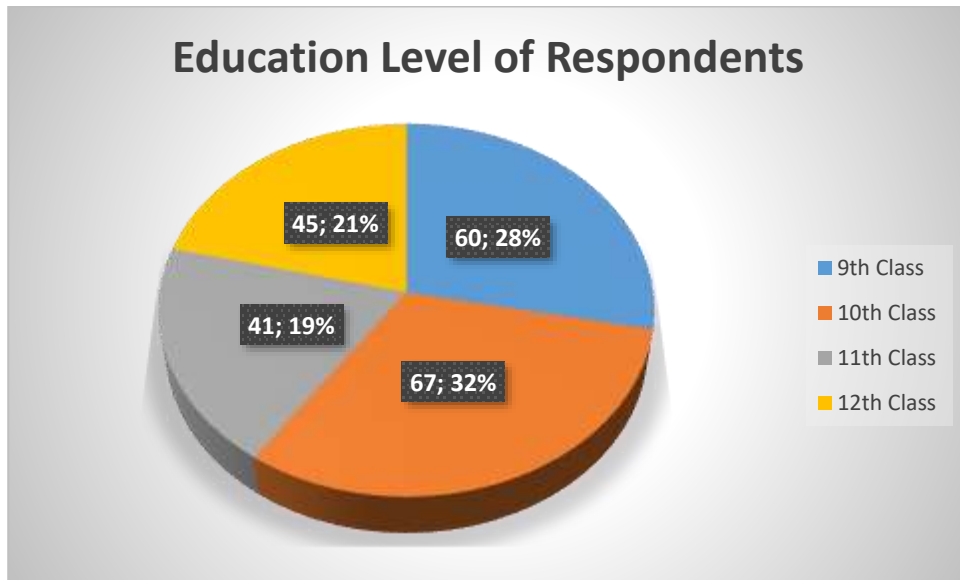


Figure 4. 27 Education Level of the Respondents

The respondents were studying in the secondary school. The grade 9th and 10th students had majors in science. The students of grade 11th and 12th had majors in pre-medical and pre-engineering. As can be seen in the figure 4.27, respondents from the 9th grade were 28% (60), 10th grade respondents were 32% (67). Respondents from the 11th grade were 19% (41) and 21% (45) of the respondents were from the grade 12th.

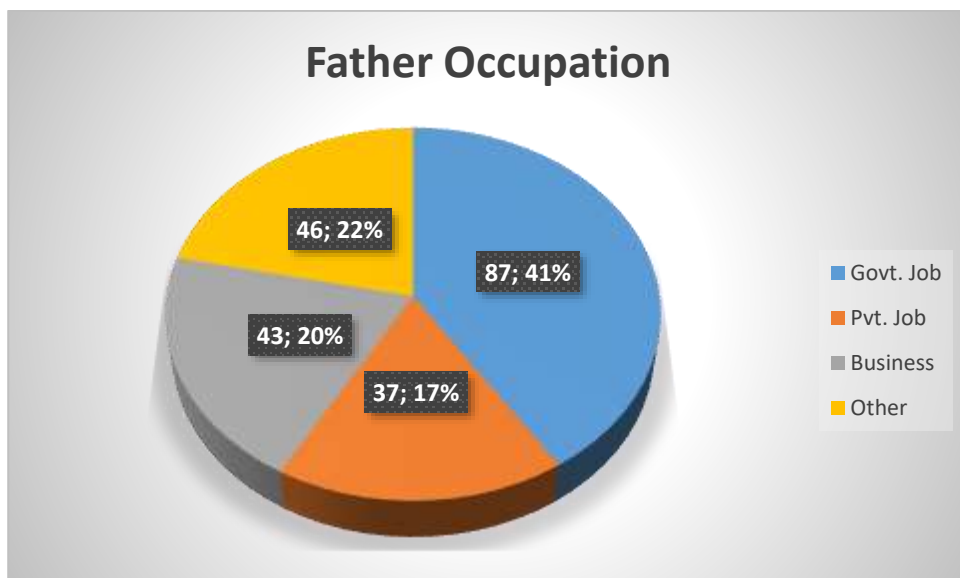


Figure 4. 28 Occupation of the Respondents' Father

As per the data presented in figure 4.28, the 41% or 87 of the respondents' fathers were having a government job. Fathers having a private job were 17% or 37 in numbers. 20% or 43 of the respondents' fathers had their own businesses or they were entrepreneurs. Fathers having other occupation were 22% or 46 in numbers.

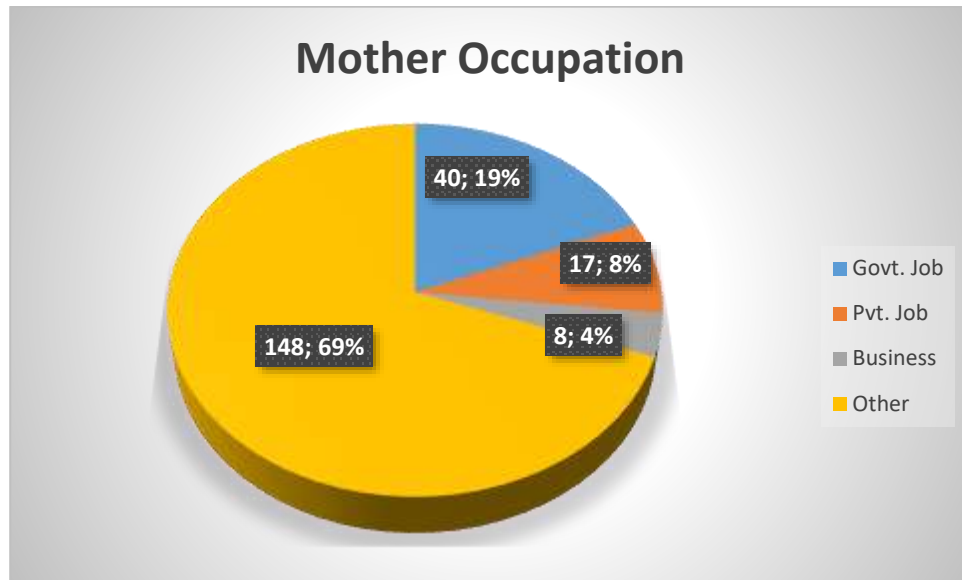


Figure 4. 29 Occupation of the Respondents' Mother

The figure 4.29 shows occupation of mothers of the respondents. 19% or 40 of the mothers are having government employment. Mothers of the respondents having a private job were 8 % or 17 mothers. Entrepreneur mothers were only 4% or 08 mothers only. Majority of the respondents' mothers i.e. 69% or 148 mothers were house wives. As discussed in the previous study at Time 1 data working at home, cooking, and nurturing the kids is a preferred profession of married women in Pakistan.

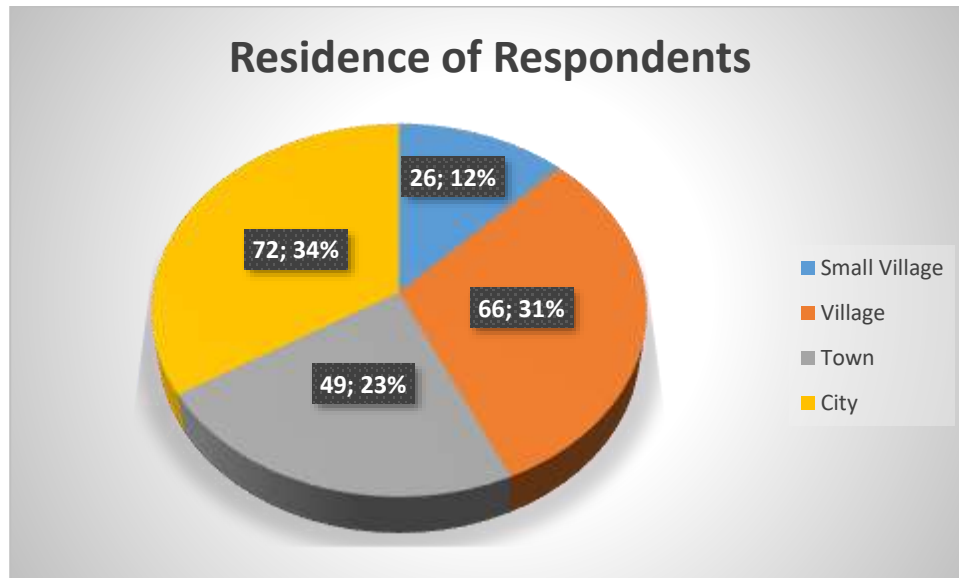


Figure 4. 30 Residence Distribution of the Respondents

Figure 4.30 presents the respondents' residence. As it can be seen from the chart that highest number of respondents resided in the cities. Respondents from the small villages were 12% or 26 students. 31% (66 students) of the respondents resided in relatively bigger villages. Respondents residing in the towns were 23% (49 students). Respondents from the cities accounted for 34% (72 of the respondents).

4.5.5 Correlation Analysis

As visible from the correlation analysis shown in Table 4.19, the correlation coefficient between education and entrepreneurial intention is statistically significant (-.289) and indicating a negative relationship between education and entrepreneurial intentions. It is suggesting that increasing level of education decreases/discourages entrepreneurial intentions. The results for the Hypothesis 1 are surprising, detailed discussion the results is available in the discussion section. The higher level of education might motivate students to have jobs in multinational firms and aspiration for social status. In the same vein, Education, the independent variable has statistically significant but negative relationship with the mediators; entrepreneurial self-efficacy (-0.307) and entrepreneurial desirability (-0.249). Hence the results do not support our hypotheses H2 and H3 as we hypothesized a positive relationship. The correlation between entrepreneurial intention, self-efficacy and desirability are statistically significant at 1%. (Level of significance = 0.001). Therefore, positive correlation with both measures support the hypotheses H4 and H5; that Entrepreneurial Self-efficacy (0.449) and

Entrepreneurial Desirability (0.424) are positively associated with the students' entrepreneurial intentions.

