Factors Impacting Entrepreneurial Intentions of Indian Millennials: A Study of Graduating Students

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In partial fulfillment of the requirements for the award of the degree of

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By

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July, 2020

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ABSTRACT

Introduction:

Self-employment is the phenomenon that can single-handedly transform the economic and industrial situation of any country, especially India. Self-employment not only offers solutions for the problems of unemployment and poverty but also helps in achieving balance of regional development and community development. Promotion of exports and boosting of Gross Domestic Product (GDP) is another benefit of increased self-employment.

With regard to Indian entrepreneurial ecosystem, figures show that there are around 58.5 million entrepreneurs in India with women constituting 14% of this number (Sixth Economic Census Report, 2018). The preferred sectors for entrepreneurs have been in financial services, information technology, telecom and private healthcare among other areas. Though entrepreneurs are considered as an important asset for the country, very few adult Indians establish and sustain own business (GEM, 2018). Though a large number of Indians (64%) consider entrepreneurship as a good career option, only 5% of Indians actually opt for entrepreneurship. This is considered to be low as the figures are much higher in other developed and developing countries- 16% in USA, 17% in Brazil and 13% in Israel. According to the GEM National Experts Survey, major constraints for entrepreneurship development in India include lack of funds, government regulation and complex tax structures, lack of entrepreneurial education at primary and secondary school levels, culture and social norms.

Promotion of entrepreneurship calls for a deep understanding of what makes individuals opt for self-employment as a career choice. Understanding what drives and shapes the entrepreneurial intentions of the Indians are essential before formulating effective strategies to promote self-employment. The study of entrepreneurial intentions of Indians has always been considered to be complex and layered. Empirical analyses of entrepreneurial intentions

are increasingly common in literature (Autio et al, 2001; Zhao et al, 2005; Esfandiar et al, 2019). Results have supported the applicability of the theory of planned behavior (TPB) to entrepreneurship, despite some conflicts between the various studies. A large number of studies are available in the literature which contained research work on entrepreneurial intentions of university students across the globe (Gürol & Atsan 2006; Gerba, 2012; Peng & Lu, 2012; Vohra & Arora, 2007; Guzmán-Alfonso & Guzmán-Cuevas, 2012; Lüthje & Franke, 2003; Tkachev & Kolvereid, 1999). However, similar studies have not been conducted on students belonging to Hyderabad. Along with individual factors, inclusion of environmental factors has been supported in a number of studies (Kristiansen & Indarti, 2004; Franco et al., 2010; Sesen, 2013). So an extended model of TPB is used in the study. Effect of control variables like gender, course of study, effect of entrepreneurial education and the presence of entrepreneurs in the respondents' background are also included in the model.

Objectives of the research:

After a thorough review of literature, the undertaken study proposes to achieve the objectives as indicated below:

1. To study the impact of the elements of the Theory of Planned Behavior on the entrepreneurial intentions of graduating students in Hyderabad region.
2. To test the impact of external environment on the entrepreneurial intentions of graduating students in Hyderabad region.
3. To study the impact of gender, course pursuing, satisfaction with placements, entrepreneurial education, accreditation status of institutes and presence of entrepreneurs in the family background on entrepreneurial intentions of graduating students in Hyderabad region.

4. To study the direct and indirect effects of various variables on entrepreneurial intentions of graduating students in Hyderabad region.

Scope of the research:

The scope of the research was limited to testing of entrepreneurial intentions of millennials (individuals born during the period of 1982-2000). Additionally,

- The study was restricted to Hyderabad region of Telangana state, India
- The study included not only internal factors like attitude, behavioral control but also external factors like impact of role models, availability of information, institutional support, etc.
- The respondents were final year students about to graduate in 6-8 months
- The study focused on Engineering and management college students

Hypotheses:

The null hypotheses adopted for the research study are as follows:

1. H_1: The elements of TPB do not impact Entrepreneurial intentions of the graduating students of Hyderabad region
2. H_2: The effect of the independent variable on the entrepreneurial intentions of graduating students in Hyderabad region cannot be mediated by a mediating variable
3. H_3: There is no moderation between the elements of TPB (independent variables) and Entrepreneurial intentions of graduating students in Hyderabad region (dependent variable)

Research Methodology

Before commencement of the main study, a pilot study on 60 respondents from 2 colleges (1 engineering and 1 MBA college) was conducted to test the validity of the research model and to identify any problems or inconsistencies. After validation, 4-level Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’ was used for the main data collection. A revised

and extended questionnaire based on the Entrepreneurship Intention Questionnaire (Linan & Chen, 2009) was used to collect data from students of 11 different engineering and MBA colleges located in Hyderabad, Telangana. Stratified random sampling method was adopted to collect data and the collection process was conducted between February 2018 and October 2018. The final sample was made of 775 respondents. Qualitative data was obtained using focus-group interviews conducted with 5 groups of students who were also part of the data collection sample and interviews with entrepreneurs, in-charges of ED Cells of engineering colleges. Results revealed the reasons for venture creation and the promoters and barriers for entrepreneurship. The findings authenticated the results of the data analysis and revealed the mechanism in which the effects take place.

Data Analysis

After data collection, the data was merged, coded and checked for gaps and outliers. Sample composition was studied through the frequency tables using SPSS 23. Apart from obtaining measures of central tendency and variation using descriptive statistics, correlation and factor analysis (exploratory factor analysis, EFA using SPSS 23) were used to understand variability among the observed, correlated factors. Structural Equation Modeling (SEM) was further performed using Smart PLS 2.0 M3 to demonstrate and validate causal relationships between identified variables. Mediation analysis using Sobel's test and moderation analysis using bootstrapping were carried out to understand the effect of moderating and mediating variables on entrepreneurial intentions.

Findings

The main results of this empirical study suggested that:

- Both internal and external factors play significant roles in shaping entrepreneurial intentions with internal factors assuming larger importance.
- Respondents aim to start own ventures after gaining some experience.

- Attitude towards entrepreneurship and perceived behavior control have been found to be significant in impacting their entrepreneurial intentions.
- While approval from parents and family and institutional support have no direct impact on the entrepreneurial intentions, they show a strong indirect impact.
- Male respondents show stronger intentions towards entrepreneurship than female respondents indicating a strong cultural impact.
- Engineering stream students have shown stronger entrepreneurial intentions than those from MBA stream indicating that familiarity with technology could be a strong factor influencing entrepreneurship.
- Students who have studied entrepreneurship as a subject do not seem to be benefitting much in terms of entrepreneurial intentions. Studying entrepreneurship as an elective or optional subject failed to impact the attitude towards entrepreneurship but has some effect on control beliefs.
- Presence of entrepreneurs in the family and social circles was found to be a good predictor of intentions. Though there was no impact on the attitude towards entrepreneurial intentions, entrepreneurial background affected intentions through enhancing the control beliefs.
- Students from accredited academic institutions have been shown to be good predictors of intentions. This is due to frequent industry-academic interactions facilitated by these institutions which created a favorable environment for nurturing of entrepreneurial intentions.
- TPB was proved to be robust for studying intentions of graduating millennials in the Hyderabad region.

Contributions

1. This research adds to existing research by contributing to the effects of internal factors like attitude and control on intentions. It also highlights the impact of external factors like institutional support and access to information on entrepreneurial intentions which has not received much attention in the studies so far.
2. There are various factors that are found to affect entrepreneurial intentions of graduating students in this region. The impact of attitude, perceived control, role models has been well-documented in this study.
3. This study also brings out the significance of indirect effects on entrepreneurial intentions
4. The study highlights the role that should be played by parents, society and educational institutions in providing motivation and support so that more graduating students consider entrepreneurship as a good career option.
5. The research outcome provides a basis for creation of entrepreneurial orientation check-lists which offer means of quantifying and qualifying the presence of innovation, managerial vision and commitment in prospective entrepreneurs.

Limitations

The use of questionnaires for collecting data imposed some constraints. Surveys have been known to elicit information which is socially acceptable instead of spontaneous and true.

The data was collected in 2018 and there could be some changes in responses since the collection period.

The study covers only 11 colleges from a possible 300 and more colleges located in and around Hyderabad city. So the inferences cannot be considered to be a reflection of the entire graduate population in Hyderabad. More detailed surveys will need to be performed.

A longitudinal survey has been suggested for understanding the impact of various external factors on the entrepreneurial intentions while the present study uses a cross-sectional survey.

Future Research

A longitudinal study to understand how the intentions are formed and given shape would be ideally suited to comprehend the dynamics of venture creation. Attitudes and perceived control change over time, impacting the strength of entrepreneurial intentions. Longitudinal studies can identify these changes.

The findings of the study suggest that studying entrepreneurship as a subject has not provided any fillip for entrepreneurial intentions. A close look at the content and delivery of entrepreneurial education offered at various levels of course is needed to augment and improve this aspect.

Though the study did not suggest any significant impact of role models on the entrepreneurial intentions of graduating millennials, the role of alumni (who are entrepreneurs) in developing and nurturing entrepreneurship of students needs to be understood in more detail in future studies.

The findings also suggest that satisfaction with placements offered in the educational institutions is also a deterrent for entrepreneurial aspirations. In-depth analysis of this aspect would also help in understanding the career choices made by graduating millennials.

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Acronym	Full form
EA	Entrepreneurial Attitude
EE	External Environment
EFA	Exploratory Factor Analysis
EI	Entrepreneurial Intentions
EIQ	Entrepreneurial Intention Questionnaire
GEDI	Global Entrepreneurship Development Institute
GEM	Global Entrepreneurship Monitor
NASSCOM	The National Association of Software and Services Companies
PBC	Perceived Behavior Control
PLS	Partial Least Squares
SD	Standard Deviation
SEM	Structural Equation Analysis
SN	Subjective Norms
TEA	Total early stage entrepreneurial activity
TPB	Theory of Planned Behavior

CHAPTER - I
INTRODUCTION

CHAPTER - I
INTRODUCTION

This chapter provides the introduction and the background to the research, discussing the important concepts related to the study. The state of entrepreneurship in India, especially in Hyderabad, Telangana is detailed. The motivation for undertaking this study along with the scope of this study is explained.

1.1 Overview

In recent times, there has been a renewed interest in entrepreneurs and their successes and motivation. Increasing societal approval and resounding success stories of some of the celebrity entrepreneurs coupled with volatile markets creating high risks have enabled individuals to source new opportunities in terms of funding, marketing and advertising. At the same time, entrepreneurs have to face the challenges of business innovation and fast-changing consumer demands.

An entrepreneur is ‘a person who undertakes a wealth-creating and value-adding process, through incubating ideas, assembling resources and making things happen’ (Kao, 1993).While ‘making things happen’ entrepreneurs act as “engines of economic growth” and aid in stimulating the country’s economy and also contribute significantly to the development of the country. Hence, entrepreneurship assumes great significance as one of the best economic development strategies that helps to sustain the country's competitiveness in facing the impact of globalization.

In this regard, the study of the behavior of entrepreneurs assumes great importance. If there is a good understanding of the ‘push’ and ‘pull’ forces experienced by a budding entrepreneur, it would greatly help society, regulatory and academic institutions in promoting and motivating entrepreneurship. The present study considers that venture creation by individuals

is a planned behavior that is affected by various factors like attitude towards entrepreneurship, importance to approval from important people in the individual's life and environment along with self-efficacy of the individual. Entrepreneurial intentions form the dependent variable of the study and the elements of planned behavior are the independent variables.

1.2 Entrepreneurship as Planned Behavior

The study undertaken by this scholar began its journey with the word 'entrepreneur' itself and its varied definitions. There is no single accepted definition of entrepreneur and entrepreneurship in literature. Different scholars have provided definitions from different perspectives.

Joseph A. Schumpeter (1942) defined entrepreneur as "an individual who carries out new combines of means of production by which there occurs disequilibrium." Eisenmann (2013) defines entrepreneurship in the words of Professor Howard Stevenson of Harvard Business School. According to him, "entrepreneurship is the pursuit of opportunity beyond resources controlled". Musselman et al (1981) have regarded risk-bearing capacity as an important function of entrepreneurship. According to them, entrepreneurship is an investment of time, money and efforts for starting and making any venture successful and taking risk is entrepreneurship.

According to the National Knowledge Commission (2008), 'Entrepreneurship' is defined as the professional application of knowledge, skills and competencies and / or of monetizing a new idea, by an individual or a set of people by launching an enterprise de novo or diversifying from an existing one (distinct from seeking self employment as in a profession or trade) thus to pursue growth while generating wealth, employment and social good.

As per the iconic article by Drucker that appeared in Harvard Business Review (HBR) in 1985, being an entrepreneur involves dealing with uncertainty and with the unknown, and having the ability to exploit change or respond intelligently to changes. In this article, Drucker argues that innovative business ideas come from carefully analyzing areas of opportunity.

The lack of any consensus regarding definition of entrepreneurs and entrepreneurship can be summed up by Mark Casson's statement that "The most difficult part of studying entrepreneurship is to define who and what an entrepreneur is" (Casson, 1982: 1).

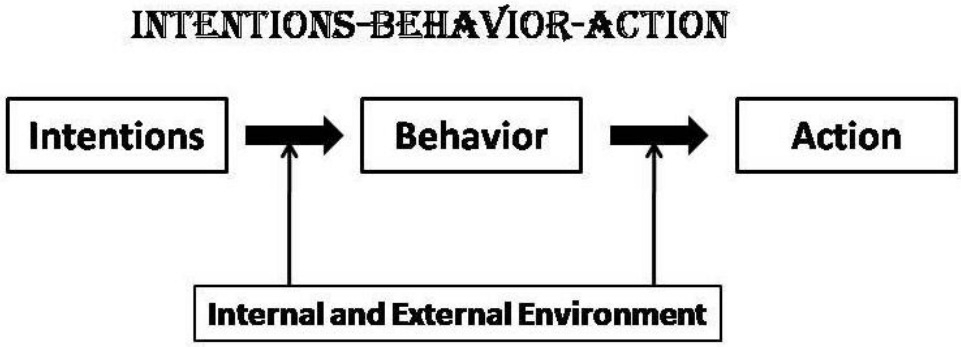
A careful perusal of the above definitions reveals that venture creation is not a by-chance undertaking or an impulsive activity that happens as a result of knee-jerk reactions. It can be concluded that starting a business involves making decisions, taking risks and taking responsibility for one's own actions.

1.2.1 Entrepreneurial Intentions and Entrepreneurship

The study of entrepreneurs and entrepreneurship is a complex process. Adopting a cognitive perspective helps in understanding entrepreneurship. The use of a cognitive approach ensures that entrepreneurial activity is considered to be an intentionally planned behavior. This precludes viewing entrepreneurship as an impulsive action resulting by chance or arising due to genetic proclivity. The review of literature reveals that it is a general practice to study entrepreneurship by studying entrepreneurial intentions.

Entrepreneurial intentions may be defined as a series of processes leading to the owning of a business or becoming self-employed. Entrepreneurial intentions are also considered as personal orientations which might lead to venture creations. A study of intentions is considered central to answering the question on why people start/don't start own business. The following figure shows how intentions subsequently lead to action, i.e., starting own business.

Fig 1.1 From Intentions to action-The process

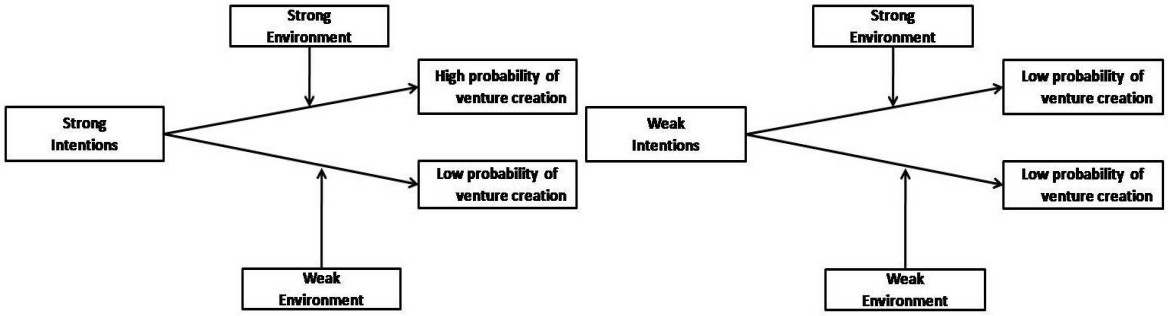


Source: Based on Edelman & Yli-Renko, 2010

1.2.2 Importance of intentions in the study of entrepreneurship

The process leading from intentions to behavior and further to the creation of sustainable business is influenced by the internal and external environment (Edelman & Yli-Renko, 2010). The time-lapse between the two processes may differ from individual to individual. The importance of intentions in entrepreneurial activity may be understood by the figure below.

Fig 1.2: Importance of intentions for venture creation



Source: Bird, 1988; Boyd, 1994

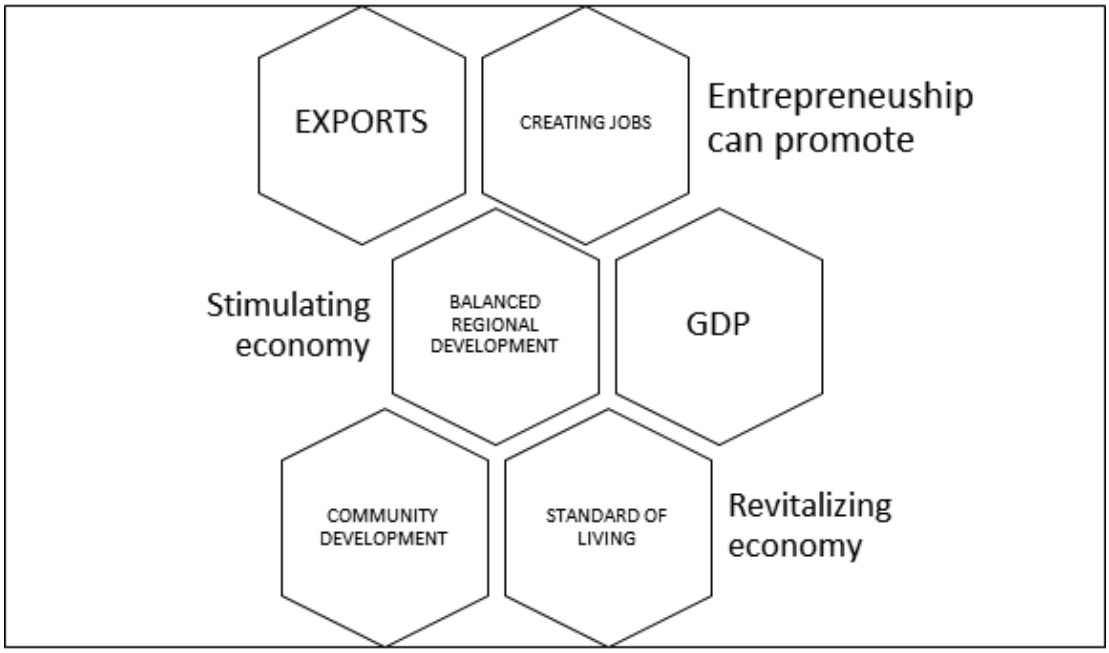
The decision to start a business arises out of a complex behavioral process. The study of the motivational profiles of the individual and behavioral reasons behind the decision involved is most suitable for understanding this complex process. If all entrepreneurial activity is intentional planned behavior, then the intentions of the individual determine the form and

direction of the venture at its inception. Subsequent growth and change in the venture are based on these intentions. Thus intentions affect a venture's success; the study of these intentions, therefore is a good way of understanding why people start or don't start their own business.

1.3 The state of entrepreneurship in India

1.3.1 Entrepreneurship and nation's economy

Fig 1.3 Entrepreneurship and country's economy



Source: www.entrepreneurship.com

Entrepreneurship and venture creation pave the way for comprehensive economic development of a nation. They help in revitalizing and stimulating country's economy by

- Improving exports
- Creating jobs
- Bringing in balanced regional development
- Ensuring community development
- Improving standard of living

In India, Micro, Small and Medium Enterprises (MSME) contribute nearly 8 percent of the country's GDP, 45 percent of the manufacturing output and 40 percent of the exports. Besides providing the largest share of employment after agriculture (and employing around 120 million people), they act as nurseries for entrepreneurship and innovation.

1.3.2 Entrepreneurship in India-Past and the present

Before 1991, setting up of Indian businesses was more dependent on government approvals, licenses and sanctions. Decisions were driven by individual perceptions instead of market or competition. Traditionally businesses were started in India by few individuals with the help of an eco-system that was developed and sustained by certain business communities. The core of this system was the incubation facility within the business; this facility allowed the next generation to try incremental innovation. The funding for businesses came from the profits generated by (parts of) the business itself. The required mentoring was taken care of by experienced elders of the community. The sustaining principle of success was 'Jugad' (improvisation).

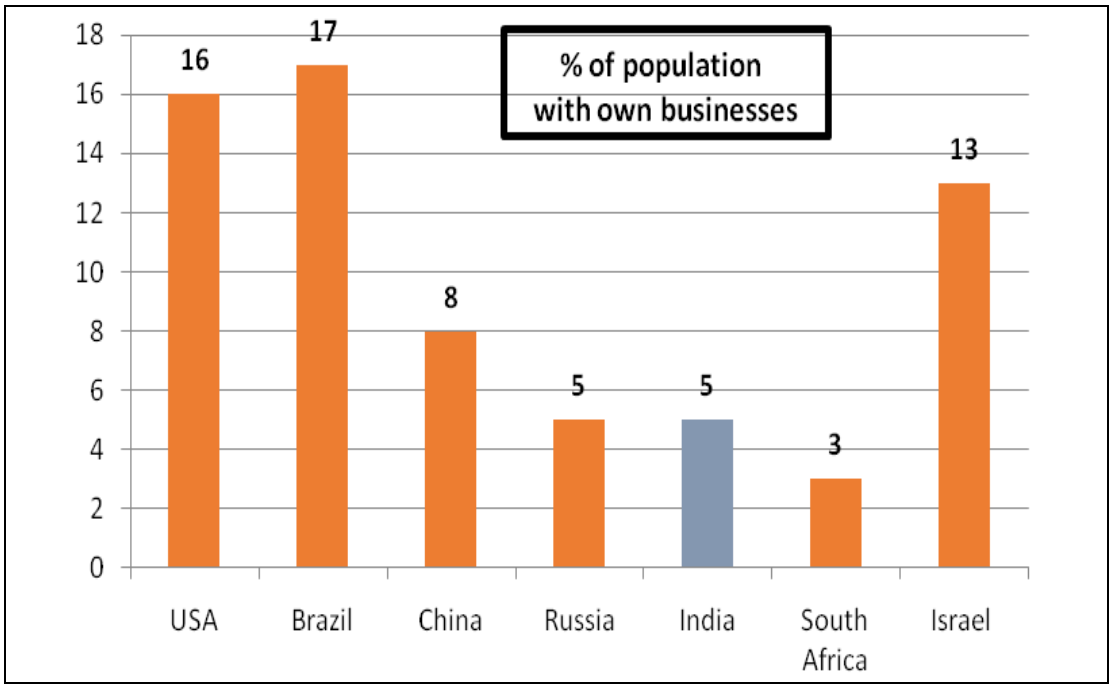
Post-1991 saw a landscape change in Indian markets due to liberalization, privatization and globalization. The economy gained financial strength with more avenues opening for resources and adaptable economic policies created a new breed of business focused on ICT (Information and Communication Technology). The businesses were a balance between two major eco-system – Family and Government. In recent years, the focus shifted from technology to customer and professionally managed business. The emergence of technology as the key driver of venture creation opened doors for first-generation entrepreneurs to enter the field of entrepreneurship. In the last decade, India has seen an increase in the number of entrepreneurs across all sectors. There is a fast-growing community of entrepreneurs in the

country which is the 4th largest in the world after USA, China and Israel (Global Entrepreneurship Monitor, 2018/2019 Global Report).

Most of the notable successes in Indian entrepreneurship have come in start-ups associated with technology. OYO Rooms, Ola Cabs, Zomato are some examples of start-ups that have proved to be Unicorns (a term coined in 2013 by venture capitalist Aileen Lee that refers to privately held startup company valued at over $1 billion). India is considered a start-up hub with over 1200 firms being set up in 2018 alone.

In spite this positive outlook, only 5% percentage of Indian population establishes their own business (GEM 2018). This is very low compared to countries like USA, Israel and Brazil. This low figure is attributed to bureaucracy and red-tape in obtaining necessary permissions (Vadera, 2018). Higher lending rates of banks and low ease-of-doing-business are also deterrents to setting up own business. The figure below compares the level of entrepreneurship across 7 countries.

Fig 1.4: A comparison of % of population with own business across 7 countries



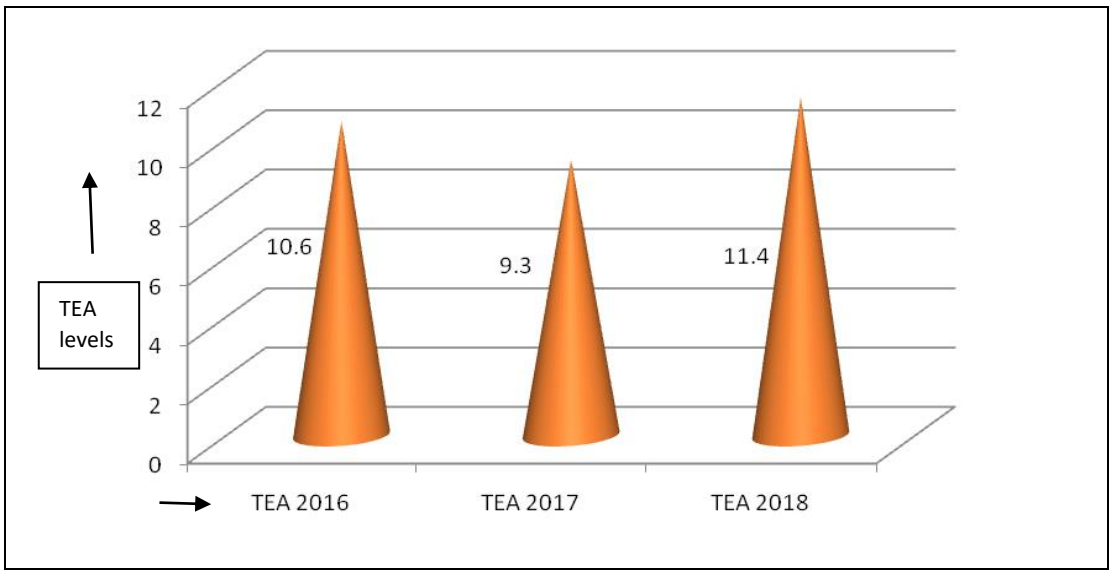
(countries on X-axis and % of population on Y-axis)

Source: Global Entrepreneurship Monitor, 2018/2019 Global Report

1.3.3 Inclination towards entrepreneurship in India

Various studies place India among the top countries as far as innovation and creativity are concerned. As per the National Entrepreneurship Context Index (NECI), which assesses the environment for entrepreneurship, India ranks fifth among the 35 countries surveyed. As per this study, innovation among Indian entrepreneurs (where entrepreneurs are introducing products or services that are new to customers and not generally offered by competitors) is found to be high at 47% where the highest level is 48%. The level of entrepreneurship in a country can be studied by the level of Total Early-stage entrepreneurial Activity (TEA) which is defined by the number of nascent and new businesses having more than three months operating and less than 42 months. Though there was a small dip in levels from 2016 to 2018, India shows a TEA level of 14.97 in the year 2019.

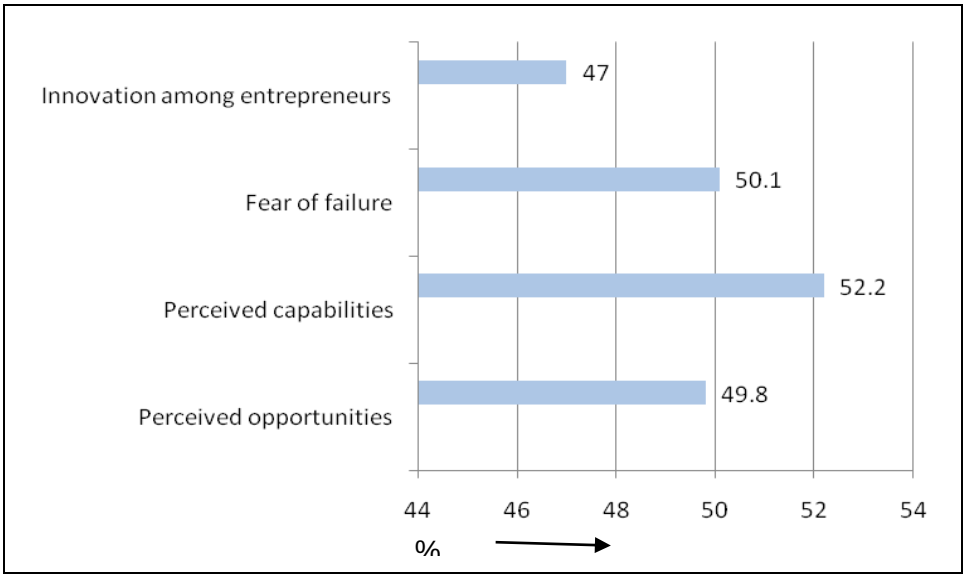
Fig 1.5: Total Early stage entrepreneurial Activity (TEA) levels from 2016-2018-India



Source: Global Entrepreneurship Monitor

The percentage of people who start own businesses is low in India. People see opportunities around them for starting businesses, yet few are taking steps to start. 50% reported that fear of failure prevents them from starting their own business (Global Entrepreneurship Monitor, 2018/2019 Global Report).

Fig 1.6: Levels of entrepreneurial parameters-India (2018-2019)



Source: Global Entrepreneurship Monitor, 2018/2019 Global Report

This data indicates that entrepreneurial intentions are high in Indian populations but they are not translated into setting up of business due to varied reasons.

1.3.4 Entrepreneurship development in Hyderabad and Telangana

The Government of India has undertaken several initiatives and instituted policy measures to foster a culture of innovation and entrepreneurship in the country. Through the Startup India initiative, the government of India promotes entrepreneurship by mentoring, nurturing and facilitating startups throughout their life cycle. Support to training and employment of women program (STEP) was launched by the Government of India's Ministry of Women and Child Development to train women with no access to formal skill training facilities, especially in rural India. National Skill Development Mission, launched in July 2015, aims to build synergies across sectors and States in skilled industries and initiatives.

At the state level, Government of Telangana is active in bringing the culture of Innovation and Entrepreneurship in the state. Telangana State Innovation cell (TSIC) is one such recent initiative by the Telangana Government other than T-Hub, T-works, We-Hub etc. to accelerate the startup ecosystem.

Fig 1. 7: Entrepreneurship Development Initiatives by Government of Telangana

The Telangana government launched its 'Innovation Policy' in 2016, to spice up the startup ecosystem in the State. A large number of initiatives have been proclaimed together with a slew of incentives for startups and incubators. The concept of T-HUB is aimed at nurturing and creating the proper eco-system for technology-relevant startups through mentoring, networking, workshops etc. This ecosystem includes relevant startups, corporate companies, angel investors, academicians and many more. The Telangana government also established a master fund to take a position in sector-specific and general risk capital funds with an initial target of Rs 2,000 crore, in keeping with the rules issued for Innovation Policy. This initiative is in addition to the launch of the early-stage investment vehicle T-Fund (Telangana Innovation Fund) jointly with leading international investors. The government also has a T-SEED fund in place with Rs 250 crore geared toward encouraging innovators who want early-stage funding to figure on their analysis discoveries and school project concepts. All these initiatives are indicative of the encouraging environment that exists in the state for prospective entrepreneurs.

1.3.5 Millennials – Profile in Indian Context

According to Howe & Strauss (2009) individuals who are born between 1982 and 2000 are referred to as the millennials. This group is significant due to their characteristics and the large numbers in populations. Some studies consider people born between 1980 and 2000 to

be millennials. However, the categorization is solely for fixing on a group of a target having certain characteristics; so both time periods are being considered for this study.

Members of this generation are described as preferring collective action, working in teams, wanting work that matters to them, and being civic-minded, eco-aware, confident, conventional, optimistic, and socially conscious (Hewlett et al., 2009).

As far as India is considered, there are about 400 million Gen Ys and they form 36% of the population. Studies also indicate that by 2020, Millennial or Gen Ys are projected to be 50% of the workforce and by 2025 this number is expected to reach 75%. This is a very large number and the group is expected to contribute significantly to the country's economy through sheer numbers.

Table 1.1: Comparison of % of millennials in USA, India and China

Country	*No:of millennials*	*Total Population (in millions)*	*% of millennials*
USA	70	340	21
India	426	1200	36
China	218	1300	17

Source: Steelcase Research on Gen Y in Asia

The members of this group are aged between 19 years and 39 years. While a large number of this group is an integral part of the country's workforce, many are entrepreneurs and students. Of the millennial population of India (~400 million), students are enrolled in higher education institutions number around 37 million. The graduating millennials are those individuals born between 1980 and 2000 and are in the final year of study from higher education institution in India. These graduating millennials number around 9 million in 2019. The present study focuses on the graduating millennials from Hyderabad region of Telangana.

1.3.6 Millennials as Entrepreneurs

Millennial entrepreneurship is important for the sustainable development of emerging economies like India. The potential economic gains could be realized through India's

increasing ‘demographic dividend’, a term used when the country’s working-age population becomes larger than the dependent population. Currently, India has the highest youth population in the world unlike countries like Japan where there are more old people (above 65 years of age) than young people.

As a result, millennials are likely to be the center of attention for years to come as they are considered potential entrepreneurs. But the basis of this assumption needs to be examined closely. Is much expected from millennials because they are inclined towards entrepreneurship as a generation? Or is it because of their sheer numbers that their inclination becomes important? The answer is a combination of both viewpoints. The millennial generation in India is not only a large group but also has displayed characteristics such as innovation, adaptability and team work which contribute to and augment the activity of starting a business. Thus, this group can be considered as potential entrepreneurs.

Having grown up with the Internet, millennials are extremely techno-savvy and believe their use of technology sets them apart from other generations (Pew Research Center, 2010). They are characterized as ambitious and success-driven, global in their perspective, and community-minded. They are entrepreneurial and self-reliant and adapt to diversity. They also respect institutions and enjoy working in teams. These characteristics displayed by millennials aid in starting sustainable ventures.

1.3.7 Graduating students in Hyderabad, Telangana

The term ‘Graduating student’ refers to any student who has completed 12 years of schooling and has enrolled in a program of minimum duration of 9 months or who have completed 10 years of schooling and has enrolled in a program of minimum duration of three years (AISHE, 2018). The program may be in any stream like Arts, Commerce, Science,

Engineering, Architecture etc. As per the data available, around 3 million graduates pass out every year in India. The largest number of graduates is from engineering and management streams. The break-up of program and colleges is given in the table below:

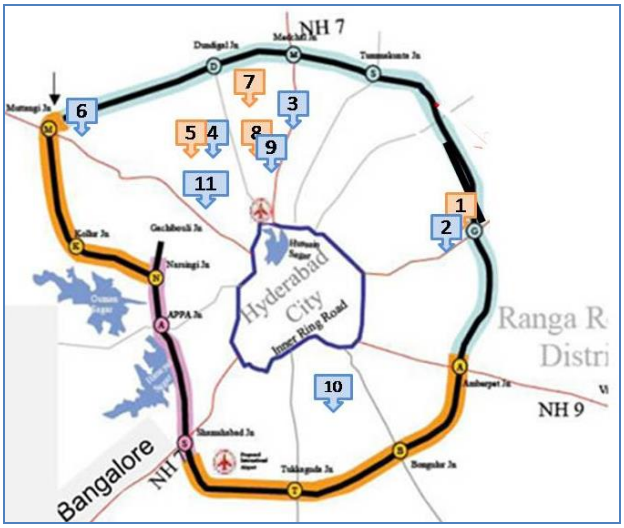
Table 1.2: Graduating students output in India per year (2018-2019)

Total engineers passed out per year	1,500,000
Total management graduates passed out per year	300,000
Total graduates passed out per year	3,000,000
Total universities	993
Total colleges	39,931

Source: All India Survey on Higher Education report, 2018-2019

Hyderabad, the capital city of the state of Telangana, India consists of an area of 650 square kilometers. Hyderabad City has a population of about 9.7 million in Hyderabad Metropolitan Region.

Fig 1.8: Map of Hyderabad region



Note: Blue indicates location of MBA college and Red Engineering college

Source: Google Maps

There are 487 colleges offering courses in different streams in and around Hyderabad. The details of colleges and students in Hyderabad are depicted in the following table.

