Chapter - II

REVIEW OF LITERATURE
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“A country's competitiveness starts not on the factory floor or in the engineering lab. It starts in the classroom.”

(Henry Ford)

Review of literature is summarizing the current status of research including major findings, related to the problem of research. One will get an insight into the problem and thus will be able to formulate a correct plan for his/her investigation. This helps to eliminate duplication of what has been done and provides helpful suggestions for significant investigation. The literature pertaining to the study is discussed under the following headings:

2.1 Definitions of Entrepreneur
2.2 Definitions of Entrepreneurial Skills
2.3 Literature Related to Entrepreneurship
2.4 Literature related to Entrepreneurial skill
2.5 Literature Related to Skill
2.6 Entrepreneurial Education
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2.1 Definitions of Entrepreneur

According to Merriam Webster dictionary, an entrepreneur is an individual who organizes, manages and assumes the risks of a business or enterprise. An entrepreneur has been defined by various authors differently.

Definitions of the term entrepreneur have been abundant from its early usage in the French language as ‘one who takes between’. There are three key perspectives from which the entrepreneur has been viewed:

- **Economic perspective** – which considers the role of the entrepreneur in the economic development of a nation, region or locality.

- **Sociological perspective** – which sees the entrepreneur as a member of a social system, influenced by and, through their entrepreneurial activity influences, the social environment and the personality traits that the sociological system engenders. The sociological perspective is taken to include the spectrum of society from the family unit outwards.

- **Idiosyncratic perspective** – which focuses on the entrepreneur as an individual with a unique combination of personal characteristics and beliefs. As would be expected some literature spans combinations of these perspectives.

Entrepreneurs have strong beliefs about a market opportunity and are willing to accept a high level of personal, professional and financial risk to pursue that opportunity; and offer a new or existing product or service to an existing or a new untapped market. The prime motive is to create wealth and provide employment opportunities in the vicinity. An
entrepreneur is also a person who is willing and able to convert a new idea or invention into a successful innovation (Schumpeter, 1950).

Mises (1966) defines entrepreneurship as “acting man exclusively seen from the aspect of the uncertainty inherent in every action.” Defined this way, entrepreneurship is an aspect of human action that existed long before markets developed and that operates in areas of social life—such as family, religion, and government bureaucracy—that lie outside the market nexus.

Entrepreneurs are tough, pragmatic people driven by the need for independence and have a high need for achievement, and they believe in self-employment and do not submit themselves to authority (Collins and Moore, 1970). To others, an entrepreneurship is all about taking risks and putting one’s career and financial resources on the line of the idea being pursued by the entrepreneur and spending his/her time in an uncertain venture (Knight, 1967; and Drucker, 1970).

There are many fields in which one can become an entrepreneur and what an entrepreneurial skill is. An entrepreneur can be defined as the one who organizes, manages and assumes the need of a business enterprise. He can be defined as a person who has decided to take control of his/her future and becomes self-employed, whether by creating his own unique business or working as a member of a team at a multi-level vocation. He is a person who is possession of an enterprise or venture and assumes significant accountability for the inherent risks and the outcome. He is an ambitious leader who combines land, labour and capital to create and market new goods or services (Stephen et al., 1991)
2.2 Definitions of Entrepreneurial Skills:

Kilby (1971) states that the array of possible entrepreneurial skills encompasses the perception of economic opportunity, technical and organizational innovations, gaining commands over scarce resources, taking responsibilities for internal management and for external advancement of the firm in all aspects (of teaching enterprise).

The proponents of cooperative learning strategy argue that putting students in group learning situations is the best way to foster the development of entrepreneurial skills. "In properly structured cooperative learning environments, students perform more of the active, entrepreneurial skills with continuous support and feedback from other students and the teachers" (Okebukola, 1984).

Entrepreneurial skill can be defined as the ability to create something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence (Hisrich & Peters, 2002).

Lyons (2002) describes entrepreneurial skills as “the skills needed to develop innovative products and services and to generate solutions to emerging needs in the marketplace.”

Entrepreneurial skill is the ability to of an individual to exploit an idea and create an enterprise (Small or Big) not only for personal gain but also for social and developmental gain (Olagunju, 2004).
Formal descriptions/definitions characterize entrepreneurial skills as an ability to have self-belief, boldness, tenacity, passion, empathy, readiness to take expert advice, desire for immediate result, visionary ability to recognize opportunity (Salgado-banda, 2005).

Entrepreneurial skills can be taught (Van der Sluis and Van Praag (2007)). Therefore the teaching of these skills is recommended in all educational fields by the directives for educational development of the European Union (Európai Bizottság (2006)). The influence of education on human capital improvement prevails in the field of entrepreneurial skills, as well.

2.3 Literature Related to Entrepreneurship:

As John R. Richard concludes, “When it comes to the future entrepreneurship, there are three kinds of people: those who let it happen, those who make it happen, and those who wonder what happened.”

Sandholtz (1990) reveals that of 1,000 MBA students surveyed at the University of Pittsburgh 44 per cent wanted to become an independent entrepreneur.

Brenner et al.(1991) found in their study of 237 graduates in the U.S. that business graduates generally perceived business ownership in a positive light. However, the survey revealed an inconsistency between the graduates' attitudes towards owning and operating their own business and their intentions towards pursing such a career. When they were given complete freedom of choice, 55 per cent preferred operating their own business. When they were asked about their most likely choice,
considering their actual situation and constraints upon their option, only 5 per cent indicated that they would probably choose to operate their own business.

According to a fairly optimistic estimate done by **Youth Business International (YBI)**, at least 20 per cent of the approximately 300 million worldwide unemployed and under-employed young people (aged 16 to 30 years) have the potential to become entrepreneurs, but less than 5 per cent do. Research carried out by **The Princes Scottish Youth Business Trust** by MORI in **1993** found that 20 per cent of 18-30 year olds had the potential to become entrepreneurs.

Entrepreneurship is driven by economic necessity when there is no other alternative for income generation or making a living. According to GEM study, necessity-driven entrepreneurship levels in a country is associated with factors like low tax revenue as a percentage of GDP, lower levels of participation in both secondary and tertiary education and high levels of income disparity and low levels of social security. That is why especially youth in developing and low-income countries tend to engage in business out of economic necessity (e.g. lack of employment opportunities, need to supplement household income and poverty) **GEM, 2004; Chingunta, 2001; Kambewa et al., 2001.**

According to **Michael Camp** Entrepreneurship has become one of the most sought-after areas of study among collegiate business students. Graduates of these programs are not only increasing in number, they are reshaping our understanding of market, technology and management leadership. Bent on realizing their own perceived opportunities, they
continue to define the standard for business innovation and, by doing so, will forever alter the competitive landscape for future enterprise.