Table 4. 19 Means, Standard Deviations and Correlations

	Means	S.D	Ent. Intention	Ent. Education	Ent. Desirability	Ent.Self- Efficacy
Ent. Intention	3.67	0.847	1.00			
Education	2.131	1.179	-0.289**	1.00		
Ent. Desirability	3.613	0.741	0.424**	-0.249**	1.00	
Ent.Self- Efficacy	8.45	1.824	0.449**	-0.307**	0.317**	1.00

**significant at the 0.01 level (2 tailed), N=213

4.5.6 Regression Analysis

It is evident from the Table 4.20 that the impact of Education on the Entrepreneurial Intentions is statistically significant (β -0.215). Beta coefficient, coefficient of determination, t-statistics and F statistics all are significant, however, it indicates a negative relationship. However the relationship is negative. Hence, the Hypothesis H1 is rejected as we hypothesized a positive relationship. These are surprising results. Explanation and reasoning for these unusual results is provided in the discussion.

Table 4. 20 Regression Results for Entrepreneurial Education and Intention (H1)

	Ent. Intention				
	β	R Squared	t	F	Sig.
Education	-0.215**	0.089	-4.542	20.634	0.000

Predictor: Education, Outcome: Ent. Intention

Table 4.21 clearly describes that the relationship between Entrepreneurship Education and Entrepreneurial Self Efficacy is significant statistically ($\beta = -0.475$). This leads us to reject the Hypothesis 2 of the study. However, the relation is significant statistically, but it's in the negative direction and we hypothesized a positive relationship.

Table 4. 21 Regression Results for Education and Ent. Self-Efficacy (H2)

Ent. Self-efficacy					
	β	R Squared	t	F	Sig.
Education	-0.475**	0.094	-4.680	21.901	0.000

Predictor: Education, Outcome: Ent. Self-efficacy

As per the regression results shown in Table 4.22, we reject the hypothesis H3. Statistically, there is a significantly negative relationship between entrepreneurship education and students perceived entrepreneurial desirability for starting the new venture ($\beta = -0.237$).

Table 4. 22 Regression Results for Education and Ent. Desirability (H3)

Ent. Desirability					
	β	R Squared	t	F	Sig.
Education	-0.237**	0.062	-3.741	13.992	0.000

Predictor: Education, Outcome: Entrepreneurial Desirability

Regression results for the hypothesis H4 are shown in the Table 4.23. The beta coefficient is significant ($\beta = 0.208$ at $p < 0.01$). Hence there is a significant positive impact of Entrepreneurial Self-efficacy on the students' Entrepreneurial Intentions. The change of 1 unit in the Entrepreneurial Self-Efficacy brings 0.208 change in the students' Entrepreneurial Intentions.

Other measures, t-statistic, F and R squared are also significant. Hence the hypothesis H4 is accepted.

Table 4. 23 Regression Results for Entrepreneurial Self-efficacy and Entrepreneurial Intentions (H4)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Self-Efficacy	0.208**	0.201	7.290	53.147	0.00

Predictor: Ent. Self-Efficacy, Outcome: Ent. Intention

The Table 4.24 below discusses regression results for the Entrepreneurial Desirability and Entrepreneurial Intentions, Hypothesis H5. As evident from the results, hypothesis H5 is accepted. The relationship between Entrepreneurial Desirability and Entrepreneurial Intentions is statistically significant ($\beta = 0.485$ at $p < 0.01$). The relationship is positively significant. A change of 1 unit in the Entrepreneurial desirability brings 0.485 change in the Entrepreneurial intentions.

Table 4. 24 Regression Results for Entrepreneurial Desirability and Entrepreneurial Intentions (H5)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Desirability	0.485**	0.180	6.801	46.251	0.00

Predictor: Ent. Desirability, Outcome: Ent. Intention

As per the conditions of Baron and Kenny (1986), we cannot test the mediation paths as the direct relationship of independent variable with the mediators, dependent variable and the relationship of mediators with the dependent variable are negatively correlated. Even if we detect the mediation here, it is in the negative direction. Hence the hypothesis H6 is rejected.

Keeping in view the above discussed results, the Hypotheses H4 and H5 are accepted and hypotheses H1, H2, H3 and H6 are rejected. The results show that Education negative impact on the students' entrepreneurial intentions, or it decreases the students' intentions for new business. It does have negative relationship with entrepreneurial self-efficacy and desirability. Entrepreneurial self-efficacy and desirability however have the significant positive association with students' entrepreneurial intentions. Entrepreneurial self-efficacy and desirability do not mediate the relationship between entrepreneurship education and students' entrepreneurial intentions. A mediation in the negative direction is not important to our study here.

4.6 Results of Study 3 – The Data from Hungary at Time 2

As discussed earlier, the study 3 contains tertiary (university) and secondary level students' data both from Pakistan and Hungary. Here in this section, we present data from Hungary, first, the tertiary (university) level students' data and the secondary level students' data is discussed.

4.6.1 Descriptive Statistics of Tertiary Level Students Data

The descriptive statistics of respondents are presented here with the help of graphs and brief descriptions.

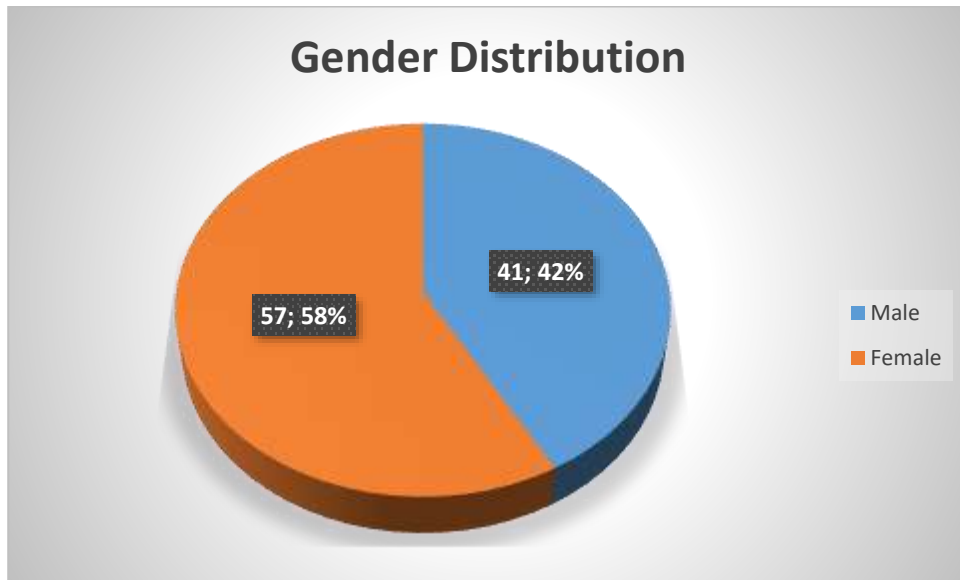


Figure 4. 31 Gender Distribution of the Respondents

As shown in the figure 4.31, there were 42% or 41 male students and 58% or 57 female students. The total number of respondents were 98 students.

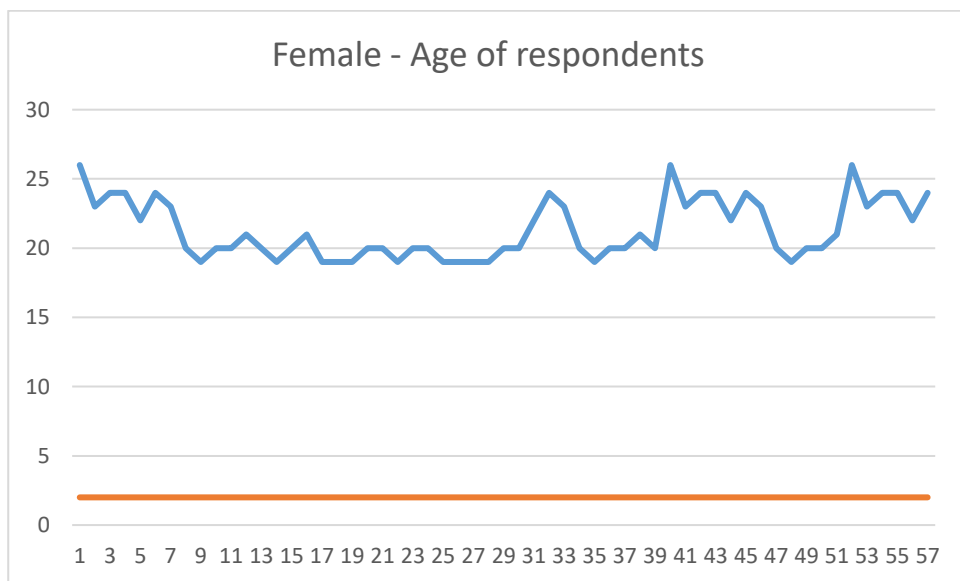


Figure 4. 32 Age Distribution of Female Respondents

The age for female respondents varied from 19 years to 26 years. Majority of the respondents were between 19 to 23 years age group. This is shown in the figure 4.32.

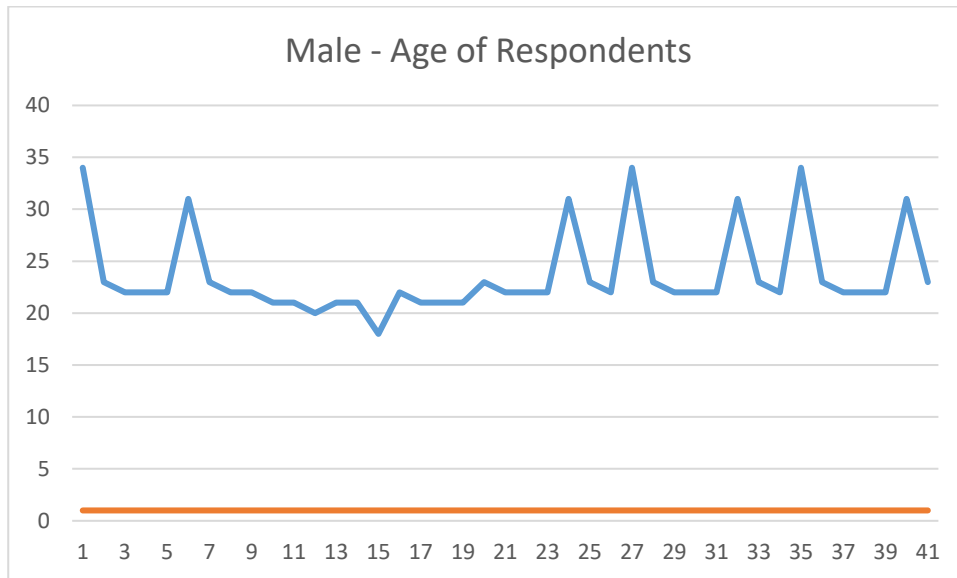


Figure 4. 33 Age Distribution of Male Respondents

As presented in the figure 4.33, the male respondents' age varied from 18 to 34 years. Majority of the male respondents were found in the age group of 20 to 24 years of age.