Table 1.3: Total number of colleges in Hyderabad region offering different courses

	Engg	MCA	MBA	B.Ed	Law	Degree	**Total**
No: of colleges	202	42	311	218	21	1049	**1843**
No: of seats	97134	2786	34562	19050	3610	403002	**560144**

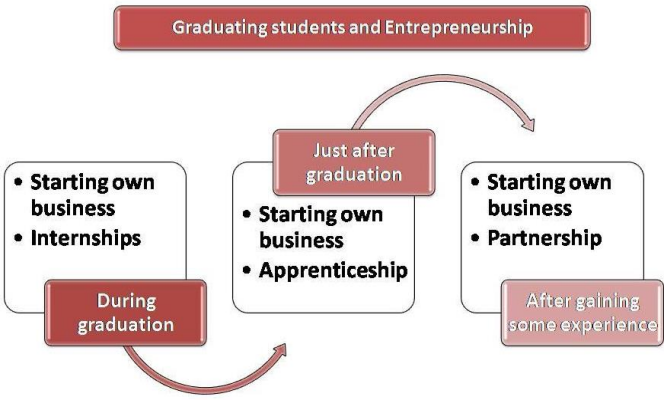
Source: Telangana State Council for Higher Education (TSCHE) Statistical booklet, 2018

1.3.8 Graduating students and entrepreneurship

Graduating students on the cusp of completing their education need to make career choices and they generally choose between employment and entrepreneurship. The choice may be an initial choice and is susceptible to change with experience. Also, the choice may be influenced by a number of factors. Advance planning may not be involved in the decision and may be a dynamic process that needs remaining alert to opportunities (Krumboltz, 2009).

Embracing entrepreneurship may take place at different stages of a students' career-during graduation, just after graduation and after gaining sizable and relevant work experience.

Fig 1.9: Graduating students and entrepreneurship



Source: Primary data collected by scholar

Few businesses have been started by students in the final year of study. Most notable among them is Practo, an online health service platform. It was started by Shashank ND and Abhinav Lal while they were in the final year of engineering degree. Most of the successful businesses were started after the entrepreneurs gained work experience in various fields.

1.4 Motivation for the study

Entrepreneurship development in India is the key factor in the fight against unemployment and poverty. It is an important tool that helps the country prepare for globalization, and achieve economic progress. Solutions for these problems need to be multi-pronged as the problems are not only long-standing but also fast-growing. For instance, the unemployment rate in India for 2018 was projected to stand at 18 million by World Employment and Social Outlook report released by the United Nations International Labor Organization (ILO). But by Feb 2018, the number stood at 31 million as indicated by the Centre for Monitoring Indian Economy (CMIE). This figure is among the highest unemployed seen in the country. One way of reducing unemployment is to focus on entrepreneurship, which can go a long way in creating jobs.

Encouraging entrepreneurship in India is a complex task. A great deal of effort is needed to bring India on a par with the developed countries in terms of entrepreneurship. In 2018 Global Entrepreneurship Index (indicating overall entrepreneurship attitude and potential) showed that India occupied 68th rank among 137 countries surveyed. The actual number of individuals opting for entrepreneurship is low in India compared to developed countries.

In spite of various entrepreneurship development initiatives undertaken by Central and state governments, figures reveal that very few people actually start their own business. Though many Indians believe in their own entrepreneurial capabilities and perceive a level of opportunities and believe that entrepreneurs are held in high regard by society, there is still a

high level of fear of failure and the actual entrepreneurial intentions rate is very low. A large number of millennials in India are students pursuing various programs in different disciplines. They enjoy the benefit of entrepreneurship education and are the target of efforts of entrepreneurship development cells (EDC) in educational institutes. As per Deloitte's 8th annual millennial survey the millennials constitute 36% of the present population in India. If more millennials decide to start their own business, it will be a boost to entrepreneurial culture in India. How to bring more and more millennials into the fold of entrepreneurship? The answer to this question lies in understanding and making a deeper study of the entrepreneurial intentions of Indian millennials.

The present study purports to contribute to the study of entrepreneurial intentions by providing a comprehensive understanding of intentions towards entrepreneurship. This is possible if all the factors that impact entrepreneurial intentions are well understood. This kind of study would have to include not only individual factors but also contextual and environmental factors. The study would contribute significantly to understand which factors contribute and which factors suppress the intentions of individuals.

1.5 Relevance of the topic

As there is very little information regarding the intentions of Indian students, this study fills the gap and provides important insights into factors shaping the intentions of millennials. As there is considerable support from governments, society and academic institutions for own venture creation, it is time for young Indians to take advantage of this support and start their own business. However, there are no significant studies on the factors influencing the entrepreneurial intentions of graduating students especially from Hyderabad, Telangana state. The present study would also add to the existing literature on the cognitive processes behind entrepreneurship. Based on the findings of the study, educators and government agencies can

gain a better understanding of promoting entrepreneurship among students. These findings of the study can also help educational institutions in providing the right entrepreneurial climate for nourishing the aspirations of the students.

The study provides valid arguments in favor of considering entrepreneurship as planned behavior. The study confirms the robustness of using the Theory of Planned Behavior (TPB) to study entrepreneurial intentions in the case of millennials. The study also extends TPB to include the impact of environmental factors on millennials. This will help in covering critical areas of intentions and help provide a more comprehensive picture of what drives or impedes the intentions of graduating students. The novelty of the study is the highlighting the role of institutional support in promoting entrepreneurship, which will be a game-changer in promoting entrepreneurship. This study adds to the growing work on understanding entrepreneurial intentions especially from the context of the populations in Hyderabad, Telangana.

1.6 Scope of the study

The present research work is limited to studying the entrepreneurial intentions of millennials (born between 1980 and 2000) who are graduating students from Hyderabad city in the state of Telangana.

The post-liberalization climate has brought out entrepreneurship attitude and skills across all the generations, not only millennials. It is not uncommon to see experienced and highly placed senior executives and rural and semi-urban Gen X women striking out on their own. A point in the illustration is governmental support and incentives like DWCRA movement which has seen rural and tribal women in Andhra Pradesh starting-up on a significant scale (Galab S, 2003).

However, the present research work has focused on millennials' entrepreneurial intentions for two reasons; one, their numbers (40% of the Indian population) which is expected to swell

significantly in the next decade. Second, the innovativeness and risk-taking propensity associated with millennials have been identified as important factors to become an entrepreneur (Kolaba, 2014). Choice of millennials as target population is justified by these two reasons.

Restricting the scope of the study to graduating students is also for similar reasons. The number of engineering graduates is very large. India produces about 25% of engineers of the world every year and around 1.5 million engineers in India graduate every year from various colleges across the country. The number of MBA graduates is also large, amounting to around 0.3 million people every year across the country. This large number makes the graduating students a very attractive target for the study.

Respondents are chosen from Hyderabad as the city is an important centre for entrepreneurship in the country after New Delhi, Mumbai, Bangalore, Patna and Jaipur.

1.7 Organization of the Study/Thesis outline

The thesis has been divided into five major chapters. These chapters are preceded by Executive Summary and are followed by References and Appendix. The details of the layout are as follows:

The opening chapter introduces the basic concepts of entrepreneurship and entrepreneurial intentions. The challenges in measuring intentions and the aptness of using the Theory of Planned Behavior are brought out in this chapter. The state of entrepreneurship in India, with special emphasis on Hyderabad is discussed. The importance of graduating millennials in entrepreneurship is discussed in detail.

In the second chapter, a review of relevant literature is presented from the TPB perspective. This review is undertaken with the purpose of identifying gaps in the research undertaken so far. This led to the development of a research framework to be used in the study.

The third chapter details the research methodology that is used in the study. Basic research questions developed after the literature review led to the development of objectives and various hypotheses of the study. The research design and sampling plan evolved as a result are also explained in this chapter. The pilot study conducted to ascertain the robustness of the chosen research design is also explained.

The fourth chapter discusses the data analysis of the primary data collected through various tools and measures. The testing of hypotheses is also set out in this chapter.

The fifth and final chapter details the results of the data analysis and further interprets the results through discussions. Relevant and apt conclusions are drawn from the results. Limitations and future scope of research is set out in this chapter.

1.8 Summary

The chapter introduces the term 'entrepreneur' and details the various definitions of the term and their relevance. Treating entrepreneurship as a planned behavior is justified by bringing out the importance of intentions in the study of entrepreneurship. The chapter details the importance of entrepreneurship to the country's economy. The chapter also reviews the state of entrepreneurship in India with special reference to the initiatives undertaken by the Government of Telangana to promote entrepreneurial intentions in the state. The chapter also profiles the millennials as a generation and the entrepreneurial attitude of millennials. The profile of graduating students in Hyderabad is also discussed in this chapter. The motivation for the study and scope of the study are also discussed in this chapter. Organization of the study is discussed by providing a detailed outline of the thesis.

CHAPTER - II

REVIEW OF LITERATURE

CHAPTER - II

REVIEW OF LITERATURE

2.1 Introduction

A literature review is performed to comprehensively assess of all the available academic content that describes the progress so far in the selected field. It is a summary, analysis and evaluation of the literature and helps in providing the scope of research already performed for a research area. While conducting literature review on a subject, various books, scholarly articles, and any other sources relevant to that subject are critically described, summarized and evaluated so as to assist in investigation of the chosen problem. Literature review is essential for laying the foundation of knowledge on the topic and further build on it. It also helps in identifying prior work on the topic thus preventing duplication. Identifying inconstancies and gaps in research along with conflicts in previous studies and open questions left from other research helps in refining the study. It is mandatory to include those theories and concepts that underpin the chosen research in the literature review with special emphasis on the different methodologies used in analysis.

Based on personal interest in the general topic of entrepreneurship, the scholar probed into the importance of entrepreneurs from global and national perspective. In an effort to understand the state of entrepreneurship world-wide and in India particularly, various forms of literature available on the subject were studied. The aim of the study was to answer the basic question of 'why people start/don't start own business?' This question was further refined and finally led to the topic under study.

The literature review undertaken for this study can be broadly divided into two stages: In the first stage, broad-based review of existing literature was taken up. This was done to probe into the extent of research into entrepreneurial intentions and their impact on venture creation of individuals. This stage focused on general theories and the line of research adopted with

respect to entrepreneurial intentions. As the researcher believed that millennials assume great importance in the field of entrepreneurship in the present and future due to the generation-specific attributes and large representation in Indian population, the review was undertaken with special focus on this group born between 1980 and 2000.

The progression of the first stage culminated in the finalization of the topic along with the target group and specific theories to be used. This set the stage for second stage of literature review. Scale preparation, tool validation and methodology selection were undertaken with a view to achieve the objectives finalized as a result of first stage.

2.2 Literature reviewed-an overview

Previous studies were examined from the perspective of broad topics involved in the study. The details of literature reviewed in terms of different forms of literature like meta-analysis, PhD theses, journal articles, books, seminar proceedings, etc., are presented in the table below.

Table 2.1: Summary of topic-wise literature survey

Summary of Topic-wise Literature Survey						
S No	**Broad Topic**	**Type of literature surveyed**				
		Articles	***Theses/ meta analysis***	***Seminar proceedings/ books***	***Total***	***Relevant to my topic***
1	Entrepreneurship as planned behavior	21	6	42	**69**	**12**
2	Intention-behavior-action link	20	5	5	**30**	**7**
3	Intention-behavior-action link in other planned behaviors other than entrepreneurship	42	10	10	**62**	**5**
4	Robustness of TPB to study entrepreneurial intentions	40	12	10	**62**	**7**

Summary of Topic-wise Literature Survey						
S No	**Broad Topic**	**Type of literature surveyed**				
		Articles	***Theses/ meta analysis***	***Seminar proceedings/ books***	***Total***	***Relevant to my topic***
5	Entrepreneurial intentions of groups using TPB	12	10	5	**27**	**12**
6	Study of entrepreneurial intentions using 3 elements of TPB	32	30	30	**92**	**32**
7	Extended model of TPB	48	12	12	**72**	**14**
8	Mediation/moderation	12	10	10	**32**	**12**
9	Methodology	45	12	14	**71**	**16**
	Total	**272**	**107**	**138**	**517**	**117**

The understanding of each topic as derived from the literature is helpful in placing it in the overall context of the research problem. Contextual knowledge of each topic and its relationship with other topics is crucial in construction of the research model and realization of research objectives.

2.3 Literature reviewed with citation on topic

A detailed list of various literatures reviewed is presented in the table below. The table provides details of the citation along with the gist of the literature reviewed and the link to the present study along with gaps which are to be addressed in the present study.

2.3.1 Entrepreneurial intentions and Theory of Planned Behavior

Studies on entrepreneurship have been carried by researchers using different models of entrepreneurship. Some of the commonly used models are Theory of Effectuation, Bricolage Theory of entrepreneurship and Theory of planned behavior. Saras Sarasvathy's theory of Effectuation (2001) describes an approach to making decisions and performing actions in entrepreneurship processes, where the required resources are assessed continuously with the available resources and actions. This theory argues that the causal logic is not suited for

entrepreneurship processes that are inherently characterized by uncertainties and risks. The theory of Bricolage was suggested by Ted Baker (2005) and the theory explores the use of Bricolage principle underpinning the processes of opportunity generation, opportunity development and opportunity exploitation. The Theory of Planned Behavior was suggested by Icek Ajzen (1991) and the theory regards entrepreneurship as a planned behavior. The theory of Planned Behavior is chosen for this study as it is most suited for the target population who are college students.

Empirical analyses of entrepreneurial intentions are increasingly common in literature (Autio et al, 2001; Zhao et al, 2005; Esfandiar et al, 2019). Results have supported the applicability of the theory of planned behavior (TPB) to entrepreneurship, despite some conflicts between the various studies. A good part of these differences may have been due to measurement issues (Chandler & Lyon, 2001). In fact, measuring cognitive variables implies considerable difficulty (Baron, 2000). Thus, empirical tests have differed widely. While Krueger et al. (2000) used single item variables to measure each construct and Kolvereid (1996b) used a belief-based measure of attitudes, Kolvereid & Isaksen (2006) have used an aggregate measure for attitudes. However, many studies continued to use single-item one for intention till authors like Linan & Chen (2009) who used multi-item scales to measure entrepreneurial intentions and the 3 elements of TPB. Entrepreneurial Attitude Orientation (EAO) scale was developed by Robinson et al (1991) to assess expected outcomes of an entrepreneurial career. Studies like the one by Luthje & Frank, 2003 also contributed to the knowledge on studies on TPB. Studies by Kolvereid (1990b) brought out the study of subjective norms. Perceived social norms were found to be a measure of social support of the behavior by significant others, such as family, friends, and other role models and mentors (Segal et al, 2005). Perceived behavior control was measured using items relevant to confidence and perceived ease or difficulty (Kraft et al, 2005; Trafimow et al, 2002).

Table 2.2: List of literature on 3 elements of Theory of Planning Behavior

S. No	Tag	Title details	Author(s) & Year	Gist	Linkage to study
1.	Meta Analysis	Efficacy of the Theory of Planned Behavior: A meta-analytic review. *British journal of social psychology, Wiley*.	*Armitage & Conner,* (2001)	1. Research paper analyses the results of 185 studies involving entrepreneurial intentions 2. TPB was found to be ideal for measuring intent 3. Subjective norms was found to have impact if single-item is not used	➢ Initial indication of aptness of using TPB as basic premise of study ➢ Construct made of multiple items
2.	Meta Analysis	Determinants of Entrepreneurial Intent: A Meta-Analytic Test and Integration of Competing Models. Entrepreneurship Theory and Practice, 38: 291–332	*Schlaegel & Koenig,* (2014)	1. Study meant to test and integrate TPB and SEE models 2. Study summarizes the utility of structural equation modeling to examine fit of model 3. Integrated models provide extra explaining power	➢ Support for integrated model to study intentions
3.	Journal Article	The promise of entrepreneurship as a field of research. *Academy of management review*, *25*(1), 217-226.	*Shane & Venkataraman,* (2000).	1. Study emphasizes on importance of conceptual framework to study entrepreneurship 2. Creation of systematic body of literature vital	➢ Need to create a conceptual framework ➢ Well cited, 13475 times (till Jan 2019)
4.	Journal Article	An investigation into the role of intentions as mediators of the attitude-behavior relationship. *Journal of Economic psychology*, *10*(1), 35-62.	*Bagozzi, Baumgartner, & Yi, (*1989)	1. Study consists of 2 separate studies to examine intentions 2. The role of intentions depends on the statistical power of test procedures, the reliability of measures of intentions, and the nature of the processes intervening between intentions and behavior.	➢ Proof that intentions are mediators in behavior-action link ➢ Useful pointers on achieving reliability, validity using appropriate measures
5.	Journal Article	Understanding entrepreneurial intentions: A developed integrated structural model approach. *Journal of Business Research*, *94*, 172-182	*Esfandiar, Sharifi-Tehrani, Pratt, & Altinay,* (2019).	1. Latest paper	Latest application of TPB using SEM
6.	Journal Article	Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, *39*(3), 655-674	*Kautonen, van Gelderen, & Fink,* (2015)	1. This analysis demonstrates the relevance and robustness of the Theory of Planned Behavior in the prediction of business start-up intentions and subsequent behavior based on longitudinal survey data 2. Study done on adult populations of Austria and Finland	➢ Yet another support for use of TPB in study of intentions ➢ Self-reported intentions are a good predictor of subsequent entrepreneurial actions
7.	Journal Article	Predicting entrepreneurial behavior: a test of the theory of planned behavior . *Applied Economics*, *45*(6), 697-707.	Kautonen, Van Gelderen, & Tornikoski, (2013)	1. This article provides a full test of the TPB in the prediction of business start-up intentions and subsequent behavior based on two-wave survey from the	➢ Proof for robustness of TPB in studying intentions ➢ Variance in significance of predictors to be

S. No	Tag	Title details	Author(s) & Year	Gist	Linkage to study
				working-age population in Finland 2. Results support the predictions outlined in the TPB 3. Intention and perceived behavioral control are significant predictors	expected
8.	Conference paper	Determinants of Entrepreneurial Intention Among Millennial Generation. *Asia Pacific business innovation and technology management society*	*Koe, (2012)*	1. Conference paper explored the entrepreneurial intentions of millennials 2. The data collected and analyzed through SEM using AMOS	➢ Significant paper showing grouping of respondents by generation ➢ Use of SEM for data analysis ➢ Suggestion for choice of target respondents and analytical tool
9.	Chapter of book	Toward a contextual model of entrepreneurial intentions. In *Understanding the entrepreneurial mind* (pp. 23-33). Springer, New York, NY.	*Elfving, Brännback & Carsrud,* (2009)	1. Linear relationships between intentions and factors challenged 2. The study addresses the role that specific goals and motivations play in intentionality	➢ The study provides clues to inclusive nature of subjective norms construct ➢ Family and immediate others can also impact this construct ➢ Reciprocal causation between factors is introduced
10.	Journal Article	The Impact of Environment and Entrepreneurial Perceptions on Venture-Creation Efforts: Bridging the Discovery and Creation Views of Entrepreneurship. Entrepreneurship Theory and Practice, 34: 833–856	*Edelman & Yli-Renko, (*2010)	1. Study merges 'cognitive' theory and 'discovery' theory of intentions 2. The study hypothesizes that objective environmental conditions and entrepreneurial perceptions of opportunity and resource availability play in the process of firm creation 3. Though study does not use TPB, the variables used to study intentions are significant	Important to my study is the presence of both cognitive and environmental aspects impacting intentions
11.	Thesis	Antecedents to the entrepreneurial decision: An empirical analysis of three predictive models, Doctoral Thesis, University of Colorado, Bolder	*Meeks*, (2004)	1. The thesis utilizes structural equation modeling to compare predictive capabilities of three intention-based models 2. Similar predictive power found in all three models	Of all the models to study intentions, TPB is comparable to other models and can be used
12.	Journal Article	Development and cross–cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship theory and practice*, *33*(3), 593-617	*Liñán & Chen*, (2009)	1. This study was conducted on 519-strong sample from Spain and Taiwan 2. Provides strong support for TPB and EIQ	➢ Most important study used as a standard reference in this research ➢ Source for basic structure of questionnaire
13.	Journal	A multi-component model	*Rhodes, Blanchard &*	1. Study performed on	➢ Predictive validity seen

S. No	Tag	Title details	Author(s) & Year	Gist	Linkage to study
	Article	of the theory of planned behaviour. *British Journal of Health Psychology, 11*, 119-37. Retrieved from https://search.proquest.com/docview/215245215?accountid=145163	*Deborah,* (2006).	exercising behavior 2. Study compared multi-component model of TPB elements as compared to traditional TPB elements	for EA and PBC components
14.	Meta Analysis	Issues of research design and construct measurement in entrepreneurship research: The past decade. *Entrepreneurship Theory and Practice*, *25*(4), 101-113.	Chandler & Lyon, (2001).	1. Article calls for greater emphasis on multiple source data sets 2. increased emphasis on reliability and validity issues 3. the development of more sophisticated theoretical models 4. subsequent analysis 5. More longitudinal research.	➢ Forms the basis for the structure of model

2.3.2 Study of TPB elements impacting entrepreneurial intentions of university students across the globe

A large number of studies are available in the literature which contained research work on entrepreneurial intentions of university students across the globe (Gürol & Atsan 2006; Gerba, 2012; Peng & Lu, 2012; Vohra & Arora, 2007; Guzmán-Alfonso & Guzmán-Cuevas, 2012; Lüthje & Franke, 2003; Tkachev & Kolvereid, 1999). The results of the studies were found to have variation indicating influence of culture on entrepreneurial intentions.

Table 2.3: List of literature on entrepreneurial intentions of university students across the globe

S. No	Tag	Title details	Author(s) & Year	Gist	Linkage to study
1.	Journal Article	Entrepreneurial intent: A twelve-country evaluation of Ajzen's model of planned behavior. *International Journal of Entrepreneurial Behavior & Research*, *16*(1), 35-57.	Engle, Schlaegel & Alvarado (2010).	1. TPB was used to study intentions of university business students in 12 countries 2. Provides insight to the role of cognition in the entrepreneurial process	➢ Entrepreneurial intent in each of the study countries
2.	Journal Article	Predicting entrepreneurial career intentions: Values and the theory of planned behavior. *Journal of career assessment*, *26*(3), 457-475.	*Gorgievski, Laguna, & Moriano,* (2018).	1. Study entrepreneurial career intentions using TPB, using a sample of 823 students from four European countries 2. Openness and self-enhancement values relate positively to entrepreneurial career intentions	➢ In spite of variance in cultures, common parameters can exist
3.	Journal Article	An empirical study on the attitudes of students towards entrepreneurship. International Journal of Business Management & Research, ol. 4, Issue 2, 1-14	*Karim & Reddy,* (2014)	Target population: college students of Chittoor District of India	Variance across cultures is expected
4.	Journal Article	Entrepreneurial characteristics amongst university students: Some insights for entrepreneurship education and training in Turkey. *Education+ Training*, *48*(1), 25-38.	*Gurol & Atsan,* (2006).	Individuals in Turkey	
5.	Journal Article	Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia, *African Journal of Economic and Management Studies, Vol. 3 No. 2, 2012*	*Gerba*, (2012)	Business and engineering students in Ethiopia	

S. No	Tag	Title details	Author(s) & Year	Gist	Linkage to study
6.	Journal Article	Entrepreneurial Intentions and Its Influencing Factors: A Survey of the University Students in Xi'an China, Creative Education, 2012. Vol.3, Supplement, 95-100	*Peng, Lu, & Kang*, (2012)	University students in Xi'an China	
7.	Journal Article	Attitudes of the Youth towards Entrepreneurs and Entrepreneurship: A Cross-Cultural Comparison of India and China, iIMA W.P. No.2007-01-06	*Goel, Vohra, Zhang,& Arora*, (2007)	Individuals from India and China	
8.	Journal Article	"Entrepreneurial intention models as applied to Latin America", Journal of Organizational Change Management, Vol. 25 Iss: 5, pp.721 - 735	*Guzmán-Alfonso, & Guzmán-Cuevas*, (2012)	Population from Latin America	
9.	Journal Article	The 'making'of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&d Management*, *33*(2), 135-147.	*Lüthje & Franke,* (2003).	1. A covariance structure model is tested to identify the causes of entrepreneurial intent among engineering students 2. Study explores whether steady personal dispositions or whether perceptions of contextual founding conditions have an impact on the intention	Support for inclusion of contextual factors in the model
10.	Journal Article	Self-employment intentions among Russian students. *Entrepreneurship & Regional Development*, *11*(3), 269-280.	Tkachev & Kolvereid, (1999).	Russian students	

2.3.3 External environment and extended model of TPB impacting entrepreneurial intentions

There are many studies on entrepreneurial intentions which are confined to personality factors, attitudes or elements of theory of planned behavior. However, the need to include contextual factors along with behavioral factors has been expressed in some studies (Nabi et al, 2010). Many authors have discussed the impacts of certain environmental factors (Franco et al., 2010; Sesen, 2013). Environmental antecedents of entrepreneurial intentions of mostly university students have been included in studies like access to capital (Luthje & Franke, 2003; Ozen Kutanis et al., 2006; Schwarz et al., 2009), knowledge of the potential business sector (Kristiansen & Indarti, 2004), social networks (Sequeira et al., 2007), and entrepreneurial education (Cheng et al., 2009; Packham et al., 2010; Souitaris et al., 2007).

Table 2.4: List of literature depicting use of extended model of TPB

S.No	*Tag*	*Title*	*Author, year*	*Gist*	*Link*
1.	Journal Article	Entrepreneurial intention among Indonesian and Norwegian students. *Journal of Enterprising Culture*, *12*(01), 55-78.	*Kristiansen & Indarti,* (2004)	1. Study used individual, economic and cultural factors 2. Contextual elements such as access to capital and information were used in the extended model	Support for designing EE construct of questionnaire
2.	Conference Paper	Assessing entrepreneurial intentions amongst students: A comparative study. *In VentureWell. Proceedings of Open, the Annual Conference (p. 79). National Collegiate Inventors & Innovators Alliance*	*Basu & Virick, (2008).*	1. Study conducted with 123 students at San Jose State University confirming the aptness of TPB model 2. Study incorporated exposure to entrepreneurship education into TPB model	Support for aptness of extended TPB model
3.	Journal Article	The effects of attitudes and perceived environment conditions on students' entrepreneurial intent: An Austrian perspective. *Education+ Training*, *51*(4), 272-291	*Schwarz, Wdowiak, Almer-Jarz, & Breitenecker,* (2009)	1. Study incorporates both TPB and environmental items 2. EI studied using attitudes toward money, change, and competiveness, perception of university environment and regional infrastructure set-up which were found to be significant	Support for addition external environment construct in model
4.	Journal Article	Personality or environment? A comprehensive study on the entrepreneurial intentions of university students. *Education+ Training*, *55*(7), 624-640	*Sesen,* (2013)	1. Comprehensive model of testing EI using individual and environmental factors 2. Individual factors, access to capital and networks significant	➢ Support for designing of EE construct in questionnaire ➢ Though found to be statistically insignificant, relevance of inclusion noted
5.	Journal Article	Affective and cognitive components of attitudes in high-stakes decisions: An application of the theory of planned behavior to hormone replacement therapy use. *Psychology & Marketing*, *32*(6), 678-695	*Schaller & Malhotra,* (2015)	1. The purpose of this research is to study the interplay of cognitive and affective factors in determining consumer attitudes and intentions toward high-stakes decision behaviors 2. Results support an extended version of the theory of planned behavior model that is useful in predicting consumer's intentions to engage in high-stakes decision behaviors	Support for use of extended models of TPB

S.No	*Tag*	*Title*	*Author, year*	*Gist*	*Link*
6.	Journal Article	Underlying factors of entrepreneurial intentions among Asian students. *The South East Asian Journal of Management*, *4*(2), 143	*Indarti, Rostiani, & Nastiti,* (2010).	1. Study on undergraduate students in Asian countries 2. Generally, self-efficacy, gender, age, environmental factors found to affect intentions 3. Low % variance of model noted	➢ Strong case for inclusion of environmental factors in study of intentions ➢ Access to information, capital and social networks significant environmental factors
7.	Journal Article	Which factors affect entrepreneurial intention of university students? *Journal of European industrial training*, *33*(2), 142-159	*Turker & Selçuk,* (2009)	1. Study performed on university students 2. Entrepreneurial intention is taken as a function of educational, relational, and structural supports 3. Results of the survey showed that educational and structural support factors affect the entrepreneurial intention of students	Structural support is equal to institutional support in the present study as the target group are graduating students
8.	Journal Article	First and higher order models of attitudes, normative influence, and perceived behavioral control in the theory of planned behavior. *British Journal of Social Psychology*, *44*(4), 513-535	*Hagger, & Chatzisarantis,* (2005)	1. Study uses multi-component model instead of traditional model 2. An augmented version of TPB used	Support for using augmented version of TPB
9.	Journal Article	Determinants Of Entrepreneurial Intentions. In RENT XI Workshop, Nov 23 to 24 1995, Piacenza, Italy	*Davidsson, (*1995)	1. Economic-psychological model of factors that influence individuals' intentions is developed and tested 2. Situational aspect used in the study is previous employment status 3. Study carried out on Swedish adults	➢ There is strong support for including role models as study proves that perception of role models affect entrepreneurial intentions ➢ Study shows that gender has little or no direct influence on entrepreneurial intentions ➢ Impact of situational influence on intentions is noted
10.	Journal Article	Entrepreneurial Intent among Students in Scandinavia and in the USA; Enterprise and Innovation management studies; volume 2, 2001 - Issue 2;Pages 145-160	*Autio, Keeley, Klofsten, Parker & Hay*, (2001)	1. The study provided a test of the robustness of the intent approach using international comparisons 2. Perceived behavioral control emerges as the most important determinant of entrepreneurial intent 3. Population drawn from Finland, Sweden, USA, UK	➢ Important point of situational variables impacting intentions drawn ➢ The situational variable in this study is work experience of respondents

2.3.4 Impact of gender on entrepreneurial intentions

Findings indicate significant gender differences in barrier perceptions. However, this gap was not consistent across cultures (Shinnar, et al, 2012). Entrepreneurship has traditionally been a male-dominated field with men owning more businesses than women (Marlow, 2002). Women are prone to perceive the environment to be challenging and unsuitable for entrepreneurial activity (Zhao, et al, 2005) with insurmountable barriers. Indeed, in their 17-nation study, Langowitz & Minniti (2007) found that 'women tend to perceive themselves and their business environment in a less favorable light compared to men'.

Table 2.5: Literature based on gender and its impact on entrepreneurial intentions

S.No	Tag	Title	Author, year	Gist	Link
1.	Journal Article	Self-efficacy, entrepreneurial intentions, and gender: Assessing the impact of entrepreneurship education longitudinally. *The International Journal of Management Education*, *12*(3), 561-570.	Shinnar, Hsu, & Powell, (2014).	1. The paper examines whether gender is a barrier to intentions 2. Significant but inconsistent gender differences in barrier perceptions found	The link between gender and entrepreneurship can be significant but to be tested for consistency
2.	Journal Article	Mediation and moderated mediation in the relationship among role models, self-efficacy, entrepreneurial career intention, and gender. *Journal of Applied Social Psychology*, *41*(2), 270-297	BarNir, Watson & Hutchins, (2011)	1. The effect of role models and gender on intentions examined 2. Positive results reported	Impact of gender and role models on intentions cannot be ignored
3.	Journal Article	The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. *Entrepreneurship theory and practice*, *33*(2), 397-417.	Gupta, Turban, Wasti, & Sikdar, (2009)	1. Impact of gender stereotypes on men's and women's intentions studied 2. Males showed higher intentions	Need to present entrepreneurship as gender neutral in survey and carefully avoid stereotyping
4.	Journal Article	The Impact of Entrepreneurship Education: A Study of Iranian Students' Entrepreneurial Intentions and Opportunity identification; *Journal of Small Business Management 2016-54(1), pp 187-209*	*Karimi, Biemans, Martin & Chizari,* (2016)	1. Study uses TPB to explore the effects of entrepreneurial role models on EI)and its antecedents and examines the question of whether the effects vary by gender 2. Moderation of gender on intentions seen	➢ Strong support for use of SEM to analyze TPB model ➢ Variation of impact of constructs on EI is expected based on culture

2.3.5 Impact of course of study on entrepreneurial intentions

Course of study being pursued by wannabe entrepreneurs is shown to be influential in shaping entrepreneurial intentions (Wilson, et al, 2007). Students pursuing engineering and business administration courses were often the target of studies on entrepreneurs. Studies on engineering students showed that they were entrepreneurially inclined than other courses (Kriewall & Mekemson, 2010). Culture of the institution in which the respondents are studying has also shown to be vital in inculcating and promoting intentions in students (Lüthje & Franke, 2003). Both engineering and administration students were shown to have high creative potential. However, engineering students channeled the potential into practical and incremental efforts while the business students were more speculative and had a clearer market focus (Berglund & Wennberg, 2006).

Table 2.6: Literature review of articles on impact of course of study on entrepreneurial intentions

S.No	Tag	Title	Author, year	Gist	Link
1.	Journal article	Gender, entrepreneurial self–efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrepreneurship theory and practice*, *31*(3), 387-406.	Wilson, Kickul & Marlino, (2007)	The effects of entrepreneurship education in MBA programs on entrepreneurial self-efficacy proved stronger for women than for men	Stronger impact of education on women pursuing MBA expected; to be clarified
2.	Journal article	Instilling the entrepreneurial mindset into engineering undergraduates. *The journal of engineering entrepreneurship*, *1*(1), 5-19.	Kriewall, & Mekemson, (2010)	Engineering students have the potential to be entrepreneurs Marketing, business, societal needs need to be incorporated into engineering curriculum	Intentions of engineering students need special attention in study
3.	Journal article	The 'making'of an entrepreneur: testing a model of entrepreneurial intent among engineering students at MIT. *R&d Management*, *33*(2), 135-147.	*Lüthje, & Franke,* (2003).	Culture of MIT as an institute vital in inculcating and promoting intentions in students	Relation between college and intentions need to be probed
4.	Journal article	'Creativity among entrepreneurship students: comparing engineering and business education', Int. J. Continuing Engineering Education and Lifelong Learning, Vol. 16, No. 5, pp.366–379.	Berglund, & Wennberg, (2006)	1. Both engineering and administration students had high creative potential 2.Engineering students channeled this into practical and incremental efforts 3. The business students were more speculative and had a clearer market focus.	Difference in intentions between different academic streams need to be probed

2.3.6 Entrepreneurship education and entrepreneurial intentions

The present theories on entrepreneurship have moved away from the earlier trait theories and are now based on the basic premise that entrepreneurship can be taught. Studies have shown significant correlation between enterprise education and venture creation (Peterman & Kennedy, 2003); (Bae & Giet, 2014). However, some studies like those by Oosterbeek et al (2010) have shown no significant effect of entrepreneurial education on intentions. Studies on university students revealed that a positive link exists between prior entrepreneurial exposure and entrepreneurial intentions (Zhang, et al, 2014).

Table 2.7: List of studies on impact of entrepreneurship education on entrepreneurial intentions

S.No	Tag	Title	Author& year	Gist	Link
1.	Journal Article	Enterprise education: Influencing students' perceptions of entrepreneurship. *Entrepreneurship theory and practice*, *28*(2), 129-144.	Peterman, & Kennedy, (2003).	Strong correlation between enterprise education and venture creation	Provided background for hypothesis on entrepreneurial education
2.	Meta-Analysis	The relationship between entrepreneurship education and entrepreneurial intentions: A meta–analytic review. *Entrepreneurship theory and practice*, *38*(2), 217-254.	Bae, Qian, Miao & Fiet, (2014).	There was a significant but a small correlation between entrepreneurship education and entrepreneurial intentions	Existence of link between education and intention need to be probed
3.	Journal Article	The impact of entrepreneurship education on entrepreneurship skills and motivation. *European economic review*, *54*(3), 442-454.	Oosterbeek, Van Praag, & Ijsselstein, (2010)	The effect of education on intentions was found to be insignificant and even negative	Effect of education on intentions can be both positive or negative
4.	Journal Article	The role of entrepreneurship education as a predictor of university students' entrepreneurial intention. *International entrepreneurship and management journal*, *10*(3), 623-641.	Zhang, Duysters & Cloodt, (2014).	Study shows significant positive impact from entrepreneurship education	Various outcomes expected from education-intention link

2.3.7 Accreditation level of colleges and entrepreneurial intentions

Accreditation is a process of validation in which colleges, universities and other institutions of higher learning are evaluated. All India Council for Technical Education (AICTE), National Board of Accreditation (NBA) for technical and management colleges, Pharmacy

Council of India (PCI) are some of the accreditation boards. The National Assessment and Accreditation Council (NAAC) were established in 1994 as a UGC autonomous body. NAAC accreditation for colleges is an integral part of the functioning of higher education institutions in India. NAAC awards 8 different grading to colleges depending on the performance of the college in various parameters.

Studies conducted on students of colleges with accreditation from various agencies reported that there were benefits from designing development programs for current and aspirant business owners with a greater emphasis on personal development (Rae & Carswell, 2000). While some studies asserted that the effect of accreditation level of colleges is indirectly felt on intentions (Duval-Couetil, 2013), both indirect and direct impact of accreditation status on intentions was proved in other studies (Fayolle, et al, 2006).

