ENTREPRENEURIAL INTENTION AMONG UNIVERSITY STUDENTS

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Abstract

Entrepreneurs play an important role in the economic development of a country. At a local level, they are capable of meeting market demand, create jobs, and create value for themselves, customers, as well as employees. Therefore, Higher Education Commission of Pakistan has recently stressed upon the entrepreneurial education at university level. Also, government and private sector firms have invested in initiatives to foster and train aspiring entrepreneurs.

This research develops the need for understanding entrepreneurial intention of university students belonging from different levels and disciplines. The research model is built using Theory of Planned Behaviour (TPB), with attitudes, subjective norm. The research model is further enriched including educational support which plays pivotal role in developing mind set of students towards career orientation of university students. Education has been divided into two segments; generic education and the entrepreneurship focused education. This way a detailed cross-sectional analysis could be done to analyse which factors have the strongest relation with entrepreneurial intention which could result entrepreneurial action. This research will help in identifying the key factors in developing the entrepreneurship behaviour, in Pakistan so that correct measures can be taken to address the issues by covering the existing gaps. Further this study could serve as the bedrock for the future studies which can be done on longitudinal basis to analyse the pattern of entrepreneurial behaviour and to what extent education can play its part.

Key Words: Entrepreneurial Intention, Behaviour Control, Subjective Norms, Attitudes, Entrepreneurship Education

Acknowledgments

I would like to thank Allah Almighty for helping me to get through the process writing and defending my thesis and making it easy for me. I would like to also thank my supervisor Dr. Sarah S. Khan for educating me with the topic of thesis and guiding me through the process. In addition to this she provided me with unwavering support and being always there to answer my queries. Thanks to my committee members Dr. Asfia Obaid, Ma'am Madiha Pervez and Ma'am Nida Karim for providing feedback on my research work. I would also like to thank my family and friends for giving me an outside perspective regarcing research work and providing me support.

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CHAPTER 1

Introduction

Background:

New business ventures have significant role in the growth of economy, by providing jobs, developing market and generating income (Piperopoulus, 2012). Hence entrepreneurship is considered as the engine of growth for national economy. According to United Nations Conference on Trade Development in (2009), there is a direct relationship between the economic and social development with respect to the entrepreneurial activity taking place in the society. Thus economic conditions of societies supporting entrepreneurial activities have better economic outlook as compare to those that do not. Also, entrepreneurship has a role in development and welfare of the society as well. In today's world of economic turmoil knowledge economy, enterprise and innovation are considered the key elements towards development. With data of more than 100 countries around the world, The Global Entrepreneurship Monitor (GEM) concludes that entrepreneurship is not only engine of growth for economy, it is a way towards fostering innovation in society and bringing welfare to by the creation of jobs and circulation of wealth (Couto et al., 2013). According to latest reports (Kelly et al., 2016), two-thirds of the adults around the world see entrepreneurship as a career choice, explaining the changing trends and mind sets.

There are various factors which lead to development of entrepreneurship and widely being divided into push or pull factors. Push factors refer to the dissatisfaction related to current job, unemployment in the market, setbacks faced in careers, low family income and other such aspects. However the pull factors refer to desire for earning larger profits, serving the internal yearning for achievement and ambition (Kumar, 2007). In developing economies like Pakistan there are great opportunities for starting one's own business venture. As stated by GEM, individuals in developing economies are more likely to seek an opportunity towards entrepreneurship. This can be a combination of both push and pull factors in the society. However the support of government is pertinent as they are responsible to provide the infrastructure. Without a consolidated infrastructure entrepreneurial activities would not be able to uplift the economy or help with the welfare of society. One of the biggest enablers in Pakistan regarding entrepreneurship is the increasing efforts made by the education sector to build awareness among students through entrepreneurship education and training programs

(Qureshi and Mian, 2012). In this study, we aim to understand the entrepreneurial intent among the university students along with the factors having an impact on the entrepreneurial intent. We specifically focus on the education, entrepreneurship specific as well as overall university education, to see its role in developing intention towards self-employment among the university students.

Pakistani Context:

Recently, Higher Education Commission (HEC) of Pakistan started paying attention towards building educational base in Pakistan for entrepreneurship for which they have made this course compulsory for graduation with respect to any degree program. More than half of Pakistan's population is youth or lie between 16-25 years (Pakistan Bureau of Statistics, 2014) of age and HEC believes that in order to make them useful in national economy there is a need for sound entrepreneurial education which not only does equip students with skills of managing their own business but developing their knowledge base regarding entrepreneurship (HEC Entrepreneurship Development Strategy, 2012). Key challenges faced by the higher education sector in achieving these entrepreneurship goals are: outdated curricula, lack of relevant skills in faculty, limited offering of subjects, weak university-industry linkages, lack of resource support, and lack of interest shown by the business world.

HEC acknowledge the critical role of universities in development of entrepreneurial activity in the country. Hence their policy and agenda entails development of nation-wide program of entrepreneurship, supporting research in this field, active role of business community, promoting non-traditional ways of learning, developing assessment designs and support mechanisms for Higher Education Institutes. Setting of the right strategy is a critical factor but only one side of the coin. The effectiveness of strategy is not completed if continuous quality evaluation is not carried out. Thus HEC recognize this also and made monitoring and evaluation part of their agenda.

In summary, HEC have developed a comprehensive plan to introduce entrepreneurship part of higher education curriculum and for that they have developed a multi-faceted policy which caters to various stakeholders in the process. Although, monitoring and evaluation is in place from HEC's side, yet, we are unclear if these efforts, in general or specifically making a difference. This motivates us to study the entrepreneurial intention among university students, and identifying the factors, including education, that may impact the entrepreneurial intention

among the university students. In the following section, we discuss our research model, followed by the implications of this study.

Goals and Objectives:

Following are the proposed goals and objectives of the research:

1. Diagnosing the factors contributing to entrepreneurial intention
2. Develop a comprehensive model to explain factors effecting the entrepreneurial intention at all levels
3. Testing the proposed model
4. Suggesting and recommending curriculum reforms and policy reforms to improve entrepreneurship at all levels

Expected Benefits/Impacts:

1. This research will give a clearer picture as to what is the general attitude towards entrepreneurship. Which factors are dominant among students while building entrepreneurial intention and which are not so that curriculum can be customized according to the needs of the students'. This improvement in curriculum will address the gaps in educational programs, bridging them and enhancing the motivation of the individuals towards entrepreneurship.
2. It will also help in identifying the areas which other than education needs to be worked upon. Whether or not the individuals require physical activities, mentorship or monetary resources to fulfil their plan. Hence the universities can improve the competitiveness among their students and provide the resources which will suffice their needs.
3. Other than universities the Higher Education Commission of Pakistan can tailor a defined policy which will target the correct needs of the students and outline clear steps that need to be taken to build entrepreneurial environment in universities, while directing them to do so. In addition to this HEC can make more informed decisions regarding the allocation and utilization of the resources.
4. On the broader horizon the Government of Pakistan can enhance its policy regarding entrepreneurship by knowing what is the intention level of the youth of the country and how can they be served so that they can perform to their maximum level, and contribute to the national economic policy.

CHAPTER 2

Literature Review

We see significant evidence in the literature for understanding the concepts of "entrepreneurship" and "entrepreneur". Entrepreneurship or entrepreneur first appeared in the economic history by Richard Cantillon (1755) who was an Irish economist. According to him this is the person who undertakes risk. This person buys the output by the workers for resale before measuring the demand by the consumers, hence bears the risk of price fluctuations. The idea was further refined by Frank Knight (1921) who distinguished between risk and uncertainty, as risk is insurable and uncertainty is not. He explained that risk can be predicted to an extent as its relative frequency of occurrence can be known from past experience, however uncertainty is purely attributed to the probability of unique events of which subjective estimation is known. Knight believed that reward of an entrepreneur is the profit which comes from uninsurable risk.

According to Schumpter (1936) who is of the view that an entrepreneur is one creates new industries and disrupts the current economic order by making major structural changes to the current economy. His work majorly discussed the high level entrepreneurship which includes railways, chemical industries and oil companies. The opposing is the low-level entrepreneurship which includes wholesaler and retailer. This low-level entrepreneurship is nonetheless very important as in current era this is a widely practised form (Casson et al., 2006).

Entrepreneurship is broadly divided into two categories; replicative and innovative. The replicative entrepreneurs only face little difficulty as they are simply taking some one's idea and replicating it in a different market. However the innovative entrepreneurs are the ones that come up with an original idea and providing a new product or a new service (Mayhew et al., 2012). Mostly, entrepreneurship implies innovative entrepreneurship, due to its value addition in the economic growth.

Entrepreneurial activities have a significant impact on society's social and economic development (Morris and Jones, 1999). It becomes means of addressing the issues of unemployment in the society. Growing and developing economies face the problem of providing employment to their graduates and entrepreneurship is one such solution to the growing unemployment. Similar case could be observed in China where the government is paying close attention towards fostering entrepreneurship (Peng et. al., 2012).

Entrepreneurial Intention:

Among the various models of choice for employment, the one's which focus on entrepreneurial intention as a significant contributing factor have always been of researchers' keen interest (Krueger and Carsrud, 1993). In such models career intention is observed to be immediate antecedent of behaviour.

When it comes to entrepreneurship or self-employment, behavioural triggers are emphasised upon and gather a lot of attention. And intention serving as the antecedent cannot be ignored in this context (Chen and Linan, 2009). The intentions of individuals towards entrepreneurship has an effective and stronger explanation in prediction of subsequent behaviour (Ajzen, 1987). Along with that the intention development the initiation of a long process of venture creation that is to follow in the entrepreneurial process (Gartner et. al. 1994).