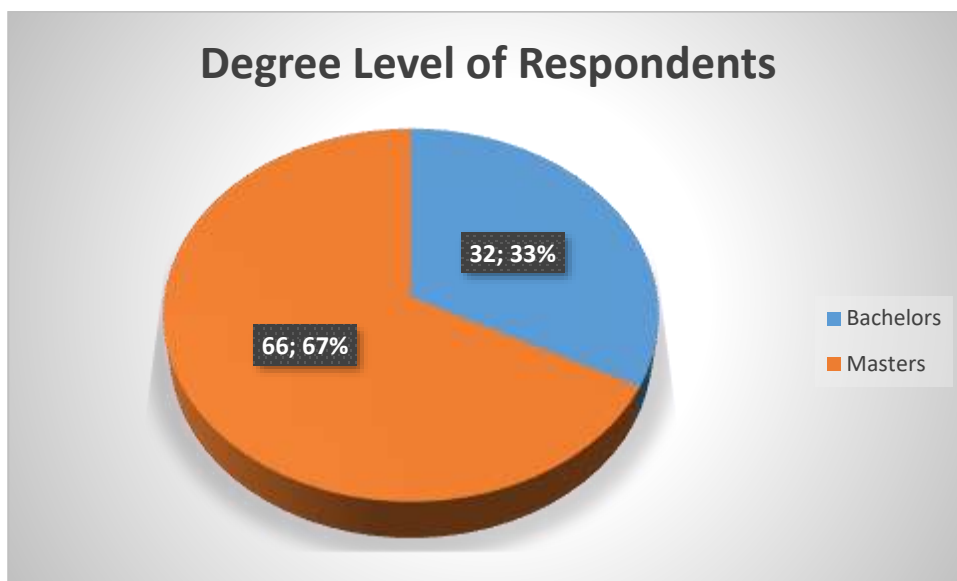


Figure 4. 34 Degree Level of the Respondents

The respondents were studying in two degree programs, Bachelors Masters in Business. As presented in the figure 4.34, respondents studying in BA were 33% or 32 students. The students enrolled for the MA were 67% or 66 students.

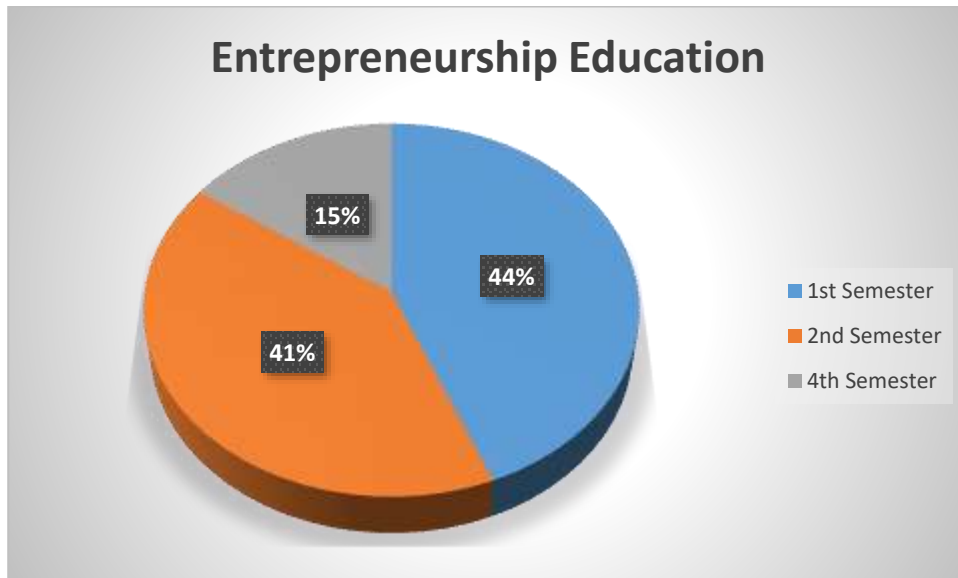


Figure 4. 35 Semester Wise Education level of the Respondents

As per figure 4.35 percentage of students in the first semester was 44% (43 students). In the second semester there were 41% of the respondents or 40 students. In the fourth semester, there were 15% of the respondents or 15 students.

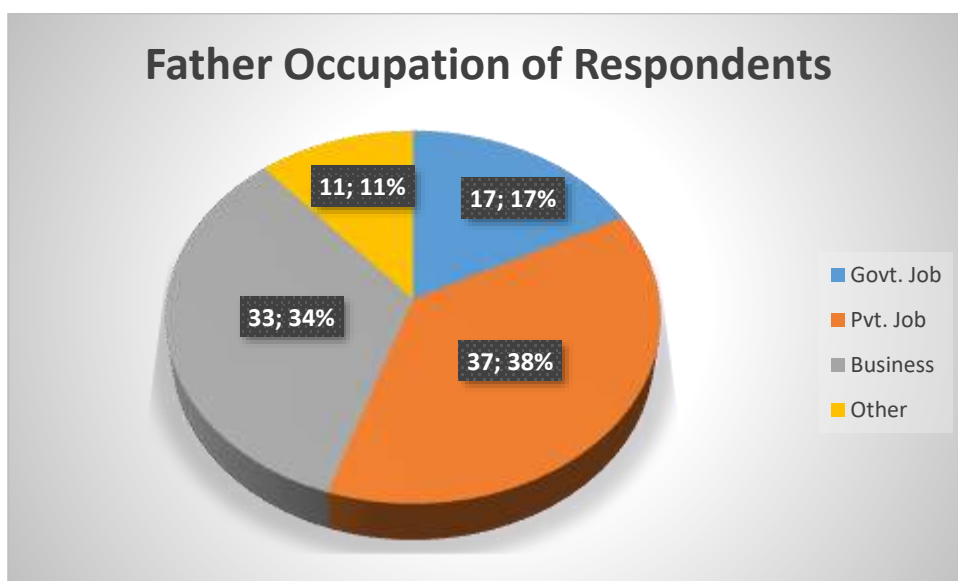


Figure 4. 36 Respondents' Father Occupation

As per the data presented in figure 4.36, the 17% or 17 of the respondents' fathers were having a government job. Fathers having a private job were 38% or 37 in numbers. 34% or 33 of the respondents' fathers had their own businesses or they were entrepreneurs. Fathers having other occupation were 11% or 11 in numbers.

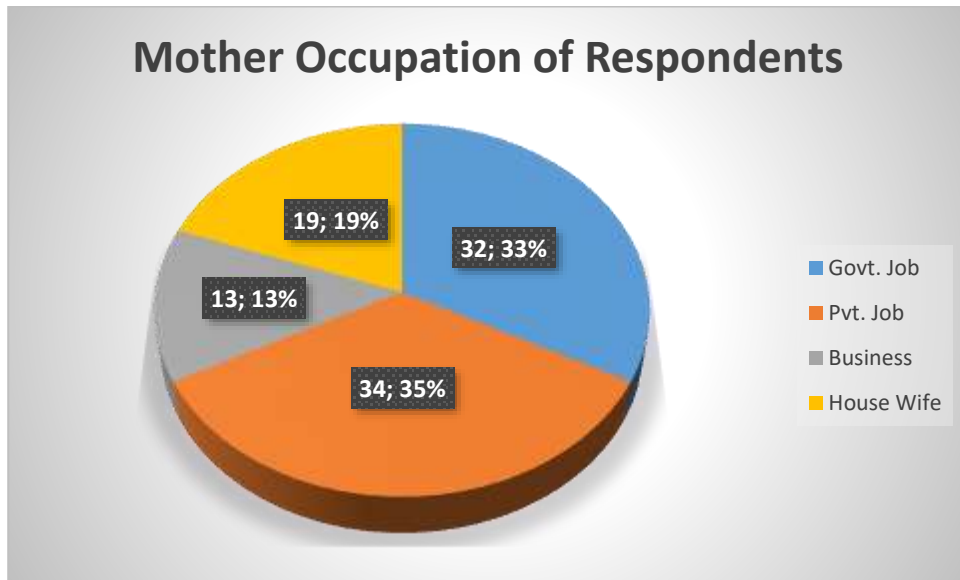


Figure 4. 37 Respondents' Mother Occupation

The figure 4.37 shows occupation of mothers of the respondents. 33% or 32 of the mothers are having government employment. Mothers of the respondents having a private job were 35% or 34 mothers. Entrepreneur mothers were 13% or 13 mothers only. 19% or 19 mothers were house wives or having other professions.

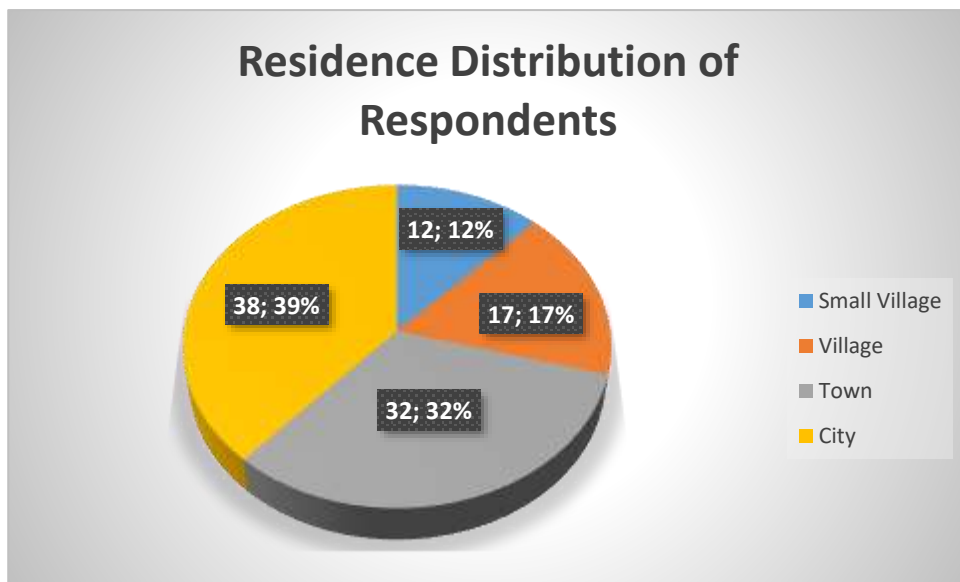


Figure 4. 38 Residence Distribution of the Respondents

Figure 4.38 presents the respondents' residence. As it can be seen from the chart that highest number of respondents resided in the cities. Respondents from the small village were 12% or 12 students. 17% (17 students) of the respondents resided in relatively bigger villages.