Table 2.8: List of literature review showing impact of accreditation status of colleges on entrepreneurial intentions

S.No	Tag	Title	Author& year	Gist	Link
1.	Journal Article	Using a life-story approach in researching entrepreneurial learning: the development of a conceptual model and its implications in the design of learning experiences. *Education+ training*, *42*(4/5), 220-228.	Rae, & Carswell, (2000).	There would be benefits from designing development programs for current and aspirant business owners with a greater emphasis on personal development	Education impact on intentions correlated to accreditation
2.	Journal Article	Assessing the impact of entrepreneurship education programs: Challenges and approaches. *Journal of Small Business Management*, *51*(3), 394-409.	Duval-Couetil, (2013).	Highlights the value of faculty-involvement in imparting education for entrepreneurs	Impact of accreditation may be indirect
3.	Journal article	Assessing the impact of entrepreneurship education programs: a new methodology. *Journal of European industrial training*, *30*(9), 701-720.	Fayolle, & Lassas-Clerc,. (2006).	1. Entrepreneurial education shown to impact intentions strongly and significantly 2. The impact is not through PBC	Education impact both direct and indirect need to be ascertained

2.3.8 Satisfaction with placements and entrepreneurial intentions

The placement process offered by various educational institutions is of significance for the career plans of the students pursuing different programs in those institutions. Each institute offering placement services helps every student in exploring placement opportunities by inviting various companies for campus recruitment of students who are in the final year of the program and are likely to graduate at the end of the academic year. Necessary training in handling tests conducted during placements is also provided by the placement cells created by the institute.

Review of recent literature has shown that various placement training programs put in place for students also serve the purpose of fostering innovation which in turn boosts creativity and entrepreneurship in students (Woodier-Harris, 2010).

Table 2.9: List of studies showing impact of satisfaction of placements on entrepreneurial intentions

S.No	Tag	Title	Author& year	Gist	Link
1.	Journal Article	Evaluating the impact of SPEED on students' career choices: a pilot study. *Education+ Training*, *52*(6/7), 463-476.	Woodier-Harris, (2010).	Paper explores the positive impact of Student Placements for Entrepreneurs in Education (SPEED) program	Basis for intentions-placement hypothesis
2.	Obj 3.2 (2) Journal Article	Recent Trends and Challenges in Campus placements of Engineering Institutions. *Journal of Engineering Education Transformations*.	Neelakantappa., Babu, Boregowda & Vinod, (2018)	Explanation of the placement model in engineering colleges	Knowledge of campus placements process, time frame, success factors
3.	Obj 3.2 (3) Journal Article	Employability and entrepreneurship embedded in professional placements in the business curriculum. *Journal of Chinese entrepreneurship*, *3*(1), 49-57.	Procter, (2011)	Postulates Learning Exponential model for improving placements and fostering innovation	Basis for hypothesis on intentions-placements

2.3.9 Presence of entrepreneurs in family circle and entrepreneurial intentions

Literature focuses on the impact of environment on entrepreneurial intentions and one of the most significant influences is the presence of entrepreneurs in family circle. Absence of role models is said to lead to low entrepreneurial intentions (Nowiński & Haddoud, 2019).

Presence of entrepreneurs in family or friends circle is said to be the best role models and is said to lead towards strong entrepreneurial intentions. Family business background has been shown to have an effect on university students' inclination towards entrepreneurship (Keat, et al, 2011).

Table 2.10: List of studies showing impact of entrepreneurs in family circle on entrepreneurial intentions

S.No	Tag	Title	Author& year	Gist	Link
1.	Journal Article	Running in the family: parental role models in entrepreneurship. *Small Business Economics*, *44*(1), 79-104.	Hoffmann, Junge, & Malchow-Møller, (2015).	Family background shows impact on intentions	Basis for hypothesis on family background
2.	Journal Article	Inclination towards entrepreneurship among university students: An empirical study of Malaysian university students, International Journal of Business and Social Science2.4.	Keat, Selvarajah & Meyer, (2011).	Family business background has an effect on university students' inclination towards entrepreneurship	Basis for hypothesis on family background
3.	Journal Article	University students' attitudes towards entrepreneurship: A two countries comparison. *The International Entrepreneurship and Management Journal*, *1*(2), 165-182.	Veciana, Aponte & Urbano, (2005)	Impact of social background was found to non-significant	Intentions-family background link needs to be probed

2.3.10 Structural equation modeling (SEM) and study of entrepreneurial intentions

Studies on entrepreneurial intentions have previously used statistical approaches like correlations, hierarchical multiple regressions and factor analysis. Since then Structural Equation Modeling (SEM) has emerged as a standard approach to testing research hypotheses. The reason for this could be the increasing use of multivariate data and both observed and latent variables in the models used to study entrepreneurial intentions (Jöreskog, 1973). Both covariance-based and variance-based SEM studies are seen in the literature. Developed by Herman Wold (Mateos-Aparicio, 2011), partial least squares path modeling is perceived to be more suited for analysis of multivariate data as it makes no strict demands on data distribution, sample size and multi-collinearity (unlike CB-SEM) (Hair, et al, 2011).

Table 2.11: List of studies using SEM for study of entrepreneurial intentions

S.No	Tag	Title	Author& year	Gist	Link
1.	Journal Article	Entrepreneurial intentions in the third age: the impact of perceived age norms. *Small business economics*, *37*(2), 219-234.	Kautonen, Tornikoski & Kibler, (2011).	Entrepreneurial intentions model is analyzed using SEM	Scope for using SEM as analytical strategy
2.	Journal Article	Entrepreneurial perceptions and intentions: The role of gender and culture. *Entrepreneurship Theory and practice*, *36*(3), 465-493.	Shinnar, Giacomin & Janssen, (2012).	Impact of gender and culture on entrepreneurial intentions is analyzed using SEM	Support for using SEM as analytical strategy
3.	Journal Article	Psychological characteristics and entrepreneurial intentions among secondary students. *Education+ Training*, *55*(8/9), 763-780.	Dinis, do Paco, Ferreira, Raposo & Gouveia, (2013).	Model of entrepreneurial intentions among secondary students was tested using SEM	Support for SEM
4.	Journal Article	IT entrepreneurial intention among college students: An empirical study. *Journal of Information Systems Education*, *24*(3), 233-243.	Chen, (2013)	The paper investigates empirically IT entrepreneurial behavior among college students using PLS	Support for SEM
5.	Conf Paper	The Drivers of Entrepreneurial Intentions -An Empirical Study among Information Systems and Computer Science Students*, Proceedings of the Nineteenth Americas Conference on Information Systems, Chicago, Illinois, August 15-17, 2013.*	Kaltenecker, Hoerndlein, & Hess, (2013)	The paper is an empirical study based on an extended model of the Theory of Planned Behavior among Information Systems and Computer Science students using SEM	Support for SEM
6.	Journal Article	Institutional and economic determinants of the perception of opportunities and entrepreneurial intention. *Investigaciones Regionales-Journal of Regional Research*, (26), 75-96.	Vidal-Suñé, & López-Panisello, (2013).	The paper attempts to identify the institutional and economic factor that influence the perception of business opportunities using GEM data	Support for SEM
7.	Journal Article	Moderating role of entrepreneurial orientation on the relationship between entrepreneurial skills, environmental factors and entrepreneurial intention: A PLS approach. *Management Science Letters*, *6*(3), 225-236.	Ibrahim & Mas'ud, (2016).	This paper modeled the direct effects of entrepreneurial skill, environmental factors and entrepreneurial orientation on entrepreneurial intention	Support for SEM
8.	Journal Article	Testing measurement invariance across groups: Applications in cross-cultural	Milfont & Fischer, (2010).	Paper sets parameters for invariance across	Important basis for moderation and

S.No	Tag	Title	Author& year	Gist	Link
		research. *International Journal of psychological research*, *3*(1), 111-130.		groups	mediation hypothesis
9.	Journal Article	Entrepreneurial intention as developmental outcome. *Journal of Vocational Behavior*, *77*(1), 63-72.	Obschonka, Silbereisen & Schmitt-Rodermund, (2010).	Paper studies impact of direct and indirect effects on model	Important basis for moderation and mediation hypothesis
10.	Journal Article	Direct and indirect effects of three core charismatic leadership components on performance and attitudes. *Journal of applied psychology*, *81*(1), 36.	Kirkpatrick & Locke, (1996).	Paper outlines the rudiments of direct and indirect effects	Important basis for analyzing moderation and mediation
11.	Journal Article	Demonstration and evaluation of a method for assessing mediated moderation, *Behavior Research Methods;* Feb 2006; 38, 1; ProQuest Central pg. 77	Morgan-Lopez; MacKinnon, David, (2006)	Conditions of mediated moderation to exist are outlined	Important aspect for analyzing mediated moderation
12.	Journal Article	Work stressors and impaired sleep: Rumination as a mediator. *Stress and Health*, *27*(2), e71-e82.	Elfering, Lüthy & Semmer, (2011).	Study shows how mediating and moderating variables predict dependent variable	Important basis for moderation and mediation hypothesis
13.	Journal Article	Innovation Role in Mediating the Effect of Entrepreneurship Orientation, Management Capabilities and Knowledge Sharing Toward Business Performance: Study at Batik SMEs in East Java Indonesia. *IOSR J. Business Manag*, *8*(4), 16-27.	Setyanti, Nimran & Rahayu, (2013).	DV-IV relationship explained comprehensively using mediation	Important basis for mediation hypothesis
	Journal Article	Testing the mediation effect using covariance based structural equation modeling with AMOS. *American International Journal of Research in Humanities, Arts and Social Sciences*, *6*(2), 186-190.	Afthanorhan, Ahmad & Mamat, (2014).	Testing moderation effect using Sobel's test	Important basis for moderation hypothesis

2.4 Research gap

A research gap is a break in the knowledge in the field of research of the chosen study. Every research project must attempt to fill in some piece of information missing in the literature. If gaps are not identified the study cannot be considered as novel research. The gap refers to the area that has not yet been explored or is under-explored. Gap could be in terms of size, type, location of population, research method, data collection and/or analysis, or other research variables or conditions.

An exhaustive review of available literature on entrepreneurial intentions and application of TPB was conducted. Around 300 articles, conference papers and doctoral theses were downloaded by the scholar from databases like Google Scholar, ScienceDirect, ProQuest, JSTOR, ResearchGate, etc. More than 17,000 papers are available on Google Scholar on use of TPB using qualitative, quantitative and mixed methods of approach. Of these about 11,000 are regarding the application of TPB on entrepreneurial intentions of various groups of individuals. Around 9000 papers and theses detail the use of TPB on intentions of university and college students of various academic disciplines. The scholar analyzed and evaluated around 500 papers in various aspects of studies on entrepreneurial intentions. A critical analysis of relevant literature reveals the following aspects that need to be addressed:

- *Particular combination of TPB and contextual elements not used so far:* The scope of most of the earlier studies was confined to TPB elements or contextual elements only. There are very few studies that combine both TPB elements and contextual or environmental elements (Kautonen et al, 2015; Kautonen et al, 2013; Elfving et al, 2009; Meeks, 2004; Linan & Chen, 2009; Rhodes et al, 2006). Studies like Edelman & Renko, 2010 used impact of environment along with entrepreneurial perceptions (not TPB).

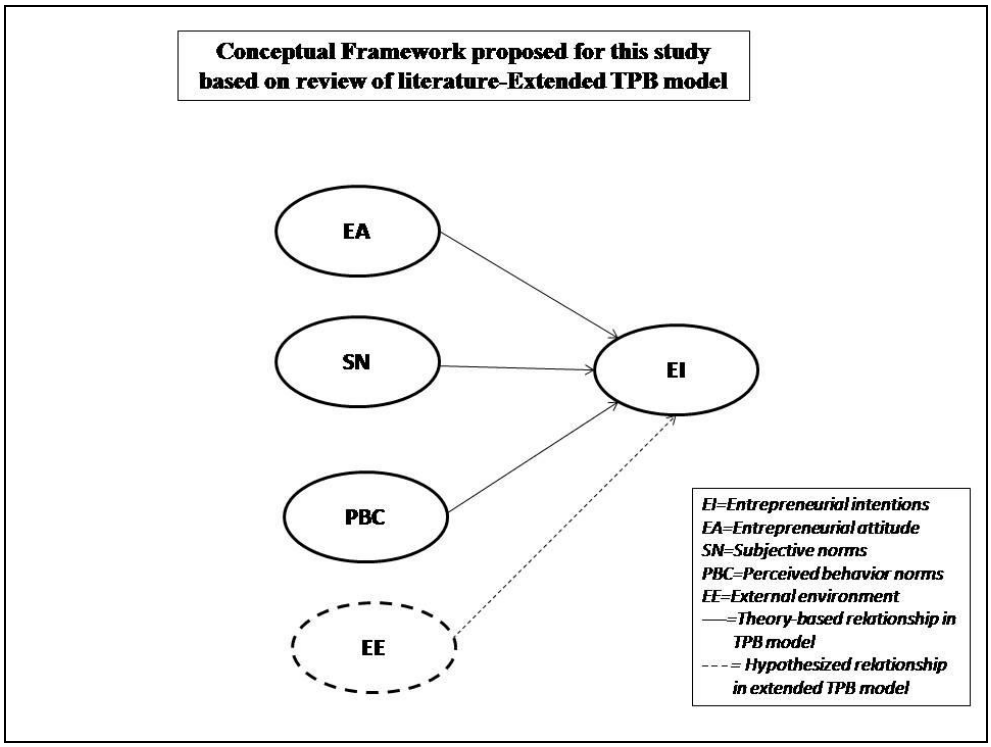
- *No studies on Indian population using EIQ:* The studies cover a wide range of populations of students all over the world. Some studies had used EIQ on Indian students along with other countries for the purpose of comparison. However, there are no studies conducted on entrepreneurial intentions of Indian students alone using EIQ. Previous studies cover a wide range of populations of students all over the world. Indian populations have been included in few studies (Moriano et al, 2011). But they were for comparison purpose only. Few studies (Karim & Reddy, 2014; Karim & Venkataiah, 2016) studied entrepreneurial intentions of engineering and MBA students. To complete this gap of lack of studies on TPB and contextual elements combination, the respondents for this study have been drawn from Indian population only
- *TPB effect studied on various global populations*: Studies have been undertaken on university students from various parts of the globe (Engle et al, 2010; Gorgievski et al, 2018; Gürol & Atsan, 2006; Gerba, 2012; Peng et al, 2012; Vohra et al, 2007; Guzmán-Alfonso, Joaquín Guzmán-Cuevas, 2012; Lüthje & Franke, 2003; Tkachev & Kolvereid, 1999). There are no reports on any specific studies undertaken on respondents from Telangana region. To overcome this oversight, the respondents for this study have been drawn from colleges in Hyderabad, Telangana.
- *No studies on entrepreneurial intentions of Indian millennials*: Though the millennials constitute 36% of the total Indian population, there are hardly any studies on their entrepreneurial intentions. Research work by scholars like Vasanti Srinivasan (Srinivasan,2012) helped to understand and characterize generations in the context of Indian workplace. Literature review reveals that studies have been conducted on engineering and MBA students in India. But no effort was made to ensure that the students are all millennials. The respondents of this study have been drawn exclusively from millennials (born between 1980 and 2000).

- *Variance of EI-EA, EI-SN and EI-PBC constructs across studies:* The results of impact of EA, SN and PBC on EI have shown a great deal of variance across studies. For instance, the impact of subjective norms on entrepreneurial intentions (EI-SN) has been found to be significant in some studies while it has been found to be insignificant or weak and negative in other studies (Kreuger et al, 2000; Autio et al, 2010, Moriano et al, 2012). The justification for the occurrence of variance has been explained on the basis of cultural, social and perceptional differences. The impact of TPB elements on the chosen population is proposed to be ascertained through this study
- *Validating of results with present group:* Use of TPB for studying entrepreneurial intentions has been proved to be robust for many students' populations across the globe. The relevance of TPB for understanding the entrepreneurial intentions of the chosen group needs to be validated through this study
- *Broader application of TPB*: The role of educational institutions in promoting/shaping entrepreneurial intentions of students has been mostly ignored by most of the studies. The study will provide clarity on the responsibility of educational institutions in furthering entrepreneurial aspirations of students
- *TPB along with environmental factors ignored*: No study uses the combination of TPB elements and external environmental factors to study the intentions of students towards venture creation
- *Constructs more broad-based than previous studies*: Most of the papers use single-item or narrow-based constructs in the questionnaires to elicit information from respondents. The constructs need to be broad-based and multiple-item based to comprehensively all aspects of entrepreneurial intentions of respondents.

2.5 Conceptual framework based on literature review and gaps

The phenomenon of entrepreneurship is complex as it involves a number of individual and contextual factors. However, a close study of the existing literature revealed that most of the studies are focused on one aspect of entrepreneurship which concerns the behavior or personality traits of the individual. The researcher is of the opinion that this uni-directional study is inadequate to study entrepreneurship in a comprehensive manner. Hence, a study of entrepreneurial intentions involving factors of both internal and contextual nature is proposed to be undertaken by the researcher. The Theory of Planned Behavior (TPB) is chosen as the theoretical tool to study this concept. While most of the studies have been confined to Ajzen's original three components of TPB, this study proposed to use an extended model of TPB including external environment as the additional construct. The proposed model is shown in the figure below:

Fig 2.1: Conceptual framework to be used for this study



2.6 Summary

This chapter outlines the conceptual and empirical researches which are relevant to the study. This chapter attempts to outline the work done on study of entrepreneurial intentions using the Theory of Planned Behavior. Intentions of individuals who are already entrepreneurs as well as university students have been analyzed in the selected studies. Gist of some of these studies is presented in the chapter. Millennials as group has not been tested so far. Similarly, an extended model of TPB using external environment as additional factor has not been applied on millennials to study entrepreneurial intentions so far. The present study attempts to fill this gap. Gender and course of study of respondents has been found to impact intentions in some studies. The presence of entrepreneurs in family background and entrepreneurship education has been found to have differing effect on intentions. The level of accreditation of institutes in which the respondent is studying and the level of satisfaction with placements will be tested in the present study. The research gaps found after close analysis of the existing literature were used as the basis for creation of research plan to achieve the research objectives.

CHAPTER - III

RESEARCH METHODOLOGY

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RESEARCH METHODOLOGY

3.1 Introduction

This chapter details the research methodology adopted for the present study. Research methodology refers to the systematic and scientific way adopted to solve the research problem. The methodology decided for solving the chosen research problem is presented in this chapter. The methods, materials, tools and techniques used to find a solution to the outlined problem are detailed through research methodology. Out of a variety of options available, the tools and statistical analysis methods that are suited to the nature of the data are chosen. The research methodology is undertaken with a purpose to minimize errors in both the collection of data and analysis of the collected data.

It is evident that different problems on the same topic may be subjected to different types of analysis. There can be more than one appropriate way of solving the problem. Choosing the right methodology can affect the accuracy, suitability and efficiency of the research; hence, due and careful consideration is paid to the selection of the right methodology.

Further in the chapter, the outline of the research problem is presented through the research questions and statement of the problem. The objectives of the study are detailed and are followed by the suitable hypotheses constructed to aid in searching for the answers to the research problem. The plan used to study the problem is outlined in the research design. The sampling plan included in the chapter provides details of the nature and selection of sample to be used for studying the problem. This is followed by the details of data collection undertaken to collect primary data. A pilot study was undertaken to evaluate the feasibility of the research plan and make changes if and when required. The details of the pilot study are also provided in this chapter.

3.2 Research Questions

Based on the gist of the literature review discussed in the previous chapter, the study attempts to find relevant answers to the following research questions:

1. Are the millennials in Hyderabad region ready to start their own business and are they willing to turn entrepreneurs after graduation? (From the students' perspective)
2. Considering the complexity of measurement, is the TPB model robust and apt to study entrepreneurial intentions?
3. Is the TPB model adequate on its own to study intentions?
4. How do factors like gender, course presently pursuing, family background, college culture, placements, and entrepreneurship education impact intentions?
5. Do all factors have a direct impact on intentions? Are there any indirect but significant effects on intentions?

3.3 Research Problem

Initiatives undertaken to promote entrepreneurship among educated youth in India would benefit from greater understanding of entrepreneurial intentions of individuals. The study of entrepreneurial intentions especially among the graduating students is complex and challenging due to many reasons.

- Study of entrepreneurial intentions has been largely limited to response-based approaches that are uni-dimensional and dichotomous; the complex and multiple factors impacting intentions have not been covered adequately
- There is limited amount of research available on entrepreneurial intentions of graduating students
- There are very few research papers that adopt a comprehensive approach to studying intentions

- Though a great deal of work is available on study of intentions using TPB, the focus has remained on individual factors; impact of contextual and environmental factors have not been considered along with individual factors
- There is limited research available on millennials and their entrepreneurial intentions, especially in context of Indian populations.

3.4 Research Objectives

After a thorough review of literature, the undertaken study proposes to achieve the objectives as indicated below:

5. To study the impact of the elements of the Theory of Planned Behavior on the entrepreneurial intentions of graduating students in Hyderabad region.
6. To test the impact of external environment on the entrepreneurial intentions of graduating students in Hyderabad region.
7. To study the impact of gender, course pursuing, satisfaction with placements, entrepreneurial education, accreditation status of institutes and presence of entrepreneurs in the family background on entrepreneurial intentions of graduating students in Hyderabad region.
8. To study the direct and indirect effects of various variables on entrepreneurial intentions of graduating students in Hyderabad region.

Based on the objectives, the following hypotheses were tested:

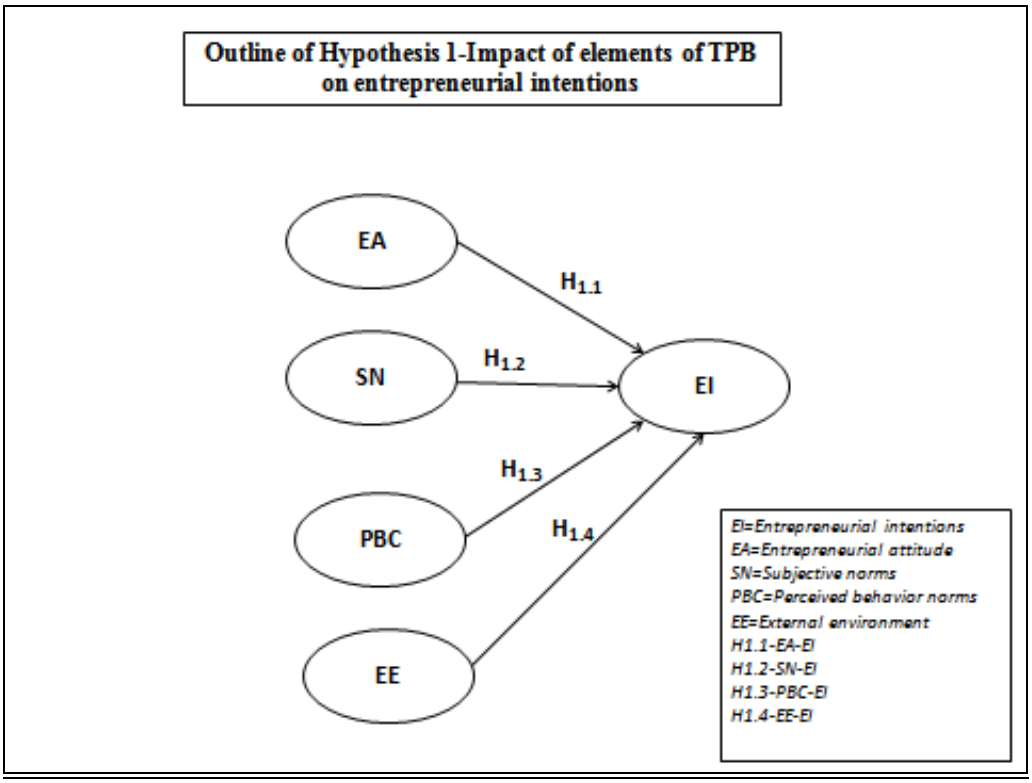
3.5 Hypotheses Formulation; Hypothesis 1-Effect of elements of TPB on entrepreneurial intentions

The first hypothesis concerns the impact of the elements of TPB on entrepreneurial intentions.

H_1: The elements of TPB do not impact Entrepreneurial intentions of the graduating students of Hyderabad region

This main hypothesis is further divided into 4 sub-hypotheses which together form the larger hypothesis H_1.

Fig 3.1: Hypothesis H1 and the sub-Hypotheses (H1.1; H1.2; H1.3; H1.4)



The 4 sub-hypotheses are:

$H_{1.1}$:	Entrepreneurial attitude does not impact Entrepreneurial intentions of the graduating students
$H_{1.2}$:	Subjective norms do not impact Entrepreneurial intentions of the graduating students
$H_{1.3}$:	Perceived behavioral control does not impact Entrepreneurial intentions of the graduating students
$H_{1.4}$:	External environment does not impact Entrepreneurial intentions of the graduating students

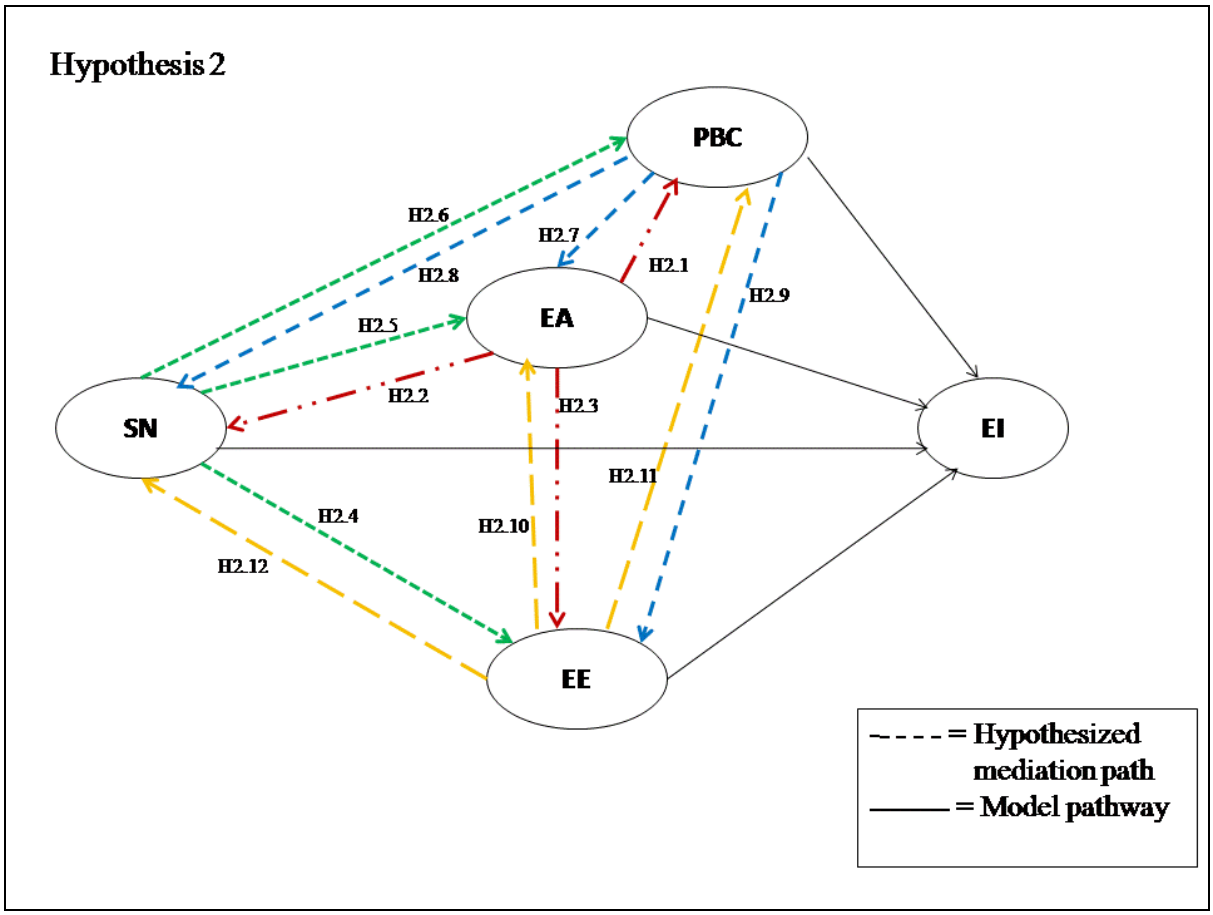
3.6 Hypothesis 2-Effect of mediation on entrepreneurial intentions

The second main hypothesis studies the effect of mediation on entrepreneurial intentions.

H_2: The effect of the independent variable on the entrepreneurial intentions of graduating students in Hyderabad region cannot be mediated by a mediating variable.

This hypothesis is divided into 12 sub-hypotheses to understand the impact of different mediating variables on relationships between different independent variables on dependent variable.

Fig 3.2: Hypothesis H2 and sub-Hypotheses H 2.1 to H2.12



(Source: Literature Review)

The different sub-hypotheses of Hypothesis 2 are as follows:

H 2.1:	There is no impact of Entrepreneurial attitude on entrepreneurial intentions when it is mediated by perceived behavior control
H 2.2:	There is no impact of Entrepreneurial attitude on entrepreneurial intentions when it is mediated by subjective norms
H 2.3:	There is no impact of Entrepreneurial attitude on entrepreneurial intentions when it is mediated by external environment
H 2.4:	There is no impact of Subjective norms on entrepreneurial intentions when it is mediated by external environment
H 2.5:	There is no impact of Subjective norms on entrepreneurial intentions when it is mediated by entrepreneurial attitude
$H_{2.6}$:	There is no impact of Subjective norms on entrepreneurial intentions when it is mediated by perceived behavior control
$H_{2.7}$:	There is no impact of perceived behavior control on entrepreneurial intentions when it is mediated by entrepreneurial attitude
$H_{2.8}$:	There is no impact of perceived behavior control on entrepreneurial intentions when it is mediated by subjective norms
$H_{2.9}$:	There is no impact of perceived behavior control on entrepreneurial intentions when it is mediated by external environment
$H_{2.10}$:	There is no impact of external environment on entrepreneurial intentions when it is mediated by entrepreneurial attitude
$H_{2.11}$:	There is no impact of external environment on entrepreneurial intentions when it is mediated by perceived behavior control
$H_{2.12}$:	There is no impact of external environment on entrepreneurial intentions when it is mediated by subjective norms

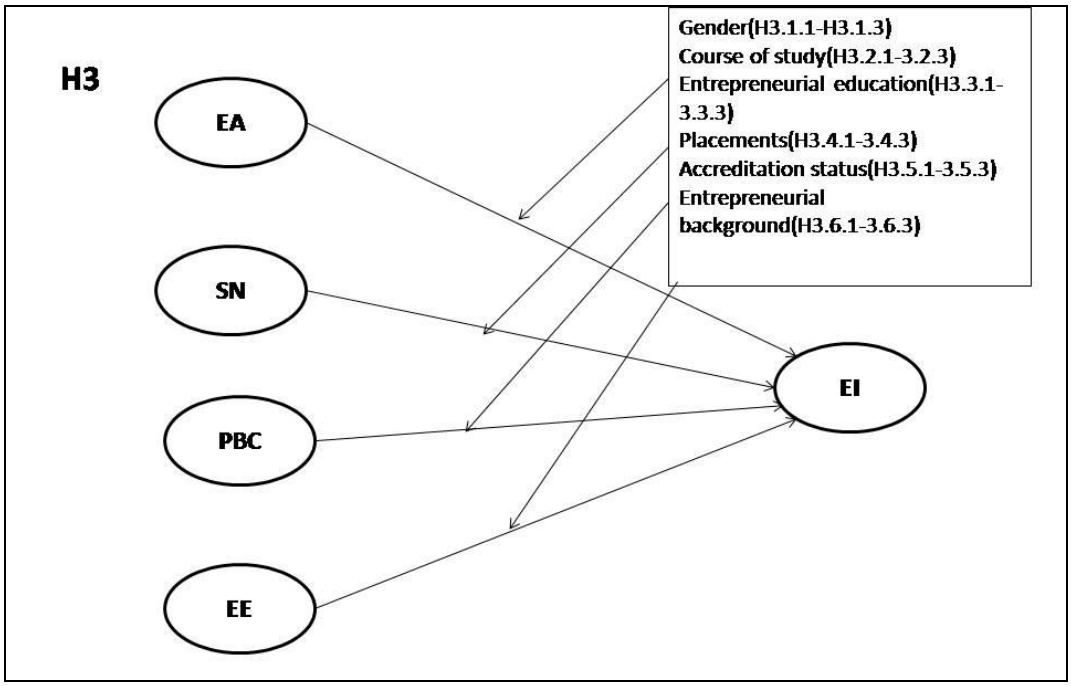
3.7 Hypothesis 3-Effect of moderation on entrepreneurial intentions

The third hypothesis studies the impact of moderation between independent variables and dependent variable. It is further divided into sub-hypothesis to form the bigger hypothesis. The sub-hypotheses describe the impact of gender, course of study, entrepreneurial education, satisfaction with placements, level of accreditation of institutes and presence of entrepreneurs in the family background.

H_3: The effect of the independent variable on the entrepreneurial intentions of graduating students in Hyderabad region cannot be moderated by a moderating variable

The main hypothesis H_3 is divided in to 6 sub-hypotheses, each of which have 4 parts each.