**Drucker (1970)** states that entrepreneur refers to a person who is ready to take risk. The author states further that the behaviour of the entrepreneur reflects a kind of person willing to put his or her career and financial security on the line and take risks in the name of an idea, spending much time as well as capital on a venture.

**Gasse (1985)** argues for the importance of identifying and evaluating entrepreneurial potential at the secondary school level. He suggests that we will be more successful in enhancing entrepreneurial propensity in the development stage when individual career options are still open.

**Chau (1995)** compared the selection behavior of business owners and business managers in choosing software to meet the IT needs of their respective firms. He found differences between the two sets of decision makers in that owners of the business were more focused on the technical capabilities being provided and were more reliant on vendor information.

**Kallurkar (1997)** studied the underlying factors for the success of Science and Technology entrepreneurs in Marathwada region of Maharashtra for his doctoral dissertation. Using factor analysis of 52 variables based on responses from 200 Science and Technology (S&T) entrepreneurs and 100 support organization personnel, he brought out the characteristics and attributes of technical entrepreneurs.
According to Dollinger, (1999), Entrepreneurship refers to the establishment of innovative and economic enterprises with the objectives of profit and growth obtained under conditions of risk and ambiguity.

Henderson and Robertson (2000) states that the primary reasons for young respondents to consider setting up their own businesses are “being one’s own boss” and “to make money”.

Entrepreneurship is “perceiving an opportunity and the activity of creating an organization in order to take this opportunity” (Mueller and Thomas, 2000).

Entrepreneurship refers to the process of taking risks, producing and implementing an innovative idea of a measurable value (Turner, 2003).

Bruce Tether, et.al. (2005) explored the links and relationships between two of the productivity drivers: skills and innovation. It was done through pulling together theoretical and empirical literature from across various academic disciplines, including labour economics, management studies and innovation studies.

Entrepreneurship is studied and taught by a very heterogeneous group of academics. Scholars still do not share a single common paradigm and integrative framework as the basis of their work (Fayolle et al. 2006; Raposo et al. 2008a; Verduyn et al. 2007).
Florin et al. (2007) states that the students need to perceive that the application of the skill is feasible and that an entrepreneurial approach is desirable and a focus on developing a positive attitude toward entrepreneurial behavior appears to be central to entrepreneurship education.

Entrepreneurship is a process that takes the lead in innovations and technical developments and contributes to economic growth (Schumpeter, 2008), whose balance is provided by supply and demand (Kirzner, 1997).

Amongst the more distinctive aspect of entrepreneurs in society is an ability to see and experience what others cannot, due to their life styles (Tikici, 2010).

Memon Shabana (2011) Dozens of youths with a dream to do something on their own are leaving their secure jobs to pursue their dream business venture. The economic slowdown of 2009 has reversed the trend of record breaking placement offers at academic institutes across the country most prominently at B Schools; it also leads to a positive development on another front, 'Entrepreneurship'.

2.4 Literature related to Entrepreneurial skill:

The initial literature review has followed conventional lines in considering entrepreneurship from an economic perspective, a social perspective and a psychological perspective. Componential theory has been used to improve the understanding of each perspective and to identify commonalities and interdependencies. One of the educational
conclusions drawn from the model is that the entrepreneur, especially the small business owner/manager. Entrepreneur requires skills in three broad areas, ‘domain-related’ skills, the knowledge and skills related to the specific product or service area; ‘technical’ skills, the business skills and knowledge of how to form companies, and to select the appropriate company form and means of promotion, etc.; and ‘behavioural’ skills, skills of personal effectiveness, negotiation, communications, etc.

Odubunmi (1983), stresses the use of ongoing classroom assessment as a way to monitor and facilitate students' entrepreneurial skills.

According to Rae (1997) “while students still need to develop their business skills and understanding, more attention needs to be paid to the development of their entrepreneurial skills, attributes and behaviors, introducing modules and courses specifically designed to develop the awareness and characteristics of the entrepreneur”; these include amongst others communication skills, especially persuasion; creativity skills; critical thinking and assessment skills; leadership skills; negotiation skills; problem-solving skills; social networking skills and time management skills.

According to Smilor (1997) and Kilby (1971), entrepreneurial skills refer to those activities, or practical know-how, that is needed to establish and successfully run a business enterprise. These may comprise such areas as finance, accounting, marketing or production. Others want to make a distinction between managerial and entrepreneurial skills.
Kuratko (2003) in a study entitled emergence of entrepreneurial education: development, trends and challenges, points out that the entrepreneurship has emerged and developed over the recent two decades and its recent growth in curricula and programmes dedicated to entrepreneurship, has been very considerable.

Platt (2004) has reported positive learning results in attitude related competence areas in a program of teaching entrepreneurial skills.

Akpotowoh and Amahi (2006) opine that the skills acquired in any of the areas of business related programme, promote training in entrepreneurship as well as equip graduates with requisite skills to establish and run small businesses of their own.

Collins, Smith, and Hannon (2006) have shown the effect of synergistic learning methods and especially the action learning approach on learning entrepreneurial skills.

According to Ademiluyi (2007) entrepreneurship skills are simply business skills which individuals acquire to enable them to function effectively in the turbulent business environment as an entrepreneur or self-employed. Akinola (2001) pointed out that it takes special skills to succeed as an entrepreneur. Erhurum (2007) has also noted that most entrepreneurial skills come by learning and practicing. Nevertheless, the various skills embedded in business related programmes need to be explored and learnt by it prospective graduates so as to succeed later as entrepreneurs.
To acquire an entrepreneurial skill, a hierarchy of behavioral units needs to be constructed. This idea was pointed out as far back in 1897 by Bryan and Harter (Rae, 2007) when they demonstrated the successive levels of skill involved in telegraphy.

According to William Smith et al. (2007), the exploratory study reports the results regarding the importance and usefulness of 17 skills suggested for individuals pursuing entrepreneurial activities. The exploratory study disclosed that nine of the skills ranked highest in both importance and usefulness.

Olaitan, S.O., et.al.,(2010) conducted a study and the study revealed that:
(a) 11 skills were required in planning for bee keeping enterprise,
(b) 18 skills in site selection and construction of beehives,
(c) 10 skills in stocking and feeding of bees,
(d) 10 skills in managing bees and
(e) 11 skills in harvesting and marketing of bee products.