Respondents residing in the towns were 33% or 32 of the students. Respondents from the cities accounted for 39% or 38 of the respondents.

4.6.2 Correlation Analysis

The Table 4. 25 describes, means, standard deviations and correlation results. It can be seen that the correlation between entrepreneurial intention, self-efficacy and desirability are statistically significant at 1%. (Level of significance = 0.001). Therefore, positive correlation with both measures support the hypotheses H4 and H5; that Entrepreneurial Self-efficacy and Entrepreneurial Desirability are positively associated with the students' entrepreneurial intentions. However, the correlation coefficient between education and entrepreneurial intention is statistically insignificant (0.117). The results for the Hypothesis 1 are surprising, detailed discussion the results is available in the discussion section. The higher level of education might motives students to have jobs in multinational firms and aspiration for social status. In the same vein, Entrepreneurial Education, the independent variable has statistically insignificant relationship with the mediators; entrepreneurial self-efficacy and entrepreneurial desirability. Hence the results do not support our hypotheses H2 and H3. These correlation results suggest that we cannot test the mediation paths as per the conditions of Barron and Kenny (1986)

Table 4. 25 Means, Standard Deviations and Correlations

	Means	S.D	Ent. Intention	Ent. Education	Ent. Desirability	Ent.Self- Efficacy
Ent. Intention	3.143	1.029	1.00			
Ent. Education	1.469	0.613	0.117	1.00		
Ent. Desirability	3.338	0.835	0.885**	0.133	1.00	
Ent.Self- Efficacy	8.005	1.733	0.328**	-0.083	0.295**	1.00

**significant at the 0.01 level (2 tailed), N=98

4.6.3 Regression Analysis

It is evident from the Table 4.26 that the impact of Entrepreneurship Education on the Entrepreneurial Intentions is insignificant ($\beta = 0.196$). Beta coefficient, coefficient of determination, t-statistics and F statistics all are insignificant. Hence, the Hypothesis H1 is rejected. These are surprising results. Explanation and reasoning for these unusual results is provided in the discussion.

Table 4. 26 Regression Results for Entrepreneurial Education and Intention (H1)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Education	0.196	0.014	1.152	1.327	0.252

Predictor: Ent. Education, Outcome: Ent. Intention

Table 4.27 clearly describes that the relationship between Entrepreneurship Education and Entrepreneurial Self Efficacy is insignificant statistically ($\beta = -0.235$). This leads us to reject the Hypothesis 2 of the study. The relationship is negative however, insignificant statistically.

Table 4. 27 Regression Results for Entrepreneurship Education and Ent. Self-Efficacy (H2)

Ent. Self-Efficacy					
	β	R Squared	t	F	Sig.
Ent. Education	-0.235	0.007	-0.815	0.665	0.417

Predictor: Ent. Education, Outcome: Ent. Self-efficacy

As per the regression results shown in Table 4.28, we reject the hypothesis H3. Statistically, there is no significant relation between entrepreneurship education and students perceived entrepreneurial desirability for starting the new venture ($\beta=0.182$).

Table 4. 28 Regression Results for Entrepreneurship Education and Ent. Desirability (H3)

Ent. Desirability					
	β	R Squared	t	F	Sig.
Ent. Education	0.182	0.018	1.319	1.740	0.190

Predictor: Ent. Education, Outcome: Ent. Desirability

Regression results for the hypothesis H4 are shown in the Table 4.29. The beta coefficient is significant ($\beta = 0.195$ at $p<0.01$). Hence there is a significant positive impact of Entrepreneurial Self-efficacy on the students' Entrepreneurial Intentions. The change of 1 unit in the Entrepreneurial Self-Efficacy brings 0.195 change in the students' Entrepreneurial Intentions. Other measures, t-statistic, F and Adjusted R squared are also significant. Hence the hypothesis H4 is accepted.

Table 4. 29 Regression Results for Entrepreneurial Self-efficacy and Entrepreneurial Intentions (H4)

Ent. Intention					
	β	R2	t	F	Sig.
Ent. Self-Efficacy	0.195**	0.118	3.40	11.563	0.001

Predictor: Ent. Self-Efficacy, Outcome: Ent. Intention

The Table 4.30 below discusses regression results for the Entrepreneurial Desirability and Entrepreneurial Intentions, Hypothesis H5. As evident from the results, hypothesis H5 is accepted. The relationship between Entrepreneurial Desirability and Entrepreneurial Intentions is statistically significant ($\beta = 0.805$ at $p < 0.01$). The relationship is positively significant. A change of 1 unit in the Entrepreneurial desirability brings 0.805 change in the Entrepreneurial intentions.

Table 4. 30 Regression Results for Entrepreneurial Desirability and Entrepreneurial Intentions (H5)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Desirability	0.805**	0.78	18.626	346.934	0.000

Predictor: Ent. Desirability, Outcome: Ent. Intention

As per the conditions of Baron and Kenny (1986), we cannot test the mediation paths as the direct relationship of independent variable with the mediators, dependent variable and the relationship of mediators with the dependent variable are not correlated significantly. However, for the purpose of more clarity and confirmation, we used the Hayes (2013) method for testing the mediation paths. Results were insignificant statistically. Hence the hypothesis H6 is also rejected.

Therefore for this data the Hypotheses H4 and H5 are accepted and hypotheses H1, H2, H3 and H6 are rejected. The results show that Entrepreneurship Education has no significant impact on the students' entrepreneurial intentions. It does not also impact the entrepreneurial self-efficacy and desirability. Entrepreneurial self-efficacy and desirability however have the significant positive association with students' entrepreneurial intentions. Entrepreneurial self-efficacy and desirability do not mediate the relationship between entrepreneurship education and students' entrepreneurial intentions.

4.6.4 Descriptive Statistics of Secondary Level Students from the Traditional Education System

The descriptive statistics of respondents are presented here with the help of graphs and brief descriptions.

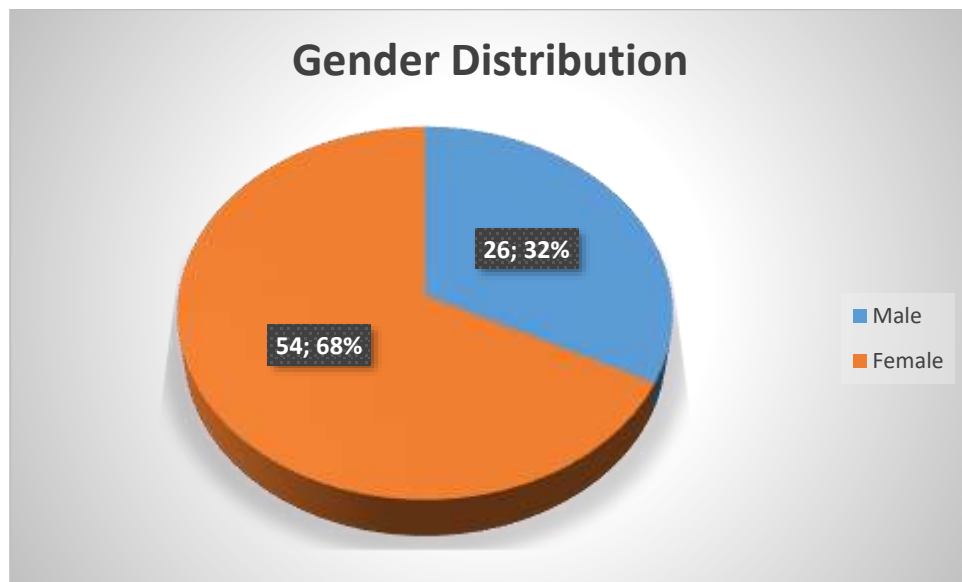


Figure 4. 39 Gender Distribution of the Respondents

As shown in the figure 4.39, there were 32% or 26 male students and 68% or 54 female students. The total number of respondents were 80 students.

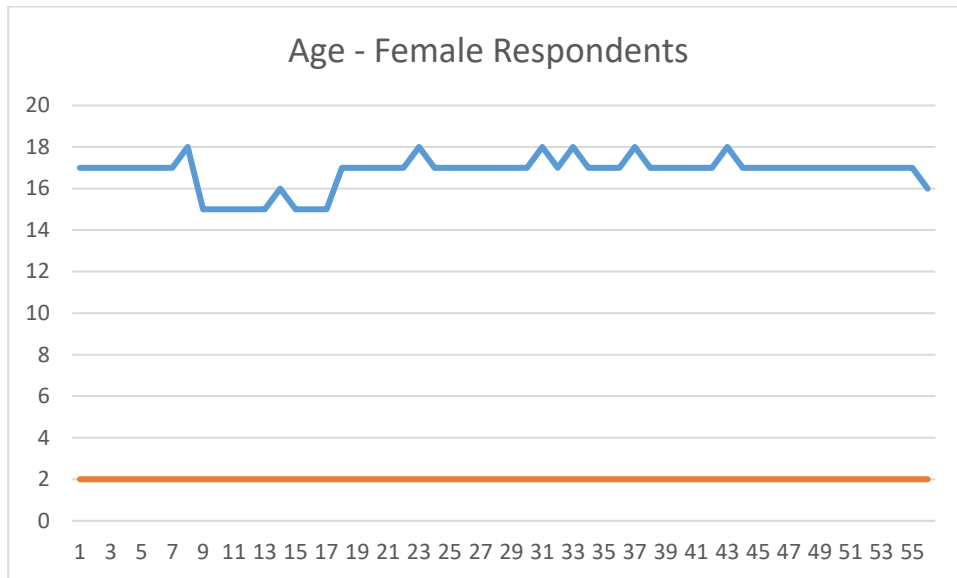


Figure 4. 40 Age of Female Respondents

The age for female respondents varied from 15 years to 18 years. Majority of the respondents were 17 years old. This is shown in the figure 4.40.