Fig 3.3: Hypothesis 3-Effect of 6 moderating variables on entrepreneurial intentions



The sub-hypotheses are as follows:

3.7.1 Gender as a moderating variable

$H_{3.1}$:	Gender does not moderate the relationship between the elements of TPB and Entrepreneurial intentions of graduating students in Hyderabad region
$H_{3.1.1}$:	Gender does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions of graduating students
$H_{3.1.2}$:	Gender does not moderate the relationship between Subjective norms (SN) and Entrepreneurial intentions of graduating students
$H_{3.1.3}$:	Gender does not moderate the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions of graduating students
$H_{3.1.4}$:	Gender does not moderate the relationship between External environment

(EE) and Entrepreneurial intentions of graduating students

3.7.2 Course of study as moderating variable

$H_{3.2}$:	Course of study of respondents does not moderate the relationship between the elements of TPB and Entrepreneurial intentions of graduating students in Hyderabad region
$H_{3.2.1}$:	Course of study of respondents does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions of graduating students
$H_{3.2.2}$:	Course of study of respondents does not moderate the relationship between Subjective norms (SN) and Entrepreneurial intentions of graduating students
$H_{3.2.3}$:	Course of study of respondents does not moderate the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions of graduating students
$H_{3.2.4}$:	Course of study of respondents does not moderate the relationship between External environment (EE) and Entrepreneurial intentions of graduating students

3.7.3 Exposure to entrepreneurial education as moderating variable

$H_{3.3}$:	Exposure of respondents to entrepreneurial education does not moderate the relationship between the elements of TPB and Entrepreneurial intentions of graduating students
$H_{3.3.1}$:	Respondents' exposure to entrepreneurial education does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions of graduating students
$H_{3.3.2}$:	Respondents' exposure to entrepreneurial education does not moderate the relationship between Subjective norms (SN) and Entrepreneurial intentions of graduating students
$H_{3.3.3}$:	Respondents' exposure to entrepreneurial education does not moderate the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions of graduating students
$H_{3.3.4}$:	Respondents' exposure to entrepreneurial education does not moderate the relationship between External environment (EE) and Entrepreneurial intentions of graduating students

3.7.4 Satisfaction with placements as a moderating variable

$H_{3.4}$:	Respondents' satisfaction with placements does not moderate the relationship between the elements of TPB and Entrepreneurial intentions of graduating students in Hyderabad region
$H_{3.4.1}$:	Respondents' satisfaction with placements does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions of graduating students
$H_{3.4.2}$:	Respondents' satisfaction with placements does not moderate the relationship between Subjective norms (SN) and Entrepreneurial intentions of graduating students
$H_{3.4.3}$:	Respondents' satisfaction with placements does not moderate the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions of graduating students
$H_{3.4.4}$:	Respondents' satisfaction with placements does not moderate the relationship between External environment (EE) and Entrepreneurial intentions of graduating students

3.7.5 Accreditation status of colleges as moderating variable

$H_{3.5}$:	Accreditation status of colleges of respondents does not moderate the relationship between the elements of TPB and Entrepreneurial intentions of graduating students in Hyderabad region
$H_{3.5.1}$:	Accreditation status of respondents' colleges does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions of graduating students
$H_{3.5.2}$:	Accreditation status of respondents' colleges does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions of graduating students
$H_{3.5.3}$:	Accreditation status of respondents' colleges does not moderate the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions of graduating students
$H_{3.5.4}$:	Accreditation status of respondents' colleges does not moderate the relationship between External environment (EE) and Entrepreneurial intentions of graduating students

3.7.6 Presence of entrepreneurs in family background as moderating variable

$H_{3.6}$:	Presence of entrepreneurs in respondents' background does not moderate the relationship between the elements of TPB and Entrepreneurial intentions of graduating students in Hyderabad region
$H_{3.6.1}$:	Presence of entrepreneurs in respondents' background does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions of graduating students
$H_{3.6.2}$:	Presence of entrepreneurs in respondents' background does not moderate the relationship between Subjective norms (SN) and Entrepreneurial intentions of graduating students
$H_{3.6.3}$:	Presence of entrepreneurs in respondents' background does not moderate the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions of graduating students
$H_{3.6.4}$:	Presence of entrepreneurs in respondents' background does not moderate the relationship between External environment (EE) and Entrepreneurial intentions of graduating students

3.8 Research Design

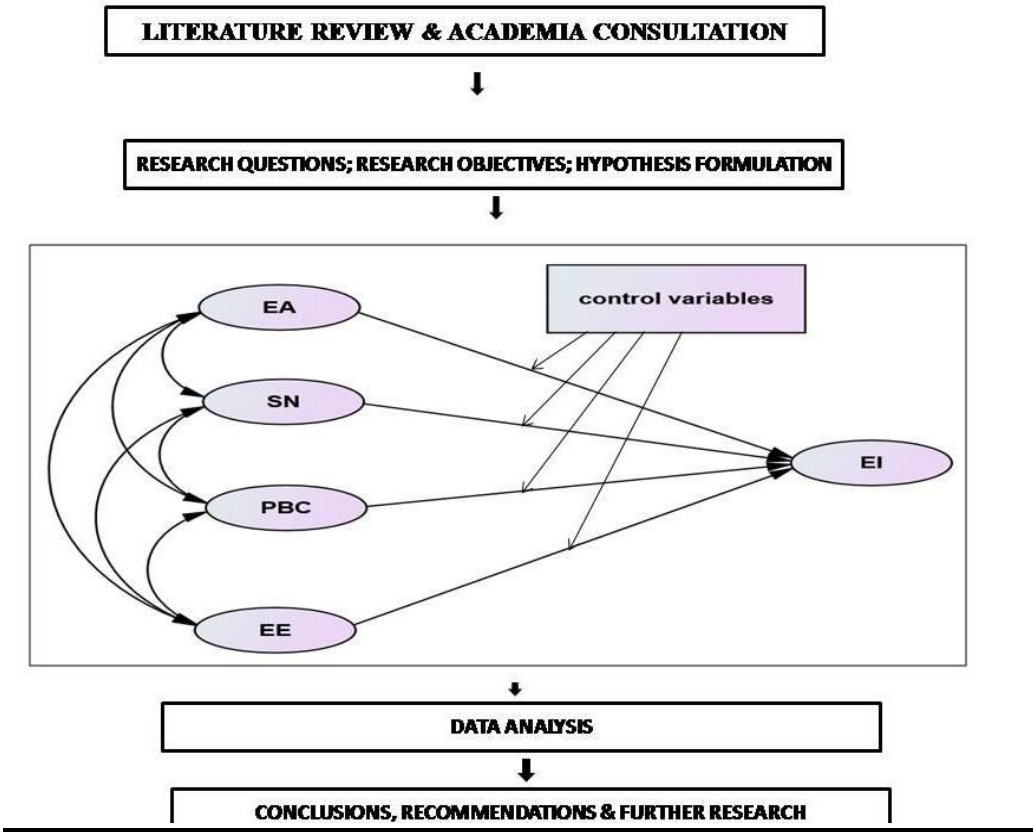
Research design refers to how the researcher, aided by a robust literature review, puts together a combination of various techniques and components of research in a logical manner so that the solution for research problem is efficiently found. It basically answers the question of "how" to conduct research using a particular methodology. The research questions developed by the researcher are answered with the help of research design.

The present study has adopted a survey research design as it is an effective method of collecting information from a large number of individuals (Bernard & Bernard, 2013). In this method, the data is collected from a sample and through the process of generalization it is related to a much broader section of the population (Warwick & Lininger, 1975).

Most of the earlier studies on entrepreneurial intentions have adopted a questionnaire-based approach (Ajzen, 2001; Linan & Chen, 2009) and have made useful contributions

to the knowledge on entrepreneurship and entrepreneurs. Few studies had adopted a qualitative approach to study of entrepreneurial intentions drawing from research in various fields. But they were not able to determine the relationships between variables as precisely as the studies based on questionnaires (Hindle, 2004; Elfving, 2008). In view of this occurrence, a combination of quantitative and descriptive approaches has been suggested for study of entrepreneurship (Dana & Dana, 2005). Hence, the nature of the design adopted for this study is **quantitative and descriptive in nature**. Quantitative research helps to generate numerical data which can be used to quantify attitudes and behaviors of a given population. The descriptive design ensures that behaviors are observed without any kind of intervention. The present study attempts to study both the internal and external factors influencing entrepreneurial intentions of millennials who are graduating students.

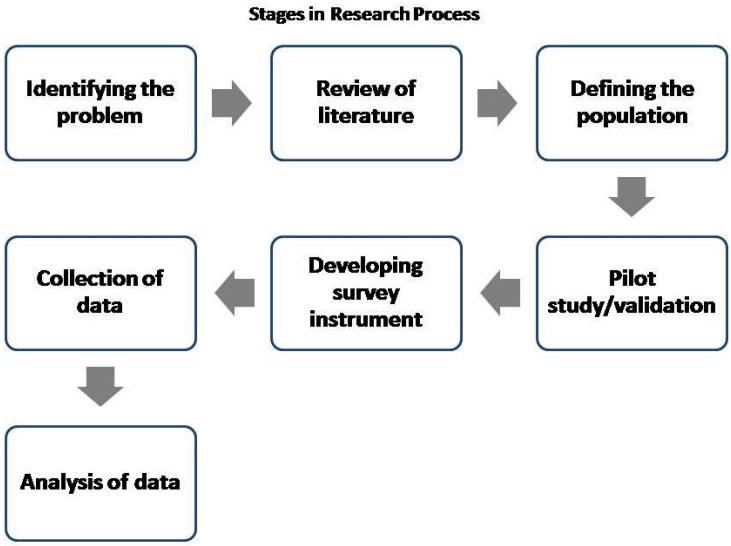
Fig 3.5: Research design adopted for this study



3.9 Stages of Research

The stages in the research process undertaken for the current study are depicted in the figure below:

Fig 3.6: Stages in research process



Identifying the problem:

Entrepreneurship or self-employment should be taken up by graduating students by choice and passion. The capacity for innovation in millennials and their skills and capabilities can be best channeled by starting own ventures and sustaining them to be profitable businesses. However, the actual number of graduating students who opt for entrepreneurship upon completion of studies is very low. This is despite the various initiatives made available by government schemes and private investors to boost entrepreneurship. To understand the deep reluctance to venture creation that is displayed by graduating students, it is necessary to understand the factors influencing their entrepreneurial intentions.

Literature Review

Preliminary studies revealed that the efficacy in the study of entrepreneurial intentions depends on the type of models used to study the intentions. Successful and effective use of

intention-based models has been noted in studies by marketing researchers and social psychologists in practical applications (Krueger et al., 2000). The theory of planned behavior (TPB) has been used successfully to analyze factors influencing entrepreneurial intent among university students (Autio et al, 2001). The attitude towards entrepreneurial behavior, subjective norms and perceived behavior control are the three main components of TPB which have been incorporated in the present study to study entrepreneurial intentions. Apart from these 3 indicators, recent studies have incorporated situational variables like external environment into the TPB model (Kristiansen & Indarti, 2004, Sesen, 2013). Inclusion of situational variables is shown to incorporate institutional environment into the TPB model and hence facilitate manipulation through policy intervention (Autio et al, 2001). Therefore, literature review has provided 4 indicators used to study the entrepreneurial intentions of millennials.

3.10 Scope of Research (Defining the population)

Individuals of all ages and all walks of life possess entrepreneurial intentions and start their own ventures. There is no gender or experience bar to have such intentions. However, the present study is limited to study the entrepreneurial intentions of graduating students who are millennials (born between years 1982 and 2000). The target population is made of students in their final year of study and will graduate in the next 6-8 months. They have already thought about their future careers and have made their career choices. Many of them have knowledge and exposure to venture creation through family and acquaintances or through exposure to entrepreneurs by means of seminars, workshops or lectures.

According to experts, Indian millennials would form the largest group of individuals in the future and their career decisions would impact the economy of the country. Study of this group and their intentions would be significant.

Students pursuing engineering and business administration courses were selected as respondents for this study. Most start-up ventures are based on Information Technology (IT) and engineering graduates, being tech-savvy, would adapt easily to ventures based on IT. On the other hand, MBA graduates are taught specialized managerial and business administration subjects which help them start own businesses.

Millennials pursuing courses in Hyderabad, Telangana were selected for this study as Hyderabad is considered to be one of entrepreneurial hubs of India. It is also an educational center having a large number of educational institutions.

3.11 Questionnaire Designing Process

The data collection method used in this study is the questionnaire method. The questionnaire is chosen as the research instrument because it is a useful and effective method to collect a great deal of information from a large number of respondents. Data is collected through presenting a series of statements to the respondents. A Likert scale with options ranging from 'strongly disagree' to 'strongly agree' was used to obtain opinions regarding the statements. Care was taken in the questionnaire to ensure that each part was clear, simply-structured and understandable by all respondents. The wording of the statements was checked to avoid ambiguity and to ensure that content is conveyed to the respondents.

3.11.1 Factors derived from literature review

The questionnaire was aimed to elicit opinions from the respondents regarding all the four indicators identified through literature review-namely, entrepreneurial attitude, subjective norms, perceived behavioral control and external environment.

Entrepreneurial Intention Questionnaire (EIQ) developed by Linan & Chen (2006) was used as the basis for the questionnaire. 9 questions meant to elicit details of entrepreneurial intentions (dependent variable) adapted from EIQ and studies conducted by Autio et al

(2003) and were included in the questionnaire. The questions assessed the perceived likelihood of the individual starting his/her own business immediately after graduation or after a period of time. The questions also assessed the strength of individual's intentions towards entrepreneurship.

Entrepreneurial attitude of respondents was assessed using 10 construct statements adapted from the instruments used by Linan & Chen (2009), Luthje & Frank (2003) and Robertson et al (2009). Care was taken to see that all 3 components of attitude-affect, behavior and cognition were included in the questionnaire so that all aspects of entrepreneurial attitude are elicited from the respondents.

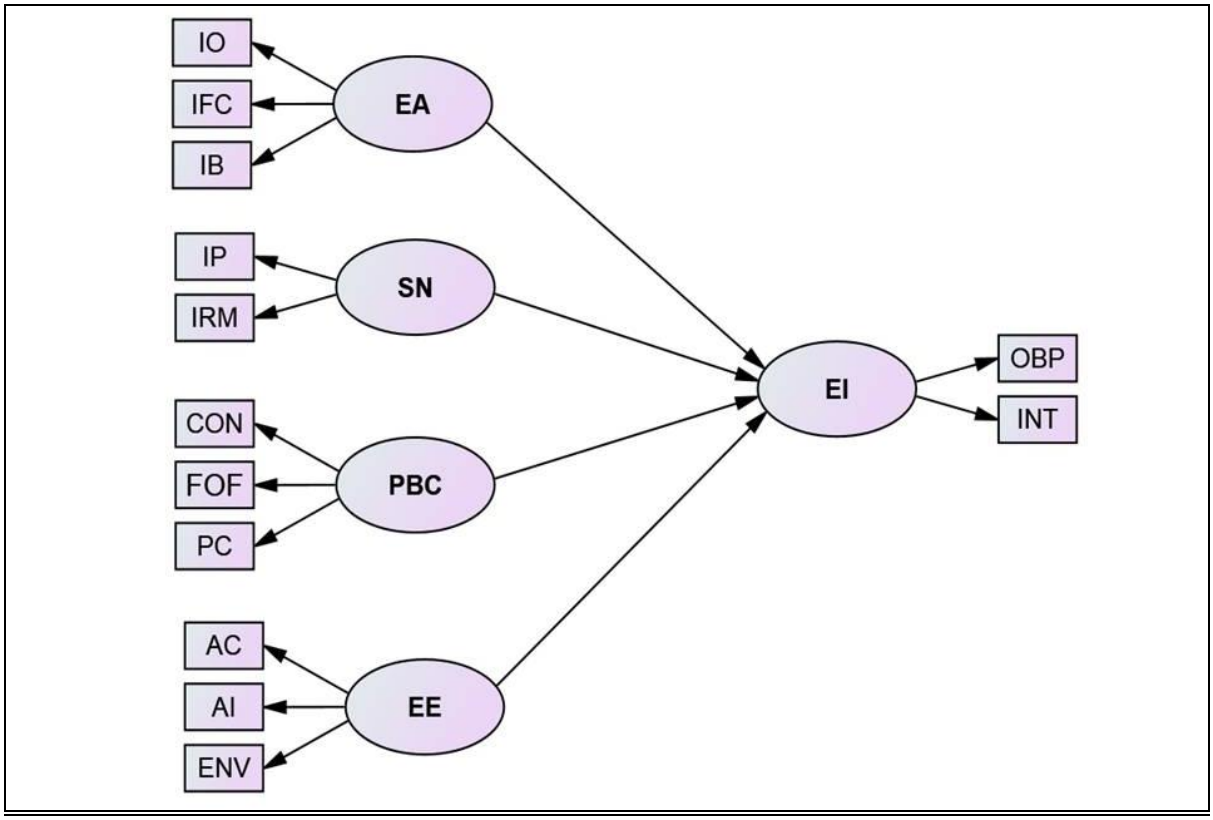
How individuals would respond to social pressures was assessed by 7 measures adapted from *the* work of Kolvereid, (1996) and Kolvereid & Isaksen, (2006). 3 statements were designed to reflect the degree to which the respondents perceive their parents, friends and family members to support them in their entrepreneurial endeavors. 4 statements were designed to reveal the extent to which the respondents were impacted by the presence of role models and how the role models influenced their entrepreneurial intentions.

10 measures were included in the questionnaire to assess the perceived behavior control that the individuals experience regarding entrepreneurship. Individuals' confidence in their abilities to start and run a successful venture, their view of their own abilities and their fear of failure were assessed by construct measures adapted from Luthje & Frank, (2003) and Linan & Chen, (2009).

11 measures were included in the questionnaire to assess the impact of external environment on the entrepreneurial intentions of the respondents. Access to capital and information, institutional support as perceived by the respondents and the impact of training and education

on the intentions of the respondents were measured through the statements. These measures were adapted from the studies conducted by Kristiansen & Indarti, (2004), Schwarz et al, (2009) and Sesen, (2013).

The constructs and the sub-constructs of the extended model of TPB are indicated in the following figure:



Details of items in the questionnaire

Nature of variable	*Construct*	*Sub-construct*	*No: of items*	*Total*
Dependent variable, DV	Entrepreneurial intentions (EI)	Opportunity-based perception	4	9
		Intentions	3	
Independent variable I, IV 1	Entrepreneurial attitude (EA)	Innovative Behavior (IB)	4	10
		Innovation-focused cognition (IFC)	3	
		Innovative affect (IO)	3	

Independent variable II, IV2	Subjective norms (SN)	Influence of parents and others (IP)	3	7
		Influence of role models (IRM)	4	
Independent variable III, IV3	Perceived Behavior control (PBC)	Confidence in skills & abilities (CON)	6	10
		Fear of failure (FOF)	2	
		Personal confidence (PC)	2	
Independent variable, IV4	External environment (EE)	Access to capital (AC)	2	11
		Access to information (AI)	2	
		Institutional support (ENV)	4	
		Training & learning (TE)	2	
Total		17	30	**47**

3.11.2 Questionnaire designing process

A total of 47 measures were adapted from previous works and were used to assess the entrepreneurial intentions and various factors impacting them. Additionally, 7 questions were added at the beginning of the questionnaire. The aim of these general questions is to elicit information regarding gender, course of study, opinions on why people start own businesses, presence of entrepreneurs in the family and state of satisfaction with placements offered in institutions. 2-8 options were provided for each of these questions. The following table provides details of the general and variable-specific measures used in the questionnaire:

Table 3.1: List of general and variable-specific measures used in the questionnaire

Q No	***Parameter***	***Type of Question***
I	Year of birth	Demographic
II	Gender	Demographic
III	Course of the study	Demographic

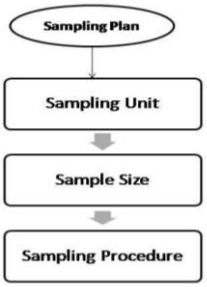
IV	Presence of entrepreneurs in the family/social background	Demographic
V	Perceived reason why people become entrepreneurs	Demographic
VI	Exposure to entrepreneurial education	Demographic
VII	Satisfaction with placements	Demographic
1-9	Entrepreneurial intention	Variable-specific
10-19	Entrepreneurial attitude	Variable-specific
20-26	Subjective norms	Variable-specific
27-36	Perceived behavior control	Variable-specific
37-47	External environment	Variable-specific

The content of the questions especially that eliciting information about parameters was carefully checked so that the respondents do not experience any ambiguity or unwillingness to provide honest responses. This exercise was important to reduce measurement error during data collection. The constructs were arranged in order of the indicators they represent with dependent variable placed first followed by independent variables.

3.12 Sampling Plan

Sampling plan provides details regarding the sampling unit, sample size and sampling procedure adopted to collect data regarding the respondents.

Fig 3.7: Outline of sampling plan



Sampling unit: It provides details of the category of population to be surveyed. Hyderabad is the capital and largest city of the Indian state of Telangana and de jure capital of Andhra Pradesh. It is a education hub as seen by the presence of numerous educational institutions along with state and central universities (OU, JNTU, HCU, etc) and premier institutions like

ISB, IIIT, NALSAR, IIT, etc. There are 1843 colleges in Hyderabad offering courses in different streams with 202 colleges offering engineering courses and 311 colleges offering MBA courses. Around 1, 00,000 students graduate from engineering courses and around 10,000 students graduate from MBA courses every year from these colleges in Hyderabad.

Sample size: It indicates the number of respondents selected for this study. The target population for this study is made of students pursuing final year B.Tech and MBA in Hyderabad region, Telangana. The total population of graduating students (engineering and MBA streams) is considered to be 1.1 lakhs (approx.)

Strata: Each engineering and MBA college is considered to be a sub-population with both male and female students and it is termed as a 'stratum'. A total of eleven strata are considered for this study.

Sampling procedure: It provides information on which group of students are selected from the population.

Sampling technique: As it is not feasible to collect data from all the graduating students pursuing engineering and business administration courses in Hyderabad, stratified random sampling technique has been adopted to collect data for this study.

Both probabilistic and non-probabilistic sampling procedure has been used for this research. Stratified sampling was used for doing stratum-wise study, which is a probabilistic sampling method. Convenience sampling has been used for taking feedback from respondents which is a non-probabilistic sampling method.

Calculated sample size: The formula used to calculate sample size is:

$n=N/1+N*(e)^2$

Where

n= size of the sample

N= Size of the population

e= acceptable sampling error (5%)

*The minimum number of sample size **n** required in case of engineering students (n=1,00,000)= 383*

The minimum number of n required in case of business administration students (n=10,000) =370

Total=753

Actual sample size considered: Data was collected from 782 respondents and data from 775 was considered after verification. So, the actual sample size for this study is **775** and is compatible with the calculated sample size.

Scope of research: The research area explored in the study and the parameters within which the study will be operating in are provided in the table below:

Table 3.2: Research area explored in the study

Place of study	***Total number of colleges***	***Total number of respondents***	***Number of colleges surveyed***	***Number of respondents***	***Pilot study respondents***
Hyderabad	1843	1.1 lakhs	11	775	60

3.13 Data Collection

Primary and secondary data were collected in the course of this study.

Primary data: The primary data has been collected by the administration of questionnaire to the respondents and collecting and collating the responses. Both 7-point and 5-point Likert scales have been used for collection of data in previous studies. Pilot study was conducted using the 7-point scale (Linan & Chen, 2009). After studying the results of the pilot study, the 4-point Likert scale was used for final data collection (see Pilot Study section). The responses of the respondents was collected on the basis of four options, namely 'Strongly disagree, Disagree, Agree and Strongly Agree'.

Secondary data: The secondary data was gathered from reports published by private agencies and NGOs, books, government publications and World Bank reports. Surveys and results from Global Entrepreneurship Monitor (GEM) were also studied for important information.

With regard to the collection of primary data, the participants of the study are Indian millennials (born between 1980-2000) who are pursuing bachelor programs in engineering or master's program in business administration in educational institutions in and around Hyderabad, Telangana, India. The relevance of Indian millennials to this study has already been discussed in earlier chapters.

Data Collection Process: From the list of colleges available with the parent university, 18 colleges were selected for collecting data; out of which 11 consented to participate. All the colleges were primarily engineering colleges which had a school of management studies in the same or nearby campus. The Entrepreneurship Development cell (ED cell) of the college was consulted while making the choice of students and for administering the questionnaire. Wherever ED cell was not present/defunct, head of the department was consulted. On the advice of the ED cell/HOD of colleges, final year engineering students pursuing IT and CSE streams were chosen to participate in the study. Similarly, second year students of MBA programs were chosen for participation. Most of the participants have already been placed or aware of the results of placement as part of campus placement programs.

Administration of questionnaire: The general objective of the study was explained to the students and questionnaire was administered with their consent. It was ascertained that the age group of respondents was within required range, i.e., born between the years 1980 and 2000. Wherever it was allowed, questionnaire in the Google form format was mailed to respondents through the secure messaging available in college official webmail.

Out of the 1920 students who were administered the questionnaire, 782 returned the completed questionnaires. Of these, some questionnaires were found to be incomplete with more than 40% questions not answered. Some questionnaires had the same response for every question resulting in outliers. Such responses were deleted and the usable responses were found to be 775 in number.

Table 3.3: Details of primary data collection

Particulars	
Primary data collection method	Personal interview method using questionnaire
Total number of colleges considered for study	18
Total number of colleges participated in data collection	11
Total number of individuals to whom the questionnaire was administered	1920
Total number of responses received	782
Total number of valid responses	775
Questionnaire administration in person	625
Questionnaire sent through Google forms	150
Total	775

3.14 Pilot Study

Before undertaking the full-length study, a pilot study was conducted to ascertain the feasibility, reliability and validity of the scale. The pilot study was undertaken to confirm the appropriateness of the instrument for achieving the objectives of the study. Also the pilot study could indicate any probable areas where the main research could fail and wherever proposed methods or instruments are inappropriate or too complicated. The results of the pilot study would help greatly in refining the instrument of final study.

For this purpose, pilot study was conducted on a select group of 60 students from 2 institutions-one a business school and the other a science and technology institute. The questionnaire used for pilot study contained 47 questions eliciting information on dependent and independent variables and 9 questions based on demographic and general aspects. Responses were drawn using Likert-scale with 7 options ranging from 'strongly disagree' through 'neither agree nor disagree' to 'strongly agree'. The results of the pilot study were obtained after performing correlation, regression and factor analysis of the data. Descriptive statistics were also obtained.

The pool for pilot study contained 37% male and 23% female population. 30 members were pursuing final year of engineering while 30 were business administration students. The measurement scales and their reliability were found by conducting factor analysis and calculating Cronbach Alpha values. The results are shown below:

Table 3.4: Different measurement scales in pilot study and their Cronbach Alpha values

S. No	**Name of the scale**	**Number of items in the pool**	**Number of items in the scale**	**Cronbach alpha value**
1.	Entrepreneurial intentions (EI)	10	8	0.842
2.	Entrepreneurial attitude (EA)	10	10	0.760
3.	Subjective norms (SN)	6	6	0.765
4.	Perceived behavioral control (PBC)	10	6	0.813
5.	External environment	11	8	0.787
	Total	**47**	**38**	

The findings of the pilot study were as follows:

1) Items that loaded less than 0.5 during factor analysis were discarded and only those who load more than 0.5 are retained. 9 questions are found to load less than 0.5

2) 38 items were found to load into 5 factors
3) The reliability of the factors was calculated using Cronbach alpha score. Values above 0.7 show high reliability of factors. All the factors showed good reliability as shown in Table 3.4
4) Respondents opined that it was difficult to answer 'neither agree nor disagree' of the Likert scale and also to correctly differentiate between 'strongly agree/disagree' and 'agree/disagree' terms. Hence, the 7-level Likert scale was to be reduced to 4-level scale for the administration of the questionnaire in the main study.
5) Respondents also expressed their inability to answer questions on perceived barriers to entrepreneurship and mentioned their reluctance to answer questions regarding economic status of the family. Hence, it was decided to remove those questions from the questionnaire intended for the main study. The final instrument adopted for administration of the main study is shown in Appendix I.

3.15 Focus group discussions and interviews

In addition to using quantitative methods like surveys for collecting data, quantitative method of information collection was also adopted in this study. The focus group discussion (FGD) was the method chosen to collect in-depth information from respondents. The questionnaire has a fixed number of questions with limited options for answering. The viewpoint of the individual regarding entrepreneurship could not be ascertained successfully. FGD was used to collect opinions about entrepreneurship, its scope, barriers and expectations of the individual from government and institutions. The opinions and explanations collected in the discussion were to be used to explain the intentions of the respondents in the results section of the thesis.

The main purpose of focus group discussion is to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions in a way which would not have been feasible using other methods, for example observation, one-to-one interviewing, or questionnaire surveys. These

attitudes, feelings and beliefs may be partially independent of a group or its social setting, but are more likely to be revealed via the social gathering and the interaction which being in a focus group entails. Compared to individual interviews, which aim to obtain individual attitudes, beliefs and feelings, focus groups elicit a multiplicity of views and emotional processes within a group context.

FGDs were conducted in 4 institutions with the permission of the head of the institution. A small group of 8-10 students participated in the discussion and the basic outline of the discussion was explained to the group. The research scholar or a faculty member acted as the moderator. However, the role of the moderator was kept to a minimum and was restricted to initiation of the discussion. More importance was given to participant's viewpoints and keeping the discussion moving within set parameters.

Apart from focus group interviews with the respondents, face-to-face interviews and online surveys also formed a part of the data collection. Interviews were conducted with heads of institutions, senior faculty members and placement officers of the institutions where questionnaires were administered. These interviews intended to elicit the views of these members on the intentions of the students of their institutions, facilities and opportunities provided for students to encourage entrepreneurship. Online surveys were conducted on a group of entrepreneurs registered with The IndUS Entrepreneurs (TIE), Hyderabad chapter. The survey elicited the entrepreneurs' opinion on what made them set up their own business and the issues, challenges and barriers facing the entrepreneurs of today.

The details of questions used in FGDs and interviews and major findings are provided in Appendix 1A.

3.16 Data Analysis Framework

Data analysis on the 775-strong sample was conducted to achieve the objectives specified for this study. Details of data analysis have been provided in the following chapter. Basic steps adopted in this framework are presented in the table below:

Table 3.5: Data analysis framework

Step in Data analysis	***Purpose***	***Tool used***
Coding and cleaning	Identification of variables; removal of gaps and outliers	Data cleaning (Excel)
Measurement of central tendency	Determination of distribution of data	Descriptive statistics (SPSS 23)
Measurement of variance	Determination whether data set is normal or not	Normality test (SPSS 23)
Comparison of independent samples	Determination of statistically significant difference between two groups	Kruskal Wallis Test (SPSS 23)
Measurement of association	Determination of linear relationship between two variable	Correlation (SPSS 23)
Factor analysis	Identification of factors	Exploratory factor analysis (EFA) (SPSS 23)
Confirmatory factor analysis	Measurement model to determine convergent and discriminant validity and reliability of constructs Structural (inner) model for testing of hypothesis	Structural equation modeling (SEM) Smart PLS 2.0 M3)

3.17 Summary

The chapter on research methodology discussed the significance of methodology in research work and threw light on how research objectives can be met by selecting the right methodology. The process of choosing the right methodology depends on the research problem; hence, an outline of the problem was provided in the form of research questions.

Research questions were framed such that they remained in the context of the research design and were relevant and feasible. This was followed by the statement of the problem which is the focal point of any research. This section contained a description of the problem of motivating individuals towards entrepreneurship within the context of entrepreneurial intentions. The current situation as it exists in India and especially from the context of millennials was discussed in this section. The objectives of the present work and the hypotheses derived from these objectives were discussed in the next section. How these hypotheses were to be tested to yield the expected results were depicted in the research design. The chosen tools and techniques were displayed in the design. Sampling is vital for collecting primary data. The sampling unit and size along with the procedure to collect data as outlined in the sampling plan. The actual process of data collection was explored in the next section. Details of the pilot study undertaken before the main study and the findings of the pilot study and how final changes were made in the final questionnaire were reviewed in the final section of this chapter. This section also included the qualitative data collection using focus-group discussions with some graduating millennials and interviews with experienced entrepreneurs and academicians. It paved the way for further aspects of the thesis, namely data analysis and interpretation. The use of structural equation modeling to study and analyze structural relationships has been supported (Kautonen, et al, 2011). The present research has adopted SEM to study the factors affecting entrepreneurial intentions as the results of similar studies have proved to be effective. The empirical study by Kaltenecker, Hoerndlein, & Hess, (2013) based on an extended model of the Theory of Planned Behavior among Information Systems and Computer Science students using SEM has shown that SEM is an effective tool to study structural relationships.

CHAPTER - IV
DATA ANALYSIS AND INTERPRETATION

CHAPTER - IV

DATA ANALYSIS AND INTERPRETATION

To achieve the objectives of the study, data analysis was performed on the data after coding and cleaning. Suitable statistical tools were used to facilitate examining, transforming and modeling data. One of the aims of conducting data analysis was to provide both descriptive and inferential statistical analysis of the data, thus transforming the data to make it possible to obtain quantifiable, objective, and easy-to-interpret results.

As a part of the descriptive statistical analysis, the central tendency and variation of the data was analyzed. After which, inferential statistical analysis was done by checking whether sample data fits into the hypothesized model or not by using structural equation modeling (SEM).

The entrepreneurial intentions among graduating millennials were studied using a 4-point Likert scale. Each of the item as measured using scales indicating their degree of agreement or disagreement (1=strongly disagree; 2=disagree; 3=agree; 4=strongly agree).

The entrepreneurial intentions of respondents were assessed using items like ‘I will consider starting new firm of my own after gaining some work experience’, ‘I am considering starting my own business on a full-time or part-time basis some day in the future’, ‘I'm ready to do anything to be an entrepreneur’, ‘I have seriously thought about starting a firm’ and ‘I have the firm intention to start a firm someday’.

Table 4.1: Mean and SD of items pertaining to the Dependent Variable

(Entrepreneurial intentions)

Tag	Item	N	Mean	SD
EI	Entrepreneurial Intentions	775	2.88	0.501
OBP4	I will consider starting new firm of my own after gaining some work experience	775	3.10	.635
OBP6	I am considering starting my own business on a full-time or part-time basis some day in the future	775	3.02	.662
INT1	I'm ready to do anything to be an entrepreneur	775	2.60	.771
INT2	I have seriously thought about starting a firm	775	2.76	.750
INT3	I have the firm intention to start a firm some day	775	2.93	.669

(Source: Computation of primary data using SPSS 23; Maximum value=4 & Minimum value=1)

From the table it can be concluded that the respondents were considering starting their own business after gaining some work experience or some day in the future. Firm intentions to start a firm some day were also strong in the respondents.

4.1 Demographic profile of respondents

All the respondents in the study are millennials (born between 1982 and 2000). The demographic profile of the respondents is represented below:

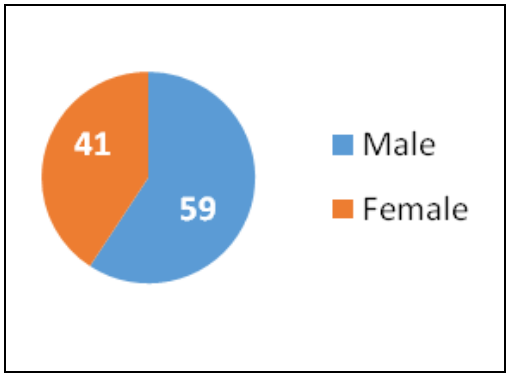
I. Gender of respondents

The sample used for this study had both male and female respondents.

Table 4.2: Frequency distribution of gender of respondents

Gender	Count	Percentage
Male	459	59
Female	316	41
Total	775	100

Fig 4.1: Gender of respondents (Fig in %; N=775)



The number of male respondents is 59% and female is 41%. Hence it is evident that majority of respondents is male.

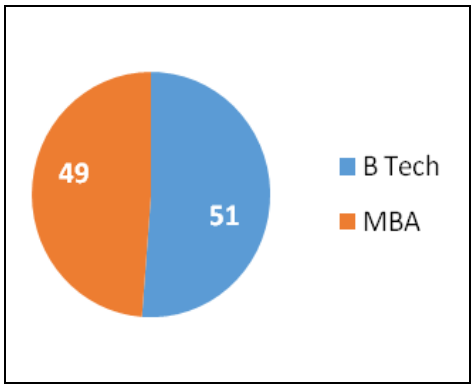
II. Course of study pursued by respondents

The sample was made of 2 categories of respondents, one pursuing engineering degree and the other MBA degree.

Table 4.3: Frequency distribution of course of study of respondents

Course	Count	%
B.Tech	378	51
MBA	397	49
Total	775	100

Fig 4.2: Course of respondents (fig in %; N=775)



The number of respondents pursuing engineering and MBA courses in the sample were found to be almost equal (51% and 49%).

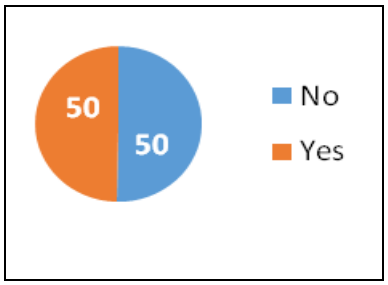
III. Exposure to entrepreneurship as a subject

The sample comprised of respondents who had studied entrepreneurship as a subject during their course of study and those who had not studied as a subject during their entire course of study.

Table 4.4: Frequency distribution of respondents' exposure to entrepreneurship as subject of study

Studied entrepreneurship as a subject	Count	%
Yes	390	50
No	385	50
Total	775	100

Fig 4.3: Exposure to entrepreneurial education (fig in %; N=775)



The number of respondents who had taken up some course relating to entrepreneurship and those who had not taken up any such course is the same (50%).

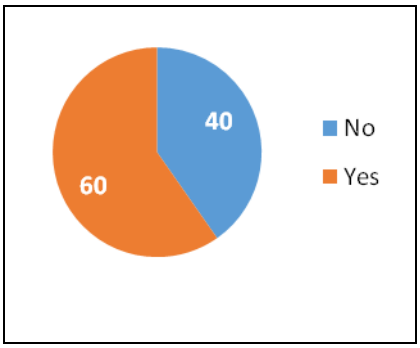
IV. Satisfaction with placements

The respondents were asked whether they were satisfied with the campus placements available after graduation. They answered as 'Yes' or 'No'.

Table 4.5: Frequency distribution of respondents' satisfaction with placements

Satisfied with campus placements	Count	%
Yes	463	60
No	312	40
Total	775	100

Fig 4.4: Satisfaction with placements (fig in %; N=775)



From the figure, it is evident that 60% of respondents were satisfied with the campus placements while 40% were not satisfied. Overall, there is satisfaction with placements offered by campuses.

V. Why people become entrepreneurs?

The respondents were provided 6 possible reasons for people choosing entrepreneurship as a career and were asked to indicate the most probable reason from those reasons.

Table 4.6: Frequency distribution of reasons for entrepreneurship

Reason	Count	%
For prestige and money	147	19
For family tradition	93	12
Don't like working for others	202	26
Like risks	54	7
Like to work differently	194	25
Entrepreneurs are special people	85	11
Total	775	100

Of all the 6 reasons, 'Don't like working for others' was chosen by 26% of the respondents while 25% felt that people become entrepreneurs as they 'like to work differently'. Taking risks was the least probable reason as only 7% chose it.

VI. Presence of entrepreneurs in the family background

Details regarding the presence of entrepreneurs in the respondents' family and social circle were collected through the questionnaire.

Table 4.7: Frequency distribution of presence of entrepreneurs in the family background

Person(s) who is an entrepreneur	Count	%
Parents	147	19
Siblings	93	12
Close relatives	202	26
Grandparents	54	7
Friends	194	25
People known to you	85	11
None	255	33
Total	1030	100

From the figures, it is evident that most of the entrepreneurs (33%) have no entrepreneurs in their background.

VII. Level of accreditation of the educational institution to which respondent belongs

Details regarding accreditation status of the academic institutions where the respondents were pursuing their respective courses were collected through the questionnaire. NAAC accreditation details were considered for this study. The details are as follows:

Table 4.8: Frequency distribution of college accreditation status

Level of accreditation	Count	%
None	3	59
Accredited	8	41
Total	11	100

Most of the institutions had A, A+ or A++ accreditation awarded by NAAC. Only 3 institutions had no accreditation.