The identified skills should be used to give training to retirees who wannu enter bee keeping enterprise.

2.5 Literature Related to Skill:

Hull (1991) says that skill is the habit of doing something well. Brennan et al (2001) found that graduates valued the following as employability skills: working under pressure; oral communication skills; accuracy; time management; adaptability; initiative; independent working skills; team working skills; taking responsibility and organizational skills.
Sometimes programmes of study make these skills explicit, often however they are left to float in the margins of what the module is about.

With specific regard to sales curricula, students need exposure to the skills necessary to conduct a sales call, such as prospecting, qualifying needs, discovery, finding solutions, and presenting (Michaels and Marshall 2002).

In the case of youth, whole adjustment in the world of work will rest solely on skills developed and used first at school and later at work; the economic, moral and political time of the nation will in time to come and depend on it and these will from time to time determine its survival (Lofquist & Darwist, 1967; Adeyemo, 2003).

Universities are focusing on creating a mentality among their graduates so that, they would become job creators rather than job seekers. This in turn would enhance transferability of skills among college graduates (Galloway et al., 2005).

Part of the rationale for this ineffectiveness is that students are not learning the necessary skills, like written and verbal communication skills, which are needed to “do” things (Armstrong 2005).

According to European Union (2008), “Skill” is the ability to apply knowledge and to use the know-how for the completion of well-defined tasks. Generally speaking, it identifies that an individual is able to do something within a specific context.
Skills development is not constrained to formal learning environments. Interactions with a community outside the university add further dimensions to self-confidence, experience and skills. Volunteering develops skills for education, employability and life (Melling 2008) and is therefore inextricably linked with generic skills development. University participation in networks of volunteering associations can facilitate student involvement with projects linked to local communities to underpin peer leadership, increase the social capital and the social mobility of students, and prepare students for employment through relevant links to local communities.

The process of acquisition and development of entrepreneurial skill is concerned with four main stages and these are (Pleshette, 2009):

1. To objectively analyze and identify the current and foreseeable skills needs to the business, in terms of management, administrative and technical skills and the relative importance of these.
2. To identify the entrepreneur’s own personal goal and objectives and accurately analyze and evaluate his or her own skills and resources in relation to these
3. To produce a realistic personal development plan for the potential entrepreneur
4. To monitor the on-going performance of the entrepreneur once the business has started and progress made towards developing the new skills that had been previously identified as necessary for the success of the business. This applies both to the entrepreneur’s personal needs and to the process of assisting employees to develop new skills that will also benefit the business.
Embedding enterprise skills within an existing curriculum provides real-time relevance between the discipline and its application in an enterprise environment: sometimes in real time business environments, sometimes through simulation. In circumstances where the curriculum does not lend itself to such an approach, modules with the explicit role of introducing enterprise thinking and skills development may be used as an addition to established subject curriculum. This ‘bolt-on’ approach has the potential to detach enterprise skills from the primary subject being studied; an approach that is pragmatic but suboptimal. To detach such skills development entirely from the formal curriculum and providing it as an optional de-contextualised separate study is not a recommended option; indeed such policy may be perceived by students as the university placing a low value on skills development (Purcell K. et.al., 2009).

According to Sebastian Gurtner, and Nadin Dorner (2009), a person can lead innovations to success if his skills match the barriers that innovations have to face. The Roles Promoters (e.g. Promoter of Power) do not always reflect either the provided or the necessary skills and therefore cannot be used to measure the appropriate Promoter input in the innovation process. By focusing on skills, we present the Promoter-Cubus, which help us analyse the existing barriers and the skills provided.

In a recent publication in Conservation Biology, Blickley et al. (2012) have presented a “Graduate student’s guide to necessary skills for nonacademic conservation careers.” They have focused on conservation jobs; however their findings are broadly applicable to students preparing for numerous careers in the sciences. At the heart of their study is the notion that graduate coursework and thesis or dissertation research don’t necessarily translate into skill sets essential for the job market. To be
competitive in the job market, there are many additional skills we need to be developing beyond the minimum requirements of a graduate degree.

2.6 Entrepreneurial Education:

Ryle (1963) argues concerning the importance of education in terms of results and behaviours, and in particular in reinforcing innovation, creativity, flexibility, capability to respond to widely different situations, autonomy, self-direction and self-expression.

A review of literature suggests that the entrepreneurial role can be culturally and experientially acquired and is influenced by education and training (Gibb 1987).

Rushing (1990) defends that entrepreneurship education can enhance and develop traits that are associated with entrepreneurial success and provide skills that entrepreneurs will need later. He also states that entrepreneurship education should be integrated and continued throughout all formal education.

Washer and Fredman (1992) remind us of the importance of educating the customer about the products being offered. They stress that the distribution and promotion strategy in the business plan should emphasize how these efforts will benefit the customer. In addition, they state that once the entrepreneur has defined the target market, he/she should stay focused on it.
Still today, there is debate as to whether entrepreneurship should (and can) be taught at universities. We start from the assumption that “everyone who can face decision making can learn to be an entrepreneur and to behave entrepreneurially” and that entrepreneurship is “behaviour rather than personality trait” (Drucker, 1993).

Assiter (1995) argues convincingly that higher education is about the struggle to know and knowing is about the application and use of knowledge and the development of students’ critical abilities. Consequently, the opportunity for students to develop and apply such skills as problem solving, information literacy and communication skills, are “… integral to the struggle to know”.

According to Garavan, Costine, and Hegarty (1995) enterprise education is the process or series of activities which aim at enabling an individual to assimilate and develop knowledge, skills, values and understanding that are not simply related to a narrow field of activity, but which allow a broad range of problems to be defined, analysed and solved.

Shepherd and Douglas (1997) argue that entrepreneurial education falls into four categories. These categories are as the Old War Stories approach, the Case Study approach, the Planning approach, and the Generic Action approach.

1. The "Old War Stories" Approach provides a series of success stories told by entrepreneurs. The emphasis is upon experience, intuition and judgment. The leader's innate qualities are emphasized without any recognition of the contribution of the
organization or the environment. This approach uses a very little theory and emphasizes anecdotal evidence.

2. The "Case Study" Approach assumes that entrepreneurship is "a process that is a controlled and conscious thought process" (Shepherd, et al., 1997). Mintzberg (1990) argues that this perspective assumes that formulation can be separated from acting, as if the world stands still while the planning occurs.