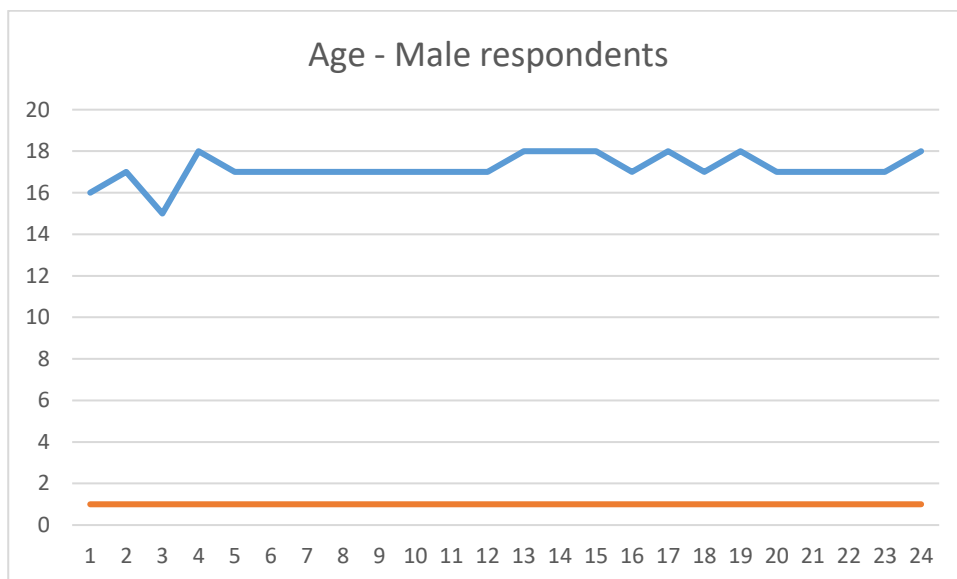


Figure 4. 41 Age of Male Respondents

As presented in the figure 4.41, the male respondents' age varied from 15 to 18 years. Majority of the male respondents were found in the age group of 17 to 18 years of age.

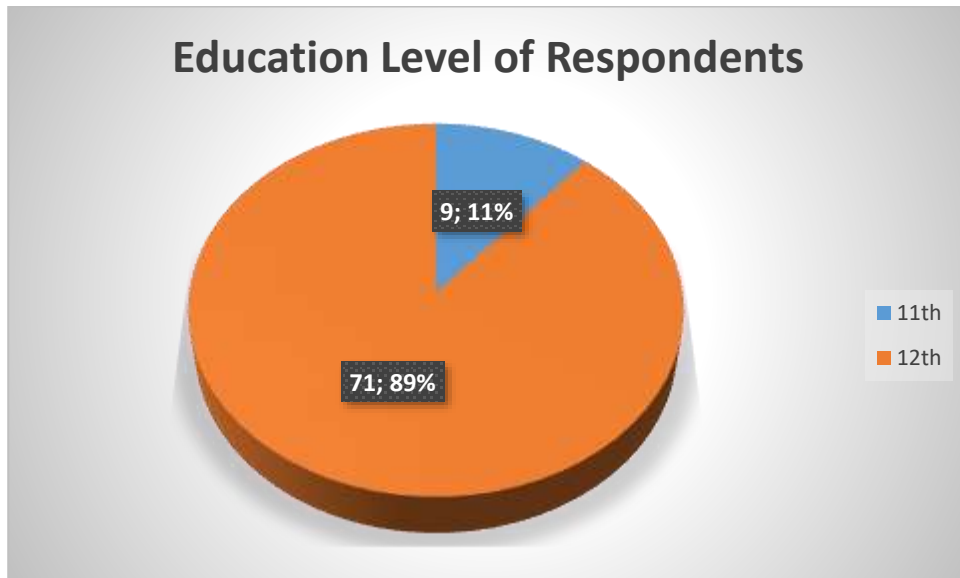


Figure 4. 42 Education Level of the Respondents

The respondents were studying in the secondary school under the traditional system. As presented in the figure 4.42, respondents studying in the 11th grade were 11% or 09 students. The students enrolled for the 12th grade were 89% or 71 students.

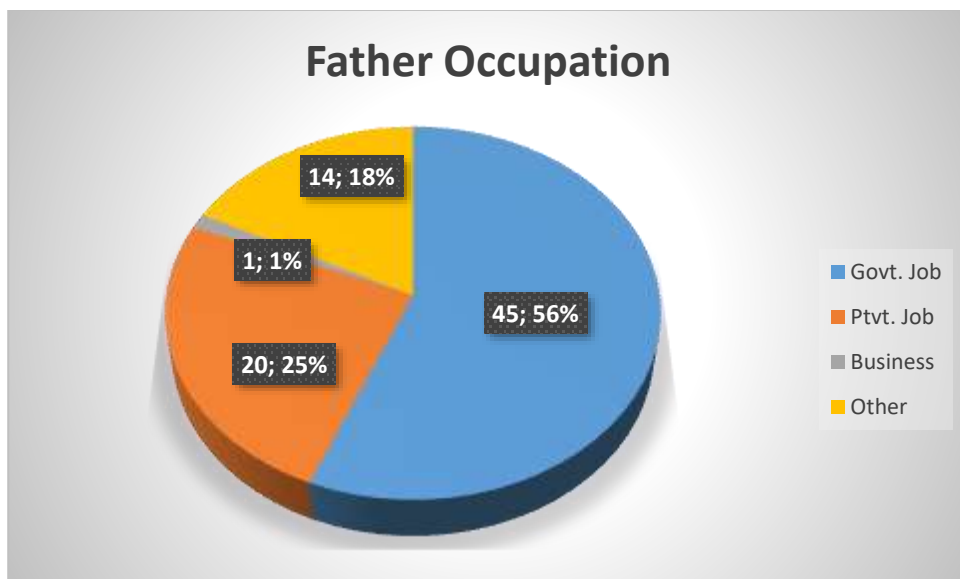


Figure 4. 43 Respondents' Father Occupation

As per the data presented in figure 4.43, the 56% or 45 of the respondents' fathers were having a government job. Fathers having a private job were 25% or 20 in numbers. 1% or 1 of the respondents' fathers had their own businesses or they were entrepreneurs. Fathers having other occupation were 18% or 14 in numbers.

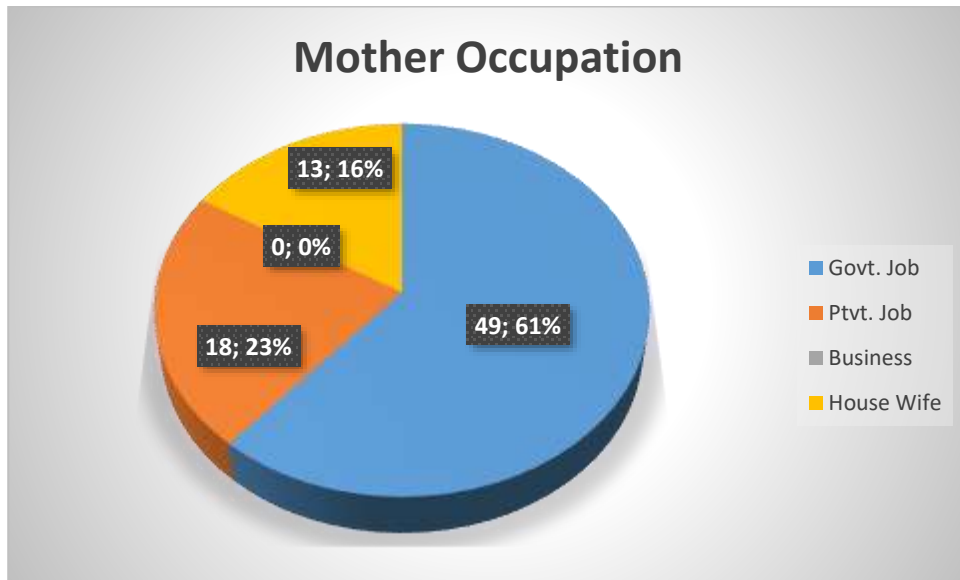


Figure 4. 44 Respondents' Mother Occupation

The figure 4.44 shows occupation of mothers of the respondents. 61% or 49 of the mothers are having government employment. Mothers of the respondents having a private job were 23% or 18 mothers. There were no entrepreneur mothers in this sample of the data. 16% or 13 mothers were house wives or having other professions.

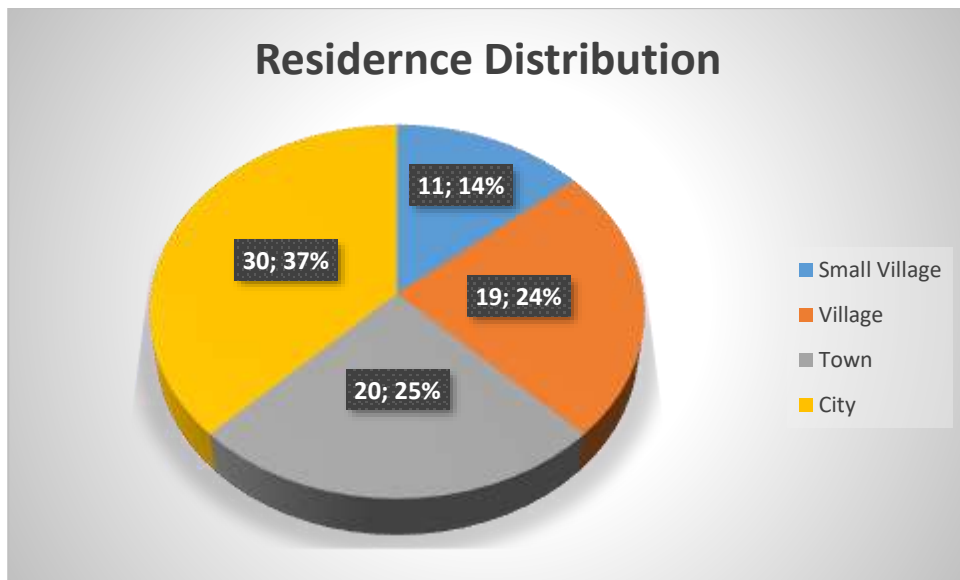


Figure 4. 45 Respondents' Residence Distribution

Figure 4.45 presents the respondents' residence. As it can be seen from the chart that highest number of respondents resided in the cities. Respondents from the small village were 14% or 11 students. 24% (19 students) of the respondents resided in relatively bigger villages.