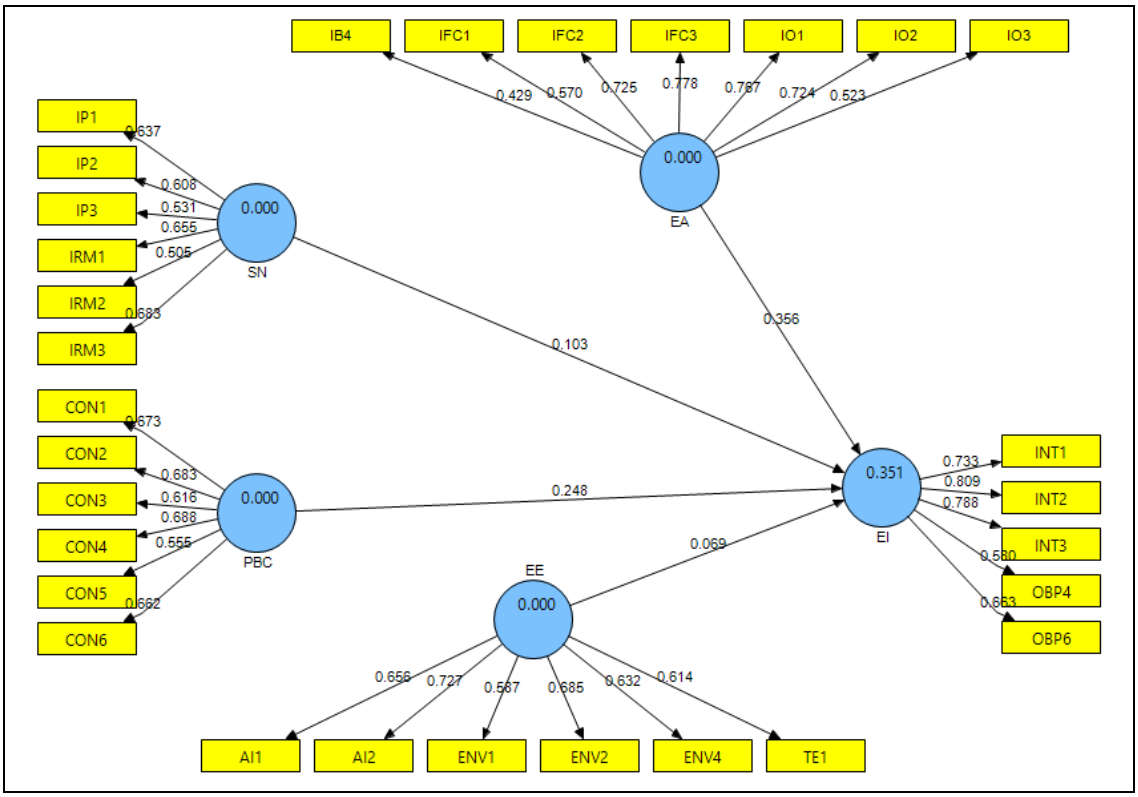
4.2 Factors affecting Entrepreneurial Intentions

Various factors impacting entrepreneurial intentions were analyzed and the results of the analysis are discussed below:

Relationship between latent variables

The relationship between the dependent variable entrepreneurial intentions and the factors impacting this variable were analyzed by determining the correlation between latent variables.

Fig 4.5: Path diagram for entrepreneurial intentions



(*Source: Path model from SmartPLS*)

Analysis of the outer loadings indicated the loading of variables on different measures. A higher outer loading on a variable indicates that the associated measure has much in common,

that is measured by the variables (Hair et al., 2013). The table of outer loadings showed that all 30 items had highest loading on one of the five variables. Hence, it can be estimated that there are 4 latent variables loading cleanly on their respective factors.

Table 4.9: Outer loadings of latent variables

Tag	Item	EA	EE	PBC	SN
AI1	I have good social networks that can be utilized when I decide to be an entrepreneur	0.1153	0.6557	0.2908	0.2662
AI2	I have access to supporting information to start my own business	0.1487	0.7275	0.2873	0.2786
CON1	I am prepared to start a viable firm	0.3887	0.1935	0.6725	0.3116
CON2	I am well aware of the required practical details of starting a firm	0.2608	0.2386	0.6831	0.258
CON3	If I start a firm, my chances of success would be high	0.323	0.2193	0.6159	0.2556
CON4	I know how to develop an entrepreneurial project	0.2648	0.2529	0.6885	0.2375
CON5	To start my own firm would probably be the best way for me to take advantage of my education	0.2104	0.2319	0.555	0.2193
CON6	I have the skills and capabilities required to succeed as an entrepreneur	0.219	0.2613	0.662	0.2805
ENV1	There is a well functioning support/infrastructure in my college/university to support the setting up of new firms	-0.026	0.5868	0.1515	0.1585
ENV2	The creative atmosphere in my college/university inspires us to develop ideas for new businesses	0.0179	0.6848	0.2155	0.1881
ENV4	In my university/college, people are actively encouraged to pursue their own ideas	0.045	0.6325	0.2008	0.2045
IB4	You can only make big money if you are self-employed	0.4292	-0.0082	0.1457	0.1011
IFC1	To me, being an entrepreneur means more advantages than disadvantages	0.5696	0.025	0.2351	0.2284
IFC2	I'd rather found a new company than be the manager of an existing one	0.725	0.0544	0.262	0.2251
IFC3	I'd rather be my own boss than have a secure job	0.7785	0.0465	0.2918	0.2055
IO1	A career as an entrepreneur is very attractive to	0.7672	0.0921	0.3583	0.3031

Tag	Item	EA	EE	PBC	SN
	me				
IO2	I relish the challenge of creating a new business	0.7241	0.138	0.3691	0.3239
IO3	I need constant change to remain stimulated, even if this would mean higher uncertainty	0.5228	0.0568	0.2314	0.2288
IP1	If I decide to start a firm, 'my parents' would strongly approve of my choice	0.2895	0.206	0.2659	0.6367
IP2	If I decide to start a firm, 'my close friends' would strongly approve of my choice	0.2252	0.1488	0.2405	0.6077
IP3	If I decide to start a firm, 'my close family (other than parents)' would strongly approve of my choice	0.2219	0.1406	0.1913	0.5308
IRM1	I know many people who have successfully started their own firm	0.2091	0.2455	0.2998	0.655
IRM2	Entrepreneurs have a positive image in Indian society	0.1694	0.1555	0.1545	0.5054
IRM3	There are a number of role models around me from whom I get ideas to start my own firm	0.2242	0.2907	0.2864	0.6826
TE1	The courses in my college/university provide students with the right knowledge required to start a new company	-0.0527	0.614	0.1534	0.1391

(*Source: PLS pathway from SmartPLS*)

Further, study of the correlation matrix shows the relationship between entrepreneurial intentions and the factors influencing it and the results are presented in the table below:

Table 4.10: Correlation matrix table for entrepreneurial intentions and its factors

	EE	PBC	SN	EA	EI
EE	**1.000**				
PBC	.271**	**1.000**			
SN	.150**	.389**	**1.000**		
EA	-.030	.403**	.239**	**1.000**	
EI	.129**	.508**	.129**	.426**	**1.000**

(Source: Output of Bivariate correlation using latent variables, SPSS 23)

*(EI=Entrepreneurial intentions; EA=Entrepreneurial attitude; SN= Subjective norms; PBC= Perceived behavioral control; EE= External environment, ** refers to significant at 0.01level)*

The results showed that the correlation coefficient between EI and PBC was 0.508 which indicated a strong and positive association significant at a level of 0.01.

The correlation coefficient between EI and EA was 0.426 which indicated a strong and positive association between the variables that was significant at 0.01 level.

The table also showed that the correlation coefficient between EI and SN is 0.129 which indicated a weak but positive association significant at a level of 0.01.

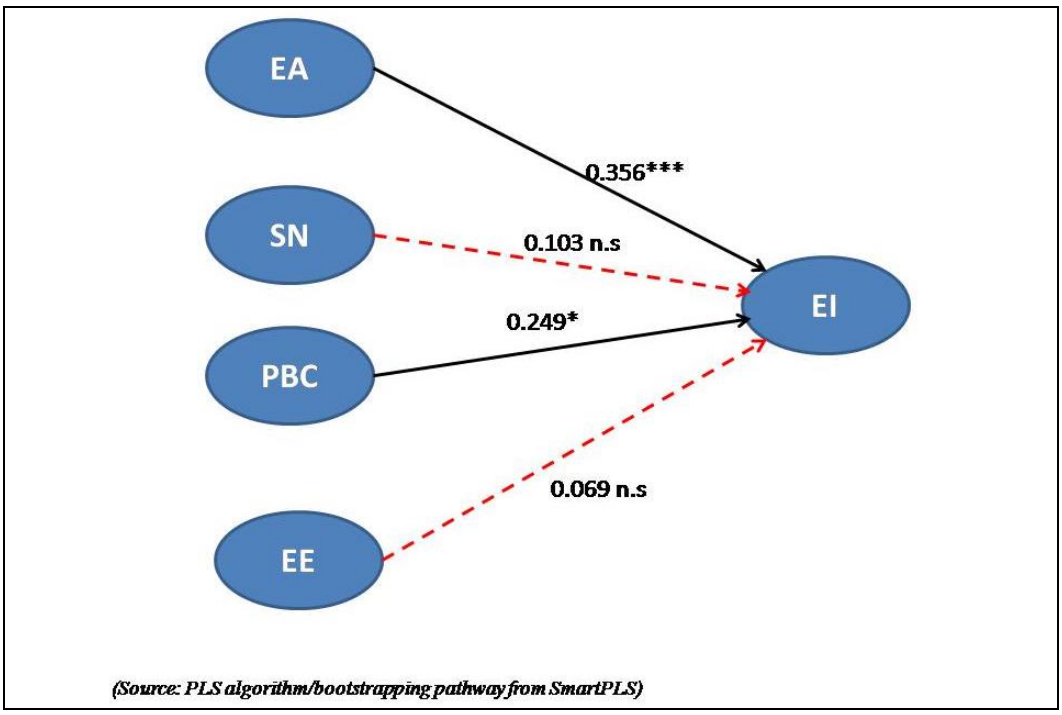
The results showed that the correlation coefficient between EI and EE is 0.129 which indicated a weak but positive association significant at a level of 0.01.

The relationship between entrepreneurial intentions and the factors impacting EI were further analyzed using confirmatory factor analysis.

4.3 Confirmatory Factor Analysis (CFA) of factors affecting entrepreneurial intentions

Confirmatory Factor Analysis (CFA) of factors affecting entrepreneurial intentions was carried out and the TPB model was tested for robustness and model fit. The model used in CFA is shown below:

Fig 4.6: Path coefficients of TPB model with significance levels



(*EI=Entrepreneurial intentions (DV)*; *EA= Entrepreneurial attitude (IV 1)*; *SN=Subjective norms (IV2)*; *PBC= Perceived behavior control (IV3)*; *EE= External environment (IV4)*; ****= significant at 0.01 level*; **= significant at 0.05 level*; *n.s = not significant*; *------= significant path*; *- - - - = not significant path*)

The path coefficients of the model were obtained after running the model using SmartPLS. The values from the output are presented below:

Table 4.11: Path coefficients, p-values and T-values of TPB model-Interpretation

Paths	***B-value***	***T-value***	***p-value***	***Sig***	***Result***
EA-EI	0.356	3.6096	0.0003	***	Significant and positive relationship (significance level of 0.001)
SN-EI	0.103	1.0491	0.2945	Not sig	Insignificant, and positive relationship
PBC-EI	0.249	2.3720	0.0179	*	Significant and positive relationship (significance level of 0.05)
EE-EI	0.069	0.6383	0.5235	Not sig	Insignificant and positive relationship

(Source: computation of primary data)

(***=If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.001level*)
(*=If p-value<0.05; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05 level*)

The bootstrapping results of the 4 paths of the structural model are presented below. As shown in the table, only 2 paths, between EA and EI and PBC and EI were significant. The other 2 paths, SN-EI and EE-EI were found to be insignificant.

As indicated by the table above, none of the relationships showed B value >1 indicating absence of multicollinearity. The path coefficients of each of the constructs in the model were studied and the conclusions are presented below:

- The results of data analysis indicated that the relationship between EA-EI was significant, positive and strong at a significance level of 0.001 and showed a B-value of 0.356. EA-EI was significant at 0.01 level (t-value=3.6096; p-value=0.0003)
- The impact of SN on EI was shown to be insignificant, positive but weak effect with a B value of 0.103.
- PBC-EI construct was shown to be significant, positive and strong at a significance level of 0.05 (t-value=2.3720; p-value=0.0179).

- EE-EI relationship with a B-value of 0.04 was indicated as having insignificant but positive and weak effect.

4.4 Model fit of the TPB model

Convergent and discriminant validity of factors affecting the entrepreneurial intention

In addition to measuring the adequacy of the fit and studying the factors affecting the entrepreneurial intentions, the measurement model was also evaluated based on the criteria of Composite Reliability (CR), Average Variance Extracted (AVE) and Discriminant Validity (DV) of the dimensions affecting the entrepreneurial intention.

Table 4.12: Convergent validity determination: AVE and CR values

Factor	AVE	CR
EA	0.543	0.837
EE	0.588	0.815
EI	0.546	0.841
PBC	0.551	0.812
SN	0.628	0.775

(Note: AVE=Average Variance Extracted; CR=Composite Reliability)
(Source: Results from CFA path diagram, SmartPLS)

Average Variance Extracted (AVE) and Composite Reliability (CR) were both used to assess the convergent validity of the measurement model. The range for AVE values is as follows: above 0.7=very good, 0.7-0.5=acceptable, <0.5=not acceptable.

If CR>0.7, CR>AVE and AVE>0.5 then the data is considered to have convergent validity (Hair, et al, 2010). From the values of AVE and CR of constructs depicted in the table below, it was clear that AVE values are all above 0.5 and CR values are above 0.7. For each construct, CR value is greater than AVE value, Hence it was concluded that convergent validity conditions were met.

Table 4.13: Divergent validity: AVE and squared AVE values comparison with construct correlations

Factor	AVE	CR	EA	EE	EI	PBC	SN
EA	0.543	0.837	**0.737**				

EE	0.588	0.815	0.003	**0.766**			
EI	0.546	0.841	0.407	0.134	**0.738**		
PBC	0.551	0.812	0.310	0.175	0.384	**0.742**	
SN	0.628	0.775	0.257	0.186	0.242	0.287	**0.792**

6.

(Note: AVE=Average Variance Extracted; CR=Composite Reliability)

(The off-diagonal values are the correlations between latent variables and the diagonal are the square root of AVE)

(Source: Results from CFA path diagram, SmartPLS)

According to the Fornell-Larcker testing system (1981), discriminant validity can be assessed by comparing the amount of the variance captured by the construct and the shared variance with other constructs. Thus, the levels of square root of the AVE for each construct should be greater than the correlation involving the constructs. Otherwise, the levels of the AVE for each construct should be greater than the squared correlation involving the constructs.

The results as evident from the table showed that all the values of square root of AVE were greater than the correlations involving all the constructs EI, EA, SN, PBC and EE. Hence, discriminant validity conditions were satisfied.

The model fit was assessed using three parameters-R^2, f^2, Q^2 and GoF values. The details are provided below:

Cohen's f-square

Cohen's f-square values provide information about magnitude of significance and on the comparative report of results. From the table it is evident that EA-EI path displays medium effect size while all the other 3 paths display small effect.

- F^2 value of this construct was 0.183. As the value was between 0.15 and 0.35, it was considered to be a medium effect size.

- F^2 value of SN-EI construct was 0.022. As this value fell between 0.02 and 0.15, this construct was considered to have a small effect size.
- PBC-EI needs special mention as the regression weight of this path is quite high (0.259 as compared to 0.376 shown by EA-EI path). P-value and T-value of PBC-EI are 0.0179 and 2.370 respectively. In spite of the significant p-value and T-value, the effect size of this path is small.
- The effect size of EE-EI was found to be 0.04. As this value fell between 0.02 and 0.15, this construct was considered to have a small effect size.

R^2 (Coefficient of determination)

R^2 (Coefficient of determination) value is used to evaluate the structural model. As shown in the table, it is evident that TPB model components accounted for 40.6% in the dependent variable. This is convergent with previous research findings using linear models where TPB models typically explain less than 35% (Linan & Chen, 2007; Dinis et al, 2013). In their 2011 article, 'PLS-SEM: Indeed a Silver Bullet', Hair et al (2011) have suggested that R^2 values of 0.75, 0.50, or 0.25 for endogenous latent variables in the structural model can be described as substantial, moderate, or weak, respectively. According to Chin (1998), values of R^2 above 0.19 are considered good while those less than 0.19 are considered as weak. Therefore, TPB model was considered to be a good predictor of entrepreneurial intentions.

Predictive value (Q^2)

In addition to the size of R^2, the predictive value (Q^2) can effectively be used as a criterion for predictive relevance (Stone 1974; Geisser 1975; Fornell & Cha 1994; Chin 2010). Q^2 shows how well the collected data empirically can be reconstructed with the help of model and the PLS parameters (Fornell & Cha 1994).). Using an omission distance of 7, the study

obtains a Q^2 of 0.544 which is an indicative of a highly predictive model. Value of Q^2 is close to the value of R^2 which is 0.406.

The goodness of fit (GoF) index

The goodness of fit (GoF) index is an overall measure of model fit for PLS-SEM. GoF index for this study model was found to be 0.4797 (values>0.36=Go **Large**) which shows that the empirical data fits the model in a satisfactory manner and has substantive predictive power in comparison with baseline values.

In conclusion, the values of R^2 were found to be 0.406 which is greater than 1.09. The value of Q^2 was found to be 0.544 after performing the process of blindfolding. As the value was greater than 0 and also close to R^2 value of 0.406, it indicated that the model used was a good predictor model for entrepreneurial intentions. GoF index for this study model was found to be 0.4797 which indicates a large GoF value. Therefore it is concluded that the results showed that the model had good fit.

Table 4.14: Model fit criterion and values for TPB model used in the study

Paths	*F^2*	*Effect*	*R^2*	*Q^2*	*GoF*	*Result*
EA-EI	0.183	Medium	0.406	0.544	0.4797	EA-EI-medium effect size
SN-EI	0.022	Small				SN-EI, PBC-EI and EE-EI-small effect size
PBC-EI	0.081	Small				R2 –good prediction model
EE-EI	0.04	Small				Q2- good prediction model
						GoF- large model fit

(Source: PLS pathway output for computation of primary data, SmartPLS)

The conditions used to reach the above conclusions are summarized below:

Table 4.15: Criteria considered for reaching conclusions of data analysis

Conditions	*Conclusion*
Significance levels	
T-value should be 1.64 or higher; p-value should be < 0.1	*There is less than a 10% probability the null is correct (*)*
T-value should be 1.96 or higher; p-value should be < 0.05	*There is less than a 5% probability the null is correct (**)*
T-value should be 2.57 or higher; p-value should be < 0.01	*There is less than a 1% probability the null is correct (***)*
***Effect size** (Cohen, 1988)*	
f2 = R2 (included) – R2 (excluded)/1- R2 (included)	
Small effect size =0.02-0.15 *Medium effect size=0.15-0.35* *Large effect size=0.35 and above*	*Effect size is the measure of the effect size of a path*
***R^2 values** (Chin, 1998)*	
values of $R^2 > 0.19$	*Good predictor of EI (DV)*
Values of $R^2 < 0.19$	*Not a good predictor of EI (DV)*
Q^2 values (Fornell & Cha, 1994)	
Q^2 value > 0; Q^2 value close to R^2 value	*highly predictive model*
Q^2 value < 0; Q^2 value vastly different from R^2 value	*not a predictive model*
Goodness of fit (GoF) (**Chin et al, 2010)	
GoF = √ (average R^2 x average communality) (Tenenhaus et al., 2005)	
GoF values up to 0.10	*Goodness of fit effect=small*
GoF values up to 0.25	*Goodness of fit effect=medium*
GoF values up to 0.36	*Goodness of fit effect=large*

4.5 Testing of Hypotheses and Analysis of findings

In this study PLS method was used to test the measurement model by conducting confirmatory factor analysis. Algorithms were employed to estimate certain coefficients that

indicate the relative strengths of the statistical relationships among constructs. SmartPLS 2.0 M3 was used in the present study to test the measurement model.

After establishing the reliability and validity (face, convergent, divergent and indicator validity) of the latent variables in the measurement model, the structural model (also called the inner model) was assessed in order to test the relationship between endogenous and exogenous variables.

The proposed hypotheses for this study were tested using the confirmatory factor analysis (CFA). Bootstrapping method was used to confirm or reject the hypotheses on the basis of T-values and p-values.

Testing of the three main and 43 sub-hypotheses was performed and the results are displayed below:

4.5.1 Hypothesis 1: Impact of the elements of TPB on entrepreneurial intentions

Hypothesis 1 is made of 4 sub-hypotheses. Testing of the 4 sub-hypotheses was performed through bootstrapping and the results are given below:

Hypothesis 1.1 ($H_{1.1}$)

H_0: The elements of TPB do not impact Entrepreneurial intentions of the graduating students of Hyderabad region.

H_a: The elements of TPB significantly impact Entrepreneurial intentions of the graduating students of Hyderabad region.

Table 4.16: Testing of hypothesis H1.1

Tag	*Hypothesis*	*B-value*	*T-value*	*p-value*	*Sig*	*Result*	*Interpretation*
$H_{1.1}$	Entrepreneurial intentions (EI) ← Entrepreneurial attitude (EA)	0.3560	**3.6096**	**0.0003**	***	**H_A accepted H_0 rejected**	Entrepreneurial intentions are significantly impacted by entrepreneurial attitude

(*Source: Data from output of bootstrapping procedure, SmartPLS***)**

(***=If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.001level*)

Since T-value was 3.6096 which is >1.96 and p-value=0.0003 which is <0.001 indicating a significance up to 0.001 level, null hypothesis was rejected and the alternate hypothesis was accepted. Hence it is concluded that entrepreneurial intentions were positively impacted by entrepreneurial attitude with a B-value of 0.356.

Hypothesis 1.2 ($H_{1.2}$)

H_0 Subjective norms do not impact Entrepreneurial intentions of the graduating students of Hyderabad region.

H_a: Subjective norms significantly impact Entrepreneurial intentions of the graduating students of Hyderabad region.

Table 4.17: Testing of hypothesis H1.2

Tag	*Hypothesis*	*B-value*	*T-value*	*p-value*	*Sig*	*Result*	*Interpretation*
$H_{1.2}$	Entrepreneurial intentions (EI) ⟵ Subjective norms (SN)	0.1033	**1.0491**	**0.2945**	**Not sig**	**H_o not rejected H_A not accepted**	There is no significant impact of subjective norms directly on entrepreneurial intentions

(*Source: Data from output of bootstrapping procedure, SmartPLS***)**

n.s= If p-value >0.05;T-value<1.96, Ho not rejected, H_A not accepted **)**

Since T-value was 1.0491 which is <1.96 and p-value was0.2945 which is >0.01, null hypothesis could not be rejected and alternate hypothesis could not be accepted. Hence it was concluded that subjective norms did not impact entrepreneurial intentions significantly.

Hypothesis 1.3 ($H_{1.3}$)

H_0 Perceived behavioral control does not impact Entrepreneurial intentions of the graduating students of Hyderabad region.

H_a Perceived behavioral control significantly impacts Entrepreneurial intentions of the graduating students of Hyderabad region.

Table 4.18: Testing of hypothesis H1.3

Tag	*Hypothesis*	*B-value*	*T-value*	*p-value*	*Sig*	*Result*	*Interpretation*
$H_{1.3}$	Entrepreneurial intentions (EI) ⟵ Perceived behavior control (PBC)	0.2480	**2.3720**	**0.0179**	*	**H_A supported H_0 rejected**	Entrepreneurial intentions are significantly impacted by perceived behavior control

(*Source: Data from output of bootstrapping procedure, SmartPLS***)**

(**=If p-value <0.05; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05 level)*

Since T-value was 2.3720 which is >1.96 and p-value was 0.0179 which is <0.05, null hypothesis was rejected and alternate hypothesis was accepted. Hence it was concluded that perceived behavior control impacted entrepreneurial intentions significantly at a level of 0.05.

Hypothesis 1.4 ($H_{1.4}$)

H_0 External environment does not impact entrepreneurial intentions of graduating students in Hyderabad region.

H_a: External environment significantly impacts Entrepreneurial intentions of the graduating students of Hyderabad region.

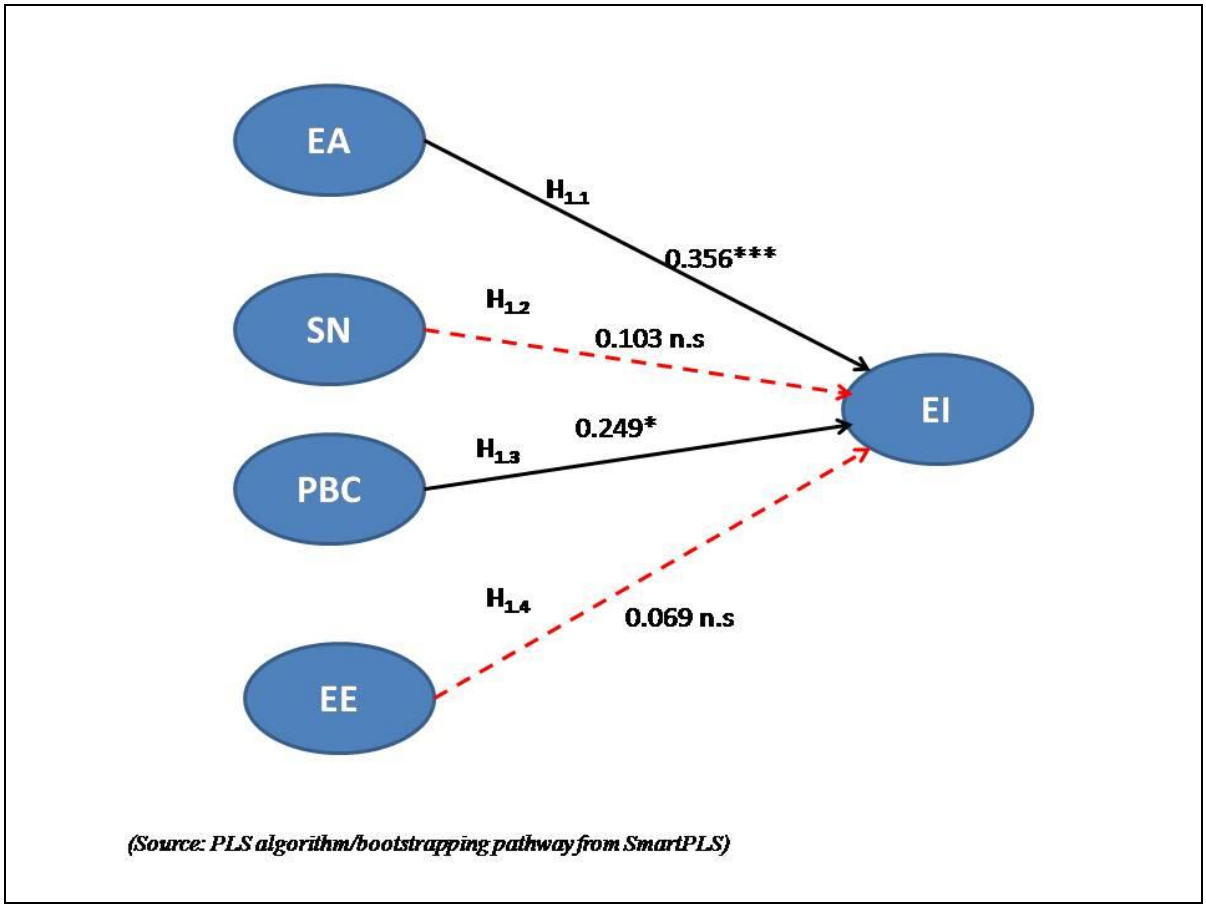
Table 4.19: Testing of hypothesis H1.4

Tag	***Hypothesis***	***B-value***	***T-value***	***p-value***	***Sig***	***Result***	***Interpretation***
$H_{1.4}$	Entrepreneurial intentions (EI) ⟵ externat environment (EE)	0.0691	**0.6383**	**0.5235**	**Not sig**	**H_o not rejected H_A not supported**	There is no significant impact of external environment directly on entrepreneurial intentions

Since T-value was 0.6383 which is <1.96 and p-value was 0.5235 which is >0.01, null hypothesis could not be rejected and alternate hypothesis could not be accepted. Hence it was concluded that external environment did not impact entrepreneurial intentions significantly.

The results of the testing of hypotheses on the TPB model are presented schematically in the figure below:

Fig 4.7: Testing of hypothesis-TPB model-Results with significance levels



(*EI=Entrepreneurial intentions (DV)*; *EA= Entrepreneurial attitude (IV 1)*; *SN=Subjective norms (IV2)*; *PBC= Perceived behavior control (IV3)*; *EE= External environment (IV4)*; ****= significant at 0.01 level*; **= significant at 0.05 level*; *n.s = not significant*; *------= significant path*; *- - - - = not significant path*)

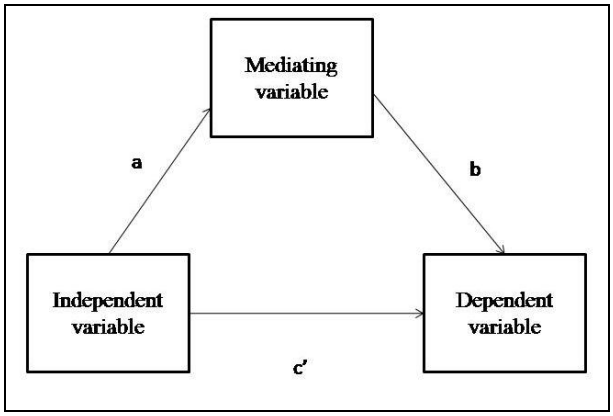
4.6 Mediating effect on entrepreneurial intentions

Mediation is the situation where a mediator variable governs the underlying mechanism or process of the relationship between two constructs.

Two major types of mediation that can be observed are partial mediation and the other is complete mediation.

Partial mediation is proved if there is a significant relationship between the mediator and the dependent variable, and also some direct relationship between the independent and dependent variable.

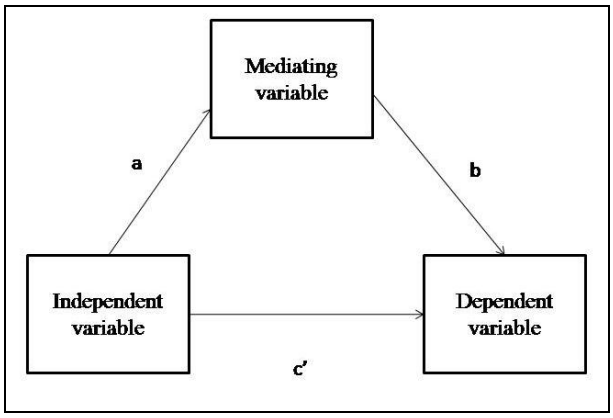
Partial Mediation



Note: When a path b path and c' path are all significant, partial mediation is said to occur (Preacher et al, 2007)

Complete mediation (also known as perfect mediation or full mediation) is proved if the independent variables exert influence on the dependent variables only through the mediating variable.

Complete Mediation



When only a path and b path are significant, complete mediation is said to occur (Preacher et al, 2007)

This study examines mediating effect on the direct path between the independent variables and the dependent variable using Preacher et al adaptation of Sobel's (1982) test (Preacher et al, 2007).

Bootstrapping was conducted on the mediation model to obtain sample means, standard error and standard deviation values. Sobel statistic was then estimated for all the mediation models using Daniel Sloper's Sobel statistic calculator. P-value and T-statistic obtained were used to determine the presence or absence of mediation and the type of mediation.

The following conditions were considered as critical to decide whether the mediation is partial, full or absent:

Table 4.20: Conditions for partial, complete and no mediation (Byrne, 1998)

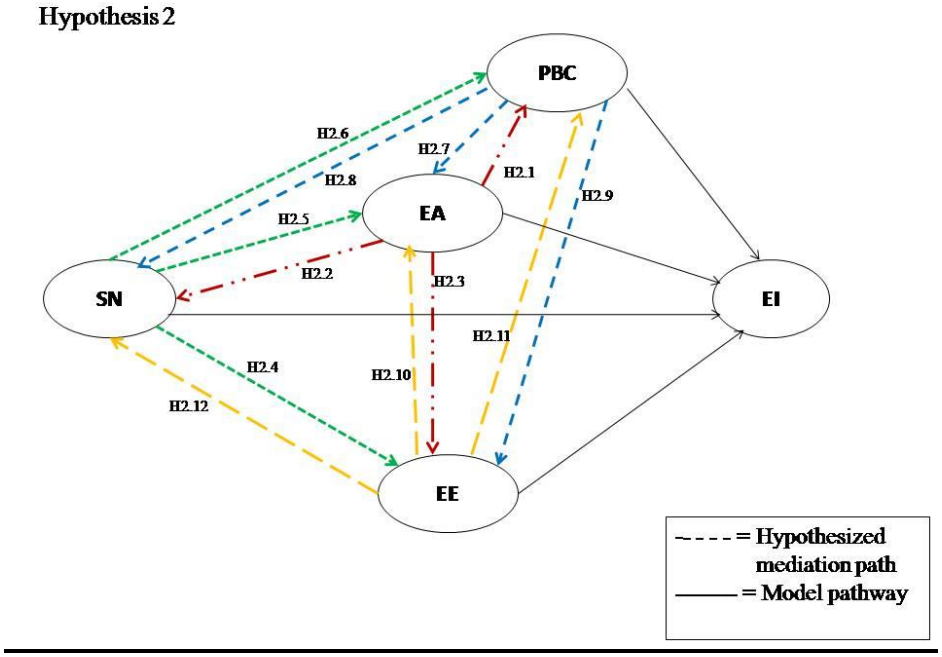
Type of mediation	*IV-DV relationship*	*Value of Sobel statistic*	*P-value (95% sig)*	*T-statistic*
Partial mediation	Shrinkage after mediation	>1.96	<0.05	>1.96
Complete mediation	Shrinkage after mediation	>1.96	<0.05	<1.96
No mediation	Shrinkage after mediation	<1.96	>0.05	<1.96

Partial mediation: When the IV-DV relationship before mediation shrinks after mediation, it is a primary indication of presence of mediation. This is confirmed when the value of Sobel statistic is found to be greater than 1.96, the value of T-statistic of IV-DV relationship is greater than 1.96 and the P-value of IV-DV relationship is less than 0.05 for 95% significance level.

Full mediation: Complete or full mediation is indicated when the value of Sobel statistic is found to be greater than 1.96 and the P-value of IV-DV relationship is less than 0.05 for 95% significance level but the value of T-statistic of IV-DV relationship is less than 1.96.

It is concluded that there is no mediation when the shrinkage of IV-DV relationship after mediation is accompanied by Sobel statistic of value less than 1.96, T statistic of IV-DV relationship of less than 1.96 and a non-significant p-value (Byrne, 1998).

4.6.1 Testing of Hypothesis 2: Mediating effect on entrepreneurial intentions



Hypothesis 2 was tested to determine the impact of mediating variables on the entrepreneurial intentions of the respondents. The null hypothesis and the alternative hypothesis are given below:

H_0 The effect of the independent variable on the entrepreneurial intentions of graduating students in Hyderabad region cannot be mediated by a mediating variable.

H_a The effect of the independent variable on the entrepreneurial intentions of graduating students in Hyderabad region can be mediated by a mediating variable.

Hypothesis 2 is a main hypothesis and it was divided into 9 sub-hypotheses. Testing of hypothesis was conducted and the results are presented below:

Hypothesis 2.1($H_{2.1}$)

H_0 There is no impact of Entrepreneurial attitude on entrepreneurial intentions when it is mediated by perceived behavior control.

H_a There is significant impact of Entrepreneurial attitude on Entrepreneurial intentions when it is mediated by Perceived Behavior Control.

Table 4.21: Testing of hypothesis 2.1

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.1}$	EI-EA relationship is mediated by PBC	**EA**	**PBC**	**EI**	0.356***	0.437***	0.262***	0.341***	**H_A supported H_0 rejected**	**Partial mediation**

(Source: Mediation analysis output SmartPLS)

(Partial mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat>1.96)

Mediation analysis was performed on relationship between EI and EA using PBC as the mediating variable and the results displayed a Sobel Stat value of 2.54, p-value of 0.0111 and T statistic between (EA-EI) as 3.64. The relationship between EA, the independent variable and EI, the dependent variable was 0.356 before mediation and shrunk to 0.341 after mediation, indicating presence of mediation. Since Sobel stat value was > 1.96, p-value was lesser than 0.05 and T statistic between independent variable and dependent variable was greater than 1.96, null hypothesis was rejected and alternate hypothesis was accepted. It was concluded that EA-EI relationship was significantly modified by mediating variable PBC and the mediation was a partial mediation.