3. The "Planning" Approach breaks a controlled, conscious process into a series of steps that lead to a full-blown strategy, often in the form of a business plan. Meyer (2001) argues that the use of business plans may be problematic. He questions whether we have validated the hypothesized positive relationship between business plans and firm performance. Shepherd, et. al. (1997) also questions its usefulness because the very nature of planning is designed to extrapolate known trends. Thus, the planning process is too inflexible to accommodate the entrepreneurial spirit.

4. The "Generic Action" Approach is linked to the competitive markets model. It assumes that market forces, such as bluffing, price deterrence, and the timing of entry, dictate action. "Once formulated, there is no need for initiative, 'only' implementation" (Shepherd, et al.1997). This approach argues that after scanning the environment, the entrepreneur will be able to draw appropriate conclusions necessary to move in the right direction. He argues that this form of entrepreneurship education emphasizes the science of entrepreneurship while ignoring the art of entrepreneurship. He emphasizes the importance of creative thinking and learning throughout entrepreneurship education. They believe entrepreneurship should be taught so that the direction is deliberate but the details are emergent.
Bruce’s view of information literacy as a component of a learning organisation is reflected in employers’ concerns regarding graduates, in that, “… whilst new recruits may have the expected knowledge and understanding, they display a serious inability to apply that knowledge effectively to real workplace situations” (DFEE 1998).

Entrepreneurship education has been evaluated from a variety of perspectives including what is taught, why it is taught, how it is taught, and how well it works. The problem with assessing entrepreneurship education is that no generally accepted pedagogical model has been adopted (Solomon, Winslow, and Tarabishy, 1998).

Entrepreneurship education, which aims to understand individual behavior, has been seen as cognitive (increasing knowledge), affective (feelings), and conative (doing) (Sagie and Elizur 1999).

According to Brown (2000) entrepreneurial education is designed to communicate and inculcate competencies, skills and values needed to recognize business opportunity, organize and start new business venture.

As Henderson and Robertson (2000) suggest, the role of academic entrepreneurship education might lie in promoting entrepreneurial behavior, skill development, identity, and self-efficacy.

According to Alvarez and Busenitz (2001), if universities do not promote entrepreneurship education, it should then be expected that students would be less likely to pursue efforts towards starting a new venture.
According to Peterman and Kennedy (2003) entrepreneurship education research has covered the themes of feasibility and desirability of becoming an entrepreneur and the demographics of respondents. As such, the role of entrepreneurship education has been to promote new business start-ups or entrepreneurial thinking.

The most common model to facilitate university-wide entrepreneurship education to date is through an independent unit responsible for training and support of entrepreneurial activities of all students (Anderseck, 2004).

International entrepreneurship education needs alliances and partners locally in developing participants’ business ideas and opportunities for exporting and importing. Support mechanisms on financing, marketing and cultural knowledge are needed. As such, international entrepreneurship education increases the need to promote language and cultural skills in addition to building networks with foreign partners (Bell et al., 2004).

Franke and Luthje (2004) propose that academic context is an important part of the students' environment, as universities are in a position to shape and encourage entrepreneurial intentions. University activities of initiation, development and support somehow “trigger” the intentions of students to become entrepreneurs and prompt them towards more ambitious start up plans.

Henry Etzkowitz, (2004), A second academic revolution, integrating a mission for economic and social development is transforming the traditional teaching and Research University into an
entrepreneurial university. The Triple Helix thesis postulates that the interaction among university-industry-government is the key to improving the conditions for innovation in a knowledge-based society. More than the development of new products in firms, innovation is the creation of new arrangements among the institutional spheres that foster the conditions for innovation. Invention of organisational innovations, new social arrangements and new channels for interaction become as important as the creation of physical devices in speeding up the pace of innovation.

“The whole set of education and training activities -within the educational system or not- that try to develop in the participants the intention to perform entrepreneurial behaviours, or some of the elements that affect that intention, such as entrepreneurial knowledge, desirability of the entrepreneurial activity, or its feasibility”, (Liñán, 2004).

A 2003 European University Association Survey of Heads of European Universities discloses that 90% regard the future employability of their graduates as important and 56% as very important aspect impacting on the design of university curricula. As entrepreneurship generates employment, it is not only essentially linked but may also be seen as a special form of employability (Moreland 2004).

The nature of entrepreneurship education has been multi-disciplinary: not only the educational field, but also psychology and social sciences have contributed to entrepreneurship education, debates (Bechard and Gregoire 2005).
We argue that curricular lectures or courses on entrepreneurship are positively related to entrepreneurial intentions and their antecedent for three reasons. First, entrepreneurship students learn methods to generate basic business ideas (e.g. creativity techniques) and to confirm that a given idea is new and valuable (e.g. market analysis). Such knowledge can increase both the number and innovativeness of opportunities that they associate with the same technology (Shepherd and DeTienne, 2005).

**Heinonen and Poikkijoki (2006)** identified the following objectives in entrepreneurship learning such as “learn to understand entrepreneurship”, “learn to become entrepreneurial” and “learn to become an entrepreneur”. All these three objectives have some implications in terms of teaching approaches.

**Lee et al. (2006)** conclude that the school and the education system play a pivotal role in predicting and developing entrepreneurial traits.

**Miettinen (2006)** opines that a great deal of emphasis is placed on interaction between education and industry, expert exchanges and the transfer of knowledge from educational establishment to business.

**Okudan and Rzasa (2006)** mention that entrepreneurship education can also promote leadership in project based learning, too. The students’ skills, knowledge, motivation, and communication can be improved for managing an entrepreneurial project.
In another research entitled conceptual framework for the assessment of the efficiency of entrepreneurial education of programs aimed at entrepreneurship, there is a meaningful relationship between entrepreneurial education and the tendency to entrepreneurship. Knowing the fact that entrepreneurial education of programs can change the entrepreneurship purpose, which is to examine the economic relation of entrepreneurship activity, is fascinating. In this research, the first stage goal is framework development that enables us to explain the programs of entrepreneurial education alongside with the changes in visions and participants’ beliefs in the program and then presents the assessment of the impact of entrepreneurial education of programs on participants’ goal (Volery and Muller, 2006).

Business idea competitions and business planning, as well as entrepreneurship, have dominated the field of entrepreneurship education. Promoting self-efficacy, feeling that one can succeed through one’s own abilities, has been one of the goals of entrepreneurship education (Wilson et al., 2007).

Zaidatol et al. (2007) studied students' learning strategies in entrepreneurship teaching. Results revealed that lecturers should understand students' learning strategies to help them improve their teaching and learning process.