To comprehensively define what entrepreneurial intention is, we can say that it is a conscious awareness combined with conviction of an individual to plan and then initiate a business venture (Thompson, 2009). To further investigate entrepreneurial intentions antecedents two frameworks have been predominantly studied: Shapero's Model of Entrepreneurial Event (SEE) and Ajzen's Theory of Planned Behaviour (TBP) (Krueger et. al. 2000).

1. With Theory of Planned Behaviour, the underlying concept is that if not all then most of the planned behaviours are intentional, thus behaviours be predicted by the intentions (Ajzen,1991), hence it is suggested that stronger the intention towards performing a behaviour there are high chances for such an individual to achieve it.
2. Shapero Entrepreneurial Event theory suggested that perceived capability and attractiveness of any entrepreneurial idea, along with tendency to act will be antecedents to entrepreneurial intent (Autio, et. al. 2001).

Both the models have made significant contribution to the investigation of entrepreneurial intention, and especially in case of business students that both the models have proven to be useful. There is not much that can be said in favour of one over the other (Krueger, et.al. 2000). Along with that both of the models have indicated the triggers and inhibitors towards the development of start-ups (Henry, et. al. 2003).

As for this research be focusing on the Theory of Planned Behaviour (TPB) presented by Ajzen in 1991. Pakistan being the test case here, to investigate the validation of theory of planned behaviour, is a developing economy and it has been observed taking theories which have been

tested in developed economies and investigating them as it is in the developing economies can have some repercussions, as due to many environmental factors which have an influence can reduce their explanatory power (Bruno et. al. 2008). However this has been labelled as an assumption rather than a test (Iakovleva et. al. 2011) as the test had investigated TPB in developing economies and results were satisfactory.

The subjects of this research would be the undergraduate and graduate students belonging to business and non-business backgrounds and their entrepreneurial intention would be measured. For this it has been suggested that students with business and economics degree have higher entrepreneurial intention (Karhunen and Ledyaeva, 2010) while others believe that engineering students have higher inclination towards entrepreneurship (Kuckertz and Wagner, 2010).

Cultural norms and values had a modest influence on the entrepreneurial intentions (Pruett et. al. 2009).

Theory of Planned Behaviour:

TPB unlike the other frameworks provide us with more integrated, coherent and applicable approach which assists the researchers to understand and predict the entrepreneurial intention. In addition along with personal this framework takes into account the social factors also (Krueger et. al. 2000). Among all the theories TBP have exhibited the most consistent results thus stand out amongst the others (Autio et. al. 2001, Kolveried et. al. 2007).

As it has already been established that intention is the single best predictor of the planned behaviour. Hence understanding the intentions would be essential to understand the entrepreneurship behaviour. Intention plays a mediating role between the act of initiating a business venture and some exogenous factors. According to TPB, (Ajzen, 1991) these factors include attitudes, perceived behavioural control and subjective norms (Figure 1).

Hence to understand the consequences of intentions we have understand the antecedents of it also. Intention models have been utilized in the areas of social psychology, as well as marketing. As a result, TPB has evolved overtime. TPB outlines three attitudinal antecedents of intention, the attitudes to act, along with social norms and behavioural control which formed the basis of entrepreneurial intention (Autio, et. al. 2001).

Among which two explore the perceived desirability towards performance of intention, personal attitude towards a certain outcome and perceived social norms. However the third

attitudinal antecedents, i.e. perceived behaviour control shed light on the fact that behaviour is controllable (Kruger et al., 2000). We discuss these antecedents in this section.

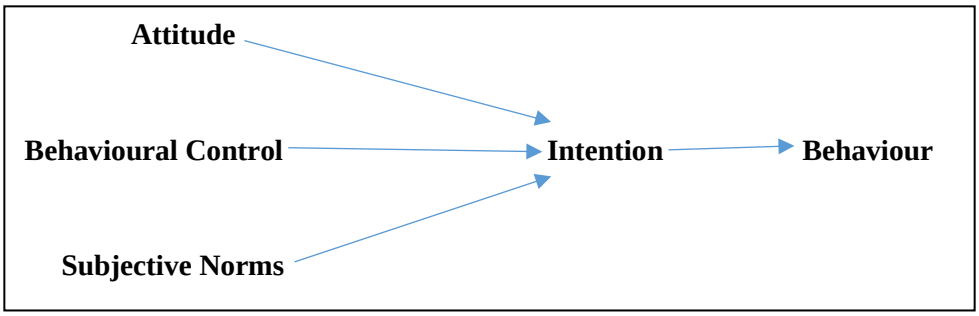


Figure 1: Theory of Planned Behaviour

Attitude:

Intentions predict behaviour and in turn the attitudes assist in prediction of intentions (Ajzen, 1987, 1991). Thus it can be said that intentions have found to mediate the impact of attitudes on behaviour (Bagozzi, 2003).

To define and explain the term attitude Ajzen (1991) states that attitudes towards a behaviour is referred to as the degree to which the person has favourable and unfavourable evaluation towards a specific behaviour. This attitude is dependent on the expectations and beliefs regarding the impact of outcomes, results of the behaviour (Shapero, 1982). Another way to define it is as a difference between the perceptions of personal desirability towards self-employment and desirability towards organisationally employed (Kolvereid, 1996).

According to Linan and Chen (2009), TPB stipulates that determination of attitudes is done by the set of accessible behavioural beliefs which links behaviour to varied outcomes and other attributes. This includes not only the affective one's but also the evaluative considerations.

There are well-developed prediction models of entrepreneurship which employ attitudes (Robinson et. al. 1991). Thus the importance of attitudes cannot be ignored. In some applications it has been accounted that only attitudes have a significant impact on intentions. Attitudes have influenced the behaviours as they impact the intentions. It has been deduced that attitudes along with beliefs and intentions play a role in making a decision regarding careers (Lent et. al. 1994).

Ajzen (1991) in his theory states that attitudes which are observed to play contributing factor in development of intentions are themselves influenced by personality traits and situational

variables. Similarly it was found that attitudes and intentions both are dependent on individual and situation (Krueger et. al. 2000). And because of that where attitude serve as significant antecedent, self-confidence of an individual cannot be ignored (Hamidi et. al., 2008).

Another model that explains entrepreneurial intention, which takes into context SEE and TPB is the model by Luthje and Franke (2003) and this model takes into account the antecedents to attitudes towards self-employment as pointed out by other researchers. These antecedents are the personality traits and have been investigated upon their contribution. It also incorporates the situational factors and their role towards development of entrepreneurial intentions. This model broadly acknowledges the role of both personality and environmental factors (Savickas, 2002).

Personality Traits:

The wide variety of people who turn up start their own business and their journey towards it includes many complex cognitive processes (Nabi et. al. 2009). Much of these cognitive processes define the personality of an individual. Hence personality of an individual has a significant role in preparing them for entrepreneurial behaviour (Knight, 1942) and to an extent explain their entrepreneurial intentions.

Personal characteristics have found to have more significant role in developing intentions as compare to cultural values and society norms (Pruett et. al. 2009). Various personality traits or characteristics are predictable in nature and explain the individual's behaviour and describe why anyone would behave differently in the same situation (Llewellyn and Wilson, 2003).

There are contrary views regarding personality traits as the determinant of entrepreneurial intention. Some researchers have a belief that personality traits like risk taking propensity, locus of control, achievement orientation have a strong impact on entrepreneurial intentions (Shaver, 1995). While another school of thought believes that such traits don't have much significance when making decisions for starting a business (Gartner, 1985).

Luthje and Franke (2003) proposed that personality traits have contribution in development of attitude towards entrepreneurship. The focus was primarily on two traits: Risk Taking Propensity and Locus of Control. It also takes into account the situational factors, however for this research we have taken into account only the personality traits. As compare to other two models LFM is less of the attitude-based one.

As personality traits are considered to possess weak predictive capability to explain entrepreneurial intention hence this is considered to be a weakness in LFM (Nabi et. al. 2010). At the same time these traits are considered to be more stable than beliefs and attitudes, but they cannot be overemphasised while conducting research. Thus to study personality traits with respect to entrepreneurial intentions can be an uphill task.

Locus of Control:

Predominantly there are two kind of factors which bring about self-employment; Push (unemployment, lack of financial resource) and Pull factors (Motivation, Need for achievement). Pull factors plays an important role in driving individuals towards self-employment, especially the one's who have internal locus of control (Orhan and Scott, 2001). Similarly while observing the behaviour of entrepreneurs it has been found that along with other personality traits such as need for achievement and risk propensity, they also score high on locus of control (Rauch and Frese, 2007).

Locus of control is an aspect of personality which is evaluated by researchers with respect to entrepreneurship (Peng et al., 2012). Locus of control explains that where does the individual attribute its success and failures. Whether s/he believes that external environment has a role to play or do they believe that their own efforts and capabilities have caused it. Entrepreneurs typically have 'internal locus of control' meaning they attribute the successes and failures to themselves rather than seeking justifications from the external environment (Luthje and Franke, 2003). Thus personnel with internal locus of control would have a favourable attitude towards entrepreneurship.

Risk-Taking Propensity:

Risk-propensity undertakes willingness to take in action which involves uncertainty regarding the outcomes of actions which can be either positive or negative. The importance of this trait can be evaluated through the definition of entrepreneurship which attribute it to those who take risk (Luthje and Franke, 2003). Entrepreneurial intentions are not only dependent on the dynamic economic environment but it has its roots in the risk-perceiving behaviours (Iakovleva et. al. 2011). Researchers have evaluated that entrepreneurs have risk-propensity higher than that of the managers (Peng et al., 2012).

Some have gone as far as to calling to it the 'hallmark of entrepreneurial personality'. The most famous model which evaluates the personality traits is Big Five Model or Five Factor Model

(FFM), does not entail risk propensity as a characteristic and scholars have divided opinion over risk propensity as a personality trait (Paunonen and Jackson, 1996). Some are of the opinion that risk propensity is combination of the five traits and others believe that it is a sixth trait which is distinct from all the other five (Zhao et al., 2009). Risk propensity is among those personality traits which assist in speeding up the process of entrepreneurial venture and have impact on the risk perception of the individual while deciding (Rauch and Frese, 2007).