Respondents residing in the towns were 25% or 20 of the students. Respondents from the cities accounted for 37% or 30 of the respondents.

4.6.5 Correlation Analysis

The Table 4. 31 describes, means, standard deviations and correlation results. It can be seen that the correlation between entrepreneurial intention, self-efficacy and desirability are statistically significant at 1%. (Level of significance = 0.001). Therefore, positive correlation with both measures support the hypotheses H4 and H5; that Entrepreneurial Self-efficacy and Entrepreneurial Desirability are positively associated with the students' entrepreneurial intentions. However, the correlation coefficient between education and entrepreneurial intention is statistically insignificant (0.043). The results for the Hypothesis 1 are surprising, detailed discussion the results is available in the discussion section. The higher level of education might motives students to have jobs in multinational firms and aspiration for social status. In the same vein, Education, the independent variable has statistically insignificant relationship with the mediators; entrepreneurial self-efficacy and entrepreneurial desirability. Hence the results do not support our hypotheses H2 and H3. These correlation results suggest that we cannot test the mediation paths as per the conditions of Barron and Kenny (1986).

Table 4. 31 Means, Standard Deviations and Correlations

	Means	S.D	Ent. Intention	Ent. Education	Ent. Desirability	Ent.Self- Efficacy
Ent. Intention	2.578	0.946	1.00			
Education	1.875	0.332	0.043	1.00		
Ent. Desirability	3.100	0.825	0.843**	-0.028	1.00	
Ent.Self- Efficacy	7.735	2.11	0.505**	0.872	0.594**	1.00

**significant at the 0.01 level (2 tailed), N=80

4.6.6 Regression Analysis

It is evident from the Table 4.32 that the impact of Education on the Entrepreneurial Intentions is insignificant ($\beta = 0.122$). Beta coefficient, coefficient of determination, t-statistics and F statistics all are insignificant. Hence, the Hypothesis H1 is rejected. These are surprising results. Explanation and reasoning for these unusual results is provided in the discussion.

Table 4. 32 Regression Results for Education and Intention (H1)

Ent. Intention					
	β	R Squared	t	F	Sig.
Education	0.122	0.002	0.381	0.145	0.704

Predictor: Education, Outcome: Ent. Intention

Table 4.33 clearly describes that the relationship between Entrepreneurship Education and Entrepreneurial Self Efficacy is insignificant statistically ($\beta = 0.117$). This leads us to reject the Hypothesis 2 of the study. The relationship is negative however, insignificant statistically.

Table 4. 33 Regression Results for Education and Ent. Self-Efficacy (H2)

Ent. Self-Efficacy					
	β	R Squared	t	F	Sig.
Education	0.117	0.000	0.162	0.062	0.872

Predictor: Education, Outcome: Ent. Self-efficacy

As per the regression results shown in Table 4.34, we reject the hypothesis H3. Statistically, there is no significant relation between entrepreneurship education and students perceived entrepreneurial desirability for starting the new venture ($\beta = -0.069$).

Table 4. 34 Regression Results for Entrepreneurship Education and Ent. Desirability (H3)

Ent. Desirability					
	β	R Squared	t	F	Sig.
Ent. Education	-0.069	0.001	-0.244	0.060	0.808

Predictor: Education, Outcome: Ent. Desirability

Regression results for the hypothesis H4 are shown in the Table 4.35. The beta coefficient is significant ($\beta = 0.226$ at $p < 0.01$). Hence there is a significant positive impact of Entrepreneurial Self-efficacy on the students' Entrepreneurial Intentions. The change of 1 unit in the Entrepreneurial Self-Efficacy brings 0.226 change in the students' Entrepreneurial Intentions. Other measures, t-statistic, F and Adjusted R squared are also significant. Hence the hypothesis H4 is accepted.

Table 4. 35 Regression Results for Ent. Self-efficacy and Entrepreneurial Intentions (H4)

Ent. Intention					
	β	R2	t	F	Sig.
Ent. Self-Efficacy	0.226**	0.255	5.165	26.672	0.000

Predictor: Ent. Self-Efficacy, Outcome: Ent. Intention

The Table 4.36 below discusses regression results for the Entrepreneurial Desirability and Entrepreneurial Intentions, Hypothesis H5. As evident from the results, hypothesis H5 is accepted. The relationship between Entrepreneurial Desirability and Entrepreneurial Intentions is statistically significant ($\beta = 0.967$ at $p < 0.01$). The relationship is positively significant. A

change of 1 unit in the Entrepreneurial desirability brings 0.967 change in the Entrepreneurial intentions.

Table 4. 36 Regression Results for Entrepreneurial Desirability and Entrepreneurial Intentions (H5)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Desirability	0.967**	0.710	13.830	191.276	0.000

Predictor: Ent. Desirability, Outcome: Ent. Intention

As per the conditions of Baron and Kenny (1986), we cannot test the mediation paths as the direct relationship of independent variable with the mediators, dependent variable and the relationship of mediators with the dependent variable are not correlated significantly. However, for the purpose of more clarity and confirmation, we used the Hayes (2013) method for testing the mediation paths. Results were insignificant statistically. Hence the hypothesis H6 is also rejected.

Therefore for this data the Hypotheses H4 and H5 are accepted and hypotheses H1, H2, H3 and H6 are rejected. The results show that Entrepreneurship Education has no significant impact on the students' entrepreneurial intentions. It does not also impact the entrepreneurial self-efficacy and desirability. Entrepreneurial self-efficacy and desirability however have the significant positive association with students' entrepreneurial intentions. Entrepreneurial self-efficacy and desirability do not mediate the relationship between entrepreneurship education and students' entrepreneurial intentions.

4.6.7 Descriptive Statistics of Secondary Level Students from the Economics, Business and Agriculture School

The descriptive statistics of respondents are presented here with the help of graphs and brief descriptions.

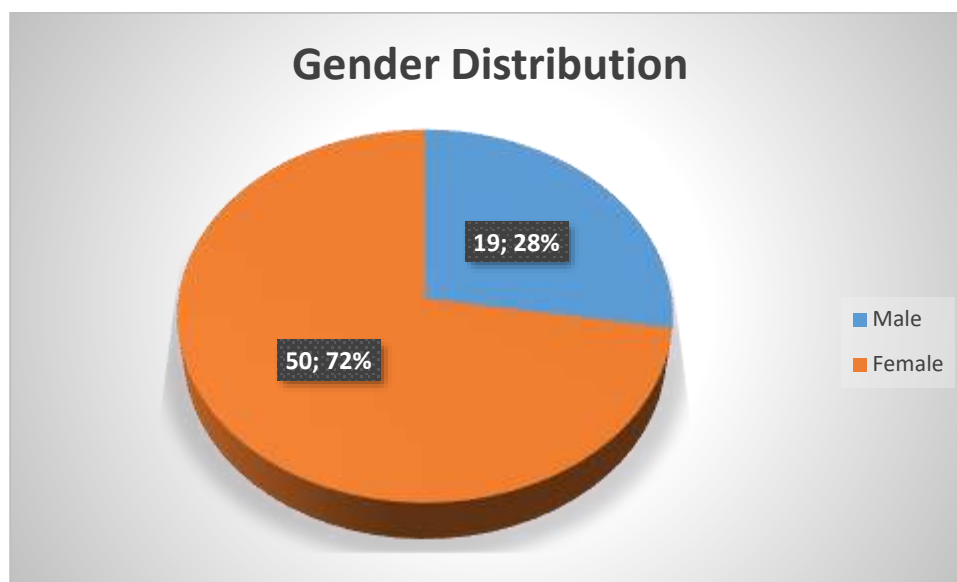


Figure 4. 46 Gender Distribution of the Respondents

As shown in the figure 4.46, there were 28% or 19 male students and 72% or 50 female students. The total number of respondents were 69 students.

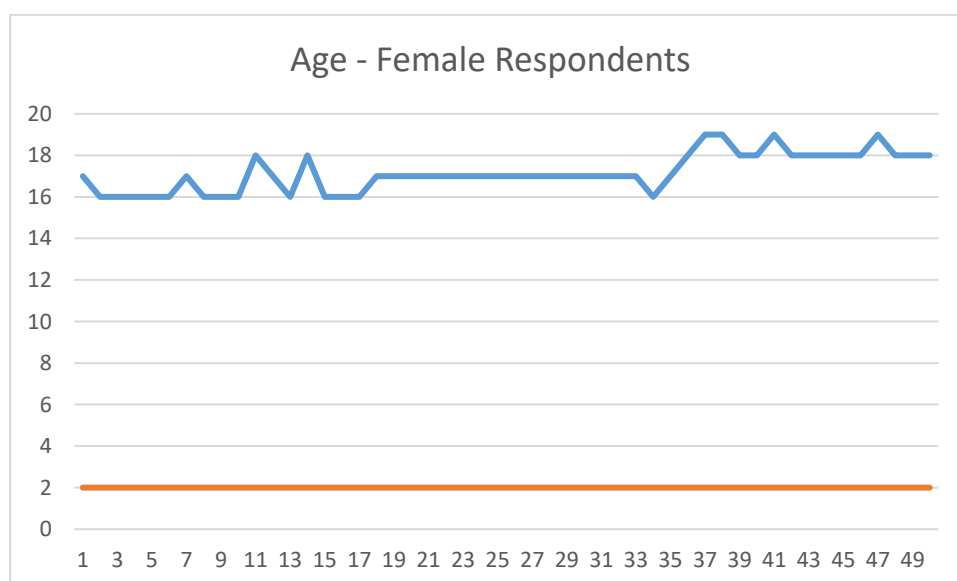


Figure 4. 47 Age of Female Respondents

The age for female respondents varied from 16 years to 19 years. Majority of the respondents were 16 – 18 years old. This is shown in the figure 4.47.