Alain Fayolle (2008) As previously stated by numerous researchers, there is no consensus regarding what entrepreneurship is. As a consequence, how could there be a consensus regarding what entrepreneurship stands for as a teaching subject? In this context, the objective of this paper is to address some key issues in entrepreneurship
education by focusing on different types of learning processes, highlighting particularly three main and distinct economic and social objectives: training entrepreneurs or professionals in the field (skills), preparing entrepreneurial individuals (mindset) and educating entrepreneurship professors and researchers (theories).

**Dinesh Khanduja, Prabhakar Kaushik (2009)** say Engineering Education has an indomitable role in entrepreneurship development. Since entrepreneurship is a dynamic process of vision, change and creation – education provides energy and passion towards creation and implementation of new ideas on a continual basis. In India, engineering institutions have mostly played a passive role, resulting in many myths and fears among students on entrepreneurship. Survey reports amply indicate the abundant existence of entrepreneurial aptitude among students, but ironically entrepreneurial capability is lacking among them on account of poor inputs on entrepreneurship. The article dwells on, trends in engineering graduates towards wage employment/self-employment as a career option; the prevalent myths and fears on entrepreneurship; and inhibitors to sustainable growth of entrepreneurship. Taking a holistic approach of 'Entrepreneurship Development' as the key objective, a case study is cited to propose a strategic model for engineering institutions to evaluate performance in fostering entrepreneurship among engineering students in India.

**Schwarz et al. (2009)** have found that a positive perception of university actions to foster entrepreneurship will lead to a stronger willingness to start up an own business in the future. They have also stated that only the university environment emerges as an intent predictor.
Anuj Dev (2010) indicates that Rising requirements in the Banking Sector is creating more bank vacancies with more people retiring and banks involving in activities like mutual funds, credit cards, securitization business, consumer and housing loans and trading in gold and Forex activities. More opportunities for bank jobs in India are expected to arrive. Banking is one of the most important career choices for students because of its high status career, good salaries and security. Though it may appear at first that bank jobs are meant only for commerce or economics students but the real fact is that majority of bank officers are from different streams of education like Arts, Science and others. Because working in a bank requires a handful of qualities like time and resource management, managing wide personnel and huge record books etc. A good banker is supposed to have good communication skills (verbal and written) that are needed in effective interaction with the clients as well as the staff. In fact good communication skills have become an important aspect in most of the job arenas today. But in banks it is a matter of centralized importance and is of importance for a candidate who wishes to get entry into any of the private or public sector banks of the country.

The current curriculum in management education does not teach students as to how to face the challenges in business environment. How to manage uncertainty and complexity are not taught in business schools. It merely teaches the concepts with case studies. It does not focus on the challenges arising out of rapid growing technology and the challenges involved in running an enterprise. (M S Rao, 2010)
Vijay Vij, Steve Ball (2010), examined whether the entrepreneurship education offered by final-year nonbusiness undergraduate programmes had equipped, encouraged and created an interest in 75 non-business students setting up their own enterprise and/or developed entrepreneurial skills and thinking, which is supported by previous studies (Sarri and Trihopoulou, 2005; Vij, 2004). These students agreed that the entrepreneurship module had boosted mostly their self-confidence, determination, self-belief, drive to succeed by hard work and the acceptance of possible failures. The majority had a positive experience of creating business plans for their proposed enterprises. Only a few decided that they would rather be in employment. All agreed that the entrepreneurial skills gained from this module were transferable to any future working environment. Now, universities need to both focus on how to equip non-business students with entrepreneurial skills, as well as create awareness that there is an alternative route to working other than being in employment.

2.7 Attitude of Graduate Students:

Katz (1990) has emphasised that much more attention should be given to understanding the process of entrepreneurial follow-through, that is translating attitudes into actions.

Three factors which determine the attitude of an individual are: environment, education and experience, known as the Triple Es (3Es) of attitude. The environment consists of home, school, work, cultural and religious background, traditions, and beliefs, social and political environment. All of these have a direct bearing on the entrepreneurial context. In a positive environment, a marginal performer’s output goes
up. In a negative environment, a good performer’s output goes down (Khera, 1998).

Kourilsky and Walstad (1998) indicate that the very early stimulus of entrepreneurial attitudes, even before high school, can encourage entrepreneurship as a career option, although they have not tested this assertion empirically.

Both personality and attitudes are complex cognitive processes. The main difference is that personality is usually thought of as the whole person, whereas attitudes may make up the personality. In the entrepreneurial context, our attitude determines how we look at setbacks. To a positive thinker, it can be a stepping stone to success, and to a negative thinker, it can be a stumbling block (Luthans, 2002).

Entrepreneurship is an attitude that reflects an individual’s motivation and capacity to identify an opportunity and to pursue it, in order to produce new value or economic success (European Commission, 2003). When trying to enhance students’ entrepreneurial attitude, pedagogical solutions are challenged. Acting, thinking and understanding rather than just memorizing and listening are encouraged. This is the case when creativity is one of the aims of entrepreneurship education (Morrison and Johnston 2003). As such, creativity, and also pro-activeness, innovativeness, and initiative making can be goals in promoting entrepreneurial behavior among students.
The study of Postigo et al., (2003) suggests that overall family background seems to play a more important role in the entrepreneurial attitude of students than general cultural variables associated with the country.

Researchers have long realized that cultural attitudes influence the entrepreneurial activities of a population, a country, region or ethnic group and that the interaction between culture and entrepreneurship is stronger in the case of some groups than in others. Thus cultural differences between nations are increasingly understood as an important determinant of a nation’s level of economic and entrepreneurial development (GEM, 2004). A cultural environment in which entrepreneurship is respected and valued, and in which business failure is treated as a useful learning experience rather than a source of stigma, will generally be more conductive to entrepreneurship.

In 2004, Kalafaltelis and McMillen conducted a quantitative benchmark survey on youth attitudes towards entrepreneurship in New Zealand. The survey revealed that over three-quarters of young people (79 per cent) would like to ‘start up’ or own their own business. Young peoples’ preference for setting up a business was somewhat at odds with more wary and disinterested adult New Zealanders. In an earlier BRC-research (2003), only 38 per cent of the general population said that they had considered starting up or buying an existing business. Survey results gave an indication for a significant potential for youth entrepreneurship in these countries. Moreover, it is interesting to observe that comparably low levels of entrepreneurial activity (measured in TEA index) of younger people (18-24 years) – as compared to higher levels/rates in all
other age groups – in countries like Australia or New Zealand do not necessarily reflect less interest in entrepreneurship among the youth.