However at the same time some believe that this personality characteristic can be detrimental for the continuity of the business venture. It has been said that risk propensity can be a trait which is needed in starting a business venture but at the same time can have negative consequences in the running of business because once the venture has been launched there is a need to manage risk (Baron, 2007). Another slippery slope with risk taking propensity is that an overly stable environment can become an impediment in path of entrepreneurship as such an environment inhibits people from taking risk. Whereas creativity being the cornerstone for entrepreneurship has to be triggered by risk perceiving behaviour (Iakovleva et. al. 2011).

Subjective Norms:

Entrepreneurs work and function in the social environment (Stephan and Uhlaner, 2010) and they cannot be isolated from social influences. Subjective Norm the second antecedent from TPB has a social factor incorporated into it. This antecedent refers to the perceived social pressures towards performance of a behaviour or inhibition of a certain behaviour (Ajzen, 1991) or in other words social pressure to perform or not to perform the entrepreneurial behaviour.

Subjective Norms consists of two parts: normative beliefs and a motivation to agree with these beliefs (Ajzen and Fishbein, 1980). Normative Beliefs is based on that fact that an important individual or group approves or rejects particular behaviour hence setting forth the norm of how the concerned subject should behave. On the other hand the motivation to comply with the given behaviour depends on the urge the person experiences to behave in a certain manner. This could either push them forward or inhibit them from taking actions. Thus Subjective Norm outlines the perception that people around would approve or disapprove of the decision to pursue entrepreneurship (Ajzen, 2000; Linan and Chen, 2009).

Various societies have varied norms and what really constitutes as acceptable or unacceptable differs from culture to culture (Pruett et. al. 2009). Some studies have concluded that Subjective Norms have a noteworthy impact on the intentions (Kolveried, 1996; Kolveried and

Isaksen, 2009). While other believe that a varying effect has been observed across various countries (Linan and Chen, 2009).

Subjective Norms which is a combination of beliefs and motivation have found to be a significant predictor (Iakovleva et. al. 2011). However they become less predictive when dealing with individuals who have high internal locus (Ajzen, 1987) or have greater strength in orientation towards taking an action (Bagozzi, et. al. 1992).

The individual's subjective norms are influenced by the expectations of those who are close or hold higher value in life (Krueger, 1993). These include parents, friends, close relatives, colleagues or any such people whose expectations are obeyed by individuals. Some researchers have labelled the influencers as the role models or the mentors and to clearly identify what is impact of such role models on individual's decision making, there is a need that an analysis should be carried out regarding the network members and their social norms or values (Shapero, 1982).

This antecedent deals with the perceptions, of the people important to individual and what their thoughts are regarding a particular behaviour. In this instance the behaviour is their career choice, specifically related to entrepreneurship. These are the normative beliefs and are weighted against the motivation to comply with them (Krueger, Reilly and Carsrud, 2000).

On one hand it is suggested that perceived social norms may mediate or moderate the impact of attitudes on the intentions (Reitan, 1997), or have a positive influence on entrepreneurial attitude and self-efficacy (Peng et. al. 2012) hence further effect the entrepreneurial intentions. While on the other hand some insist upon that social influences do have a direct impact on entrepreneurial intentions (Dubini and Aldrich, 1991).

Behavioural Control:

This construct in theory of planned behaviour is referred as the ease or difficulty of performing a behaviour. It takes into account past experiences as well as anticipates the future impediments that an individual will face (Ajzen, 1991).

Construct of Behavioural Control, overlaps with that of Bandura's (1986) concept of self-efficacy. Self-efficacy entails initiation and continuation of a certain behaviour under the uncertain conditions. It also includes ambitious goal setting while mitigating threat. It can be improved and enhanced through exposure (Bandura, 1982). On other places self-efficacy is referred to as the perceived ability to execute a target behaviour and the individuals scoring

high on this construct often attribute setbacks to be learning experiences rather than declaring them a failure. (Ajzen, 1987).

In previous researches on entrepreneurship self-efficacy has been found to play pivotal role in self-employment intentions (Scherer et. al. 1989). It has also been associated with opportunity recognition and risk-taking (Krueger and Dickson, 1994) which are necessity ingredients in entrepreneurial ventures. Moreover it is believed that self-efficacy not only develops entrepreneurial intention but also have significant role in forming a business in future (Boyd and Vozikis, 1994).

There have been some researchers often have ignored the importance of self-efficacy in prediction of behaviours, but its importance can be deduced from the fact that in some instances it has been found that role models relationship with entrepreneurial intention is mediated through self-efficacy (Krueger, Reilly, Carsrud, 2000).

Individual's self-efficacy related to planning and implementing entrepreneurial initiative leads the path towards the judgements made regarding the feasibility of the business plan (Krueger and Brazeal, 1994).

Entrepreneurship Education:

Growing popularity in entrepreneurial education at university level is noteworthy and statistics have proven that there has been profound growth in the number of students opting for such education thus having inclination towards self-employment (Piperopoulos, 2012). To increase the supply of entrepreneurs there is a need to encourage entrepreneurship specific education (ESE), and giving orientation to students to tolerance towards failure (European Commission, 2012).

It has long been debated that whether education has any effect on entrepreneurship or not. Many researches have made this question their subject of their work and found that Entrepreneurship Education has a positive impact on the student's entrepreneurial intentions (Pittaway and Cope, 2007) and that entrepreneurship education can improve the quality and quantity of entrepreneurial activities taking place (Matlay, 2006). Researchers in UK and USA have deduced that entrepreneurship education results in intention to be self-employed and own a business venture (Vesper and Gartner, 1996).

Entrepreneurship education not only develops intention but also impacts that current behaviour and attitudes (Kolvereid and Moen, 1997). This is done as courses related to entrepreneurship

play a role in reducing the attitudinal barriers, hence increasing individual's inclination towards entrepreneurship (Solesvik, 2013). Not only the barriers are reduced, entrepreneurship education being taught in educational institutes develops the culture of entrepreneurship and encourage new ventures. All of this leads to development of entrepreneurial intentions (Kuratko, 2005).

TPB which is the main theory of this research project is also effected by acquiring education. It is said that, three antecedents in theory of planned behaviour (attitudes, subjective norms and behavioural control) can be influenced by the academicians and can be favourably altered by exposing them to entrepreneurship education (Robinson et. al. 1991).

However to an extent a consensus has been formed that the effect of Entrepreneurship Specific Education (ESE) on entrepreneurial intention very much depends on the ways it has been taught; how is it taught and where is it taught (Dohse and Walter, 2012). In 1990's the effectiveness of entrepreneurship was being questioned, however entrepreneurship was taught long before that. And that is when the academicians and policy makers started to shift their focus from a specialist view and theoretical approach to practical realities of business world hence developing a link between theory and practice (Leitch and Harrison, 1999).

Not only the content and syllabus has been revised over the period of time singular course offered has now increased to multiple, diverse courses being offered at different levels in vast number of universities in US (Charney and Libecap, 2000) and around the world. These courses helps in acquisition of human capital assets which would be required if they opt for self-employment (Matlay, 2011). Entrepreneurship Education, also referred as the Graduate Entrepreneurship, involves the students to make practical use of acquired assets by practicing skills related to developing business plans (Nabi and Holden, 2008).

Educational institutions and entrepreneurship education is more developed in Western world and the policy makers in developing economies have to concentrate on creating awareness among the students regarding the subject matter and focus on innovation-driven entrepreneurship (Iakovleva et. al. 2011). Similarly strategy formulation is required for education in entrepreneurship. There are various facets of entrepreneurship education which can be explored and worked upon. For instance there is type of entrepreneurship education programmes (awareness raising or education for start-up), the contents of programme, teaching methods and approaches (case studies, role-models, lectures). It depends on the environment, capacity and requirement what combination of methods are used (Nabi, et. al. 2010)

It has been proposed that entrepreneurship programmes provide three different kinds of benefits: Learning, inspiration and incubation resources (Souitaris, Zerbinati & Al-Laham, 2007). Learning caters to the knowledge part of entrepreneurship which students acquired during a programme. Inspiration is a certain feeling of impulse which can be triggered through any person or idea and found to be the most important factor influencing students towards self-employment. Lastly entrepreneurship programmes assist in building a pool of resources related to technology, research and networking. These resources can be accessed as students are exposed to entrepreneurial training.

Specialised training and courses in entrepreneurship would equip students with adequate knowledge and build their confidence which they would require in commencement of their business (Dyer, 1994). Education related to entrepreneurship has also been found to have impact on individual's self-efficacy (Zhao et. al. 2005). It builds confidence in one self to initiate the process of entrepreneurial venture. Exposure to entrepreneurship specialised education can improve the perceived feasibility for self-employment, by building on the knowledge of the students, enhancing self-efficacy and boosting confidence on oneself (Krueger an Brazeal, 1994).

The formal education acquired in lecture halls is insufficient to produce entrepreneurs (Mua'az et. al. 2011). Hence to improve the entrepreneurial learning process and making it more efficient, there is need to incorporate practical outlook of entrepreneurship in teaching modules (Romero, 2013). University students should be promoted for starting their own business by providing them quality entrepreneurial education, training related to entrepreneurial skills, and development of overall supportive atmosphere (Peng, et. al. 2012).

