CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The challenge faced by established corporations today is harnessing the energy of achievement-motivated employees who yearn to create new products, services and processes. Corporations are faced with the dilemma of having to exercise order and control, while allowing creative employees to think and act ‘out of the box’ of control and structure. Schumpeter (1934) did not limit his notion of the pursuit for a discontinuous opportunity only to new ventures; he also allowed for entrepreneurship to exist within established organisations.

2.2 REVIEW OF LITERATURE

The literature pertaining to: 2.3) Entrepreneurship, 2.4) Entrepreneurial Orientation, 2.5) Intrapreneurship, 2.6) Business Dynamics and 2.7) Entrepreneurial Orientation for Employees (EOE) will be discussed, in the following sections.

2.3 ENTREPRENEURSHIP

The earliest definition of entrepreneurship originates from Richard Cantillon (1734), the creator of the term 'entrepreneur', and an economist who was interested in the economic role entrepreneurs represent in the view of
Stevenson and Jarillo (1990). According to Cantillon, the entrepreneur is a speculator in search of profit from arbitrage, “from buying at a certain price and selling at an uncertain price”. According to Sharma and Chrisman (1999), a study conducted by Gartner (1990) identified two schools of thought on the meaning of entrepreneurship. The importance of the groundwork was laid by Schumpeter (1934) outlines that ,“an entrepreneur is a person who carries out new combinations, which may take the form of new products, processes, markets, organisational forms, or sources of supply”. Sharma and Chrisman (1999) also stated that entrepreneurship is, the process of carrying out new combinations.

Schumpeter portrayed entrepreneurship as making a difference. The entrepreneur breaks with the established practice and destroys the status quo while moving the market forward, which was maintained by Mintzberg et al (1998). Gartner (1988) who is of the view that offers entrepreneurship as the creation of organisations. Kirzner (1973) proposed that, “entrepreneurship is the consequence of innovations designed to exploit opportunities afforded by economic disequilibrium”.

Entrepreneurship is concerned with the process of creative destruction as viewed by Schumpeter (1934) via the discovery and exploitation of opportunities. Shane and Venkatraman (2000) maintained that, it is the process by which people or organisations discover and exploit new business opportunities which exist within a market, revitalise existing business, or introduce new products or processes.

The new emphasis on entrepreneurial thinking first developed during what Drucker (1984) in Kuratko and Hodgetts (1995) referred to as the “Entrepreneurial Economy of the 1980s”. Drucker also described various developments that explain the emergence of this economy, including the rapid
evolution of knowledge and technology as well as demographic trends such as dual-earning families, continuing education of adults and the ageing population. Entrepreneurship is therefore on the rise in terms of status, publicity and economic development. This enhancement of entrepreneurship has made the choice more appealing to both young and seasoned employees.

2.3.1 Defining Entrepreneurship

Schumpeter (1934) defines an entrepreneur “as an individual who establishes and manages a business for the principal purposes of profit and growth. Shane and Venkataraman (2000) were of the view that entrepreneurship is concerned with the process of creative destruction via the discovery and exploitation of opportunities. It is the process by which people or organisations discover and exploit new business opportunities which exist within a market, revitalize existing businesses, or introduce new products or processes as viewed by, Shane and Venkataraman (2000), Stevenson et al (1990). Hitt and Reed (2000) were of the view that the business environment is ruled by forces of uncertainty and entrepreneurship is considered the essential lever to cope with the new competitive landscape.

Lumpkin and Dess (1996) maintained that, the entrepreneur is characterised principally by innovative behavior and will employ strategic management practices in the business”. This theoretical piece distinguished the entrepreneur from a small business owner. Entrepreneurial activities represent one of the major engines of economic growth and account for the majority of new business development and job creation.

Entrepreneurship via entrepreneurial activity occurs at different levels—the single entrepreneur, organisation, or society, as outlined by Lee et al (2000). Stevenson et al (1990) views that, entrepreneurship is the process
by which individuals – either on their own or inside organisations – pursue opportunities without regard to the resources they currently control. Previously, the literature on entrepreneurship primarily focused on the traits, character and actions of the individual (entrepreneur). The current trend however is to focus on analysing entrepreneurship from the perspective of the employees in any firm.

Taking a cue from this trend, the firm level perspective on entrepreneurship suggested by Miller (1984) is adopted. From this perspective Miller defines entrepreneurship as a multidimensional concept encompassing the firm’s actions relating to product-market and technological innovation, risk-taking and pro-activeness. This definitional stance is befitting, because emphasis is on the entrepreneurial processes of the family firm and the recognition of entrepreneurship as an organisational process, in the opinion of Covin and Slevin (1991) and also as a multigenerational phenomenon was viewed by Handler (1990).

Until recently, entrepreneurship and organisations were distinct areas of study. However, the works of Burgelman (1983), Pinchot (1985), Stevenson and Jarillo (1990), Murray (1984), and Hitt et al (2000) respectively spawned the concepts of ‘corporate entrepreneurship’, ‘intrapreneurship’, ‘entrepreneurial management’, ‘entrepreneurial strategy’, and ‘strategic entrepreneurship’, linking the two domains. The above concepts have married entrepreneurship and organisations, touting their importance, significance, and productiveness. Sciascia and De Vita (2004) expressed that, the lack of a single clear definition is most likely due to the complexity of the topic and the wide range of disciplines entrepreneurship can exist within.

Sharma and Chrisman (1999) acknowledged that what is included in the definition of entrepreneurship will be a continuing debate and they
stated that it is essential to frame an entrepreneurial definition that is preferred and will be used in this paper. This definition is: “The scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited. Consequently the field involves the study of sources of opportunities; the process of discovery, evaluation and exploitation of opportunities; and the set of individuals who discover, evaluate and exploit them” in the perspective of Shane and Venkataraman (2000).