**Mohd Daud Norzaidi, et.al., (2007),** investigated whether students with different backgrounds and attitudes towards computers influenced their levels of computer skills. All Form Five (GCE 'O' Level equivalent) students from three different types of schools in the rural district of Segamat, Malaysia were sampled. The student t-test and ANOVA results showed that there were significantly different influences of the types of schools they enrolled in, their computer ownership and computer club memberships on their computer skills. The findings also revealed significant correlation between the four computer attitude subscales and the students' computer skills. Suggestions were provided on how the students' level of computer skills could be improved.

**Jean-Charles Cachon, Barry Cotton (2008),** At Laurentian University (Ontario, Canada), and all second year Business Students completed an entrepreneurial active learning experience by preparing a comprehensive business plan over six months. Students developed an original business idea, performed a market research, and prepared a detailed business plan. This activity involved active, collaborative, and small group learning, and 'learning by doing'. This research verified whether Personal Objectives, Attitude towards Risk, Internality and Perceptions on Tutoring variables were associated with a high Entrepreneurial Orientation and whether highly entrepreneurial students had attitudes similar to those of self-employed graduates. Results showed that personal attitudes of students towards the business plan project related to the strength of their entrepreneurial orientation. Laurentian graduates’ high rate of self-employment was over 20%.
A positive personal attitude towards start-up is a good starting point to stimulate entrepreneurial behaviour, irrespective of students’ educational background (Wu and Wu, 2008).

Schwarz et al., (2009) found consistent results that individuals with a positive general attitudes toward change and money, and attitude toward entrepreneurship might be more likely to want to be entrepreneurs but general attitude toward competitiveness did not predict the entrepreneurial intentions significantly.

2.8 Attribution of Graduate Students:

“Many are ill-prepared for the full range of rules they must play, be they [graduate students] in academe or beyond, and often the experience is marred by a mismatch between the opportunities available to students as they complete their work and their expectations and training along the way.” Some investigations have come to support the idea that the psychological attributes, related to entrepreneurship can be culturally acquired (Gibb and Ritchie 1982).

Three major factors are seen to have an influence on the value placed on graduate attributes; the popular perspective that education is a life-long process; a greater focus on the relationship between education and employment outcomes of graduates; and the development of outcomes measures as part of the quality movement (Cummings 1998).
There are twelve attributes that are considered to be important from the viewpoint of venture capitalists, behavioural scientists and entrepreneurs for achieving entrepreneurial success, which are as follows (Dingee et al. 2001):

(i) Drive and energy level
(ii) Self-confidence
(iii) Setting challenging but realistic goals
(iv) Long-term involvement
(v) Using money as a performance measure
(vi) Persistent problem solving
(vii) Taking moderate risks
(viii) Learning from failure
(ix) Using criticism
(x) Taking initiative and seeking personal responsibility
(xi) Making good use of resources
(xii) Competing against self-imposed standards

While defining the term Graduate attributes, Bowden et al. 2002 indicate it as “the qualities, skills and understandings a university community agrees that its students should develop during their tenure with the university.”

Graduate education is about creating individuals who have a capacity to ask interesting, demanding, and difficult questions. It is also about skill development that takes the student beyond cultivating a strong analytical mind.
Education is a social process and the form of education is a product of society. In this context, quality of education assumes an added importance and becomes the primary concern of all the stakeholders in education. In the current market turbulence, a focus on entrepreneurship has a special strategic significance for engineering education as it reflects a growing perception that fresh graduates need the technical and behavioural attributes of an entrepreneur for a successful professional life. The previous paradigm of a 'science-based conceptual engineer' has given way to a 'science-based entrepreneurial engineer'. In response to this inevitable change, educationists must do rethinking on the way the students are educated by infusing creative thinking and innovation in their educational curriculum. With this change in the mindset and the relative knowledge that entrepreneurs bring forth, in many institutes some courses on entrepreneurship and innovation are being developed and offered to cater to the increasing demand. As engineering institutes meet this demand through a heightened entrepreneurial outlook, the paper discusses their strategic role in generating entrepreneurship which is a potential source of employment generation in a developing nation like India.

2.9 Entrepreneurial Characteristics:

In the beginning, many authors looked for the existence of certain personality features or traits that could be associated with the entrepreneurial activity (McClelland, 1961). Later on, other works have been carried out remarking the importance of different characteristics such as age, gender, origin, religion, level of studies, labour experience, etc. (Reynolds et al., 1994; Storey, 1994), which are usually called “demographic” variables (Robinson et al., 1991).
**Smith (1967)** postulated that opportunistic entrepreneurs, by virtue of their breadth of education (relative to artisan entrepreneurs), exhibit higher social awareness and involvement and are oriented towards the future. These characteristics increase the likelihood that the opportunistic entrepreneur will bring the entity through difficult developmental stages to ultimate success.

**Rutherford & Oswald (2000)** states that the individual characteristics include attributes like age, education, managerial know-how, industrial experience and social skills of the owner/manager. The firm characteristics refer to the strategy, structure, location, firm-specific policy, etc.

**Kundu and Rani (2004)** have begun to examine the entrepreneurial orientation of aspiring managers, which may play a role in business.

**Garcia-Morales, Moreno, and Llorens-Montes (2006)** have examined the effects of entrepreneurial, learning, and innovator aspects of managers in small and medium sized business strategic capabilities and their performance.

**Birdthistle (2007)** in his study identified extroversion, compatibility, conscientiousness, emotional stability and the respondents’ culture as characteristics that can be associated with entrepreneurial students.
Baum et al. (2010) reported a positive relationship between practical intelligence and entrepreneurial processes and entrepreneurial characteristics. Entrepreneurship education today is characterized by a more eclectic collection of teaching staff than any other discipline.

Byrne and Fayolle (2010) have provided the following overview:

- Academic staff (professors, lecturers, assistant lecturers)
- Doctoral students and research assistants
- Practicising entrepreneurs
- Pracademics (entrepreneurs employed as university staff)
- Industry experts
- Business professionals i.e. lawyers, consultants, accountants, Financers, etc.
- Incubator or business support staff
- Alumni

2.10 Entrepreneurial Mind Set:

Zamani (2001) has emphasized on establishing self-employment and entrepreneurship mentality among students in the colleges and universities.