General Education:

Graduate Enterprise or the Enterprise Education underpins the broader concept of learning set of life skills for starting a business. Here the students enrolled in graduate programmes are undergoing the process where they prepare themselves for owning a business one day, irrespective of which discipline they belong to. Through their education they are polishing their various skills like coping with stress, or enhancing creative and non-linear thinking (Nabi and Holden, 2008). Due to its nature of training the students to become entrepreneurs, enterprise education is often confused with entrepreneurship education. Enterprise education can enhance entrepreneurial intentions. Not only this, it assists on building knowledge and skills, which can be utilised in overcoming the barriers to enterprise (Davey et. al. 2011; Jones et. al. 2011).

The assumption has been investigated that Higher Education plays a vital role in development of entrepreneurial intention as it equips the students with desired skills and capabilities for initiating a start-up (Galloway and Brown, 2002). It has been deduced from an empirical research in Ukraine and Russia that those entrepreneurs who have not undergone enterprise education have a lower level of entrepreneurial competencies as compare to those who have acquired the knowledge (Iakovleva et. a. 2013)

Theoretical Framework

Based on the review of the literature regarding the entrepreneurial intention and subsequent theories, it is concluded that Theory of Planned Behaviour (TPB) best explains the entrepreneurial intention which predicts entrepreneurial behaviour among individuals. In this research the individual are students of university both graduate and post graduate, belonging to different disciplines (management and engineering). TPB forms the foundation of this research which is coupled with educational factors.

TPB has three main antecedents which feed into the entrepreneurial intention. These factors are also incorporated into the theoretical framework of this research. Firstly personal attitude of an individual develops the entrepreneurial intention of the students.

H1: Favourable attitude towards entrepreneurship is positively related to the entrepreneurial intention.

Luthje and Franke (2003) pointed out that attitude of an individual is determined by the personal characteristics and among them Locus of Control and Risk Taking Propensity.

H2: High risk propensity among students is positively related to attitude towards entrepreneurship

H3: Individuals with internal locus of control is positively related to attitude towards entrepreneurship.

Second antecedent of TPB Subjective Norm is described as the influence of important personnel on the individual's decision making regarding the career choice.

H4: Subjective Norms are positively related to the entrepreneurial intention.

Thirdly the perceived Behavioural Control described as the individual's self-efficacy and confidence in one's abilities determines whether or not a person choses entrepreneurship as a career.

H5: Higher perceived behavioural control is positively related to the entrepreneurial intention.

Coupled with TPB in this research is the factor of education, both general and entrepreneurship specific, and its effect in developing the individual's intention towards self-employment.

H6: Entrepreneurship education has a positively related to the entrepreneurial intention.

It has been suggested by literature that education specific to entrepreneurship when given raises the confidence in one's abilities and improves the self-efficacy.

H7: Effective entrepreneurship education is positively related to perceived behavioural control.

Apart from entrepreneurship specific general education provided to students assists in developing the mind-set of the individual towards entrepreneurship. This education determines the culture in which the student mind is evolved and behaves accordingly.

H8: University education urging creativity and critical thinking is positively related to entrepreneurial intention.

Theoretical Model:

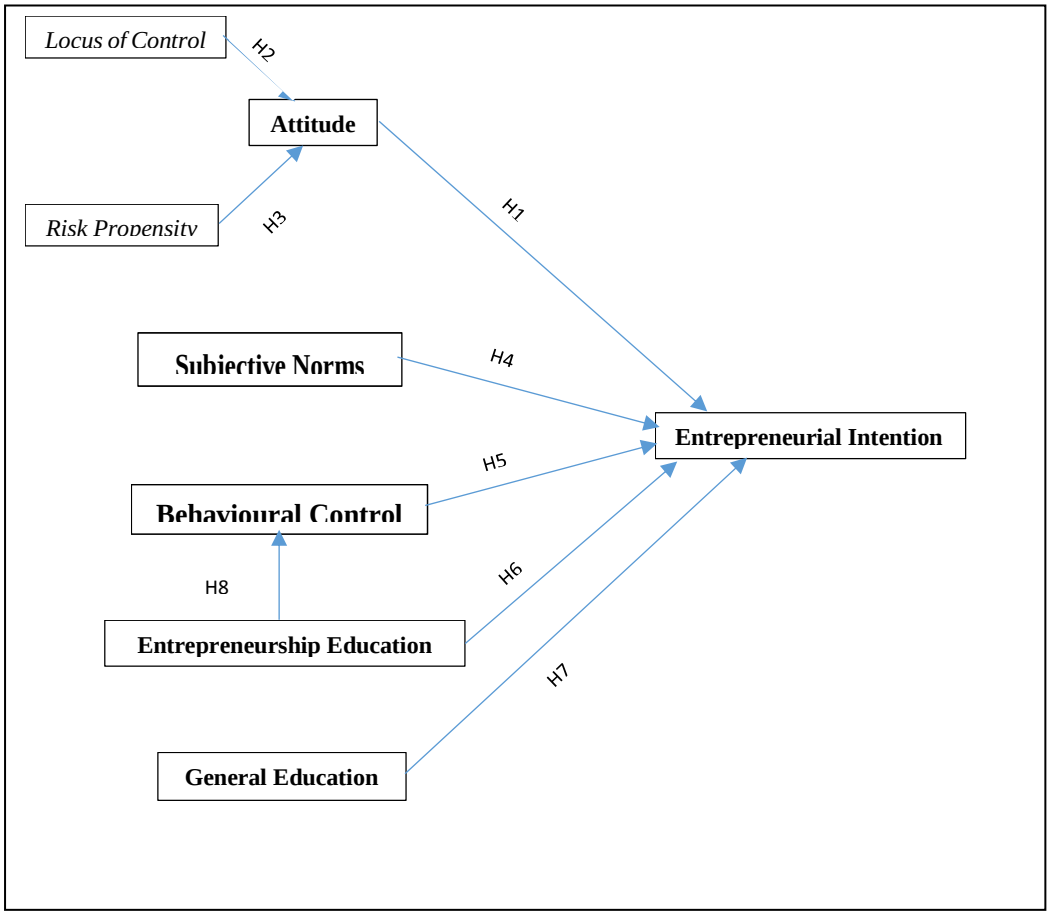


Figure 2: Theoretical Model for this study

CHAPTER 3

Research Methodology

This is a quantitative research where with the help of Structural Equational Model (SEM) we are trying to prove that antecedents of Theory of Planned Behaviour and education plays a role in developing the entrepreneurial intention of the university students.

Structural Equation Model a statistical technique in a cross-sectional study uses factor analysis, path analysis and regression to analyse the quantitative data and derive results from it. In this technique focused majorly on the confirmatory analysis rather than exploratory one. The main aim of SEM is that whether or not the data that has been collected proves the model based on the theory. Causal arrows between the variables cannot be drawn as the specified model and the relationships have to base upon or driven from theory. Following are the initial steps in SEM:

- Specify the model: Here the model is formally designed along with statements regarding the parameters and variables. In this research the model has its foundation in Theory of Planned Behaviour (TPB) coupled with role of education in developing entrepreneurial intention. Thus the variables are antecedents of Theory of Planned Behaviour; Personal Attitude, Subjective Norms and Behavioural Control along with Entrepreneurship Education and General Education.
- Identification of model
- Measure selection and Preparation of data: The items or measures are selected from prior researches which explain the independent variables. After the questionnaire is developed it is distributed among the students to collect the data.
- Estimation of model: Here the statistical software, SPSS and SmartPLS are used to analyse the data collected running various tests.

A critical characteristic of SEM is the relationship that is developed between the latent variables and observable variables. Here the latent variables cannot be explained themselves hence they are analysed with the assistance of observable variable. The latent variables are also known as the ‘constructs’. Furthermore the SEM can be categorised into measurement model and structural model.

Measurement Model:

This explains the relationship between the latent variables and observable variables. As explained the latent variables also known as the unobservable variables, they have to be explained with the help of observable variables. This model is also known as the 'Outer Model'.

In case of this research there were eight latent variables and fifty-three observable variables. The latent variables were: Risk to propensity, Locus of Control, Personal Attitude, Subjective Norms, Behavioural Control, Entrepreneurship Education, General Education and Entrepreneurial Intention.

In measurement model exploratory factor analysis as well as confirmatory factor analysis. Factor analysis is carried out confirm which observable variables combine together and explain the latent variable. The exploratory factor analysis (EFA) or Principle Component Analysis (PCA), is carried out on SPSS however the confirmatory factor analysis is done on SmartPLS.

The measurement model is further divided into reflective and formative model. In formative model the arrow of observable variable point towards the latent variables and items are such that they capture the latent variable in its entirety. Thus dropping an item or indicator changes the meaning latent construct.

On the other hand, reflective model is the one where the arrow points away from the latent construct hence the causality is from the construct to measure. In this case dropping the indicator would not change or alter the meaning of the construct, thus any omission or substitutions of items could be done. In this research reflective measurement model has been used because none of the observable variables are exhaustive and their omission or substitution would not alter the latent construct. The observable variables have identified from the previous researches and their significance is tested further by conducting exploratory and confirmatory factor analysis.

Structural Model:

This model also known as the 'inner model' where the variables are categorised into dependent and independent variables. Independent variables (exogenous variables) are the ones which are standalone and they are not presumed to be caused by other variables. However the dependent

variable (endogenous variable) are the ones which are explained with respect to independent variables. They are assumed to be caused by the other variables.

In this research the independent variables are Locus of Control and Risk Taking Propensity which are moderated by Attitude. Other independent variables are Subjective Norms, Behavioural Control, Entrepreneurship Education and General Education. There is only one dependent variables which is Entrepreneurial Intention.

The statistical tests are carried on structural model using SmartPLS. PLS algorithm and Bootstrapping are carried out on the data. This two tests would confirm if the structural model holds significance or not.

Questionnaire:

As the third step of SEM states the collection of measures, the questionnaire developed for this research had 53 items. These measures were for the eight variables and they had been collected after conducting literature review.