Hypothesis 2.2($H_{2.2}$)

H_0 There is no impact of Entrepreneurial attitude on entrepreneurial intentions when it is mediated by subjective norms.

H_a There is significant impact of Entrepreneurial attitude on intentions on Entrepreneurial intentions when it is mediated by subjective norms.

Table 4.22: Testing of hypothesis 2.2

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.2}$	EI-EA relationship is mediated by SN	**EA**	**SN**	**EI**	0.356***	0.318***	$0.187^{n.s}$	0.282***	**H_A not supported H_0 not rejected**	**No mediation**

(Source: Mediation analysis output SmartPLS)

(Partial mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat>1.96)

Mediation analysis performed on relationship between EI and EA using SN as the mediating variable displayed a Sobel Stat value of 1.52, p-value of 0.0126. Since Sobel stat value was < 1.96, null hypothesis could not be rejected and alternate hypothesis was not accepted. Hence, it was concluded that EA-EI relationship was not affected by mediating variable SN and there was no mediation.

Hypothesis 2.3($H_{2.3}$)

H_0 There is no impact of Entrepreneurial attitude on entrepreneurial intentions when it is mediated by external environment.

H_a There is significant impact of Entrepreneurial attitude on intentions on Entrepreneurial intentions when it is mediated by external environment.

Table 4.23: Testing of hypothesis 2.3

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.3}$	EI-EA relationship is mediated by EE	**EA**	**EE**	**EI**	0.356***	$0.126^{n.s}$	$0.18^{n.s}$	0.350***	**H_A not supported H_0 not rejected**	**No mediation**

(Source: Mediation analysis output SmartPLS)

(Partial mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat>1.96)

Mediation analysis performed on relationship between EI and EA using EE as the mediating variable displayed a Sobel Stat value of 0.5639 and p-value of 0.0.5727. Since Sobel stat value is < 1.96 and p-value was found to be greater than 0.01, null hypothesis could not be rejected and alternate hypothesis was not accepted. Hence, it was concluded that EA-EI relationship was not affected by mediating variable EE and there was no mediation.

Hypothesis 2.4($H_{2.4}$)

H_0 There is no impact of Subjective norms on entrepreneurial intentions when it is mediated by external environment.

H_a There is significant impact of subjective norms on intentions on entrepreneurial intentions when it is mediated by external environment.

Table 4.24: Testing of hypothesis 2.4

Tag	*Hypothesis*	***IV***	***MV***	***DV***	***c path***	***a path***	***b path***	***c' path***	*Result*	*Mediation status*
$H_{2.4}$	EI-SN relationship is mediated by EE	**SN**	**EE**	**EI**	0.366***	0.334***	$0.114^{n.s}$	0.322***	**H_A not supported H_0 not rejected**	**No mediation**

(Source: Mediation analysis output SmartPLS)

(Partial mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat>1.96)

Mediation analysis performed on relationship between EI and SN using EE as the mediating variable displayed a Sobel Stat value of 0.805 and p-value of 0.0.42. Since Sobel stat value is was less than 1.96 and p-value was found to be greater than 0.01, null hypothesis could not be rejected and alternate hypothesis was not accepted. Hence, it was concluded that SN-EI relationship was not affected by mediating variable EE and there was no mediation.

Hypothesis 2.5($H_{2.5}$)

H_0 There is no impact of Subjective norms on entrepreneurial intentions when it is mediated by entrepreneurial attitude.

H_a There is significant impact of subjective norms on intentions on entrepreneurial intentions when it is mediated by entrepreneurial attitude.

Table 4.25: Testing of hypothesis 2.5

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.5}$	EI-SN relationship is mediated by EA	**SN**	**EA**	**EI**	0.366***	0.372***	0.437***	$0.187^{n.s}$	**H_A supported H_0 rejected**	**Complete mediation**

(Source: Mediation analysis output SmartPLS)

(Complete mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat<1.96)

Mediation analysis performed on relationship between EI and SN using EA as the mediating variable displayed a Sobel Stat value of 2.81 and p-value of 0.0.0049 and Statistic of 1.676. The relationship between SN, the independent variable and EI, the dependent variable was 0.366 before mediation and shrunk to 0.187 after mediation, indicating presence of mediation. Since Sobel stat value is was greater than 1.96 and p-value was found to be less than 0.01, null hypothesis was rejected and alternate hypothesis was accepted. However, as the T statistic between dependent variable and independent variable was less than 1.96, the mediation was considered to be significant but complete mediation. Hence, it was concluded that SN-EI relationship was impacted by mediating variable EA and there was complete mediation.

Hypothesis 2.6($H_{2.6}$)

H_0 There is no impact of Subjective norms on entrepreneurial intentions when it is mediated by perceived behavior control.

H_a There is significant impact of subjective norms on intentions on entrepreneurial intentions when it is mediated by perceived behavior control.

Table 4.26: Testing of hypothesis 2.6

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*Sobel stat*	*P-value*	*T-stat (IV-DV)*	*sig*	*Result*	*Mediation status*
$H_{2.6}$	EI-SN relationship is mediated by PBC	**SN**	**PBC**	**EI**	0.366***	0.406***	0.383***	$0.198^{n.s}$	**H_A supported H_0 rejected**	**Complete mediation**

(Source: Mediation analysis output SmartPLS)

(Complete mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat<1.96)

Mediation analysis performed on relationship between EI and SN using PBC as the mediating variable displayed a Sobel Stat value of 2.76 and p-value of 0.0.005 and Statistic of 1.717. The relationship between SN, the independent variable and EI, the dependent variable was 0.366 before mediation and shrunk to 0.198 after mediation, indicating presence of mediation. Since Sobel stat value is was greater than 1.96 and p-value was found to be less than 0.01, null hypothesis was rejected and alternate hypothesis was accepted. However, as the T statistic between dependent variable and independent variable was less than 1.96, the mediation by PBC was considered to be significant but complete mediation. Hence, it was concluded that SN-EI relationship was impacted by mediating variable PBC and there was complete mediation.

Hypothesis 2.7($H_{2.7}$)

H_0 There is no impact of perceived behavior control on entrepreneurial intentions when it is mediated by entrepreneurial attitude.

H_a There is significant impact of perceived behavior control on intentions on entrepreneurial intentions when it is mediated by entrepreneurial attitude.

Table 4.27: Testing of hypothesis 2.7

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.7}$	EI-PBC relationship is mediated by EA	**PBC**	**EA**	**EI**	0.47***	0.431***	0.372***	0.296***	**H_A supported H_0 rejected**	**Partial mediation**

(Source: Mediation analysis output SmartPLS)

(Partial mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat>1.96)

Mediation analysis performed on relationship between EI and PBC using EA as the mediating variable displayed a Sobel Stat value of 2.98 and p-value of 0.0.0029. The relationship between PBC, the independent variable and EI, the dependent variable was 0.47 before mediation and shrunk to 0.296 after mediation, indicating presence of mediation. Since Sobel stat value is was greater than 1.96 and p-value was found to be less than 0.01, null hypothesis was rejected and alternate hypothesis was accepted. However, as the T statistic between dependent variable and independent variable was greater than 1.96, the mediation by EA was considered to be significant and partial mediation. Hence, it was concluded that PBC-EI relationship was impacted by mediating variable EA and there was a partial mediation.

Hypothesis 2.8($H_{2.8}$)

H_0 There is no impact of perceived behavior control on entrepreneurial intentions when it is mediated by subjective norms.

H_a There is significant impact of perceived behavior control on intentions on entrepreneurial intentions when it is mediated by subjective norms.

Table 4.28: Testing of hypothesis 2.8

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.8}$	EI-PBC relationship is mediated by SN	**PBC**	**SN**	**EI**	0.47***	0.406***	$0.198^{n.s}$	0.383***	**H_A not supported H_0 not rejected**	**No mediation**

(Source: Mediation analysis output SmartPLS)

(Partial mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat>1.96)

Mediation analysis performed on relationship between EI and PBC using SN as the mediating variable displayed a Sobel Stat value of 1.58 and p-value of 0.0.11. The relationship between PBC and SN was not found to be significant. Since Sobel stat value is was less than 1.96 and p-value was found to be greater than 0.01, null hypothesis was not rejected and alternate hypothesis was not accepted. Hence, it was concluded that PBC-EI relationship was not impacted by mediating variable SN and there was no mediation.

Hypothesis 2.9($H_{2.9}$)

H_0 There is no impact of perceived behavior control on entrepreneurial intentions when it is mediated by external environment.

H_a There is significant impact of perceived behavior control on intentions on entrepreneurial intentions when it is mediated by external environment.

Table 4.29: Testing of hypothesis 2.9

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.9}$	EI-PBC relationship is mediated by EE	**PBC**	**EE**	**EI**	0.47***	0.353***	$0.065^{n.s}$	0.439***	**H_A not supported H_0 not rejected**	**No mediation**

(Source: Mediation analysis output SmartPLS)

(Partial mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat>1.96)

Mediation analysis performed on relationship between EI and PBC using EE as the mediating variable displayed a Sobel Stat value of 0.5 and p-value of 0.0.6. The B value of PBC and EI relationship shrunk from 0.47 to 0.439 but that of EE and EI was found to be insignificant. Sobel stat value is was less than 1.96 and p-value was found to be greater than 0.01, null hypothesis was not rejected and alternate hypothesis was not accepted. Hence, it was concluded that PBC-EI relationship was not impacted by mediating variable EE and there was no mediation.

Hypothesis 2.10($H_{2.10}$)

H_0 There is no impact of external environment on entrepreneurial intentions when it is mediated by entrepreneurial attitude.

H_a There is significant impact of external environment on intentions on entrepreneurial intentions when it is mediated by entrepreneurial attitude.

Table 4.30: Testing of hypothesis 2.10

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.10}$	EI-EE relationship is mediated by EA	**EE**	**EA**	**EI**	$0.232^{n.s}$	$0.126^{n.s}$	0.49***	$0.18^{n.s}$	**H_A not supported H_0 not rejected**	**No mediation**

(Source: Mediation analysis output SmartPLS)

(Partial mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat>1.96)

Mediation analysis performed on relationship between EI and EE using EA as the mediating variable displayed a Sobel Stat value of 0.61 and p-value of 0.0.541. B value of EE and EI relationship was found to be insignificant. Since Sobel stat value is was less than 1.96 and p-value was found to be greater than 0.01, null hypothesis was not rejected and alternate

hypothesis was not accepted. Hence, it was concluded that EE-EI relationship was not impacted by mediating variable EA and there was no mediation.

Hypothesis 2.11($H_{2.11}$)

H_0 There is no impact of external environment on entrepreneurial intentions when it is mediated by perceived behavior control.

H_a There is significant impact of external environment on intentions on entrepreneurial intentions when it is mediated by perceived behavior control.

Table 4.31: Testing of hypothesis 2.11

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.11}$	EI-EE relationship is mediated by PBC	**EE**	**PBC**	**EI**	$0.232^{n.s}$	0.353***	0.439***	$0.065^{n.s}$	**H_A supported H_0 rejected**	**Complete mediation**

(Source: Mediation analysis output SmartPLS)

(Complete mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat<1.96)

Mediation analysis performed on relationship between EI and EE using PBC as the mediating variable displayed a Sobel Stat value of 2.54 and p-value of 0.0.01. The relationship between EE, the independent variable and EI, the dependent variable was 0.232 before mediation and shrunk to 0.065 after mediation, indicating presence of mediation. Since Sobel statistic value is was greater than 1.96 and p-value was found to be less than 0.01, null hypothesis was rejected and alternate hypothesis was accepted. However, as the T statistic between dependent variable and independent variable was less than 1.96, the mediation by PBC was considered to be significant but complete mediation. Hence, it was concluded that EE-EI relationship was impacted by mediating variable PBC and there was complete mediation.

Hypothesis 2.12($H_{2.12}$)

H_0 There is no impact of external environment on entrepreneurial intentions when it is mediated by subjective norms.

H_a There is significant impact of external environment on intentions on entrepreneurial intentions when it is mediated by subjective norms.

Table 4.32: Testing of hypothesis 2.12

Tag	*Hypothesis*	*IV*	*MV*	*DV*	*c path*	*a path*	*b path*	*c' path*	*Result*	*Mediation status*
$H_{2.12}$	EI-EE relationship is mediated by SN	**EE**	**SN**	**EI**	$0.232^{n.s}$	0.334***	0.322***	$0.114^{n.s}$	**H_A supported H_0 rejected**	**Complete mediation**

(Source: Mediation analysis output SmartPLS)

(Complete mediation requirements: Sobel stat>1.96; p-value<0.05; T-Stat<1.96)

Mediation analysis performed on relationship between EI and EE using SN as the mediating variable displayed a Sobel Stat value of 2.0 and p-value of 0.0.04. The relationship between EE, the independent variable and EI, the dependent variable was 0.232 before mediation and shrunk to 0.114 after mediation, indicating presence of mediation. Since Sobel stat value is was greater than 1.96 and p-value was found to be less than 0.01, null hypothesis was rejected and alternate hypothesis was accepted. However, as the T statistic between dependent variable and independent variable was found to be 0.232 which is less than 1.96, the mediation by SN was considered to be significant but complete mediation. Hence, it was concluded that EE-EI relationship was impacted by mediating variable SN and there was complete mediation.

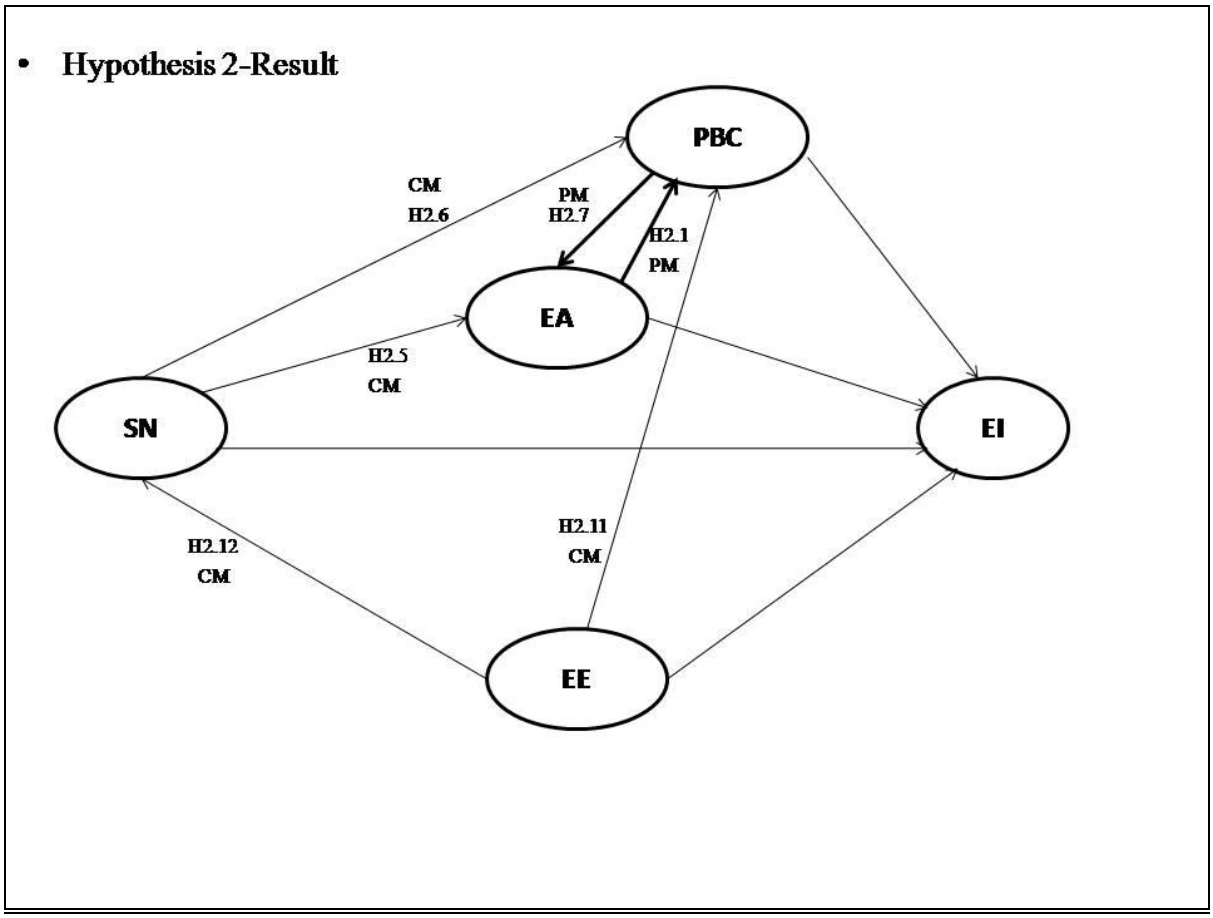
4.6.2 Hypothesis 2: Overview

12 sub-hypotheses comprising of Hypothesis 2 were formulated and tested in regard with mediation using different mediating variables. Out of the 12 possible mediations with the

available variables, 6 mediations were found to be significant. The remaining mediations were not considered as there was no significant mediation mechanism seen in the results. Out of the 6 mediations, 2 were partial mediations and 4 were complete mediations.

The results of mediation are presented in schematic and tabular form below:

Fig 4.8: Total mediation effects on TPB models-Direct and indirect effects



(Note: EA=Entrepreneurial attitude; SN=Subjective norms; PBC=Perceived behavior control; EE=External environment; EI=Entrepreneurial intentions; CM=complete mediation; PM=partial mediation)

4.7 Hypothesis 3: Impact of moderating effect on entrepreneurial intentions

A moderator is a qualitative or quantitative variable that affects the direction and/or strength of a relationship between an independent and dependent variable (Henseler, 2010).

The study used 6 demographic variables- age, course of study, entrepreneurial education, satisfaction with placements along with accreditation level of institute and presence of entrepreneurs in respondents' background. The variables had two levels each and the moderation effect was tested using bootstrapping method.

Table 4.33: Levels of moderating variables

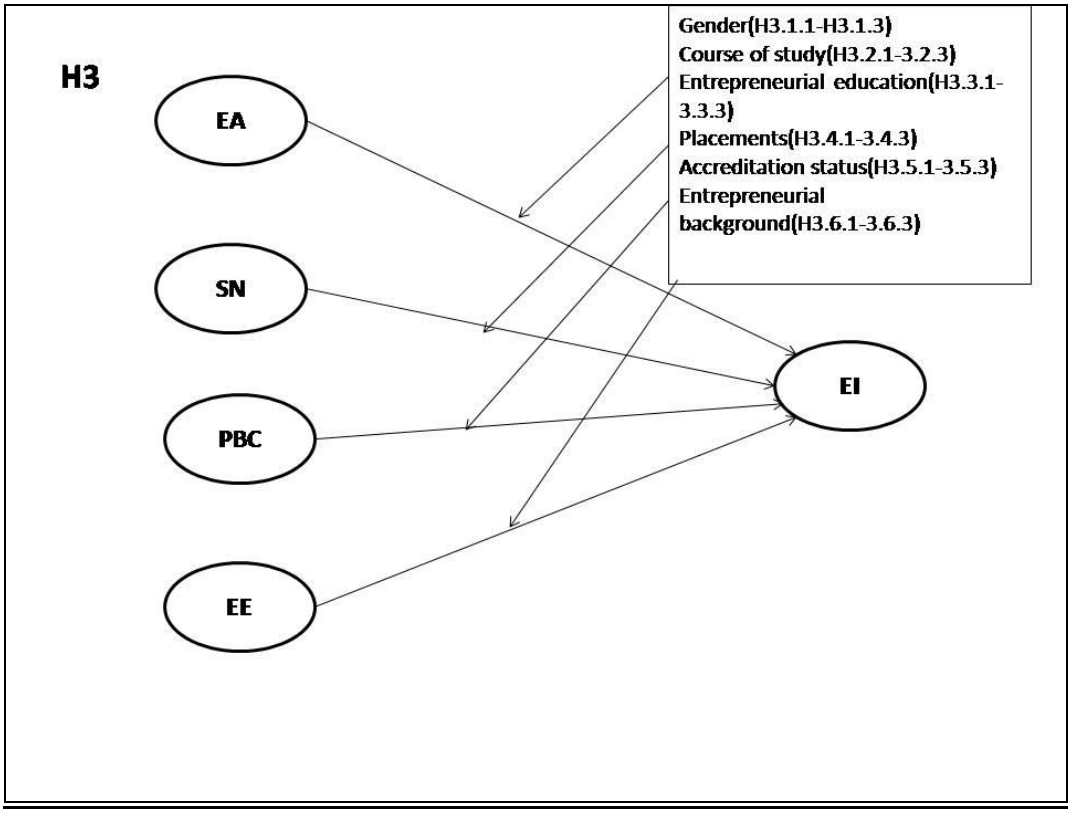
Name of variable	***Level 1***	***Level 2***
Gender	Male	Female
Course of study	Engineering	MBA
Entrepreneurial education	Studied some courses on entrepreneurship	Not studied any course on entrepreneurship
Placements	Satisfied with placements offered in institute	Not satisfied with placements offered in institute
Entrepreneurs in background	Have some entrepreneurs in family and friends circle	No entrepreneurs in family, friends or acquaintances circle
Accreditation of institute	Institute has some level of accreditation by NAAC	Institute has no accreditation from NAAC

Transformation of data into groups (using SPSS 23) was done. A multi-group analysis was conducted using the parametric approach as suggested by Keil et al., (2000), which involved a modified two independent-sample t-test to compare path coefficients across two groups of data. The main idea was to check if the variances of the PLS parameter estimates (i.e. path coefficients) differed significantly across the two groups. The standard errors, sample means of the PLS parameter estimates were found using the bootstrapping procedure. The bootstrapping standard deviation was the same as the bootstrapping standard error in

SmartPLS. How the relationship between variables differed significantly across the two groups was tested using standard error, sample mean and sample size of the groups.

The moderation effect of the variables proposed to be studied using the structural model depicted in the figure below:

Fig 4.9: Structural model depicting the moderating variables impacting the paths



(Source: Literature review)

4.7.1 Testing of hypothesis based on moderating effect on entrepreneurial intentions

Hypothesis 3: There is no moderation effect between the elements of TPB (independent variables) and Entrepreneurial intentions of graduating students in Hyderabad region (dependent variable) due to various factors.

The main hypothesis was divided into 24 sub-hypotheses which were tested and the results are displayed below:

Hypothesis 3.1 ($H_{3.1}$)

Hypothesis 3.1 discussed the impact of gender on the entrepreneurial intentions. Before presenting the results of the testing for hypothesis, the path coefficients of various relationships in the model are presented in the table below:

Table 4.34: Table displaying path coefficients of the different relationships in the model under the impact of gender

Gender	***EA-EI***	***SN-EI***	***PBC-EI***	***EE-EI***
Male *N=459*	0.398***	0.104 n.s	0.166***	0.115n.s
Female *N=316*	0.317***	0.127 n.s	0.347***	-0.002n.s

H_0: Gender does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions.

H_a: Gender moderates the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions.

Table 4.35: Testing of hypothesis 3.1.1

Tag	***Hypothesis***	***Male (B)***	***Female (B)***	***Diff***	***Std Error***	***t-value***	***p-value***	***Result***
$H_{3.1.1}$	EA←EI	0.398***	0.317***	0.028	0.056	7.793	<0.0001	**H_o rejected H_A supported**
$H_{3.1.2}$	SN←EI	0.104 n.s	0.127 n.s	-0.029	0.1033	3.973	<0.0001	**H_o rejected H_A supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05level*)

Results revealed that moderation of gender in the EA-EI relationship displayed a mean difference of 0.056, T-value of 7.793 and p-value <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001.Hence, it was concluded that gender impacted the EA-EI relationship. As B-value for male respondents was found to be 0.346 and for females it was 0.187, it was concluded that males display stronger attitude towards intentions than females.

Hypothesis 3.1.2

H_0: Gender does not moderate the relationship between Subjective norms (SN) and Entrepreneurial intentions.

H_a: Gender moderates the relationship between Subjective norms (SN) and Entrepreneurial intentions.

Table 4.36: Testing of hypothesis 3.1.2

Tag	*Hypothesis*	*Male (B)*	*Female (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.1.2}$	SN←EI	0.104 **n.s**	0.127 **n.s**	0.029	0.1033	3.973	<0.0001	**H_o rejected H_A supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value <0.01; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05 level)*

Results revealed that moderation of gender in the SN-EI relationship displayed a mean difference of 0.029, T-value of 3.973 and p-value of 0.001. As T-value was greater than1.96 and p-value was less than 0.01, the moderation was considered to be significant at a level of 0.05.Hence, it was concluded that gender impacted the SN-EI relationship.

Hypothesis 3.1.3

H_0: Gender does not moderate the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions.

H_a: Gender moderates the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions.

Table 4.37: Testing of hypothesis 3.1.3

Tag	*Hypothesis*	*Male (B)*	*Female (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.1.3}$	PBC←EI	0.166***	0.347***	0.148	0.007	20.18	<0.0001	**H_o rejected H_A supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05level*)

Results revealed that moderation of gender in the PBC-EI relationship displayed a mean difference of 0.148, T-value of 20.18 and p-value <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.05.Hence, it was concluded that gender impacted the PBC-EI relationship

Hypothesis 3.1.4

H_0: Gender does not moderate the relationship between external environment (EE) and Entrepreneurial intentions (EI).

Alternate hypothesis: Gender moderates the relationship between external environment (EE) and Entrepreneurial intentions (EI).

Table 4.38: Testing of hypothesis 3.1.4

Tag	*Hypothesis*	*Male (B)*	*Female (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.1.4}$	EE←EI	$0.115^{n.s}$	$0.002^{n.s}$	0.09	0.025	15.007	<0.0001	**H_o rejected H_A supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05level*)

Results revealed that moderation of gender in the EE-EI relationship displayed a mean difference of 0.09, T-value of 15.007 and p-value <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.05.Hence, it was concluded that gender impacted the EE-EI relationship.

Hypothesis 3.2 ($H_{3.2}$)

Hypothesis 3.2 discussed the impact of course of study pursued by the respondents on the entrepreneurial intentions. Before presenting the results of the testing for hypothesis, the path coefficients of various relationships in the model are presented in the table below:

Table 4.39: Table displaying path coefficients of the different relationships in the model under the impact of course of study

Course of study	*EA-EI*	*SN-EI*	*PBC-EI*	*EE-EI*
Engineering *N=378*	**0.430*** **	0.018 **n.s**	**0.265*** **	$0.037^{n.s}$
MBA *N=397*	0.273***	**0.197 n.s**	0.165***	**$0.086^{n.s}$**

H_0: Course of study does not moderate the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions.

H_a: Course of study moderates the relationship between Entrepreneurial attitude (EA) and Entrepreneurial intentions.

Table 4.40: Testing of hypothesis 3.2.1

Tag	*Hypothesis*	*Engg (378) (B)*	*MBA (397) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.2.1}$	EA←EI	0.346***	0.252***	-0.137	0.008	17.503	< 0.0001	**H_o rejected H_A supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(***=*If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.001level*)

Results revealed that moderation of course of study in the EA-EI relationship displayed a mean difference of -0.137, T-value of 17.503 and p-value <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001.Hence, it was concluded that course of study impacted the EA-EI relationship. As B-value for respondents pursuing engineering was found to be 0.346 and for respondents pursuing MBA it was 0.252 it was concluded that engineering students display stronger attitude towards intentions than MBA students.

Hypothesis 3.2.2

H_0: Course of study does not moderate the relationship between Subjective norms (SN) and Entrepreneurial intentions.

H_a: Course of study moderates the relationship between Subjective norms (SN) and Entrepreneurial intentions.

Table 4.41: Testing of hypothesis 3.2.2

Tag	*Hypothesis*	*Engg (378) (B)*	*MBA (397) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.2.2}$	SN←EI	0.018 n.s	0.197 n.s	0.173	0.011	< 0.0001	19.905	**H_o rejected H_A supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value <0.01; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05 level)*

Results revealed that moderation of course of study in the SN-EI relationship displayed a mean difference of 0.173, T-value of 19.905 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.01, the moderation was considered to be significant at a level of 0.01.Hence, it was concluded that course of study impacted the SN-EI relationship. As the B-value for engineering respondents was found to 0.018 and those of MBA respondents was 0.197, it was concluded that MBA students give more importance to parents' opinion than engineering students as far as setting up business is concerned.

Hypothesis 3.2.3

H_0: Course of study does not moderate the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions.

Alternate hypothesis: Course of study moderates the relationship between Perceived behavior control (PBC) and Entrepreneurial intentions.

Table 4.42: Testing of hypothesis 3.2.3

Tag	*Hypothesis*	*Engg (378) (B)*	*MBA (397) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.2.3}$	PBC←EI	0.256***	0.233***	0.008	0.084	9.58	< 0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(***=*If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.001level*)

Results revealed that moderation of course of study in the PBC-EI relationship displayed a mean difference of 0.084, T-value of 9.58 and p-value <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001.Hence, it was concluded that course of study impacted the PBC-EI relationship. As B-value of engineering respondents was 0.256 and that of MBA respondents was 0.233, it was concluded that engineering students showed slightly more importance to control than MBA students.

Hypothesis 3.2.4

H_0: Course of study does not moderate the relationship between external environment (EE) and Entrepreneurial intentions (EI).

H_a: Course of study moderates the relationship between external environment (EE) and Entrepreneurial intentions (EI).

Table 4.43: Testing of hypothesis 3.2.4

Tag	*Hypothesis*	*Engg (378) (B)*	*MBA (397) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.2.4}$	EE←EI	$0.038^{n.s}$	$0.02^{n.s}$	0.008	0.009	1.98	0.0481	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*****=*If p-value<0.05; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05level*)

Results revealed that moderation of course of study in the EE-EI relationship displayed a mean difference of 0.018, T-value of 1.98 and p-value of 0.0481. As T-value was greater than1.96 and p-value was less than 0.05, the moderation was considered to be significant at a level of 0.05.Hence, it was concluded that course of study impacted the EE-EI relationship. As the B-value of engineering students is 0.038 and that of MBA students is 0.02, it can be

concluded that the respondents pursuing engineering are more influenced by external environment than MBA students.

Hypothesis 3.3

Hypothesis 3.3 discussed the impact of exposure to entrepreneurial education by the respondents on the entrepreneurial intentions. Before presenting the results of the testing for hypothesis, the path coefficients of various relationships in the model are presented in the table below:

Table 4.44: Table displaying path coefficients of the different relationships in the model under the impact of exposure to entrepreneurial education

Exposure to entrepreneurial education	***EA-EI***	***SN-EI***	***PBC-EI***	***EE-EI***
Yes, taken up courses *N=390*	0.341***	0.063 **n.s**	**0.266*** **	0.081**n.s**
No, did not take up *N=385*	**0.377*** **	**0.135 n.s**	0.229***	**0.089n.s**

Hypothesis 3.3.1

H_0: Exposure to entrepreneurial education does not moderate the relationship between entrepreneurial attitude (EA) and Entrepreneurial intentions (EI).

H_a: Exposure to entrepreneurial education moderates the relationship between entrepreneurial attitude (EA) and Entrepreneurial intentions (EI).

Table 4.45: Testing of hypothesis 3.3.1

Tag	*Hypothesis*	*Entreedu (390) (B)*	*No entredu (385) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.3.1}$	EA←EI	0.349***	0.391***	0.349	0.008	4.501	<0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(***=*If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.001level*)

Results revealed that moderation of exposure to entrepreneurial education in the EA-EI relationship displayed a mean difference of 0.349, T-value of 4.501 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001.Hence, it was concluded that exposure to entrepreneurial education impacted the EA-EI relationship. As the B-value of respondents who had exposure to entrepreneurial education is 0.349 and that of those who had no exposure to entrepreneurial education is 0.391, it can be concluded that the respondents with no exposure to entrepreneurial education show stronger attitude towards entrepreneurial intentions.

Hypothesis 3.3.2

H_0: Exposure to entrepreneurial education does not moderate the relationship between subjective norms (SN) and Entrepreneurial intentions (EI).

H_a: Exposure to entrepreneurial education moderates the relationship between subjective norms (SN) and Entrepreneurial intentions (EI).

Table 4.46: Testing of hypothesis 3.3.2

Tag	*Hypothesis*	*Entreedu (390) (B)*	*No entredu (385) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.3.2}$	SN←EI	$0.081^{n.s}$	$0.138^{n.s}$	0.056	0.009	5.538	<0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(***=*If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.001level*)

Results revealed that moderation of exposure to entrepreneurial education in the SN-EI relationship displayed a mean difference of 0.056, T-value of 5.538 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001.Hence, it was concluded that exposure to entrepreneurial education impacted the SN-EI relationship. As the B-value of respondents who had exposure to entrepreneurial education is 0.0813 and that of those who had no exposure to entrepreneurial education is 0.1377, it can be concluded that the respondents with no exposure were more influenced by parental support for entrepreneurial intentions.

Hypothesis 3.3.3

H_0: Exposure to entrepreneurial education does not moderate the relationship between perceived behavior control (PBC) and Entrepreneurial intentions (EI).

H_a: Exposure to entrepreneurial education moderates the relationship between perceived behavior control (PBC) and Entrepreneurial intentions (EI).

Table 4.47: Testing of hypothesis 3.3.3

Tag	*Hypothesis*	*Entreedu (390) (B)*	*No entredu (385) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.3.3}$	PBC←EI	0.282***	0.237***	0.045	0.009	5.495	<0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.001; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05 level*)

Results revealed that moderation of exposure to entrepreneurial education in the PBC-EI relationship displayed a mean difference of 0.045, T-value of 5.495 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.05.Hence, it was concluded that exposure to entrepreneurial education impacted the PBC-EI relationship. As the B-value of respondents who had exposure to entrepreneurial education was 0.282 and that of those who had no exposure to entrepreneurial education is 0.237, it can be concluded that the respondents with exposure perceived to be more in control of entrepreneurial decision than those without.

Hypothesis 3.3.4

H_0: Exposure to entrepreneurial education does not moderate the relationship between external environment (EE) and Entrepreneurial intentions (EI).

H_a: Exposure to entrepreneurial education moderates the relationship between external environment (EE) and Entrepreneurial intentions (EI).

Table 4.48: Testing of hypothesis 3.3.4

Tag	*Hypothesis*	*Entreedu (390) (B)*	*No entredu (385) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.3.4}$	EE←EI	$0.0455^{n.s}$	$0.0581^{n.s}$	0.013	0.009	1.581	0.1143	**H_o not rejected H_A not supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(n.s= If p-value >0.05;T-value<1.96, Ho not rejected, H_A not accepted **)**

Results revealed that moderation of exposure to entrepreneurial education in the EE-EI relationship displayed a mean difference of 0.013, T-value of 1.58 and p-value of 0.1143. As T-value was less than1.96 and p-value was more than 0.05, the moderation was not considered to be significant. Hence, it was concluded that exposure to entrepreneurial education had no impact on the EE-EI relationship.

Hypothesis 3.4

Hypothesis 3.4 discussed the impact of satisfaction with placements by the respondents on the entrepreneurial intentions. Before presenting the results of the testing for hypothesis, the path coefficients of various relationships in the model are presented in the table below:

Table 4.49: Table displaying path coefficients of the different relationships in the model under the impact of satisfaction with placements

Satisfaction with placements	***EA-EI***	***SN-EI***	***PBC-EI***	***EE-EI***
Yes, satisfied *N=413*	0.323***	**0.166 n.s**	0.163***	**0.086n.s**
No, not satisfied *N=362*	**0.360*****	0.087n.s	**0.268*****	0.056n.s

Hypothesis 3.4.1

H_0: Satisfaction with placements does not moderate the relationship between entrepreneurial attitude (EA) and Entrepreneurial intentions (EI).

H_a: Satisfaction with placements moderates the relationship between entrepreneurial attitude (EA) and Entrepreneurial intentions (EI).

Table 4.50: Testing of hypothesis 3.4.1

Tag	***Hypothesis***	***Satisplc (413) (B)***	***Not sat (362) (B)***	***Diff***	***Std Error***	***t-value***	***p-value***	***Result***
$H_{3.4.1}$	EA←EI	0.358***	0.385***	0.027	0.007	3.657	< 0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05 level*)

Results revealed that moderation of satisfaction with placements in the EA-EI relationship displayed a mean difference of 0.027, T-value of 3.567 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001.Hence, it was concluded that satisfaction with placements impacted the EA-EI relationship. As the B-value of respondents who had satisfaction with placements is 0.358 and that of those who were not satisfied with placements is 0.385, it can be concluded that the respondents not satisfied with placements show stronger attitude towards entrepreneurial intentions than those who are satisfied.