The Eurobarometer Survey Results (2004) confirm this observation. Interviewees with self-employed parents are more entrepreneurial minded (52 per cent) than those whose parents are both employees (42 per cent).
Nuria Toledano, David Urbano (2008), analyzed an entrepreneurial learning initiative developed in the south of Spain through a partnership approach between a high-level educational institution (the University of Huelva, located in a rural area of the south of Spain) and the business community. Using a case-study approach and taking the institutional economic theory as a theoretical framework, the influence of the initiative on stimulating the students' entrepreneurial mindsets is examined. The main findings reveal that, in areas with low levels of entrepreneurial activity such as some rural areas of the south of Spain, additional actions to promote entrepreneurship would be necessary. This research also has several practical implications for policy makers in terms of designing governmental initiatives to promote entrepreneurship education and, consequently, entrepreneurial mindsets.

CBI/EDI (2011) Education and Skills Survey: ‘Building for Growth—business priorities for education and skills, whilst surveying to establish key employability skills the CBI study has found that graduates’ lack of commercial awareness remains an issue for many employers. This distinction between employability skills and enterprise skills provides a useful basis for further analysis. Although the study of an academic subject leads to the implicit development of a particular skill mindset, enterprise skills do not reside solely in a business school environment. This is fundamentally important in terms of students’ interest and motivation; the development of enterprise skills is best achieved within the context of the subject studied and tutored by academic staff from that discipline, who have enterprise mindsets and experience, and who can promote the interconnection between subject knowledge, the associated skills and their application in the wider world.
2.11 Entrepreneurial Intention of Graduate Students:

The determinant of the action of new venture creation moderated by exogenous variables such as family background, position in one’s family, parents’ occupation, education and training (Bird and Jelinek, 1988).

Intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, and of how much of an effort they are planning to exert, in order to perform the behaviour (Ajzen, 1991).

According to Davidsson (1995), the startup of the entrepreneurial activity does not take place all of a sudden because the intention preexists in the person who wants to start an enterprise. We could support that the entrepreneurial intentions concern the inclination of a person to start an entrepreneurial activity in the future, because the intentions are a step backward the action.

Intentions to act are believed central to understanding the behaviours in which people engage. While actual behaviour may differ from intended behavior, it has been established that one’s intention to act toward something in a certain manner is the most consistent predictor of actual behavior, particularly planned behaviour (Krueger, Reilly and Carsrud, 2000).

A research that was conducted on a sample of 5375 UK students and 10 universities showed that 9.7% of their graduates had become entrepreneurs during a period of five (5) years since their graduation. This
is a very high rate of entrepreneurial activity, if we consider the span of the professional choices that the students can have and that they have a propensity to the dependent employment status (Rosa, 2003).

According to Krueger (2005), there are some factors that contribute to the prediction of the entrepreneurial intentions such as the attitude and the degree of desirability toward that behaviour and the level of the feasibility. The studies of the Global Entrepreneurship Monitor (GEM) UK Report (2005) and Wilkinson (2005) confirmed that youth between the ages of 18-25 have the tendency of starting up their own businesses immediately after graduation or within 5 years after graduation.

Narendra (2006) worked on the intention for entrepreneurship among students in India. Individual entrepreneurial intent has proven to be an important and continuing constrict in entrepreneurship theory and research (Carr & Sequeira, 2007; Hmieleski & Corbett, 2006).

Understand if traditional educational methodologies of study promote EI it is important in order to propose alternative methodologies which raise the students’ entrepreneurial propensity (Oosterbeek et al. 2007) Intentions-based models are then suited particularly to entrepreneurship as the entrepreneurial process is a planned one (Kuehn, 2008).

Barkovic and Kruzic (2010) understand what factors influence and shape students’ intention towards starting a business is vital for developing the programmes and policies to promote entrepreneurial behaviour.
2.12 Conceptual and Theoretical Framework:

Entrepreneur is a person who operates a new enterprise or venture and assumes some accountability for the inherent risks. The entrepreneur is also anybody who organizes, manages a business undertaking, and assumes a risk for the sake of profit (Guffey, 1998).

Agbonifoh (1999) also defines entrepreneurial skills as skills relating to identifying business opportunities and receiving a sustainable income from these opportunities. The acquisition of entrepreneurial skills means combining personal characteristics, financial resources within one’s environment and taking advantage of them for rewarding outcome.

Brouwer (2002) opines that the acquisition of entrepreneurial skills means possessing the ability to find and evaluate business opportunities, gather the necessary resources, initiate appropriate action to ensure success; and to implement actions to take advantage of the opportunities for rewarding outcome.

According to the Chambers 21st Century Dictionary (2006) an entrepreneur is defined as someone who engages in business enterprise, often with some personal financial risk. Entrepreneur can be defined as a person who always searches for change, responds to it and exploits it as an opportunity.

Grey (2008) also opines that entrepreneurs are people who have the ability to see and evaluate business opportunities, to gather the necessary resources, to take advantage of them; and to initiate appropriate action for success.
2.13 Managerial Skills of Graduates Students:

Onwuchekwe (1998) is of the opinion that basic management should, therefore, be taught to all education students at undergraduate levels.

Akinola (2001) also points out that one of the problems facing entrepreneurs is lack of managerial skills and experience, so he suggests that entrepreneurs should have good training in the art of management. Entrepreneurs especially those in business related areas require managerial skills because they also play the role of managers since they are responsible for the attainment of their organizational goals and objectives. According to him, these skills are conceptual and technical skills. Conceptual skills are those skills required to relate parts of the company’s work to the whole. Technical skills are those required for turning out the actual products or services of the firm and are needed for performing specific activities within the organization.

Management is the art of getting things done through people. It is the process of harnessing the diverse resources (materials, finance, people and time) in such a manner as to achieve what the organization sets to achieve. It equally involves good planning, organizing, directing and controlling of workers and materials effectively and efficiently to meet set objectives of an enterprise (Griffin, 2002).

Lyons (2002) describes managerial skills as “the skills needed to organize the work on a day-to-day basis” This finding is in harmony with the positions of Ademluyi (2007) that management skills are indispensable for effective entrepreneurial success.
2.14 Manufacturing Skills of Graduates Students:

Lessem (1983) speaks of the availability of resources for the process of learning a new or modified skill set in his discussion of action learning with time for reflection, which involves learning by doing.

Dietrich (1995) discusses early use by entrepreneurs of online resources in identifying and comparing available equipment, plant and technology.

Lichtenstein and Lyons (1996) noted that some clients, particularly those engaged in manufacturing do require specialized facilities to carry out their production or distribution processes. Their study was based largely on business incubator clients where a large number of the clients were of this type. Others benefited from the availability of shared office space and related office services. In recent years, the ready availability of Internet at home, telecommunications options and related new processes and procedures reduce the needs for office space, in particular, for many entrepreneurs. Those in manufacturing, of course, still have these needs, in most cases.