The questionnaire had two parts, where the first part consisted of questions related to demographics, consisting of questions related to gender, age, degree being pursued, majors in university, CGPA, entrepreneur in family and whether they have studied entrepreneurship in university or not.

The second part consists of question related to the eight variables. These questions are the observable variables (items). They are on the 5-point likert-scale (ranging from 1=Strongly Disagree to 5=Strongly Agree). Likert scale is considered to be relevant for measuring behavioural intentions and attitudes (Kim, 2008).

Following are the items and from where they had been collected from:

Table 1: Items for questionnaire and source

Variables	No. of Items	Resource
Locus of Control	2	Luthje and Franke (2003)
Risk Taking Propensity	3	Luthje and Franke (2003)
Personal Attitude	5	Chen and Linan (2009)
Subjective Norms	3	Chen and Linan (2009)
Behavioural Control	6	Chen and Linan (2009)

Entrepreneurship Education	7	Franco, Hase and Lautenschlager
General Education	21	Mayhew, Simonoff, Baumol, Weisenfeld and Klein (2012)
Entrepreneurship Intention	6	Chen and Linan (2009)

Some of the questionnaire were self-administered (business school) and some responses were collected online (mostly engineering students). (Appendix 1)

Sample:

The sample size for the research is 345, where all the respondents were students broadly from business, accounting and finance and engineering. Students also belonged to various degree levels from graduate students to post graduate students.

Pilot Testing:

Once the questionnaire was developed online responses were gathered for the pilot testing. This was done to evaluate understanding and clarity of the questions posed. So that there is no ambiguity once the data is collected for main study. Based on the results the language of the questions were adjusted.

CHAPTER 4

Results

Pilot Study:

19 responses were collected online from graduate student with the purpose of checking the clarity of question statements. Among the respondents 16 (84.2%) were female and 3 (15.8%) were male. 14 (73.7%) of them belonged to age bracket 25-29 and 5 (26.3%) belonged to age bracket 21-24. There were only 2 students who had a non-business background, while others had business background.

9 (50%) students had entrepreneur in their family and another 50% did not have any entrepreneur in their family. 18 (94.7%) respondents had studied entrepreneurship in university while there was only one respondent who had not.

For some of the questions response for lack of clarity was reported but because majority of the respondents have answered the questions, the statements were not changed. For example for the question 'Among various other options, I'd rather be anything except an entrepreneur' there were only 2 respondents to whom the question was unclear, rest of 17 respondents had answered the questions.

Descriptive:

Following tables explain the descriptive for this study:

Table 2: Statistics

		Gender	Age	Degree	CGPA	Do you have entrepreneur in your family	Have you studied entrepreneurship
N	Valid	344	345	345	320	344	345
	Missing	1	0	0	25	1	0

Table 3: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	159	46.1	46.2	46.2
	Female	185	53.6	53.8	100.0
	Total	344	99.7	100.0	
Missing	System	1	.3		
Total		345	100.0		

Table 4: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	.6	.6	.6
	17	3	.9	.9	1.4
	18	33	9.6	9.6	11.0
	19	51	14.8	14.8	25.8
	20	41	11.9	11.9	37.7
	21	26	7.5	7.5	45.2
	22	39	11.3	11.3	56.5
	23	57	16.5	16.5	73.0
	24	40	11.6	11.6	84.6
	25	28	8.1	8.1	92.8
	26	14	4.1	4.1	96.8
	27	4	1.2	1.2	98.0
	28	4	1.2	1.2	99.1
	29	2	.6	.6	99.7
	46	1	.3	.3	100.0
	Total	345	100.0	100.0	

Table 5: Degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undergraduate Business	172	49.9	49.9	49.9
	Postgraduate Business	115	33.3	33.3	83.2
	Undergraduate Non Business	58	16.8	16.8	100.0
	Total	345	100.0	100.0	

Table 6: Do you have entrepreneur in family

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	162	47.0	47.1	47.1
	Yes	182	52.8	52.9	100.0
	Total	344	99.7	100.0	
Missing	System	1	.3		
Total		345	100.0		

Table 7: Have you studied entrepreneurship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	144	41.7	41.7	41.7
	Yes	201	58.3	58.3	100.0
	Total	345	100.0	100.0	

Measurement Model:

We used the measurement model to assess the reliability and validity. Principal component analysis with varimax rotation was used to test the initial survey items' loadings on different factors. The criterion used in the analysis was a factor loading greater than 0.5 and Eigen values greater than 1.0 (Tabachnick & Fidell, 2007).

The PCA or Exploratory Factor Analysis was run on SPSS software and following were the results.

Table 8: Result of Principle Component Analysis

Items	***1***	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	11
SN1							.729				
SN2							.759				
SN3							.720				
BC1						.520					
BC2_R						.646					
BC3						.586					
BC4						.539					
BC5_R						.597					
BC6						.512					
PA1		.799									

PA2		.676									
PA3_R		.558									
PA4		.802									
PA5		.690									
RTP1									.763		
RTP2									.664		
RTP3									.655		
LoC1										.646	
LoC2										.708	
EI1		.740									
EI2		.745									
EI4		.723									
EI5		.810									
EI6_R		.560									
GE1_CI								.696			
GE2_CI								.705			
GE3_CI								.591			
GE4_INNO				.718							
GE5_INNO				.709							
GE6_INNO				.734							
GE7_INNO				.683							
GE8_EXTRA					.845						
GE9_EXTRA					.830						
GE10_EXTRA					.864						
GE15_E&A			.589								
GE16_E&A			.624								
GE17_E&A			.687								
GE18_E&A			.648								
GE19_E&A			.741								
GE20_E&A			.746								
GE21_E&A			.671								
EE1	.935										
EE2	.929										
EE3	.952										
EE4	.960										
EE5	.960										
EE6	.954										
EE7	.938										

The table shows all the items that have been loaded and have the value higher than that of 0.5. There were some items which did not load thus they had to be dropped. Items from

Entrepreneurial Intention (EI3) and General Education (GE11, GE 12, GE13, and GE14) were dropped as did not load. Thus items were reduced from 53 to 48.

Another important factor that can be observed from the PCA is the division of variable General Education (GE). At the start of the study the variable GE was considered as one variable, however when PCA was run the variable did not load as single factor, it was loaded as four different components. Thus by viewing those questions there was a common factor among those which were grouped together. For instance GE1, GE2 and GE 3 were related to challenging ideas presented by faculty, thus named these three items were labelled as GE_CI (Challenging Ideas), items GE4, GE5, GE6 and GE7 were related to stimulating innovation among the students thus labelled as GE_Innov (Innovation), similarly items GE8, GE9 and GE10 were discussing the extra-curricular activities held in educational institutes, hence labelled GE_Extra (Extra-Curricular), lastly the items related to exams and assignments conducting in educational institutes were grouped together so they were labelled GE_E&A (Exams and Assignments).

Table 9: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.870
Bartlett's Test of Sphericity	Approx. Chi-Square	9527.297
	df	1128
	Sig.	.000

The KMO and Bartlett's test measures how much the data is suited for the Factor Analysis. KMO values from 0.8 to 1 indicates that the sample or data is adequate. The value for this sample is 0.87 hence this data is adequate for factorial analysis.

Now the confirmatory factor analysis is carried out on SmartPLS through PLS Algorithm. Multiple values are evaluated in this step for reflective measurement model. Initially we look at the coefficient of determination R^2 as an explanation of target endogenous variable variance. Locus of Control (LoC) and Risk Taking Propensity (RTP) explain 12. 5% variance in Personal Attitude. Personal Attitude (PA), Subjective Norms (SN), Behavioral Control (BC), Entrepreneurship Education (EE) and General Education (GE) explain 57.9% of variance in Entrepreneurial Intention which is moderate R^2. Finally Entrepreneurship Education has an R^2 of 0.011, hence only explains 1.1% of behavioural control.

The inner model path coefficient, also known as Beta, explains how strong or weak of an effect the one variable has on another variable. This also helps us rank the relative statistical importance. RTP moderately effects PA (0.275), as well LoC (-0.189) but this is an indirect relationship with PA. Both of the hypothesized path relationship is statistically significant. SN and EE both have a path coefficient lower than 0.1 (SN:0.038 and EE:0.007), thus the hypothesized path relationship with EI does not hold significance. The path coefficients of BC to EI is strong as it is higher than 0.1, i.e. 0.216 and EE path coefficient to BC is moderate that of 0.105, thus both of them are statistically significant. Coming to the variable of GE, all four of them GE-CI (-0.04), GE_Inno (0.021), GE_Extra (0.063) and GE_E&A(0.049) have their path coefficients lower than 0.1 thus do not hold to be significant and do not predict EI.

Now the third aspect of PLS Algorithm is the Outer Loadings which are to confirm loadings and the values are to be higher than 0.5

Table 10: Outer Loading (PLS Algorithm)

Items	**Outer loadings**
RTP1	0.565
RTP2	0.779
RTP3	0.848
LoC1	0.876
LoC2	0.656
PA1	0.886
PA2	0.809
PA3_R	0.686
PA4	0.855
PA5	0.782
SN1	0.851
SN2	0.736
SN3	0.803
BC1	0.674
BC2_R	0.687
BC3	0.726
BC4	0.706
BC5_R	0.553
BC6	0.55
EE1	0.945
EE2	0.992
EE3	0.986
EE4	0.954
EE5	0.961
EE6	0.961

EE7	0.958
GE1_CI	0.803
GE2_CI	0.902
GE3_CI	0.509
GE4_Inno	0.733
GE5_Inno	0.815
GE6_Inno	0.904
GE7_Inno	0.802
GE8_Extra	0.922
GE9_Extra	0.896
GE10_Extra	0.876
GE15_E&A	0.647
GE16_E&A	0.668
GE17_E&A	0.665
GE18_E&A	0.753
GE19_E&A	0.636
GE20_E&A	0.767
GE21_E&A	0.788
EI1	0.748
EI2	0.818
EI4	0.841
EI5	0.884
EI6_R	0.582

Reliability:

For measuring internal consistent reliability we look at the Composite Reliability and Cronbach Alpha. The value for Cronbach Alpha should be higher than 0.7 for ted at to be consistently reliable.