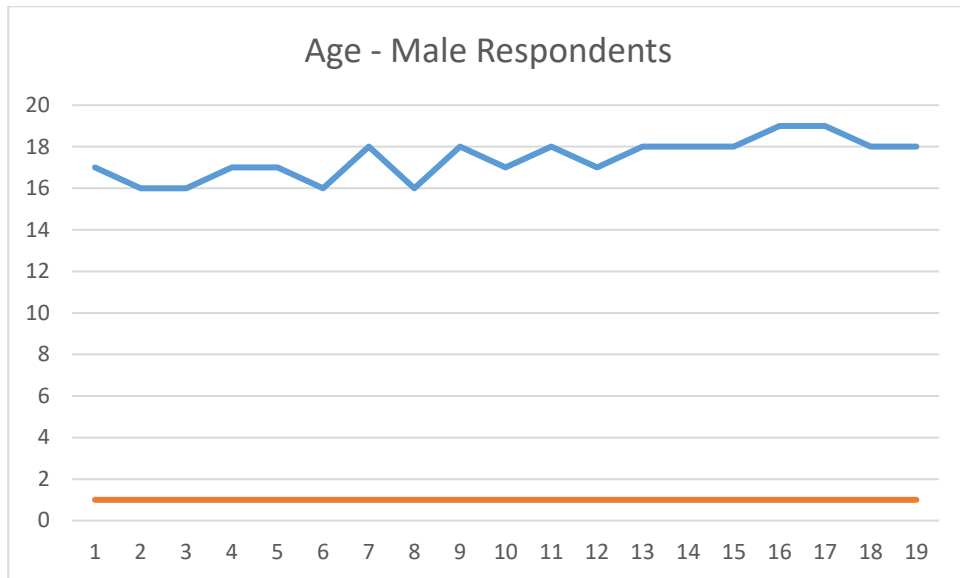


Figure 4. 48 Age of Male Respondents

As presented in the figure 4.48, the male respondents' age varied from 16 to 19 years. Majority of the male respondents were found in the age group of 16 to 18 years of age.

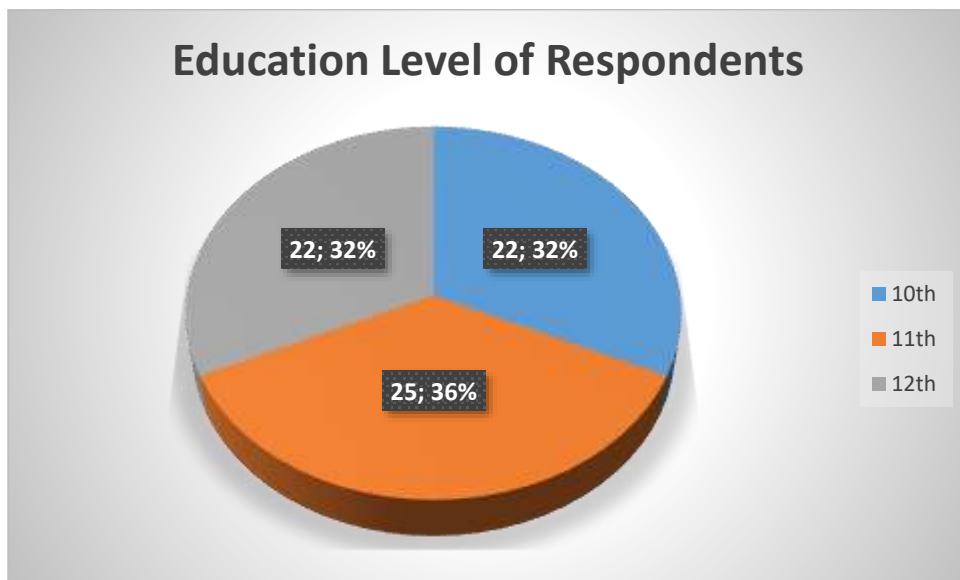


Figure 4. 49 Education Level of Respondents - Class wise

The respondents were studying in the secondary school for economics, business and agriculture. As presented in the figure 4.49, respondents studying in the 10th grade were 32%

or 22 students. The students enrolled for the 11th grade were 36% or 25 students. Respondents who participated in the survey from 12th grade were 32% or 22 students.

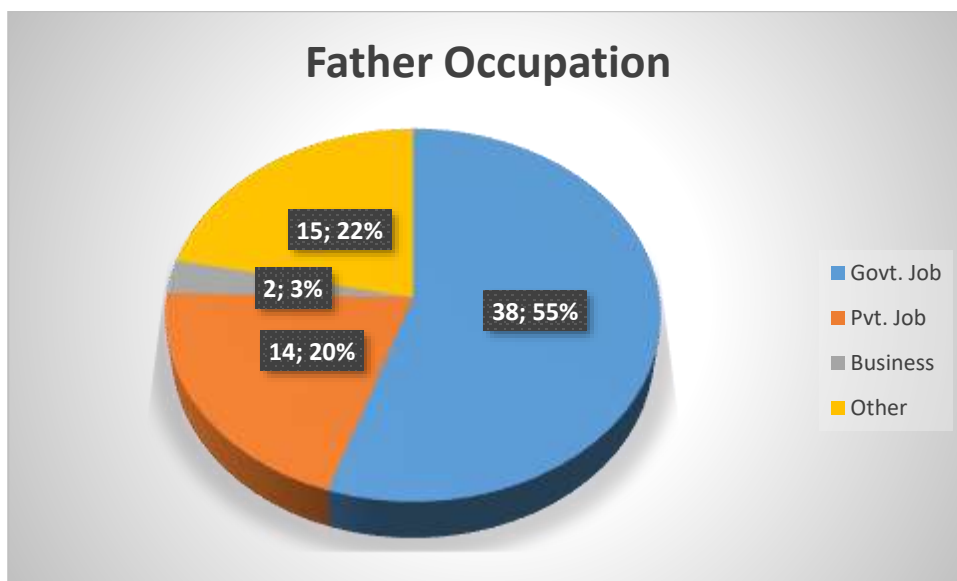


Figure 4. 50 Respondents' Father Occupation

It can be seen in figure 4.50, the 55% or 38 of the respondents' fathers were having a government job. Fathers having a private job were 20% or 14 in numbers. 3% or 2 of the respondents' fathers had their own businesses or they were entrepreneurs. Fathers having other occupation were 21% or 15 in numbers.

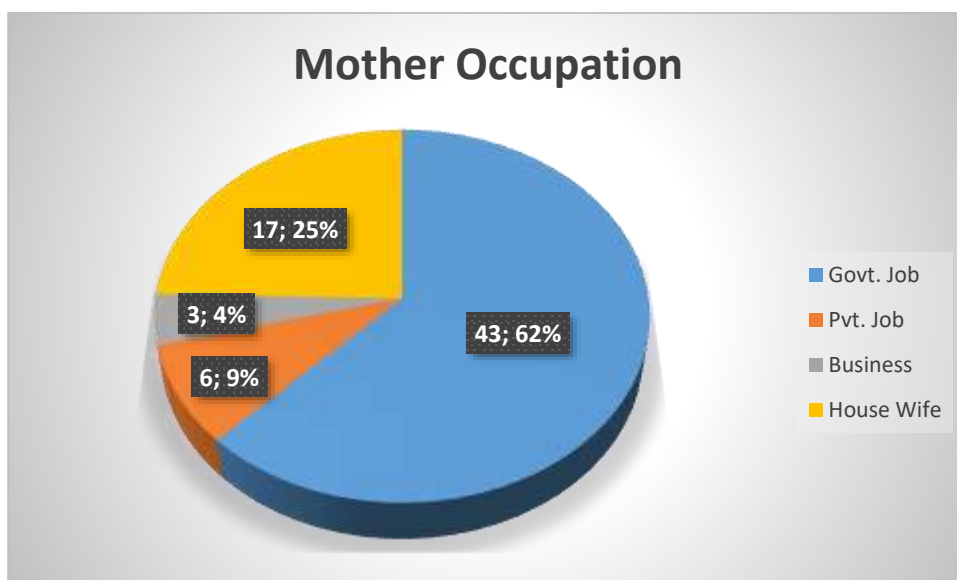


Figure 4. 51 Respondents' Mother Occupation

The figure 4.51 shows occupation of mothers of the respondents. 62% or 43 of the mothers are having government employment. Mothers of the respondents having a private job were

9% or 6 mothers. There were 4% or 3 entrepreneur mothers in this sample of the data. 25% or 17 mothers were house wives or having other professions

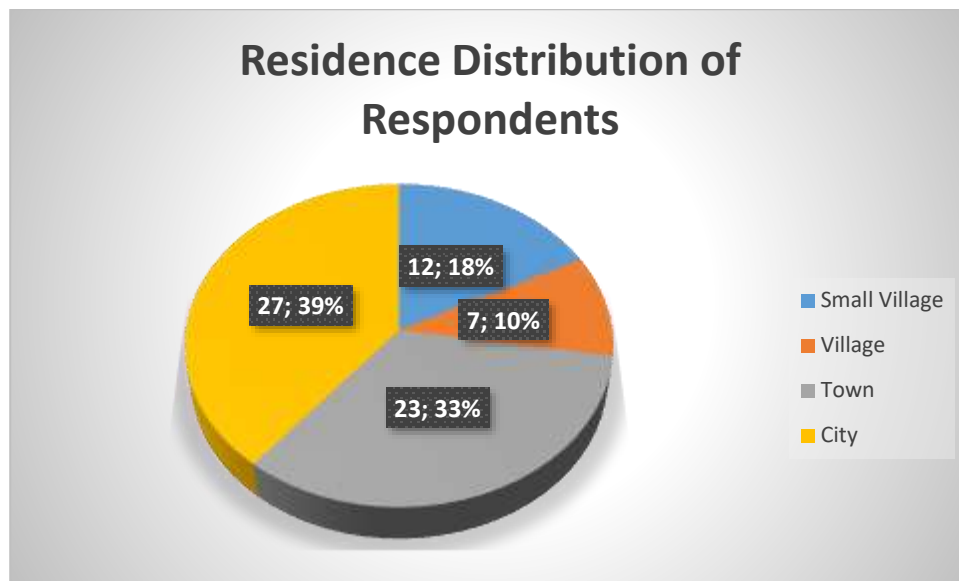


Figure 4. 52 Respondents' Residence Distribution

Figure 4.52 describes the respondents' residence. As it can be seen from the chart that highest number of respondents resided in the cities. Respondents from the small village were 17% or 12 students. 10% (7 students) of the respondents resided in relatively bigger villages. Respondents residing in the towns were 33% or 23 of the students. Respondents from the cities accounted for 40% or 27 of the respondents.