Hypothesis 3.4.2

H_0: Satisfaction with placements does not moderate the relationship between subjective norms (SN) and Entrepreneurial intentions (EI).

H_a: Satisfaction with placements moderates the relationship between subjective norms (SN) and Entrepreneurial intentions (EI).

Table 4.51: Testing of hypothesis 3.4.2

Tag	*Hypothesis*	*Satisplc (413) (B)*	*Not sat (362) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.4.2}$	SN←EI	$0.159^{n.s}$	$0.09^{n.s}$	0.062	0.009	7.147	< 0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05 level*)

Results revealed that moderation of satisfaction with placements in the SN-EI relationship displayed a mean difference of 0.062, T-value of 7.147 and p-value of <0.0001. As T-value

was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001.Hence, it was concluded that satisfaction with placements impacted the SN-EI relationship. As the B-value of respondents who were satisfied with placements is 0.159 and that of those who were not satisfied with placements is 0.09, it can be concluded that the respondents satisfied with placements were more influenced by parental support for entrepreneurial intentions than those who are not satisfied.

Hypothesis 3.4.3

H_0: Satisfaction with placements does not moderate the relationship between perceived behavior control (PBC) and Entrepreneurial intentions (EI).

H_a: Satisfaction with placements moderates the relationship between perceived behavior control (PBC) and Entrepreneurial intentions (EI).

Table 4.52: Testing of hypothesis 3.4.3

Tag	*Hypothesis*	*Satisplc (413) (B)*	*Not sat (362) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.4.3}$	PBC←EI	0.163***	0.268***	0.1	0.084	11.534	< 0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; T-value>1.96, Ho rejected, H_A accepted at significance of 0.05 level*)

Results revealed that moderation of satisfaction with placements in the PBC-EI relationship displayed a mean difference of 0.1, T-value of 11.534 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.05.Hence, it was concluded that satisfaction with placements

impacted the PBC-EI relationship. As the B-value of respondents who were satisfied with placements was 0.175 and that of those who were not satisfied with placements was 0.275, it can be concluded that the respondents not satisfied with placements perceived to be more in control of entrepreneurial decision than those who were not satisfied.

Hypothesis 3.4.4

H_0: Satisfaction with placements does not moderate the relationship between external environment (EE) and Entrepreneurial intentions (EI).

H_a: Satisfaction with placements moderates the relationship between external environment (EE) and Entrepreneurial intentions (EI).

Table 4.53: Testing of hypothesis 3.4.4

Tag	*Hypothesis*	*Satisplc (413) (B)*	*Not sat (362) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.4.4}$	EE←EI	$0.086^{n.s}$	$0.056^{n.s}$	**0.015**	0.018	**1.827**	0.0681	**H_o not rejected H_A not supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(n.s= If p-value >0.05;t-value<1.96, Ho not rejected, H_A not accepted **)**

Results revealed that moderation satisfaction with placements in the EE-EI relationship displayed a mean difference of 0.015, T-value of 1.827 and p-value of 0.0681. As T-value was less than1.96 and p-value was more than 0.05, the moderation was not considered to be significant. Hence, it was concluded that satisfaction with placements had no impact on the EE-EI relationship.

Hypothesis 3.5

Hypothesis 3.5 discussed the impact of accreditation status of colleges on the entrepreneurial intentions. Before presenting the results of the testing for hypothesis, the path coefficients of various relationships in the model are presented in the table below:

Table 4.54: Table displaying path coefficients of the different relationships in the model under the impact of accreditation status of colleges

Accreditation status of colleges	***EA-EI***	***SN-EI***	***PBC-EI***	***EE-EI***
Some level of accreditation *N=463*	**0.391*** **	**0.104 n.s**	0.215***	**0.100n.s**
Not accredited *N=312*	0.295***	0.103n.s	**0.271*** **	0.089n.s

Hypothesis 3.5.1

H_0: Accreditation status of colleges does not moderate the relationship between entrepreneurial attitude (EA) and Entrepreneurial intentions (EI).

H_a: Accreditation status of colleges moderates the relationship between entrepreneurial attitude (EA) and Entrepreneurial intentions (EI).

Table 4.55: Testing of hypothesis 3.5.1

Tag	***Hypothesis***	***Accredited (463) (B)***	***Not accrd (312) (B)***	***Diff***	***Std Error***	***t-value***	***p-value***	***Result***
$H_{3.5.1}$	EA←EI	0.391***	0.295***	0.015	0.007	2.394	0.0169	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; t-value>1.96, Ho rejected, H_a accepted at significance of 0.001level*)

Results revealed that moderation of accreditation status in the EA-EI relationship displayed a mean difference of 0.072, T-value of 2.394 and p-value of 0.0169. As T-value was greater than1.96 and p-value was less than 0.05, the moderation was considered to be significant at a level of 0.05.Hence, it was concluded that accreditation status impacted the EA-EI relationship. It can be concluded that respondents from institutions with accreditation status show stronger attitude towards entrepreneurship.

Hypothesis 3.5.2

H_0: Accreditation status does not moderate the relationship between subjective norms (SN) and Entrepreneurial intentions (EI).

H_a: Accreditation status moderates the relationship between subjective norms (SN) and Entrepreneurial intentions (EI).

Table 4.56: Testing of hypothesis 3.5.2

Tag	*Hypothesis*	*Accredited (463) (B)*	*Not accrd (312) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.5.2}$	SN←EI	0.104 $^{n.s}$	0.103$^{n.s}$	0.015	0.009	1.885	0.0599	**H_o not rejected H_a not supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(If p-value >0.05;t-value<1.96, Ho not rejected, H_a not accepted)

Results revealed that moderation of accreditation status in the SN-EI relationship displayed a mean difference of 0.015, T-value of 1.885 and p-value of 0.0599. As T-value was less than1.96 and p-value was greater than 0.05, the moderation was not considered to be significant. Hence, it was concluded that accreditation status does not impact the SN-EI relationship.

Hypothesis 3.5.3

H_0: Accreditation status does not moderate the relationship between perceived behavior control (PBC) and Entrepreneurial intentions (EI).

H_a: Accreditation status moderates the relationship between perceived behavior control (PBC) and Entrepreneurial intentions (EI).

Table 4.57: Testing of hypothesis 3.5.3

Tag	*Hypothesis*	*Accredited (463) (B)*	*Not accrd (312) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.5.3}$	PBC←EI	0.215***	0.271***	0.113	0.008	5.662	< 0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; t-value>1.96, Ho rejected, H_a accepted at significance of 0.001level*)

Results revealed that moderation of accreditation status in the PBC-EI relationship displayed a mean difference of 0.113, T-value of 5.662 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001.Hence, it was concluded that accreditation status impacted the PBC-EI relationship. It can be concluded that respondents from accredited institutions perceived to be more in control than those without accreditation.

Hypothesis 3.5.4

H_0: accreditation status does not moderate the relationship between external environment (EE) and Entrepreneurial intentions (EI).

H_a: accreditation status moderates the relationship between external environment (EE) and Entrepreneurial intentions (EI).

Table 4.58: Testing of hypothesis 3.5.4

Tag	*Hypothesis*	*Accredited (463) (B)*	*Not accrd (312) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.5.4}$	EE←EI	$0.100^{n.s}$	$0.089^{n.s}$	0.067	0.008	3.408	0.0007	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; t-value>1.96, Ho rejected, H_a accepted at significance of 0.05 level*)

Results revealed that moderation accreditation status in the EE-EI relationship displayed a mean difference of 0.067, T-value of 3.408 and p-value of 0.0007. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001. Hence, it was concluded that accreditation status impacted the EE-EI relationship.

Hypothesis 3.6

Hypothesis 3.6 discussed the impact of presence of entrepreneurs in respondents' background on the entrepreneurial intentions. Before presenting the results of the testing for hypothesis, the path coefficients of various relationships in the model are presented in the table below:

Table 4.59: Table displaying path coefficients of the different relationships in the model under the impact of presence of entrepreneurs in respondents' background

Presence of entrepreneurs in background	***EA-EI***	***SN-EI***	***PBC-EI***	***EE-EI***
Yes, present *N=550*	**0.365*** **	$0.053^{n.s}$	**0.275*** **	**$0.032^{n.s}$**
None *N=255*	0.315***	**$0.170^{n.s}$**	0.260***	$0.112^{n.s}$

Hypothesis 3.6.1

H_0: Presence of entrepreneurs in respondents' background does not moderate the relationship between entrepreneurial attitude (EA) and Entrepreneurial intentions (EI).

H_a: Presence of entrepreneurs in respondents' background moderates the relationship between entrepreneurial attitude (EA) and Entrepreneurial intentions (EI).

Table 4.60: Testing of hypothesis 3.6.1

Tag	*Hypothesis*	*With entrep BG (550) (B)*	*No BG (225) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.6.1}$	EA←EI	0.365***	0.315***	0.034	0.008	1.24	0.2152	**H_o not rejected** **H_a not supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; t-value>1.96, Ho rejected, H_a accepted at significance of 0.05 level*)

Results revealed that moderation of accreditation status in the EA-EI relationship displayed a mean difference of 0.034, T-value of 1.24 and p-value of 0.2152. As T-value was less than1.96 and p-value was greater than 0.05, the moderation was not considered to be significant. Hence, it was concluded that accreditation status had no impact on the EA-EI relationship. Respondents with entrepreneurs in the background showed a B value of 0.384 while those with no entrepreneurial background showed a B value of 0.353. Hence it can be concluded that respondents with entrepreneurial background show stronger attitude towards entrepreneurship than those with no entrepreneurial background.

Hypothesis 3.6.2

H_0: Presence of entrepreneurs in respondents' background does not moderate the relationship between subjective norms (SN) and Entrepreneurial intentions (EI).

H_a: Presence of entrepreneurs in respondents' background moderates the relationship between subjective norms (SN) and Entrepreneurial intentions (EI).

Table 4.61: Testing of hypothesis 3.6.2

Tag	*Hypothesis*	*With entrep BG (550) (B)*	*No BG (225) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.6.2}$	SN←EI	0.053 $^{n.s}$	0.170$^{n.s}$	0.126	0.009	14.783	< 0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; t-value>1.96, Ho rejected, H_a accepted at significance of 0.05 level*)

Results revealed that moderation of entrepreneurial background in the SN-EI relationship displayed a mean difference of 0.126, T-value of 14.783 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.0001, the moderation was considered to be significant at a level of 0.0001. Hence, it was concluded that accreditation status impacts the SN-EI relationship. Respondents with background displayed a B value of 0.069 compared to B value of 0.167 by respondents with no entrepreneurs in their background. Hence, it can be concluded that lack of entrepreneurial background enhanced the need for parental support for starting own business.

Hypothesis 3.6.3

H_0: Presence of entrepreneurs in respondents' background does not moderate the relationship between perceived behavior control (PBC) and Entrepreneurial intentions (EI).

H_a: Presence of entrepreneurs in respondents' background moderates the relationship between perceived behavior control (PBC) and Entrepreneurial intentions (EI).

Table 4.62: Testing of hypothesis 3.6.3

Tag	*Hypothesis*	*With entrep BG (550) (B)*	*No BG (225) (B))*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.6.3}$	PBC←EI	0.270***	0.239***	0.05	0.009	2.519	0.0120	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value <0.05; t-value>1.96, Ho rejected, H_a accepted at significance of 0.05 level*)

Results revealed that moderation of entrepreneurial background of respondents in the PBC-EI relationship displayed a mean difference of 0.05, T-value of 2.519 and p-value of 0.0120. As T-value was greater than1.96 and p-value was less than 0.05, the moderation was considered to be significant at a level of 0.05.Hence, it was concluded that entrepreneurial background impacted the PBC-EI relationship. Respondents with background displayed a B value of 0.270 compared to B value of 0.239 by respondents with no entrepreneurs in their background. Hence, it can be concluded that presence of entrepreneurial background enhanced the perceived control level towards entrepreneurship.

Hypothesis 3.6.4

H_0: Presence of entrepreneurs in respondents' background does not moderate the relationship between external environment (EE) and Entrepreneurial intentions (EI).

H_a: Presence of entrepreneurs in respondents' background moderates the relationship between external environment (EE) and Entrepreneurial intentions (EI).

Table 4.63: Testing of hypothesis 3.6.4

Tag	*Hypothesis*	*With entrep BG (550) (B)*	*No BG (225) (B)*	*Diff*	*Std Error*	*t-value*	*p-value*	*Result*
$H_{3.6.4}$	EE←EI	$0.032^{n.s}$	$0.112^{n.s}$	0.083	0.008	17.464	< 0.0001	**H_o rejected H_a supported**

(Source: Output of moderation analysis and bootstrapping using SmartPLS)

(*If p-value<0.05; t-value>1.96, Ho rejected, H_a accepted at significance of 0.05 level*)

Results revealed that moderation presence of entrepreneurs in the background in the EE-EI relationship displayed a mean difference of 0.083, T-value of 17.464 and p-value of <0.0001. As T-value was greater than1.96 and p-value was less than 0.001, the moderation was considered to be significant at a level of 0.001. Hence, it was concluded that entrepreneurial background impacted the EE-EI relationship. Respondents with background displayed a B value of 0.0.242 compared to B value of 0.103 by respondents with no entrepreneurs in their background. Hence, it can be concluded that respondents with entrepreneurial background were more influenced by external environment that those without any entrepreneurial background.

4.8 Summary

The chapter analyzed the data collected from 775-strong sample of graduating millennials from Hyderabad region, Telangana. Data analysis enabled to confirm that the fit of the TPB model was good and that the model had good convergent and divergent validity. Testing of hypotheses was performed along with mediation and moderation analysis. A summary of the results of the hypotheses are presented below:

Table 4.64: Table showing summary of results of testing of hypotheses: Bootstrapping, mediation and moderation analysis

S.No	*Tag*	*Hypothesis*	*Result*	*Interpretation*
1.	$H_{1.1}$	Entrepreneurial intentions (EI) ⟵ Entrepreneurial attitude (EA)	**Sig**	Entrepreneurial intentions are significantly impacted by entrepreneurial attitude
2.	$H_{1.2}$	Entrepreneurial intentions (EI) ⟵ Subjective norms (SN)	**Not sig**	There is no significant impact of subjective norms directly on entrepreneurial intentions
3.	$H_{1.3}$	Entrepreneurial intentions (EI) ⟵ Perceived behavior control (PBC)	**Sig**	Entrepreneurial intentions are significantly impacted by perceived behavior control
4.	$H_{1.4}$	Entrepreneurial intentions (EI) ⟵ external environment (EE)	**Not sig**	There is no significant impact of external environment directly on entrepreneurial intentions
5.	$H_{2.1}$	Entrepreneurial attitude-PBC-Entrepreneurial intentions (IV-MV-DV)	**Sig**	EI-EA relationship is mediated by PBC
6.	$H_{2.2}$	Entrepreneurial attitude-SN-Entrepreneurial intentions (IV-MV-DV)	**Not sig**	There is no mediation of SN on EI-EA relationship
7.	$H_{2.3}$	Entrepreneurial attitude-EE-Entrepreneurial intentions (IV-MV-DV)	**Not sig**	There is no mediation of EE on EI-EA relationship
8.	$H_{2.4}$	Subjective norms-EE-Entrepreneurial intentions (IV-MV-DV)	**Not sig**	There is no mediation of EE on EI-SN relationship
9.	$H_{2.5}$	Subjective norms-EA-Entrepreneurial intentions (IV-MV-DV)	**Sig**	EI-SN relationship is mediated by EA in the form of complete mediation
10.	$H_{2.6}$	Subjective norms-PBC-Entrepreneurial intentions (IV-MV-DV)	**Sig**	EI-SN relationship is mediated by PBC in the form of complete mediation
11.	$H_{2.7}$	Perceived behavior control-EA-Entrepreneurial intentions (IV-MV-DV)	**Sig**	EI-PBC relationship is mediated by EA in the form of partial mediation **=**

S.No	*Tag*	*Hypothesis*	*Result*	*Interpretation*
12.	$H_{2.8}$	Perceived behavior control-SN-Entrepreneurial intentions (IV-MV-DV)	**Not sig**	There is no mediation of SN on EI-PBC relationship
13.	$H_{2.9}$	Perceived behavior control-EE-Entrepreneurial intentions (IV-MV-DV)	**Not sig**	There is no mediation of EE on EI-PBC relationship
14.	$H_{2.10}$	External environment-EA-Entrepreneurial intentions (IV-MV-DV)	**Not sig**	There is no mediation of EA on EI-EE relationship
15.	$H_{2.11}$	External environment-PBC-Entrepreneurial intentions (IV-MV-DV)	**Sig**	EI-EE relationship is mediated by PBC in the form of complete mediation
16.	$H_{2.12}$	External environment-SN-Entrepreneurial intentions (IV-MV-DV)	**Sig**	EI-EE relationship is mediated by SN in the form of complete mediation
17.	$H_{3.1.1}$	EA-EI (gender) IV-DV (Moderator)	**Sig**	EA-EI relationship moderated by gender
18.	$H_{3.1.2}$	SN-EI (gender) IV-DV (Moderator)	**Sig**	SN-EI relationship moderated by gender
19.	$H_{3.1.3}$	PBC-EI (gender) IV-DV (Moderator)	**Sig**	PBC-EI relationship moderated by gender
20.	$H_{3.1.4}$	EE-EI (gender) IV-DV (Moderator)	**Sig**	EE-EI relationship moderated by gender
21.	$H_{3.2.1}$	EA-EI (course of study) IV-DV (Moderator)	**Sig**	EA-EI relationship moderated by course of study
22.	$H_{3.2.2}$	SN-EI (course of study) IV-DV (Moderator)	**Sig**	SN-EI relationship moderated by course of study
23.	$H_{3.2.3}$	PBC-EI (course of study) IV-DV (Moderator)	**Sig**	PBC-EI relationship moderated by course of study
24.	$H_{3.2.4}$	EE-EI (course of study) IV-DV (Moderator)	**Sig**	EE-EI relationship moderated by Course of study
25.	$H_{3.3.1}$	EA-EI (entrepreneurial education) IV-DV (Moderator)	**Sig**	EA-EI relationship moderated by exposure to entrepreneurial education

S.No	*Tag*	*Hypothesis*	*Result*	*Interpretation*
26.	$H_{3.3.2}$	SN-EI (entrepreneurial education) IV-DV (Moderator)	**Sig**	SN-EI relationship moderated by exposure to entrepreneurial education
27.	$H_{3.3.3}$	PBC-EI (entrepreneurial education) IV-DV (Moderator)	**Sig**	PBC-EI relationship moderated by exposure to entrepreneurial education
28.	$H_{3.3.4}$	EE-EI (entrepreneurial education) IV-DV (Moderator)	**Not sig**	Exposure to entrepreneurial education has no impact on EE-EI
29.	$H_{3.4.1}$	EA-EI (placements) IV-DV (Moderator)	**Sig**	EA-EI relationship moderated by satisfaction with placements
30.	$H_{3.4.2}$	SN-EI (placements) IV-DV (Moderator)	**Sig**	SN-EI relationship moderated by satisfaction with placements
31.	$H_{3.4.3}$	PBC-EI (placements) IV-DV (Moderator)	**Sig**	PBC-EI relationship moderated by satisfaction with placements
32.	$H_{3.4.4}$	EE-EI (placements) IV-DV (Moderator)	**Not Sig**	Satisfaction with placements does not impact EE-EI relationship
33.	$H_{3.5.1}$	EA-EI (accreditation status) IV-DV (Moderator)	**Sig**	EA-EI relationship moderated by accreditation status
34.	$H_{3.5.2}$	SN-EI (accreditation status) IV-DV (Moderator)	**Not sig**	SN-EI relationship is not affected by accreditation status
35.	$H_{3.5.3}$	PBC-EI (accreditation status) IV-DV (Moderator)	**Sig**	PBC-EI relationship moderated by accreditation status
36.	$H_{3.5.4}$	EE-EI (accreditation status) IV-DV (Moderator)	**Sig**	Accreditation status impacted EE-EI relationship
37.	$H_{3.6.1}$	EA-EI (Entrepreneurial background) IV-DV (Moderator)	**Not sig**	EA-EI relationship not affected by Entrepreneurial background

S.No	*Tag*	*Hypothesis*	*Result*	*Interpretation*
38.	$H_{3.6.2}$	SN-EI (Entrepreneurial background) IV-DV (Moderator)	**Sig**	SN-EI relationship is moderated by Entrepreneurial background
39.	$H_{3.6.3}$	PBC-EI (Entrepreneurial background) IV-DV (Moderator)	**Sig**	PBC-EI relationship moderated by entrepreneurial background
40.	$H_{3.6.4}$	EE-EI (Entrepreneurial background) IV-DV (Moderator)	**Sig**	EE-EI relationship moderated by entrepreneurial background

CHAPTER - V

RESULTS, DISCUSSIONS & CONCLUSIONS

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RESULTS, DISCUSSIONS & CONCLUSIONS

5.1 Introduction

This chapter presents a discussion on the results and findings of the analysis of the data that was discussed in the previous chapter. The results of the data analysis were viewed from the context of what was already known about entrepreneurial intentions and how they were impacted by various factors. The findings were analyzed to enable the researcher to offer solutions and insights for the problem under investigation and to add to the understanding on the topic of impacting entrepreneurial intentions.

The central question of this study was on ‘why do individuals start/don’t start own business’. This chapter takes the study on intentions forward on the lines as indicated by objectives and hypotheses formulated. The results of the data analysis formed the basis for critical thinking about the entrepreneurial intentions. The discussion helped to identify the salient factors impacting intentions of the target population that would help in finding creative solutions on bringing more individuals into starting their own businesses. The solutions were based on logical synthesis of the findings, and provided profound understanding of what goes in the mind of wannabe entrepreneurs under investigation.

The chapter further presents the managerial and social implications of the findings with a note on how government agencies, academic institutions, mentors and teachers can create a more positive and conducive atmosphere for graduating students and help them take a more objective decision regarding their career choices. The study considers the individual as an involved stakeholder in the decision to become an entrepreneur. The study includes some measures by which graduating millennials can empower themselves with relevant information regarding venture creation and its requirements. Limitations of the study and further scope for study are also presented at the end of the chapter.

5.2 Relationships between key variables: Results of the study

The findings of the research as obtained from the data analysis of questionnaire data are presented as per the research objectives. The study used an extended model of TPB incorporating both internal and external factors to study Entrepreneurial Intentions (EI) of the target population in the given geographical location. The results demonstrated that the theoretical model used in the study was robust for studying EI of the population.

The research findings demonstrated that two of the independent variables, entrepreneurial attitude (EA) and perceived behavior control (PBC) are significant factors for entrepreneurial intentions (EI). The study also showed that EA and PBC influenced each other significantly. The study revealed that though subjective norms (SN) and external environment (EE) do not appear to impact EI significantly, indirect impact through other variables was evident. The analysis of impact of demographic variables showed that gender, course of study, exposure to entrepreneurial education, satisfaction with placements, level of accreditation of educational institutions and presence of entrepreneurs in the family background were found to impact EI significantly.

On the basis of the research findings, areas of importance are discussed below:

5.2.1 Graduating millennials and entrepreneurial intentions

- The present study showed that respondents are keen on starting own ventures and indicated firm intentions to do so in the future.
- However, they do not consider starting own business as a career choice during and just after graduation.

- They only want to consider it in future after gaining some work experience and not at present. “I will consider starting new firm of my own within the next 5 years after gaining some work experience” (mean=3.10; SD=0.635) and “I am considering starting my own business on a full-time or part-time basis some day in the future” (mean=3.02; SD=0.662).
- Though the respondents expressed that ‘being an entrepreneur would give them great satisfaction’ (mean=3.012; SD=0.6733) and felt that ‘becoming an entrepreneur would be the best way to make use of their education’ (mean=3.045; SD=0.6030), they wanted to ‘start their own business, if they had the opportunity and resources’ (mean=3.079; SD=0.6432). This implied that the respondents were on the look-out for both opportunities and resources for venture creation.
- While the respondents had confidence in their own skills and capabilities, they were not sure of their abilities to start and pursue a profitable venture (mean=2.391; SD=0.6797).
- They had more confidence that due approval for starting own business would be forthcoming from their friends than parents and family (mean=2.943; SD=0.6642).
- Similarly, respondents did not express any strong confidence on support from their academic institutions regarding venture creation (mean=2.399; SD=0.7452).
- The respondents in this study were all millennials who were in the final year of their respective courses. They had already thought about their careers and had taken some steps regarding future employment. Many of them had thought about starting own ventures and were interested in this choice of career.
- Many of them wished to start own business after gaining some relevant work experience or after putting together some capital.

- They were confident about their ability to start and continue a profitable venture but appeared to be taking decisions that were aligned with societal and parental expectations.
- Many of them considered entrepreneurship as ‘doing something different’ or ‘not working for others’ expressing innovation and independence as central features of venture creation.

5.2.2 Entrepreneurial intentions and TPB

- Attitude (EA) plays an important role in building intentions towards entrepreneurship (B=0.356; p-value=0.0003). This is in line with earlier findings (Autio et al, 2001; Nowiński & Haddoud, 2019) which considered attitude as an influential factor leading to creation of business ventures. A strong attitude helps in overcoming the fears of risk and failure and also helps in overcoming parental and societal disapproval towards entrepreneurship. Additionally, strong attitude is a requirement for entrepreneurship when an attractive and alternative career choice is available regarding employment. However, the emergence of attitude as a strong predictor for entrepreneurial intentions also raises debates on whether the focus of fostering entrepreneurship should be on attitude or facilitation in terms of information, role models and training.
- Perceived behavior control (PBC) impact on entrepreneurial intentions was found to be strong (B=0.249; p-value=0.018) but less than EA. Strong and positive PBC indicated confidence in one’s skills and capabilities.

- SN and EE impact was positive but weak (B=0.103, p-value=0.29 and B=0.069, p-value=0.52 respectively). This indicates that respondents were not looking for family approval or institutional support for entrepreneurship. Absence of significance in the SN-EI does not refer to the weakness of the model but it is reflective of the existing cultural environment in which the respondents exist (Heuer & Liñán, 2013). If there are expectations from the students in terms of employment or higher studies, it would be difficult for the student to garner enough support for his/her entrepreneurial intentions and the individual may channel the creativity in a different direction or simply wait for a more opportune moment to realize his/her entrepreneurial intentions. This was supported by the comments and observations made by the students during the focus group interviews. Insignificant EE-EI relationship is also indicative of the lack of positive environment towards fostering of entrepreneurship in colleges where the respondents are pursuing their course of study (Sesen, 2013).
- TPB model was found to be robust for measuring EI of target population as the GoF was found to be large; GoF=0.4797(values>0.36=Go $_{\text{Large}}$).
- R^2 value was found to be 0.406 and Q^2 value was found to be 0.544. This proved that the extended model (addition of EE construct to TPB model) provided additional explanatory power with regard to EI of target population.

5.2.3 Indirect effects

- In addition to the direct paths (EA-EI and PBC-EI which were significant), 6 indirect effects were also observed in the model and all these effects were found to significant.

- As attitude is the degree or extent to which an individual likes or dislikes something, entrepreneurial attitudes are not made or changed in a short span of time but are built over a period of time and are influenced by external influences and how those influences are internalized by the individual.
- The direct effect of entrepreneurial attitude on entrepreneurial intentions is found to be additional to its indirect impact through PBC. This indirect effect is noteworthy as it suggests a possible method for influencing and strengthening favorable attitudes towards entrepreneurship. Attitudes are not easy to change. Dramatic and consistent efforts are required to change a negative or weak attitude to entrepreneurship into a more positive and stronger attitude. As PBC has been shown to impact EI through mediation, attitudes can be manipulated by enhancing control beliefs in graduating students. Hence, the indirect effect provides a mechanism for manipulating attitudes to a beneficial conclusion.
- Strong control beliefs can be achieved through provision of internships and facilitating exposure to role models to graduating millennials.
- When entrepreneurial attitudes are strengthened, the intentions towards venture creation would also strengthen correspondingly.
- From the results it is evident that PBC is central in mediation relationships. It acts as a mediating variable in three relationships, EA-EI, SN-EI and EE-EI. It not only acts directly by impacting EI but also acts through other factors; thus PBC plays a very significant role in influencing entrepreneurial intentions of individuals.
- SN does not impact entrepreneurial intentions directly (B=0.103; p-value=0.2945). However, results confirm that SN impacts entrepreneurial intentions indirectly through EA and PBC. This effect highlights the influence of parental support and

societal approval on the decision to start one's own business as far as millennials are concerned.

- Though EE shows the least and the weakest impact on EI, it impacts entrepreneurial intentions through PBC and SN. The indirect effect shown by EE highlights the role of institutional support in strengthening and nurturing control beliefs of students and also in facilitating parental and societal support for embarking into setting up of own ventures.
- Hence it can be concluded that the mediating effects of PBC and EE are central to the extended TPB model used in the study.

5.2.4 Moderation effects and impact on entrepreneurial intentions

- 6 moderators and their effects on entrepreneurial intentions were studied in this research work.
- The study found that gender, course of study significantly impacted entrepreneurial intentions of graduating millennials.
- Male respondents were found to display stronger entrepreneurial intentions than female respondents. This difference may be attributed to cultural norms and stereotyping of women as homemakers that are prevalent in the society.
- Students from engineering stream were found to have stronger intentions than MBA stream students with regard to entrepreneurship. Most business opportunities are associated with technology and engineering stream students may find it easier to use technology in a productive manner. On the other hand, MBA graduates make good managers and often look for employment in other firms.

- Overall, male engineers were found to have the strongest intentions towards entrepreneurship and women MBA graduates had the weakest entrepreneurial intentions.
- Structural equation modeling had enabled a thorough study of the impact of gender and course of study on the graduating millennials. Some conclusions are presented in the matrix below:

Table 5.1: Matrix showing characteristics of entrepreneurial intentions of millennials in terms of gender and course of study

	Males	***Females***
Engineering students	❖ Most receptive group in terms of intentions ❖ Most susceptible to changes in perceived control and environment ❖ Most likely group to start own ventures	❖ Highly susceptible to parental and family opinions ❖ Encouraging attitude towards starting own business but motivation needed ❖ Measures to build up of confidence in own skills needed
MBA students	❖ Most likely group to be influenced by overtures towards entrepreneurship by external agencies, role models ❖ Measures to build up confidence in skills moderately needed	❖ Lowest in terms of attitude and confidence in own skills ❖ Total dependence on family and parental support ❖ Least likely group to start own ventures; need maximum support from institutional and parental groups

(*Source: Results of Structural equation modeling of primary data*)

- Exposure to entrepreneurship subjects as part of course curriculum has not been found to promote intentions in millennials to start their own business. Entrepreneurship-related subjects and courses are introduced in to professional curriculum so that the students cultivate unique skills and think outside the box. These courses are meant to instill confidence in the students and help create

opportunity-identification so that they can start and run a sustainable venture. Ideally, those students who had the benefit of studying entrepreneurship-related subjects should display more control and confidence in their skills and capabilities towards setting up own business. However, the present study showed that students who had not studied entrepreneurship-related subjects as compulsory or option electives showed more confidence in their skills and abilities to start and run a profitable venture. This raises questions on the effectiveness of the entrepreneurship education being imparted to the students in the professional programs in the colleges of the target region. It has been suggested by many researchers that the methodology and curriculum of the entrepreneurial education has not been very effective in promoting entrepreneurship among graduating students. A closer look may be needed at instructional methodology and application used in imparting entrepreneurial education to graduating students.

- Satisfaction with placements available at campuses was found to impact entrepreneurial intentions of students. Respondents have acknowledged the parental and societal pressure and expectations regarding placements in well-known companies. The concept of placement has been used differently in the literature. Placement generally refers to the 'sandwich placement' that enables the student to work for an organization for a term of roughly one year and return to the course in the college/university after the completion of this one year term. The placements are intended to provide vital hands-on experience for the students which will help them in their studies and/or future employment (Procter, 2011). However, the term 'placement' used in the present study refers to campus placements where prospective employers select possible candidates through

interviews, technical tests and group discussions. Some of these testing procedures may be conducted by the college authorities in accordance with the employers' organizational norms. If found suitable, the candidate is offered a provisional placement certificate, which can be used by the student after graduating the course and fulfilling other requirements. Hence, the students who have availed or wish to avail this placement opportunity, venture creation is not a career choice at that point of time. Such students place the choice of entrepreneurship in the back burner.

- Accreditation status of colleges was found to impact EI positively but difference in levels of accreditation were found to be insignificant. When an academic institution has been accredited A, A+ or A++ Grade by NAAC, it means that the educational programs offered by that institution have attained a level that meets or exceeds standards that were developed by experts in the field. This ensures that the students are exposed to the latest trends and developments in the relevant fields. Academic institutions also adopt increased industry-academia interactions to expose the students to the latest trends. It has been categorically stated by experts that the interactions with industry leaders and entrepreneurs helps students develop innovative and entrepreneurial ideas and prepares them for the future.
- Though presence of entrepreneurs in the family background was not found to impact attitude towards EI, it was found to facilitate more control and acceptance from family towards starting own business. The presence of entrepreneurs in the family or social circles allows the students to observe the process of venture creation from a non-institutional viewpoint. They are able to gather important perspectives from personal experiences and accounts regarding success and

failure of entrepreneurship as experienced by the family or non-family members. Therefore, it is observed that these students do not depend on institutional support for inputs or information. But those who do not have any entrepreneurs in their family or social circles look towards the academic institution for support and are susceptible to inputs regarding entrepreneurship. However, the point of interest is that the attitude towards entrepreneurship remains unaffected by these viewpoints.

5.3 Comparison of findings of the study with existing literature

Findings of this study are compared with the results of previous studies and existing literature. The present study confirms the role of certain factors in impacting entrepreneurial intentions as indicated in the earlier studies. While the factors were tested on native populations in these earlier studies, the present study tested the factors on the target populations from Hyderabad, India. Some of the findings of the present study showed deviations from proven impacts of earlier studies. New aspects that were not tested and studied previously have been identified in this study.

- This study was started with the aim of testing whether Theory of Planned Behavior (TPB) can be used to explain the phenomenon of entrepreneurial intentions of graduating students especially millennials from Hyderabad, Telangana. The study probed whether the components of TPB were significant for study of intentions of the chosen group of respondents. The results showed that TPB model accounted for 48.34% of variation in intentions, which is typical of previous studies of research on entrepreneurial intentions (Davidsson, 1995; Kautonen et al, 2013; Autio et al, 2001).

- EA component alone accounted for 21% variance of the intention, while PBC accounted for 12% variance and EE and SN accounted for 7% and 6% variance respectively.
- This proved that TPB model was robust for studying entrepreneurial intentions of the chosen millennial group with graduating students from Hyderabad, Telangana.
- Of all the elements of TPB entrepreneurial attitude (EA) proved to be the strongest predictor of intentions with a path coefficient of 0.356 and medium effect size.
- This was in line with findings in literature where attitude was perceived as a better predictor of intentions than demographic or trait variables (Robinson et al, 1991; Moriano et al, 2010).
- Entrepreneurial attitude has proved to be the strongest indicator of entrepreneurial intentions in the present study. This is in line with the conclusions of studies conducted by Tkachev & kolvereid, (1999); Kreuger et al, (2000); Kolvereid & Isaksen, (2006); Basu & Virick, (2008); Van Gelderen et al, (2008); Linen & Chen, (2009); Kautonen, et al, (2011); Moriano et al, (2012); Peng et al, (2012) where EA was proved to be a strong indicator of EI.
- The findings also prove the validity and aptness of the attitude scale developed by Robertson et al (2009) to the study of entrepreneurial intentions.
- Some dissertations like that of Tiurenkov, (2011) and research papers like that of Zhang et al (2015) on university students showed that attitude towards entrepreneurship failed to generate a significant impact on entrepreneurial intention. However, the present study has shown irrevocably that attitude is indeed a strong indicator of intentions towards entrepreneurship.
- According to the present study, Perceived behavior control (PBC) was the next significant predictor after attitude but with a small effect size and a value of 0.249.

- While studies by Autio et al (2001), Moriano et al (2010), Kautonen et al (2013), Kautonen et al (2013) and Karimi et al (2016) showed that PBC is the most important indicator of entrepreneurial intentions, the present study has shown that PBC is not as strong a indicator as EA but showed indirect effects on EI.
- Subjective norms component has shown weak and insignificant effect and this finding is reflected in previous studies on TPB.
- A similar effect was shown in studies by Linan & Chen (2009) and Moriano et al (2010).
- The inclusion of external environment into study of entrepreneurial intentions has been supported by the findings of Kristiansen &Indarti, (2004) and Schwarz et al (2009), while results of the study undertaken by Sesen (2013) showed no support for external environment for entrepreneurial intentions of university students in Turkey.
- According to Remeikiene et al (2013), young people studying in the higher education institution are inclined to seek for entrepreneurship after completion of the studies irrespective of their choice of study. These had not been found to be true in the present study where students are reluctant to start own business after graduation but wish to wait till they obtain relevant work experience.
- The present study found that SEM was a suitable approach to understand the relationship between factors affecting EI and intentions. This was in line with the findings of Schlaegel & Koenig, (2014) and Koe, (2012).
- Few studies had indicated a positive influence of entrepreneurial education on entrepreneurial intentions. Study conducted by Gerba (2012) on African students had indicated that management students are more attracted to entrepreneurship than engineering students as entrepreneurship is one of the course subjects for management. This has not proved to be the case in the present study.