Table 11: Internal Consistent Reliability

Items	Composite Reliability	Cronbach Alpha
BC	0.8153	0.7307
EI	0.8824	0.8306
EE	0.9851	0.9829
GE_CI	0.7926	0.6914
GE_E&A	0.8725	0.851
GE_Extra	0.9261	0.8818
GE_Innov	0.888	0.8399
LoC	0.7451	0.3475
PA	0.8986	0.8579
RTP	0.7801	0.6151
SN	0.8396	0.7158

From the table we can see that for GE_CI (0.69), LoC (0.34) and RTP (0.61) have values lower than 0.7 so for that we look at the composite reliability which should also be 0.7 or higher so for GE_CI it is 0.79, for LoC it is 0.74 and for RTP it is 0.78. Thus the data has internal consistent reliability.

Validity:

Two test are evaluated one for convergent validity and second for discriminant validity. For convergent validity we look at the AVE numbers, which are as following:

Table 12: Convergent Validity

Items	AVE
BC	0.4268
EI	0.6042
EE	0.9044
GE_CI	0.5725
GE_E&A	0.496
GE_Extra	0.8069
GE_Innov	0.6658
LoC	0.5987
PA	0.6412
RTP	0.5484
SN	0.6365

The AVE numbers should be 0.5 or higher for the validity test. Except item BC (0.42) and GE_E&A (0.49) which is close to 0.5 others AVE numbers are higher than 0.5.

For discriminant validity the Fornell and Larcker (1981) suggests that the square root of AVE of each latent variable should be higher than correlations among latent variables.

From the given table we can observe that all the AVE numbers (in bold) of the latent variables are larger than the correlations of the latent variables.

Table 13: Discriminant Validity

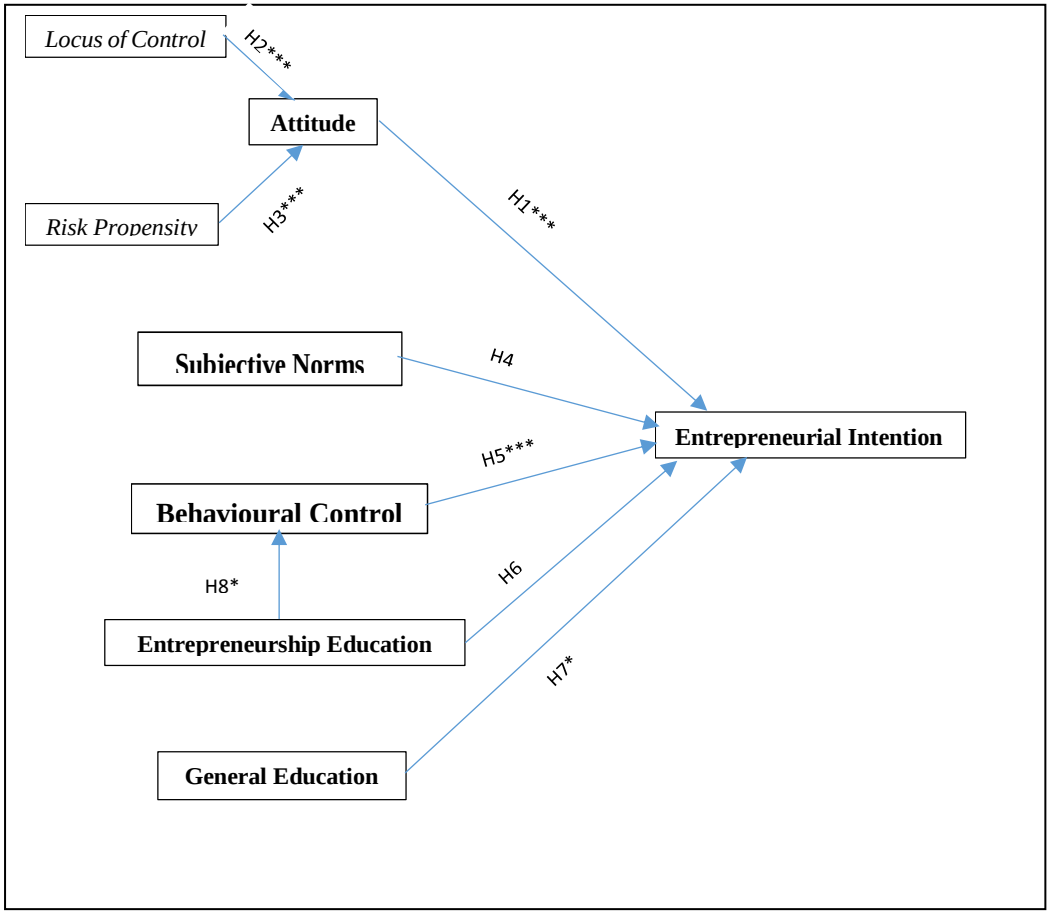
Items	BC	EI	EE	GE_CI	GE_E&A	GE_Extra	GE_Inno	LoC	PA	RTP	SN
BC	**0.65**	0	0	0	0	0	0	0	0	0	0
EI	0.53	**0.77**	0	0	0	0	0	0	0	0	0
EE	0.10	0.04	**0.95**	0	0	0	0	0	0	0	0
GE_CI	0.11	0.08	0.01	**0.75**	0	0	0	0	0	0	0
GE_E&A	0.10	0.09	0.11	0.31	**0.70**	0	0	0	0	0	0
GE_Extra	0.17	0.27	0.07	0.09	0.23	**0.89**	0	0	0	0	0
GE_Innov	0.07	0.10	0.20	0.41	0.49	0.36	**0.81**	0	0	0	0
LoC	-0.19	-0.13	-0.01	0.004	0.11	-0.05	0.08	**0.77**	0	0	0
PA	0.49	0.72	0.009	0.10	0.01	0.25	0.04	-0.22	**0.80**	0	0
RTP	0.37	0.33	0.02	0.10	0.01	0.27	0.09	-0.12	0.29	**0.74**	0
SN	0.29	0.33	-0.05	0.20	0.08	0.11	0.07	-0.10	0.39	0.26	**0.798**

Structural Model:

Now we come to inner model where we have to evaluate the dependent and independent variables. Here we will look at the t-values for the acceptance or the rejection hypothesis. The t-values are taken with respect to the degree of freedom (df), which in this case would be sample size-1 (345-1=344). For this the t-values at 90% significance level is 1.648, 95% significance level is 1.965 and 99% significance level is 2.586.

To obtain the t-values bootstrapping is being run on SmartPLS. For RTP-PA the t-value is 4.821 thus standing at 99% significance level, hypothesis accepted. For LoC-PA the value is 3.385 have 99% significance level and hypothesis accepted. Relationship between PA-EI has t-value 13.659 which is again higher 99% significance level. T-value for subjective norms is 0.729 which is even lower than t-value for 90% significance level hypothesis for SN-EI has been rejected. Relationship BC-EI has the t-value of 4.734, higher that 99% significance level and hypothesis accepted. EE-EI hypothesis is rejected as t-value 0.267 lower than 90% significance level, however hypothesis where BC plays a moderating role between EE and EI get accepted as t-value for EE-BC is 1.799 more than 90% significance level.

For the General Education variable we observe that GE_Extra-EI has the t-value for 1.835 standing at 90% significance level. But GE_E&A has the t-value for 0.69 which is lower than 90% significance thus hypothesis rejected.



*Hypothesis accepted 90% and higher
**Hypothesis accepted 95% and higher
***Hypothesis accepted 99% and higher

Note: For the adjustment of the model GE_Innov and GE_CI had been dropped to make the theoretical framework stable. (Appendix 3)

CHAPTER 5

Discussion

This cross-sectional study was carried out with the aim to diagnose entrepreneurial intention and its antecedents. The study was carried out on university students to evaluate their intentions and what are the factors that shape their intentions. It is necessary to know hoe students behave and which elements motivates the students to behave in a certain manner and in this case develop an entrepreneurial intention. It is necessary because if a country has to ensure that graduate not only not only get employed but become a source of employment, then they have to ensure the educational policies get aligned with it and educational institute provide a conducive environment and adequate educational infrastructure to support the policies resulting in fulfilling of the agenda set by HEC and government.

There were three antecedents to entrepreneurial intention taken from TPB (Ajzen, 1991), personal attitude, subjective norms and behavioural control. This was combine with educational factor, both entrepreneurship specific education and general education. Other than this personality traits, risk propensity and locus of control (Luthje and Franke, 2003) served as antecedents of personal attitude. In other words it can be said that personality traits effect entrepreneurial intention moderated by the factor of personal attitude.

From the results we have seen that personal attitude does positively affect entrepreneurial intention. Thus attitudes which are said to be dependent on expectations regarding the outcomes (Shapero, 1982). Many theorists have gone as far as claiming that attitudes become the single most critical factor in developing behaviours. Hence the role of attitudes in making career decision cannot be ignored. This study backs the fact attitudes of students have a role to play in developing a positive entrepreneurial intention. A positive attitude towards entrepreneurship as a career and highlighting favourable outcomes would lure the students towards opting for self-employment. Here the teachers and academicians when designing courses and should focus on attitudinal development of students which would raise students intention and hence result in entrepreneurial behaviour.