4.6.8 Correlation Analysis

The Table 4. 37 describes, means, standard deviations and correlation results. It can be seen that the correlation between entrepreneurial intention, self-efficacy and desirability are statistically significant at 1%. (Level of significance = 0.001). Therefore, positive correlation with both measures support the hypotheses H4 and H5; that Entrepreneurial Self-efficacy and Entrepreneurial Desirability are positively associated with the students' entrepreneurial intentions. However, the correlation coefficient between education and entrepreneurial intention is statistically insignificant (0.064). The results for the Hypothesis 1 are surprising, detailed discussion the results is available in the discussion section. The higher level of education might motives students to have jobs in multinational firms and aspiration for social status. In the same vein, Education, the independent variable has statistically insignificant relationship with the mediators; entrepreneurial self-efficacy and entrepreneurial desirability.

Hence the results do not support our hypotheses H2 and H3. These correlation results suggest that we cannot test the mediation paths as per the conditions of Barron and Kenny (1986).

Table 4. 37 Means, Standard Deviations and Correlations

	Means	S.D	Ent. Intention	Ent. Education	Ent. Desirability	Ent.Self- Efficacy
Ent. Intention	3.196	0.974	1.00			
Ent. Education	3.000	0.804	0.064	1.00		
Ent. Desirability	3.440	0.830	0.874**	0.137	1.00	
Ent.Self- Efficacy	7.530	1.842	0.683**	0.126	0.742**	1.00

**significant at the 0.01 level (2 tailed), N= 69

4.6.9 Regression Analysis

It is evident from the Table 4.38 that the impact of Education on the Entrepreneurial Intentions is insignificant ($\beta = 0.078$). Beta coefficient, coefficient of determination, t-statistics and F statistics all are insignificant. Hence, the Hypothesis H1 is rejected. These are surprising results. Explanation and reasoning for these unusual results is provided in the discussion.

Table 4. 38 Regression Results for Education and Intention (H1)

	Ent. Intention				
	β	R Squared	t	F	Sig.
Education	0.078	0.004	0.528	0.279	0.599

Predictor: Education, Outcome: Ent. Intention

Table 4.39 clearly describes that the relationship between Entrepreneurship Education and Entrepreneurial Self Efficacy is insignificant statistically ($\beta = 0.288$). This leads us to reject the Hypothesis 2 of the study. The relationship is insignificant statistically.

Table 4. 39 Regression Results for Education and Ent. Self-Efficacy (H2)

Ent. Self-Efficacy					
	β	R Squared	t	F	Sig.
Education	0.288	0.016	1.037	1.075	0.303

Predictor: Education, Outcome: Ent. Self-efficacy

As per the regression results shown in Table 4.40, we reject the hypothesis H3. Statistically, there is no significant relation between entrepreneurship education and students perceived entrepreneurial desirability for starting the new venture ($\beta = 0.141$).

Table 4. 40 Regression Results for Ent. Education and Ent. Desirability (H3)

Ent. Desirability					
	β	R Squared	t	F	Sig.
Ent. Education	0.141	0.019	1.128	1.273	0.263

Predictor: Education, Outcome: Ent. Desirability

Regression results for the hypothesis H4 are shown in the Table 4.41. The beta coefficient is significant ($\beta = 0.361$ at $p < 0.01$). Hence there is a significant positive impact of Entrepreneurial Self-efficacy on the students' Entrepreneurial Intentions. The change of 1 unit in the Entrepreneurial Self-Efficacy brings 0.361 change in the students' Entrepreneurial Intentions. Other measures, t-statistic, F and Adjusted R squared are also significant. Hence the hypothesis H4 is accepted.

Table 4. 41 Regression Results for Ent. Self-efficacy and Entrepreneurial Intentions (H4)

Ent. Intention					
	β	R2	t	F	Sig.
Ent. Self-Efficacy	0.361**	0.466	7.647	58.741	0.000

Predictor: Ent. Self-Efficacy, Outcome: Ent. Intention

The Table 4.42 below discusses regression results for the Entrepreneurial Desirability and Entrepreneurial Intentions, Hypothesis H5. As evident from the results, hypothesis H5 is accepted. The relationship between Entrepreneurial Desirability and Entrepreneurial Intentions is statistically significant ($\beta = 0.814$ at $p < 0.01$). The relationship is positively significant. A change of 1 unit in the Entrepreneurial desirability brings 0.814 change in the Entrepreneurial intentions.

Table 4. 42 Regression Results for Entrepreneurial Desirability and Entrepreneurial Intentions (H5)

Ent. Intention					
	β	R Squared	t	F	Sig.
Ent. Desirability	0.814**	0.764	14.761	216.568	0.000

Predictor: Ent. Desirability, Outcome: Ent. Intention

As per the conditions of Baron and Kenny (1986), we cannot test the mediation paths as the direct relationship of independent variable with the mediators, dependent variable and the relationship of mediators with the dependent variable are not correlated significantly. However, for the purpose of more clarity and confirmation, we used the Hayes (2013) method for testing

the mediation paths. Results were insignificant statistically. Hence the hypothesis H6 is also rejected.

Therefore for this data the Hypotheses H4 and H5 are accepted and hypotheses H1, H2, H3 and H6 are rejected. The results show that Entrepreneurship Education has no significant impact on the students' entrepreneurial intentions. It does not also impact the entrepreneurial self-efficacy and desirability. Entrepreneurial self-efficacy and desirability however have the significant positive association with students' entrepreneurial intentions. Entrepreneurial self-efficacy and desirability do not mediate the relationship between entrepreneurship education and students' entrepreneurial intentions.

4.7 Results of Study 4

Results of the entrepreneurs from Pakistan are presented here in this section. Only some of the common themes are discussed here.

A young entrepreneur discussed that:

From the very first semester of my BBA, I desired to become an entrepreneur. My father is also a business man. When I graduated from the university with BBA degree, I had a vision to become an entrepreneur. I started a job in a sports good manufacturing company in Sialkot, Pakistan. The salary was not good but I was doing this job for the sake of experience. I was supervising the packaging workers. After 1 year I left this job and started another job. Here in this job, I was involved in dealing with the customers, addressing their queries over the internet. The company was dealing with export of leather good. After six months, I left this job and started my own export business of salt decor and small leather products. During this journey, I faced many problems, however, now I am successful. During university life, two teachers encouraged me to become an entrepreneur. I used to interact with them for counselling.

Another young entrepreneur discussed his story as:

Most of my family members are government employees. I wanted to do something different. During my MBA, I started a private hostel with the help of one partner. I closed this business after 6 months. Then I tried some ideas. Discussed a food delivery business with one restaurant but the deal was not successful. During the month of Ramadan (when Muslims are fasting), I ordered a cultural and traditional drink and sold it to different retailers. I tried several small ventures and finally got to the property business. I started as an employee of a renowned real estate company. A year after my job, I started my own business and now I am running it since last 4 years successfully.

A young entrepreneur discussed his story as:

I started my professional career after BBA. I was working with a travel and tour operator in Pakistan. Later, I found a job in Dubai, UAE. In Dubai, I was working with a real estate and construction company. I worked with this company for 4 years. Then I returned to Pakistan, started my own real estate business. During my stay in Dubai, I realized that the real estate business has great potential. Also during my job, one of my friends left his job and went back to Pakistan and started his own business. So these facts motivated me start my own business. In the beginning, I started with a very small project. I pooled money from my friends and family as their investment. I returned their investment after 17 months with good profit. It boosted my confidence and also trust of the investors. For the second project, I got more than double of the investment than the second project.

A senior entrepreneur mentioned that:

I was teaching at the university level as a lecturer. During this period, I studied MBA executive. The teachers came from Ireland. One part of the course was taught here in Hungary and the other in Ireland. This MBA program boosted my motivation and confidence for starting my own business. I started with a training company. My wife became partner with me in this company. We used to deliver trainings and lectures inside and outside Hungary. The business was going good besides my teaching job. After some time, there came an opportunity for investing in the horticulture and farming business. One of my friends was responsible for a cooperative farm. I invested in the apple farm for one hectare. I have to pay the basic investment. All expenditure including ploughing, pesticides, irrigation, trimming and

harvesting are also to be borne by me. The cooperative company sells apple and its byproducts on my behalf. This business is very good. It is quite profitable.

I started third venture in partnership with my daughter. It is a training company responsible for trainings and counselling. This business is also going very good. So, for me, to become an entrepreneur, the turning point was encouragement and confidence I received during the MBA executive program.

4.8 Analysis and Conclusion of the Qualitative Data

Respondents of this study were the entrepreneurs from Pakistan and Hungary. The entrepreneurs from Pakistan have discussed that business education was not an important influencer for developing their attitudes or enhancing their intentions towards entrepreneurship as a career. For them, their entrepreneur parents or role models were important influencers to choose entrepreneurship as an employment option. These responses are correlated with the results of study 1, the qualitative data and also with the quantitative data. It is important to mention here that the type of methodology being used for business education is very much traditional and it does not utilize case studies and learning by doing methods of teaching. Hence, the education is not focused towards creating entrepreneurs or it does not influence the students' intentions for entrepreneurship.

Similar responses for this study were revealed by the Hungarian respondents. However, one of the Hungarian respondent mentioned that business education motivated and influenced him to become an entrepreneur. Therefore the type of entrepreneurship education, here becomes important for raising the students' entrepreneurial intentions. There shall be emphasis on the 'for entrepreneurship' education than that of the 'about entrepreneurship' education.

5 Conclusions and Recommendations

Conclusions and recommendations are summarized and discussed here in this section.

5.1 Conclusions

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 both for the Hungarian and Pakistani samples.* Only the results of study 3 from secondary school data (Table 4.19 and 4.20) 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 for both Pakistani and Hungarian samples 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 for both Hungarian and Pakistani samples 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 5. 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

5.2 Recommendations

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.

6 Main Conclusions and Novel Findings

1. 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. Results are similar both for Hungarian and Pakistani samples. Two different cultures and economies have similar results for this study which is quite surprising.*
2. 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.
3. *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 both for Hungarian and Pakistani samples. 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 both for the samples from Hungary and Pakistan.* 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 (university) levels of education are rare.*
4. 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 (university) 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 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 (university) 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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