- The findings of the present study are aligned with those of Shinnar (2014) which reported that education was not effective in promoting entrepreneurial intentions of respondents. This is further strengthened by Zhao et al (2005) who reported that doubts about the effectiveness of formal entrepreneurship education continue to arise, despite the spread of entrepreneurship courses and programs in U.S. universities over the past few decades.
- The present study has used TPB for studying EI and use of this theory for studying entrepreneurial intentions are validated by contemporary studies like those of Esfandiar et al (2019) and Schaller & Malhotra, (2015).

5.4 Implications of the research

The present study had categorized the factors affecting entrepreneurial intentions into 'internal' and 'external' categories based on origin of the factors. As 'attitude' originates from the thinking and cognitive processes of one's mind, it is classified as internal factor. As external environment for the graduating millennial is his/her academic institution, it is classified as an external factor. However, the factors impacting entrepreneurial intentions can also be viewed from the perspective of push-pull theory of entrepreneurship. According to this theory, the motivation for entrepreneurship arises from different directional forces which can be categorized as the push or the pull factors (Kirkwood, 2009). The 'push' factors of entrepreneurship compel the individuals to move in a particular direction while the 'pull' factors attract the individuals towards a particular goal. The factors identified in the present study are categorized on the basis of the push-pull theory of entrepreneurship on the basis of the qualitative and quantitative information collected from respondents.

Table 5.2: Table displaying the categorization of factors

S.No	*Factor*	*Categorization based on*	
		Origin of factor	*Push-pull theory*
1.	Parental support	External	Pull
2.	Role models	External	Pull
3.	Attitude	Internal	Pull
4.	Control over behavior	Internal	Pull
5.	Exposure to self-employment	External	Pull
6.	Presence of entrepreneurs in background	External	Pull
7.	Access to information	External	Pull
8.	Institutional Support	External	Pull
9.	Exposure to entrepreneurial education	External	Pull
10	Availability of alternate employment	External	Push
11.	Culture	External	Push
12.	Stereotyping (based on gender, social standing, etc)	External	Push

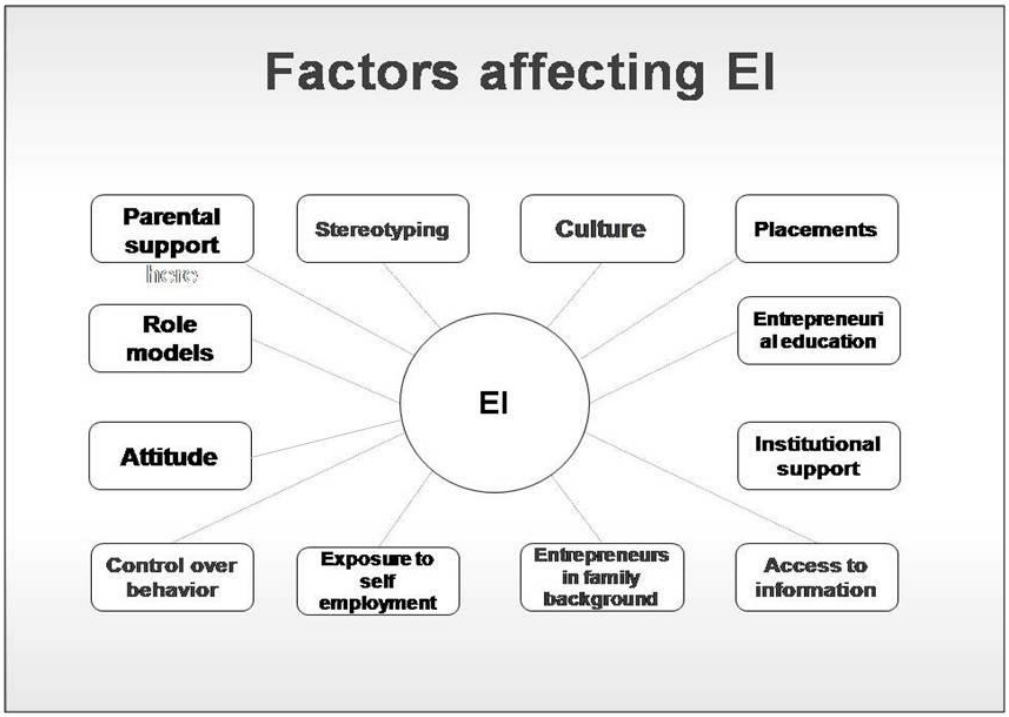
5.4.1 Implications for Researchers

- This research study has several important implications. From a theoretical perspective, the present study provides an important empirical step towards understanding the drivers of entrepreneurship. As previously stated, the literature in

this area had been mainly uni-dimensional. The concept of entrepreneurial intention was treated as a simple decision and the complexities behind the decision were mostly ignored.

- The study shows an empirical analysis of the integral factors that are important determinants of entrepreneurial intentions. The analysis is a comprehensive mix of all the factors that influence a prospective entrepreneur and his/her micro environment.

Fig 5.1: Internal and external factors affecting entrepreneurial intentions



(Source: Scholar's rendition based on the summary of findings)

- The findings can be used to take research in entrepreneurship forward. The validated model includes both internal and external factors of entrepreneurial intentions (see fig 5.1). The findings of this research bring out the significance of various factors whose effect on entrepreneurial intentions was not tested before. The model used in this

study could be used as a starting point for models to include various other factors that have not been tested or evaluated before. Hence, the present study adds to the ongoing research on millennial entrepreneurs.

- Studies reveal that though a large number of individuals in India want to start their own business (64%), only a small fraction of the Indian population (5%) actually starts and succeeds in own business ventures. It would be possible to bring in more number of graduating students into venture creation only when the dynamics of entrepreneurship are clearly understood. The present study contributes to the study on what millennials feel about venture creation, thus contributing significantly to the literature on this field.

5.4.2 Implications for academic institutions and students

- The theoretical aspects covered in this research had facilitated the construction of an extended model comprising of factors impacting entrepreneurial intentions. This model incorporates both internal and external factors that a prospective entrepreneur deals with during career choice-making (see fig 5.1).
- The model can be used by entrepreneurs to assess their motivation and confidence levels for starting own business. Administration of the model to individuals can yield useful results. Based on the results, students can identify the extent of his/her preparedness and the direction in which his/her interest lies. The students can make important career-related decisions and also use the model to convince the important people in their lives whose approval is vital for taking the career decision. Any lacunas that are detected after using the model can be rectified by taking appropriate actions. For instance, if a student uses this model to assess his entrepreneurial intentions and identifies that he is scoring low on access to information factor, he can take a number of steps like crash courses, webinars, conferences or reading relevant

material in the specific subject. In this way, he can build up his knowledge in the specific field.

- The same model can also be used by academic institutions to identify specific skills and capabilities in their students and render guidance accordingly. The model can also help the institutions to assess and design the entrepreneurship development programs already in place or create new programs to specifically address the needs of the students regarding entrepreneurship. This will also serve the purpose of building or augmenting the supportive environment for promoting entrepreneurial intentions of students.

5.4.3 Implications for regulatory bodies

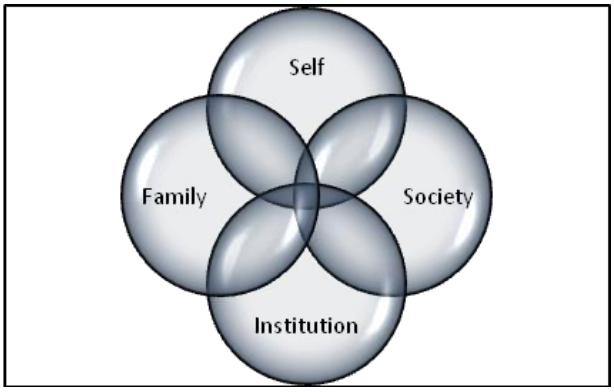
- The model developed in this study can be of use for assessing the feasibility of the entrepreneurial projects submitted for approval. The model contributes vital inputs to be included in the entrepreneur checklist for the purpose of identifying and grading potential startups.
- The model is especially of use to administrators of incubation cells and entrepreneur hubs. These hubs and cells are set up to help young entrepreneurs start their own business and usually help by providing financial and technical support. The administrators of this model can find assistance in selecting individuals who are motivated and skilled for starting their own business. The model can be used by funding institutions like loan departments of banks to assess the motivation level of the employee. This can be additional to the feasibility checks on the proposed project of the individual.
- The model can be used by policy makers who play an important role by regulating the growth of *entrepreneurial* ecosystems, essential for the growth of ventures. The three pillars of the ecosystem are accessible markets, human capital/workforce and funding

and finance. Assessing the requirements of different regions in terms of the workforce can be fulfilled by using the model.

5.5 Major recommendations

With the renewed focus on entrepreneurship both locally and nationally, there is a growing need to bring more and more individuals (groups) into self-employment mode. Indian millennials, by virtue of their growing percentage in population (450 million as of end of 2019) are the obvious choice as entrepreneurs. Understanding their intentions and aspirations would be vital in motivating their entrepreneurial initiatives. It is clear from the findings of the study that there cannot be one single factor that determines entrepreneurial intentions. Different entities like individual himself/herself, family, academic institutions and society play significant roles in shaping the entrepreneur.

Fig 5.2: Different entities that shape an entrepreneur



In this context, the study has various implications for academic institutions and regulatory bodies dealing with graduating students in promoting entrepreneurship. The study has also some recommendations for the individual who aspires to become an entrepreneur. The recommendations are detailed below:

- ***For Institutions***: Discussions with graduating millennials indicated that they do not have a complete understanding of the processes and requirements of starting own business. Most of them felt that they lacked hands-on knowledge of how to go about

setting up own ventures. In spite of having own ideas for start-ups, this lack of knowledge was holding them back in going ahead with the projects. Developing awareness of regulatory procedures, funding schemes, tax structures, etc that are offered by state and central governments would help in strengthening the knowledge about venture creation.

- This gaining of knowledge could be a standalone learning experience or be aligned with entrepreneurial education in terms of projects, assignments, seminars, etc.
- Internships with budding entrepreneurs to get hands-on knowledge and undertaking of minor projects in collaboration with entrepreneurs or peers during the course of study would help the students to understand the dynamics of entrepreneurship.
- Every institution has alumni-entrepreneurs who have the potential to be active mentors to interested students. Engagement of graduating students with these individuals would go a long way in nurturing entrepreneurial intentions and providing real-time knowledge of the processes involved. This can provide motivation and knowledge to wannabe entrepreneurs and help in overcoming the barriers against entrepreneurship.
- On the part of the academic institutions, initiatives need to be adopted to ensure sustained exposure to all aspects of starting own business to maximize idea diffusion
- As a gender gap has been identified in terms of entrepreneurial intentions among males and females, institutions need to pay additional attention to female students in innovation-enhancing initiatives
- Steps like ensuring that some guest speaker-entrepreneurs are female would go a long way in motivating female students. Institutions should also ensure that female students

get equal opportunities in participating in innovation-strengthening activities like projects, workshops, seminars etc

- There is a strong need to move from number-based achievement targets to attitude-based targets in helping students set up own businesses
- Ensuring that the campuses are providing a culture that promotes entrepreneurship is one of the important responsibilities of institutions
- Focusing on social entrepreneurship and collaborating with local/national firms to promote/aid business ideas by students are some of the measures that institutions can adopt to remove apprehensions regarding entrepreneurship as a career choice for graduating millennials
- Use of case studies to promote entrepreneurship and linking entrepreneurship-based subjects to real-time issues and incorporating project work wherever possible have already been used in colleges/universities with some success
- Real-time initiatives like initiating innovator-incubator schemes to promote small businesses are the need of the hour.

For millennials: As intentions towards entrepreneurship have been proved to be attitude-driven, any initiatives towards promoting entrepreneurship are characterized by self-internalization by individuals. Exposure to various aspects of entrepreneurship can help individuals identify their strengths and weaknesses and also pinpoint their interests and identify opportunities. In this regard, the following suggestions are made to strengthen entrepreneurial intentions:

- Graduating millennials need to take a personal interest in strengthening their knowledge about scope and methods of starting own business
- Developing interest in entrepreneurship through news media and social media content is a viable option for graduating students

- Network building can go a long way in shaping the startup aspirations of individuals. Attending conferences, seminars, workshops to gain knowledge on funding, collaboration and idea generation would also help wannabe entrepreneurs in building networks
- Developing a positive attitude towards entrepreneurship is possible through role models. Known or unknown entrepreneurs can be role models. Family and friends, alumni, faculty and guest speakers can constitute role models
- Wannabe entrepreneurs can benefit by discussing/sharing innovations, ideas with family and friends which would go a long way in building confidence and winning familial support or reducing familial opposition to venture creation
- Additionally, active participation in workshops and competitions are needed to hone and promote creativity and innovation

- ***For family and society:*** Graduating millennials participating in this study have expressed concerns about parental opposition to starting own businesses. The respondents especially from MBA streams have also expressed that there are parental expectations to secure good employment.
- Family support, especially to women entrepreneurs is critical to successful launching and running a sustainable business venture.
- Many successful entrepreneurs in India are first-generation businessmen and do not come from traditional business families. Family and parental support is crucial for their success.
- Family can contribute significantly to entrepreneurial intentions of students by ensuring continuous interaction with budding and established entrepreneurs.

- Removal of gender-bias and providing encouragement and support to women is a responsibility of both family and society.

5.6 Limitations of the research

While the present study provides many key findings, it also suffers from some limitations.

- First limitation is regarding the use of self-reporting questionnaire for survey. The respondents' replies might have included some biases. Individuals are known to give socially acceptable answers or expected answers instead of their honest opinions, especially questions regarding effectiveness of measures used by institutes. To balance the biases, group interviews have been used in the study to augment and check the opinion offered by the respondents.
- Secondly, the study had included factors like attitudes and perceived control but not personality factors-risk taking propensity, self-efficacy, need for achievement-which are also used in some studies to understand entrepreneurial intentions.
- The period of data collection was in 2018. The data collected was interwoven and hugely influenced by the market environment and perceptions of that time. Subsequent changes in environment and perceptions have not been taken into consideration due to paucity of time and resources.
- The study was undertaken in only 11 of the colleges in and around Hyderabad region keeping in mind the time and resource constraints. Inclusion of more colleges could have provided more details regarding venture creation by graduating millennials.
- Lastly, the respondents have expressed intentions to start own business in the future; intentions invariably tend to change over time. A longitudinal study to understand

how the intentions are formed and given shape would be ideally suited to comprehend the dynamics of venture creation. The present study undertaken is a cross-sectional study and reveals the present nature of intentions of graduating millennials. The study of changes (both negative and positive) in intentions over a period of time would be a welcome addition to the literature on entrepreneurship.

5.7 Suggestions for future research

The suggestions for future research are given below:

- As there are no national or regional surveys on entrepreneurial intentions of individuals, there is ample scope for conducting this kind of research.
- The respondents of this study were limited to engineering and business administration students. Future studies can probe into the intentions of students pursuing pharmacy, hospitality, law, finance and accounting. A comparison of the results of such studies with the present study may yield valuable insights into entrepreneurial intentions.
- The respondents of this study were all millennials. With suitable changes in the model, it can be applied to younger (Gen Z) or older (Gen X, Baby Boomers) generations to understand the factors affecting entrepreneurial intentions.
- Future research can explore the role played by society and academic institutions in creating entrepreneurs. As there is a need to bring in more and more number of individuals into entrepreneurship, it is extremely essential to understand the association of factors impacting entrepreneurial intentions and how they impact the outcomes of entrepreneurship.
- The respondents of this study were all graduating millennials. Attitude towards entrepreneurship was found to be the strongest indicator of entrepreneurial intentions. As attitudes are sometimes formed at a very young age and remain unchanged, a study of entrepreneurial intentions of secondary and higher secondary students is

suggested along the lines of studies by Athayde (2009) on secondary school students in London, UK.

- The present study used a questionnaire based on Entrepreneurial Intention Questionnaire (EIQ) developed by Linan & Chen (2009). The constructs of the present study were tested using multiple-item measures. 10-item measure was used to construct entrepreneurial attitude, where each item was designed to analyze the attitude of the respondent towards entrepreneurship. Future studies may benefit from further differentiation of the construct. For instance, inclusion of all the 3 components of attitude-affective, behavioral and cognitive components of attitude could be beneficial.
- 'Fear of failure' was one of the 4 components used to study perceived behavior control construct. Review of relevant literature led to the view that the component was integral to the study. However, the items on fear of failure did not load on any factor during factor analysis and had to be removed. Future studies may study the factor by re-orientation of this concept.
- Future studies may benefit by studying the entrepreneurial intentions of those students who have parental approval for starting new venture. This may yield valuable information on how far parental approval helps in strengthening entrepreneurial intentions of students.
- The present study has explained the non-significance of external environment by suggesting that the respondents did not perceive any institutional support for their entrepreneurial intentions. Future studies may further study the dimensions of institutional support.
- The issue of entrepreneurial education needs further study. A close look at how entrepreneurial education is imparted in academic institutions and the alignment of

these courses to ground realities of venture creation is needed. A pre-test and re-test method may be used to understand the level of intentions before the course is taken and after the course is completed.

- The findings also suggest that satisfaction with placements offered in the educational institutions is also a deterrent for entrepreneurial aspirations. In-depth analysis of this aspect would also help in understanding the career choices made by graduating millennials.

5.8 Concluding remarks

The study was a sincere attempt to study the factors affecting the entrepreneurial intentions of graduating millennials. The findings of the study proved conclusively that attitude was a strong indicator of entrepreneurial intentions, placing the onus of starting own ventures fully on the individual himself/herself. The role of perceived behavior control in impacting entrepreneurial intentions was also established and this aspect is of special significance as it provides an opportunity for manipulation of intentions. The role of gender, course of study, entrepreneurial education, satisfaction with placements, and accreditation status of institutions along with presence of entrepreneurs in the family background were identified as factors affecting entrepreneurial intentions.

The model suggested in the study takes a comprehensive view of entrepreneurial intentions of graduating millennials. As it includes both internal and external factors, the model is unique and highly relevant to the Indian perspective. Researchers and thought leaders in the field of entrepreneurship can use this model to understand the ways and means to nurture and promote entrepreneurial intentions in graduating students.

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APPENDICES

APPENDIX A

Questionnaire used for main survey

General questions (I-VII)

S. No.	*Tag*	*Question*
1.	DOB	Year of birth
2.	Gender	Male/Female
3.	Course presently studying	Engg/MBA
4.	Who is/was having own business at present/in past?	a) Parents b) Siblings c) Close relatives d) Grandparents e) Friends f) People known to you g) None
5.	Why do people start their own business?	*Rank the following reasons in order 1-6* a) For prestige and money b) It is their family tradition c) Don't like working for others d) Like risks e) Like to do things differently f) Entrepreneurs are special people
6.	Have you studied entrepreneurship as a subject/course in college?	Yes/No
7.	Does your institution offer good placements?	Yes/No

Variable-based questions (1-45)

S.No	Tag	Question
Dependent variable-Entrepreneurial intentions (EI)		
1.	OBP1	I will consider starting new firm of my own within 1 year of completion of my course
2.	OBP2	I have decided to start a new firm of mine and have already started preparatory work for the same
3.	OBP3	I will join my family business
4.	OBP4	I will consider starting new firm of my own within the next 5 years after gaining some work experience
5.	OBP5	I am confident that I will join with friends and start a new firm
6.	OBP6	I am considering starting my own business on a full-time or part-time basis some day in the future
7.	INT1	I'm ready to do anything to be an entrepreneur
8.	INT2	I have seriously thought about starting a firm
9.	INT3	I have the firm intention to start a firm some day
Independent Variable 1-Entrepreneurial Attitude (EA)		
1.	IB1	If I had the opportunity or resources, I would start a new venture
2.	IB2	Being an entrepreneur would give me great satisfaction
3.	IB3	I believe in setting goals and working towards them
4.	IB4	You can only make big money if you are self-employed
5.	IFC1	To me, being an entrepreneur means more advantages than disadvantages
6.	IFC2	I'd rather found a new company than be the manager of an existing one
7.	IFC3	I'd rather be my own boss than have a secure job

8.	IO1	A career as an entrepreneur is very attractive to me
9.	IO2	I relish the challenge of creating a new business
10.	IO3	I need constant change to remain stimulated, even if this would mean higher uncertainty
Independent Variable 2-Subjective Norms (SN)		
1.	IP1	If I decide to start a firm, 'my parents' would strongly approve of my choice
2.	IP2	If I decide to start a firm, 'my close friends' would strongly approve of my choice
3.	IP3	If I decide to start a firm, 'my close family (other than parents)' would strongly approve of my choice
4.	IP4	I give lots of importance to the opinion of people close to me
5.	IRM1	I know many people who have successfully started their own firm
6.	IRM2	Entrepreneurs have a positive image in Indian society
7.	IRM3	There are a number of role models around me from whom I get ideas to start my own firm
Independent Variable 3-Perceived Behavior Control (PBC)		
1.	CON1	I am prepared to start a viable firm
2.	CON2	I am well aware of the required practical details of starting a firm
3.	CON3	If I start a firm, my chances of success would be high
4.	CON4	I know how to develop an entrepreneurial project
5.	CON5	To start my own firm would probably be the best way for me to take advantage of my education
6.	CON6	I have the skills and capabilities required to succeed as an entrepreneur
7.	FOF1	Successful business involves managing financial, legal and other activities; so it is difficult for me*

8.	FOF2	I feel I should start my own venture only after I am fully sure that it will be a success*
9.	PC1	To start a firm and keep it working would be easy for me
10.	PC2	I can control the creation process of a new firm
Independent Variable 4-External Environment (EE)		
1.	AC1	I have access to capital to start my own business
2.	AC2	It is hard to find capital funding for new businesses
3.	AI1	I have good social networks that can be utilized when I decide to be an entrepreneur
4.	AI2	I have access to supporting information to start my own business
5.	AI3	The bureaucratic procedures for founding a new company are not clear
6.	ENV1	There is a well functioning support/infrastructure in my college/university to support the setting up of new firms
7.	ENV2	The creative atmosphere in my college/university inspires us to develop ideas for new businesses
8.	ENV3	Government support will greatly influence my decision to start my own firm
9.	ENV4	In my university/college, people are actively encouraged to pursue their own ideas
10.	TE1	The courses in my college/university provide students with the right knowledge required to start a new company
11.	TE2	Education will greatly help in influencing my decision to start my own firm

APPENDIX B

Quantitative data-Collection methods-Details

Focus Group Discussions (FGD)	
No: of FGD conducted	5
No : of colleges participated	5
No: of students participated	6-14 in each group
Duration of FGD	45 min-1.5 hours
Languages used in FGD	English (mostly), Telugu, Hindi/Urdu
Interviews	
No: of interviews conducted	12
Profile of interviewees	❖ 7 entrepreneurs with 2-17 years of experience ❖ 3 Placement officers in educational institutes ❖ 2 HODs
Mode of interviews	Face-to-face and/or email-based

Focus Group Discussion (FGD)- Results

Questions used in FGD	*Findings*
❖ Have you seriously thought about starting your own business?	❖ Entrepreneurship involves high risk and innovativeness
❖ What are the promoters and barriers for starting own venture in the present environment? ❖ Why do people start their own business? What pushes them towards this decision?	❖ Entrepreneurs are respected and asked for advice by friends and family ❖ Being entrepreneur means 'being independent and not having a boss' ❖ Entrepreneurs help society and country
❖ Does the support of family and friends help entrepreneurs? If yes, in what way can family and friends help entrepreneurs?	❖ Parents/friends/family advise against entrepreneurship ❖ If I get job in good company with high salary, parents will be happy
❖ If you wish to start your own venture, how much of that decision would be under your own control? What would be your aspirations, fears and level of confidence?	❖ It's better to start online than to team up with others ❖ The biggest risk in entrepreneurship is losing money and failure ❖ Entrepreneurship must be a family-based trait ❖ If someone in the family circle is

	an entrepreneur, parents will be less afraid of my decision to start own business

Interviews-Findings

Questions used in interviews	*Findings*
➢ Is entrepreneurship a viable career option for graduating students?	➢ It is better to start own business after gaining some valid work experience
➢ Colleges are ideal innovator incubators. Comment	➢ Colleges cannot force students to start own business; it is the choice made by students in consultation with their family ➢ Entrepreneurship-development cells in colleges functioning well and contributing significantly
➢ If you are approached for advice, would you suggest that students start their own business after graduation?	➢ Starting own business or working in a job is the choice of individual and cannot be forced ➢ Success in business depends on the nature of the project and availability of capital

APPENDIX C

Table showing mean and SD values of questionnaire items

Descriptive Statistics							
S. No	Factor	Item	N	Min	Max	Mean	SD
1	EI	OBP4	775	1	4	3.10	.635
2		OBP6	775	1	4	3.02	.662
3		INT1	775	1	4	2.60	.771
4		INT2	775	1	4	2.76	.750
5		INT3	775	1	4	2.93	.669
6	EA	IB4	775	1	4	2.41	.841
7		IFC1	775	1	4	2.53	.734
8		IFC2	775	1	4	2.52	.687
9		IFC3	775	1	4	2.61	.757
10		IO1	775	1	4	2.87	.653
11		IO2	775	1	4	2.86	.630
12		IO3	775	1	4	2.54	.754
13	SN	IP1	775	1	4	2.71	.829
14		IP2	775	1	4	2.94	.664
15		IP3	775	1	4	2.54	.803
16		IRM1	775	1	4	2.87	.622
17		IRM2	775	1	4	2.89	.628
18		IRM3	775	1	4	2.82	.646
19	PBC	CON1	775	1	4	2.39	.678

Descriptive Statistics							
S. No	Factor	Item	N	Min	Max	Mean	SD
20		CON2	775	1	4	2.29	.703
21		CON3	775	1	4	2.56	.696
22		CON4	775	1	4	2.30	.678
23		CON5	775	1	4	3.05	.603
24		CON6	775	1	4	2.97	.599
25	EE	AI1	775	1	4	2.71	.650
26		AI2	775	1	4	2.69	.634
27		ENV1	775	1	4	2.40	.747
28		ENV2	775	1	4	2.54	.766
29		ENV4	775	1	4	2.65	.741
30		TE1	775	1	4	2.68	.751

(*Source: Output: Descriptive statistics-SPSS 23.0*)

APPENDIX D

FACTOR ANALYSIS-RESULTS

ROTATED COMPONENT MATRIX

		Rotated Component Matrix[a]				
		Component				
Factor	item	1	2	3	4	5
EI	INT2	.777				
	INT3	.755				
	OBP6	.673				
	INT1	.624				
	OBP4	.503				
EE	ENV2		.852			
	ENV1		.849			
	ENV4		.835			
	TE1		.828			
	AI1		.816			
	AI2		.781			
EA	IFC2			.758		
	IFC3			.752		
	IFC1			.734		
	IB4			.690		
	IO3			.503		
	IO2			.498		

		Rotated Component Matrix[a]				
		Component				
	IO3			.465		
PBC	CON2				.810	
	CON4				.772	
	CON3				.752	
	CON1				.592	
	CON5				.528	
	CON6				.527	
SN	IP3					.817
	IP1					.787
	IP2					.760
	IRM3					.745
	IRM1					.695
	IRM2					.615

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

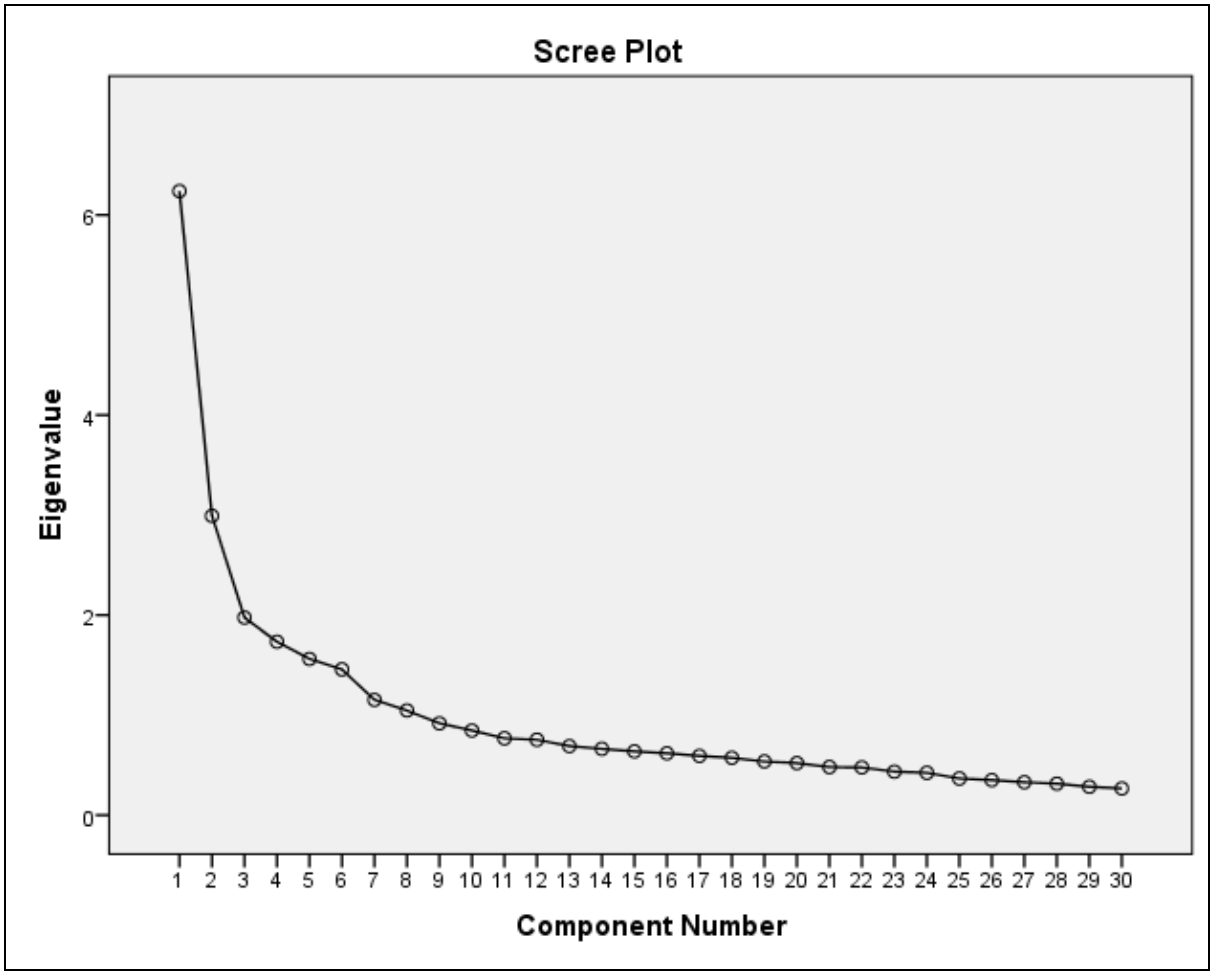
Rotation converged in 6 iterations.

KMO & BARTLETT'S TEST

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		*.841*	
Bartlett's Test of Sphericity	*Approx. Chi-Square*	*7457.527*	
	df	*435*	
	Sig.	*0.000*	

		Rotated Component Matrix[a]
		Component

SCREE PLOT



TOTAL VARIANCE EXPLAINED

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.239	20.796	20.796	6.239	20.796	20.796	3.532	11.773	11.773
2	2.992	9.972	30.768	2.992	9.972	30.768	3.168	10.560	22.334
3	1.976	6.585	37.354	1.976	6.585	37.354	2.827	9.422	31.756
4	1.734	5.779	43.133	1.734	5.779	43.133	2.622	8.742	40.498
5	1.562	5.206	48.339	1.562	5.206	48.339	2.352	7.841	48.339
6	1.457	4.856	53.195						
7	1.152	3.841	57.036						
8	1.047	3.489	60.524						
9	.918	3.061	63.585						
10	.846	2.820	66.405						
11	.768	2.561	68.966						
12	.754	2.513	71.479						
13	.690	2.299	73.779						
14	.663	2.209	75.988						
15	.637	2.124	78.112						
16	.618	2.059	80.171						
17	.592	1.974	82.145						
18	.573	1.911	84.057						
19	.536	1.788	85.845						
20	.521	1.737	87.582						
21	.481	1.602	89.183						
22	.477	1.589	90.772						
23	.435	1.450	92.222						
24	.423	1.411	93.633						

Total Variance Explained									
25	.366	1.220	94.853						
26	.350	1.167	96.020						
27	.329	1.098	97.118						
28	.315	1.049	98.168						
29	.283	.945	99.112						
30	.266	.888	100.000						
(Extraction Method: Principal Component Analysis *Source: Factor analysis output, SPSS 23.0)*									

COMPONENT CORRELATION MATRIX

Component Transformation Matrix						
Component	1	2	3	4	5	
1	.611	.472	.211	.453	.392	
2	-.108	-.503	.831	.164	.137	
3	-.657	.680	.321	-.019	.054	
4	-.428	-.246	-.403	.593	.493	
5	.028	-.042	-.020	-.645	.762	
Extraction Method: Principal Component Analysis. *Rotation Method: Varimax with Kaiser Normalization.*						

APPENDIX E

PLS_SEM: CROSS LOADINGS

Item	EA	EE	EI	PBC	SN
AI1	0.1153	0.6557	0.1693	0.2908	0.2662
AI2	0.1487	0.7275	0.2193	0.2873	0.2786
CON1	0.3887	0.1935	0.3735	0.6725	0.3116
CON2	0.2608	0.2386	0.2514	0.6831	0.258
CON3	0.323	0.2193	0.2334	0.6159	0.2556
CON4	0.2648	0.2529	0.2287	0.6885	0.2375
CON5	0.2104	0.2319	0.2889	0.555	0.2193
CON6	0.219	0.2613	0.37	0.662	0.2805
ENV1	-0.026	0.5868	0.0444	0.1515	0.1585
ENV2	0.0179	0.6848	0.1284	0.2155	0.1881
ENV4	0.045	0.6325	0.136	0.2008	0.2045
IB4	0.4292	-0.0082	0.1225	0.1457	0.1011
IFC1	0.5696	0.025	0.1748	0.2351	0.2284
IFC2	0.725	0.0544	0.322	0.262	0.2251
IFC3	0.7785	0.0465	0.3448	0.2918	0.2055
INT1	0.4629	0.1642	0.7328	0.3299	0.2533
INT2	0.3614	0.1974	0.8089	0.3971	0.2877
INT3	0.38	0.1567	0.7878	0.3777	0.244
IO1	0.7672	0.0921	0.4586	0.3583	0.3031
IO2	0.7241	0.138	0.4572	0.3691	0.3239

Item	EA	EE	EI	PBC	SN
IO3	0.5228	0.0568	0.2343	0.2314	0.2288
IP1	0.2895	0.206	0.2393	0.2659	0.6367
IP2	0.2252	0.1488	0.2336	0.2405	0.6077
IP3	0.2219	0.1406	0.114	0.1913	0.5308
IRM1	0.2091	0.2455	0.2346	0.2998	0.655
IRM2	0.1694	0.1555	0.1095	0.1545	0.5054
IRM3	0.2242	0.2907	0.283	0.2864	0.6826
OBP4	0.3119	0.1554	0.58	0.2802	0.2942
OBP6	0.287	0.156	0.6626	0.2877	0.2132
TE1	-0.0527	0.614	0.0784	0.1534	0.1391

(*Source: PLS pathway from SmartPLS*)

PUBLICATIONS AND PRESENTATIONS BY THE SCHOLAR IN THE RESEARCH AREA

1. Published a paper titled "Addressing the complex issue of understanding entrepreneurial intentions of Indian millennials: Adopting an intention-driven, theory-based model", IUJ Journal of Management (IUJ JOM), Issue Nov 2017,pg 33-38
2. Presented a paper titled, "Applying Theory of Planned Behavior to understand entrepreneurial intentions of senior executives pursuing MBA program", Conference on SEM, IIMC, Hyderabad, Oct 2018 (under consideration for award)
3. Published a paper titled, "Entrepreneurship as a career choice: applying the integrated model", *JETIR* November 2018, Volume 5, Issue 11, open access
4. Presented a paper titled "'Entrepreneurial intentions of graduating students in and around Hyderabad', 12th Doctoral Thesis Conference organized by IBS Hyderabad in collaboration with Indira Gandhi Institute of Development Research (IGIDR), 18 and 19 April, 2019.