However while discussing attitude we cannot ignore the antecedents which shape the attitudes and these are the personality traits. Both of the personality traits risk taking propensity and locus of control were found to have positive relationship in building positive attitude. Thus this

research aligns with the school of thought which believes that personality traits have an effect on entrepreneurial intention stating that entrepreneurs are born (Shaver, 1995). Risk propensity or being open to risk has long being associated with entrepreneurs thus often considered as a necessity for pursuing entrepreneurship. This research do support the statement that risk propensity develops favourable attitude which leads to development of entrepreneurial intention. Thus it can be interpreted that in our society where failure is not supported and being risky becomes necessary trait for entrepreneurs. As only those who can bear the losses and withstand the psychological pressure for facing impediments while initiating a process only those people can have an inclination towards self-employment. Secondly creativity is stimulated by risk taking behaviour (Iakovleva et. al. 2011) thus it develops an attitude and forms foundation for entrepreneurship.

Locus of Control having positive effect on entrepreneurial intention moderated by attitude helps us in understanding that those who confidence in one own-self would be able to start their own business. Higher the internal locus of control, more confident would be an individual, less effected by the external environment thus more strong and capable to tackle the complexities of starting a business. All of this would develop the favourable attitude which further forms entrepreneurial intention. Thus we can conclude that internal locus of control is needed for entrepreneurial intention, however external locus of control would not being able to move ahead as they would likely be entangled in blaming and not be able to focus.

An interesting finding was when hypothesis related to subjective norms effect on entrepreneurial intention was rejected. Subjective norms outline the perception that people around would approve or disapprove of the decision to pursue self-employment (Ajzen, 2000). It is considered to be an antecedent of entrepreneurial intention, however this study proves to be otherwise. It rejects that subjective norms effect the entrepreneurial intention. There can be many reasons. By evaluating the literature we observe that various societies behave in varied manner and different culture have different norms (Pruett et. al. 2009) so going by that Pakistani culture defy the effect of subjective norms. However we will be careful while making that statement and generalizing the results, but we say that the sample taken belong to mostly urban area where the cultural norms are different and they might not have an impact on intention. Another observation by previous literature suggests that subjective norms become less predictive when dealing with individuals of having high internal locus (Ajzen, 1987). This can be a possibility in this case, as locus of control had a positive relationship with

entrepreneurial intention. This is a possibility that sample exhibits higher internal locus of control and greater orientation towards taking an action.

Coming towards the third antecedent where the behavioural control, the concept driven from Bandura's (1986) self-efficacy. Individuals high on this factor are ambitious, and confident that they can execute the target behaviour. The study also proves that it positively effects entrepreneurial intention. The students who rank higher on this factor will be more inclined towards entrepreneurship. It is because more the one perceives that they can execute the target behaviour, more likely they would be looking towards ways to solve the problems that come in their way. Hence they would not get hassled by the impediments and have positive outlook towards the problems. Hence there is a need that students should be trained and supported to look at problems as opportunity. This would enhance their behavioural control and self-confidence.

Now coming towards debate of 'nature versus nurture' with regard to entrepreneurship. There are school of thought that entrepreneurship can be taught and while teaching courses related to entrepreneurship can raise the intention towards self-employment (Solesvik, 2013). However in this study it has been found that entrepreneurship specific education (ESE) is not a predictor of entrepreneurial intention directly, but it effects intention with behavioural control moderating this relationship. Hence it can be said that giving ESE would raise the self-efficacy among the individuals making them more confident and ambitious towards pursuing their own business and building something from scratch.

Another aspect could be that by exposing the students to entrepreneurial education would build their knowledge base and equip them with information regarding pursuing entrepreneurship as career. This would remove many misconceptions related to starting a business, in addition to this having knowledge of what to do and how to do it would enhance the confidence, thus boosting behavioural control which would in turn positively affect entrepreneurial intention and likely result in entrepreneurial behaviour. Now academicians can take a note that they if they have to arouse the entrepreneurial intention and build a behaviour which is favourable for self-employment, they should focus on giving sound education related to entrepreneurship.

Finally towards general education, a variable which behaved in a different manner in this study. This single variable which loaded as four different variables amongst those four only single variable became a predictor to entrepreneurial intention. All the other related to Challenging Ideas (CI), Innovation (Innov.), Exams and Assignments (E&A) were rejected and dropped.

Only Extra-Curricular Activities was accepted. Hence proven that the education which entails extra-curricular activities polish their skills, enhance their confidence, build their knowledge first hand and giving practical experience. All of these are necessary for building entrepreneurial intention. Thus general education provided to students throughout their time spent at educational institute should encompass extra-curricular activities. This would give the students and opportunity to venture out and experiment while the risks and stakes are low. This would also enhance their creativity, which is cornerstone for entrepreneurship, and build on their interests towards entrepreneurship hence motivating them towards this career.

Implications

Focus on entrepreneurship has grown by leaps and bounds over the past several decades globally and in the last decade nationally. Pakistani economy is not growing at a pace where it can provide employment to majority of its graduates. According to HEC data since 2010 Pakistani universities are feeding more than half a million graduates every year and the number keeps on increasing. According to Pakistan Bureau of Statistics the unemployment rate stands at 5.9% and GDP growth rate is 4.4% annually. Thus growth of entrepreneurship is an option which not only serves as an engine of growth for the slow paced economy but also provide employment to the labour force.

With it comes the training and educating individuals regarding concept of self-employment. This notion defies the idea that 'entrepreneurs are born and cannot be manufactured'. However the ESE and support institutions are much more active and fruitful in developed economies rather than developing (Iakovleva, Kolvereid and Stephan, 2011). Developing economies should focus on innovation-driven entrepreneurship stimulating creativity among students. Creativity would build an environment where individuals seek new avenues thus enhancing knowledge economy of Pakistan.

This study was done with the aim to understand that what really build the entrepreneurial intention of students who are graduating. These graduates which are entering job market every year face a fierce competition which often lead to exit from country in pursuit of a suitable career. Self-employment is not a mature concept in our society. However for the past several years some portion of educated youth, not a significant number, are embracing the concept of starting their own business. The objective should be to increase this number. It would have many benefits, not only driving economy and providing employment, but also provide creative solutions to many indigenous problems. Creativity would build an environment where individuals seek new avenues thus enhancing knowledge economy of Pakistan.

Coming back to research we observe that personality traits along with attitudes and self-confidence are predictors of entrepreneurial intention. Here the notion that entrepreneurs are born is supported however educational institute does have a role to play. They should identify which students have the natural ability and enthusiasm but might be hesitant due to any reason. Such students should be mentored as their skills should be polished and improve their

personality. University can develop mentorship programs where students could be picked or willing students can come to develop their entrepreneurial skill, gather information regarding current trends, discuss their ideas and make relevant connections. Such programs can start at very basic level and evolve into bigger more mature programs where the alumni can return and render services and advice.

Antecedents of TPB deal mostly with personality of an individual and that develops their entrepreneurial intention. Educational programs regarding entrepreneurship develop self-confidence of an individual, as evident in this study, thus education and training cannot be ignored when building entrepreneurs at university level. However the educational programs have to be developed in such a manner that clears misconceptions related to self-employment, reduce their fears and motivate them towards this by making them focused. So the question is that ESE works and if it does how it works? Here the unique needs of the individuals should not be ignored and the fact that 'one size fits all' have to be negated. There should be element of customization for students as every individual confidence level varies and how that can be raised would differ from one person to another.

HEC has made entrepreneurship a compulsory subject for graduation for all disciplines. However this should not be limited to a single course, ESE should span over multiple courses with dynamic approach. This would cater to need of range of people. Multiple course would assist the faculty in imparting wide range of knowledge to students, and help students to get their queries addressed in a more comprehensive manner. All of this would help in increasing the number of entrepreneurs after graduation.

However this study suggests that inclination towards entrepreneurship does not solely base on the ESE, general education that the student is exposed to throughout the degree program also plays a role in developing the mind set of an individual and motivating them for entrepreneurship. Especially the extra-curricular activities during a degree program increasing student inclination towards self-employment in long run. For this HEC and Educational Institutes should develop courses in a manner that it gives students hands on experience by increasing and enhancing their out-of-class experiences. This again plays a dynamic role where students get acquainted to first-hand experience testing their multiple skills and acquired knowledge. Degree programs irrespective of which discipline they belong to should be more multi-faceted and provide an amalgamation of knowledge and real world experience.

Managing this fine balance is a critical aspect but this would be an evolutionary process develop overtime.

Lastly the role of policy makers in sections of government should focus on the youth of this country which consists almost 60% of the population. They should correctly identify the needs of them and address them through education. This is one weapon which if used properly and to the best of its abilities can change the fate of the nation. Entrepreneurship being a driver of economy have to involve the biggest chunk of the population and for doing not only conducive environment has to be provided but adequate knowledge and training should also be imparted.

CHAPTER 6

Conclusion

The basic objective of the study was to study the entrepreneurial intention of university students in a diagnostic manner and observe which factors contribute to it and how they behave in Pakistani context. For this purpose Theory of Planned Behaviour (TPB) became the foundation of this study coupled with entrepreneurship and general education. This study does touches on the debate of 'nature versus nurture' and come to the conclusion that no doubt where personality and attitudes are fine predictors of entrepreneurial intention the role of knowledge and training cannot be ignored at all. In fact the training and knowledge specific to entrepreneurship plays a role in developing a personality of an entrepreneur. Thus they both go hand in hand.

Numerous studies have been carried out in various countries which involve TPB as the foundation of for studying entrepreneurial studies. Couple of such studies have been done in Pakistani context but they have not couple education and TPB for studying entrepreneurial intention. A different finding from this study was that subjective norms was found to be not a predictor of entrepreneurial intention and this could depend on the behaviour and mind set of sample. If they are high on internal locus of control likely results are to be predicted. Other than this Personal Attitudes and Behavioural Control does predict entrepreneurial intention. Other than this education specific to entrepreneurship which does not directly affect entrepreneurial intention however indirectly where the relationship is moderated by behavioural control. Among general education only part related to extra-curricular has been found related to intention while the relationship with challenging ideas, innovation and exams & assignments was rejected.