Smeltzer (2001) describes supply chain analysis as the ability to “efficiently integrate suppliers, manufacturers, warehouses and stores so that merchandise is produced and distributed in the right quantities, to the right locations, and at the right time, in order to minimize system wide costs while satisfying service level requests”.

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Resource constraints can be a barrier to successful business implementation if the entrepreneur does not have the skills and/or experience to locate the level of quality and quantity of supplies and materials, at reasonable prices, to carry out the mission of the business (Manolova, Brush Edelman, and Green, 2002).

This finding corroborates the findings of Igbo (1995) as cited by Akpotowoh (2005) who identifies knowledge of seasonal fluctuation of goods, ability to determine the extent to which products will sell, a knowledge of advertising and ability to determine what consumers need as important marketing skills needed for entrepreneurial success.

William Smith. et.al., (2007) state the operational point at which most aspiring entrepreneurs begin to produce a product or service and believe they can do it better, or faster, or perform in some other way that is superior to the competition. It can be argued that for some entrepreneurs this skill is not even desirable since they, individually will not be producing the good or service. They want to assemble a team of people, included those with these skills, and manage the process. The study confirms the highest skills rate and the perception of the value of this skill among the aspiring entrepreneurs sampled.

A lot of the jobs that remain on the factory floor will require a high level of skill, says Mr Smith (2012), Rolls-Royce’s manufacturing boss. “If manufacturing matters, then we need to make sure the necessary building blocks are there in the education system.”
2.15 **Marketing Skills of Graduates Students:**

_Akin (1981)_ points out that marketing college students should learn not only marketing, but also skills that will help them in the future in the marketing field, such as interpersonal skills, analytical skills, and communication skills.

Marketing skills are those skills that have effectiveness in enablement of the marketing process, while transferable skills are the skills that all graduates, regardless of discipline, should have, such as problem solving and decision making skills (_Middleton and Long, 1990_).

_Hisrich (1992)_ wrote of the need for marketing in entrepreneurship. He stresses that both marketing and entrepreneurship should be based on a customer orientation with the customer being the focal point. He adds that interfacing with potential customers in the innovation process is important for success.

Marketing skill is another important and essential skill, on which depends the very success or failure of a business. Marketing is a common phenomenon but it is a very complex and elusive subject matter. The activities of marketing are so diverse that it is difficult to say exactly what marketing is. _Osuala (1993)_ defines marketing as the process by which the productive potentials of the company is used to satisfy individual and social needs of all kinds.
Modern marketing has emerged as the concept that business exists to create and serve customers and at the same time achieving the firms profit objective (Ezeani, 1999).

Ezeani (1999) identified important sales and marketing skills which the entrepreneur should possess include:

1. Knowledge of seasonal fluctuation of goods
2. Ability to determine the extent to which products will sell
3. Familiarity with various aspects of sales and salesmanship
4. Ability to budget and forecast
5. Ability to determine current trends in sales of products
6. Ability to determine what customers need and shortage of such goods
7. Knowledge of advertising
8. Ability to determine and interpret factors which indicate extent of and strength of competition; and

Stanton (2002) states that sales and marketing skills will keep the entrepreneur informed, knowledgeable and confident so as to determine the most efficient method of physical distribution of goods and services. Sales and marketing skills will enable one to make such vital business decisions as “getting the price right” which is an important factor in retail marketing.
The flexibility in scheduling, the online marketing courses are seen as equipping the marketing undergraduates with corporate virtual communication skills, critical thinking, and the practical tools required for their jobs (Eastman and Swift 2001; Hay et al. 2004).

Uche (2006) as quoted by Ademiluyi (2007) opines that the acquisition of marketing skills offers the entrepreneur a unique strategy for succeeding in business. The entrepreneur is able to offer the right product to his targeted customers. He is able to cost and determine his product price which will be acceptable to the customers, based on their perception of the value and a cost that allows for profit making. Business related graduates require these marketing skills in order to enable them to identify their potential customers and to persuade them to buy their product or services.

Ademiluyi (2007) also identifies the following marketing skills and competencies, which are needed for effective entrepreneurship by graduates students:

1. Salesmanship;
2. Negotiation
3. Sales record keeping;
4. Sales promotion;
5. Stock record keeping
6. Pricing
7. Advertising channels;
8. Advertising media;
9. Consumer behaviour appreciation; and
10. Transportation
Hair (2007) considers marketing as a discipline area that requires frequent applications of data mining and predictive analytic techniques. These are increasingly being applied in new product development, advertising, distribution, retailing, so on and so forth.

2.16 Reviews Related to Scale Development:

McCarthy (1972) has identified six scales and eighteen skills that can be sorted and grouped to describe various aptitudes in children for placement, when the promotion and remediation is a highly treasured experience which every good teacher must possess.

Davidsson, (1995), has defined the factors of intentions of entrepreneurship such as propensity to action, personal convictions and other “demographic” variables such as gender, age, educational level and economic environment.

Entrepreneurship as a research field attracts the interest of many researchers because it is a tool of development for many economies in the world. All over the world there is a growing interest in the professional choice of the students and graduates, especially in the entrepreneurship (Kolvereid, 1996).

Wenneker and Thurik (1999) identify three dimensions of entrepreneurship – the condition which leads to entrepreneurship, the attributes and the impacts of entrepreneurship. With regard to individual, the conditions for entrepreneurship are culture and incentives, elements or attitudes, skills and creativity and the impacts of self-realisation and income.
Proposing new ideas based on the role of entrepreneurship in increasing job opportunities, competitiveness, improvement in manpower productivity, technology development, wealth generating and social welfare level and also existence of strong relation between entrepreneurial development and economic growth of the countries have all resulted in a serious consideration of entrepreneurship in new economic theories and have been regarded as a provocative engine in economical social growth and development of countries (Audretsch, 2002; Zoltan, 2006).

Sven Bilen.et.al., (2005) outlines student opportunities in Penn State’s E-SHIP Minor and programme, as well as the assessment programme designed to measure their progress in becoming more entrepreneurial. A valuable tool for institutions to determine if a technology-focused entrepreneurship program or minor can help meet ABET engineering accreditation criteria.

Other Related Studies:


According to Hoffman et al. (2006), family capital is a combination of dimensions like “information channels, family norms, reputation, collective trust, identity and moral infrastructure”. Family capital is cultural by nature; in a unique way it reflects the family business values and heritage that can change over the long-term (like family norms) or in the short-term (reputation, information channels).