The role of an educational institute is to develop and enhance the skills of students which are required to pursue self-employment. They should provide a dynamic environment where students can discover themselves carve a niche for themselves. Moreover the institute should provide support and guidance to the students who have ideas and a passion to make their own path. The culture of securing job in corporate sector have to be discouraged which often lead to unfair competition. Students should be acquainted with multiple options regarding their career and provide a platform so they can ponder what they really want to do with their lives.

In addition to conducive environment the institute should enrich the students with the required knowledge for starting a business. This would provide clarity in their vision. Often students have the drive to do something unique and different but they do not have the knowledge. This would address this issue and clear any misconceptions. I would also save them from making many mistakes which they might if they directly enter into the market.

With this we cannot ignore the role of government and its related functionaries as it trickles from top. Even though this study is at micro level still if students are trained to become entrepreneurs but they are provided conducive environment and market to function, the investment in education becomes a lost cause. Government should have a vision and infrastructural support provided to this youth who s graduating. They should develop policies which are provide support to the graduates. Their policies should be aligned with the educational policies so that students have the correct knowledge and clarity regarding the various issues.

Limitations

This study is a step forward from the preceding studies carried out in Pakistani context, but still there are limitations to this study as well.

Firstly this study is a snapshot of a time and cross-sectional study. A better view could have been presented if a pre-test and a post-test was conducted while dealing with entrepreneurship education. This would have better explained how ESE and what role it plays in developing entrepreneurial intention. There is a possibility that results would have been different and effect of ESE could have been better analysed.

Second limitation is related to the sample from which the questionnaire was collected. Sample consisted more number of students from business school as compare to engineering school. If equal or almost equal number of respondents have been collected from business and engineer students, better results would be gathered. It would have also helped in comparing the entrepreneurial intention of business and non-students. Thus a better picture of students and their motives would have been gathered.

Third limitation is also related to sample which was collected from single business school and one city. This increase the chances of skewness in the data in turn giving only half a picture. The idea would have been better explained if sample from multiple cities was gathered as culture and though processes differ from city to city.

As said this is a cross-sectional study and a more longitudinal approach would have presented a clearer results. A longitudinal study would also reveal the relationship between the intention and behaviour. Theories suggest that intention is the single –best predictor of behaviour, however unfortunately due to time constraints longitudinal study could not be undertaken and behaviour is not studied, only intention is studied.

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Appendix 1:

Questionnaire:

Entrepreneurial Intention among University Students

*This survey is a part of a research thesis, aimed at measuring the entrepreneurial intention of university students. This survey will help us in determining the factors that may contribute towards building entrepreneurial intention of the university students. The survey will take approximately **10-12 min** of your time. Your response to this survey is very important. The research team has taken measures to ensure participants anonymity, and no response will be traced back to the individual identity.*

As our way of appreciating your contribution, there is a lucky draw for 2 cinema tickets that you may become a part of (at the end of the survey). For any queries you can contact Anooshe Zia at: anooshe.zia@gmail.com. Thank you for participating!

_____

Instructions:

- **Please give us some information about yourself at the beginning of the survey**
- **Please rate the questions ranging from Strongly Disagree (1) to Strongly Agree (5) and tick the appropriate box**
- **Please answer all the questions. Skipping a question will affect the quality of the study**

Gender: Male Female

Age (in years): _____

Name of degree being pursued currently: _____

Current Semester: _____

Your current majors in the University: _____

CGPA: _____

Do you have an entrepreneur in your family: Yes No

Have you studied entrepreneurship course(s) in university: Yes No

1. My Friends would approve of my decision to start a business

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. My close family would approve of my decision to start a business

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. My colleagues would approve of my decision to start a business

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. I can control the creation process of new firm

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. I am not prepared to start a viable firm

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6. To start a new firm and keep it working would be easy for me

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

7. If I tried to start a firm, I would have a high chance of succeeding

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

8. It would be very difficult for me to develop a new business project

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

9. I know the necessary practical details to start a firm

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

10. A career as an entrepreneur is attractive to me

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

11. If I had opportunity and resources, I's like to start my own business

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

12. Among Various options, I'd rather be anything except an entrepreneur

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

13. Being an entrepreneur would give me great satisfaction

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

14. Being an entrepreneur implies more advantage than disadvantage to me

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

15. When I travel I tend to use new routes

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

16. I like to try new things (exotic food or going to new places)

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

17. I have taken risk in the last six months

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

18. I often feel that just what things are they are, there is nothing I can do about it

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

19. When everything goes right, I think it's mostly luck

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

20. I am ready to do anything to be an entrepreneur

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

21. I will make every effort to start and run my own firm

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

22. I have serious doubts about starting my own business someday

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

23. I am determined to create a firm in the future

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

24. My professional goal is to become an entrepreneur

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

25. I have little intention to start a firm someday

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Questions 26-46 should be answered keeping in mind the overall university education

26. Faculty challenges my ideas in class

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

27. Faculty ask me to argue for or against a particular point

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

28. Faculty ask me to point out any fallacies in basic ideas, principles or point of views presented in the course

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

29. Faculty encourage me to explore original ideas

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

30. Faculty challenge me to think outside of the box to create solutions to problems presented in class

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

31. Faculty ask me to show how particular concepts could be applied to an actual problem or situation

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

32. Faculty ask challenging questions in class

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

33. The extra-curricular activities had a positive influence on my intellectual growth

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

34. Extra-curricular activities helped me to connect what learned in classroom with life events

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

35. Extra-curricular activities has a positive influence on my personal growth, attitudes and values

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

36. Courses helped me to see the connections between my intended career and its broader effect on society

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

37. My non classroom interactions with faculty had a positive influence on my personal growth, attitudes and values

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

38. My non classroom interactions with faculty had a positive influence on my career goals and aspirations

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

39. Since coming to this institution, a faculty member has effectively mentored me

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

40. Exams or assignments require me to argue for or against a particular point of view and defend an argument

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

41. Exams or assignments required me to point out the strength and weaknesses of a particular argument of point of view

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

42. Exams or assignments required me to compare or contrast topics or ideas for a course

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

43. Exams or assignments required me to write essays and/or solving problems

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

44. Exams or assignments required me to create innovate solutions to presented problems

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

45. Exams or assignments required me to apply new theories to practical problems or in new situations

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

46. Exam or assignments required me to use course content to address a problem not presented in the course

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Questions 47-53 deal specifically with entrepreneurship and related courses. If you have not studied entrepreneurship then skip these questions.

47. Entrepreneurship and related courses effectively helped me in developing field reports from entrepreneurs

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

48. Entrepreneurship and related courses effectively discussed and incorporated case studies from newly established firms

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

49. Entrepreneurship and related courses effectively trained me in creativity and problem solving

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

50. Entrepreneurship and related courses enriched my knowledge and understanding in creation of business plan/business case for a new business

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

51. Entrepreneurship and related courses trained and polished my social competencies (Communication skills, networking)

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

52. Entrepreneurship and related courses effectively incorporated the start-up business simulations

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

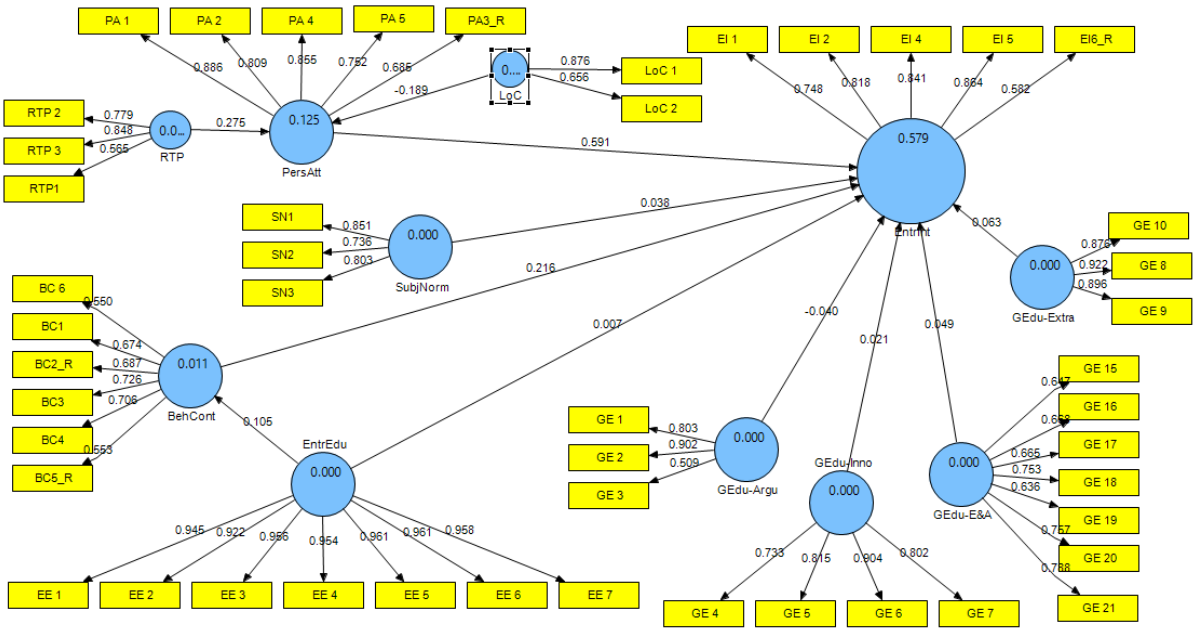
53. Lectures on entrepreneurship were effective and helped in arousing interests in start-ups/ entrepreneurship

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Thank You for your co-operation

Appendix 2:

PLS Algorithm:



Appendix 3:

Bootstrapping on Smart PLS