Entrepreneurship via entrepreneurial activity occurs at different levels namely, the single entrepreneur, organisation, or society as mentioned by Lee et al (2001). It is the process by which individuals, who either on their own or inside organisation pursue opportunities without regard to the resources they currently control as opined by Stevenson et al (1990).

Covin and Slevin (2011) maintained that, an entrepreneurial mindset is both an individualistic and collective phenomenon; that is, an entrepreneurial mindset is important to individual entrepreneurs as well as to managers and employees in established firms to think and act entrepreneurially. Stevenson et al (1989) opined that behaviorally, it includes the set of activities required to evaluate an opportunity, define a business concept, assess and acquire the necessary resources and then to operate and harvest the rewards through the firm’s creation.

Dess and Picken (1999) were of the view that entrepreneurial culture is a system of shared values (that is, what is important) and beliefs (that is, how things work) that shape the firm’s structural arrangements and its members’ actions to produce behavioral norms (that lead to organisational performance). Zahra (1996) maintained that, smaller companies are believed
to be more entrepreneurial because they remain closer to their markets and become aware of opportunities more quickly.

Bygrave and Hofer (1991) were of the view that, good science begins with good definitions. Prevailing definitions of entrepreneurship have made it a clear target for scientific research by academics and practitioners alike. Such research has refined the understanding of entrepreneurship and its related constructs and concepts, thus facilitating better communication of research recommendations to policy makers as expressed by Carton et al (1998).

The review of entrepreneurship literature indicates that there are two types of definitions: dictionary definitions and operational definitions. In a dictionary definition sense, the word entrepreneur derives from the French verb ‘entreprendre’ and the German word ‘unternehmen’, both of which translate into ‘undertake’ as viewed by Carton et al (1998) and Jennings (1994). This dictionary definition of entrepreneurship may be adequate for general communication but not for research and policy formulation. Cooper and Schindler (2003) views that, the operational definitions, on the other hand, specify the characteristics of physical objects (e.g. a machine tool) or highly abstract objects (e.g. achievement motivation) and how such characteristics are to be observed, and are therefore more useful in research.

2.3.2 Entrepreneurship and Management Style

Stevenson and Gumpert (1985) are of the view that an entrepreneurial opportunity must satisfy two criteria: “it must represent a desired future state, involving growth or at least change; and the individual must believe it is possible to reach that state”. Stevenson (1983) view entrepreneurship as an “approach to management defined as: the pursuit of
opportunity without regard to resources currently controlled”. Brown et al (2001) opines that, entrepreneurial value creating processes can take place in any type of organisation.

2.3.3 **Entrepreneurial Management and Administrative Management**

Stevenson and Gumpert (1985) view entrepreneurial management as taking place within an organisation. His view postulates a dichronistic view between two poles: promoters and trustees. Promoters are characterised by, and lie on the entrepreneurial side of the spectrum. A promoter pursues and exploits opportunity regardless of the resources under control. He/she is the type of manager “who feels confident of his or her ability to seize opportunity”.

Stevenson explains eight dimensions which serve as the assessment criteria for the empirical scale. The dimensions are: Strategic Orientation, Commitment to Opportunity, Commitment of Resources, Control of Resources, Management Structure, Reward Philosophy, Entrepreneurial Culture, and Growth Orientation. Stevenson (1983), Stevenson and Gumpert (1985); Stevenson and Jarillo-Mossi, (1986); Stevenson and Jarillo (1990). Hence based on these scholarly inputs “Commitment” as an additional dimension was used as an EOE factor for the study and will be discussed in the later sections.

An entrepreneurial management (promoter) perspective on commitment to resources is that of a multi-staged commitment with minimal commitment throughout those stages, in the view of Stevenson (1983). An administrative management (trustee) perspective on commitment to resources is an analytical process, when finally making a pursuit decision; resources are committed heavily and at the beginning of the pursuit. For a promoter, “all
they need from a resource is the ability to use it”. Brown et al (2001) maintains that, entrepreneurs tend to choose resources wisely depending on their overall need for employment. A trustee would rather own and control his/her resources.

Administratively managed organisations compensate based upon the amount of responsibility or control an individual procures, in the view of Stevenson (1983). Promoters for the most part feel unconstrained while seeking opportunity. Brown et al (2001) expressed that, this creates a culture where ideas, creativity, and experimentation are valued and emphasised. An entrepreneurially oriented risk-taking construct could be reflective of the ignorant stance Stevenson takes regarding resources. The search for opportunity without regard for the resources controlled could characterise risk taking behavior. Hence, the scope for the inclusion of the “Risk taking propensity” as an additional dimension for including it as an EOE factor in this research work.

Stevenson and Jarillo-Mossi (1986) maintain that, “Opportunities for the company will not be pursued unless the individuals within the organisation believe that it is a personal opportunity for them”. “As companies grow in complexity, the possibility of a huge reward for everyone tends to fade”. Due to these two statements, individuals within an organisation can be led to believe that initiatives have little chance to gain support. Motivation to pursue initiatives does not match the associated outcome, and therefore initiatives are not explored. To mitigate this tendency in growing organisations, managers must allow and encourage people to experiment with their ideas. Individuals often have good ideas but have no way to prove that they are going to work.
The opportunity and flexibility to try these ideas without risk to personal ego and reputation is critical. Learning from failures is often more valuable than the profits and experience gained from marginal or sub marginal successes”. Failures in attempting to recombine resources, streamline, restructure, and change operational activities should not be reflected upon as a waste of resources. They should be learned from and reattempted in a productive manner.

2.4 ENTREPRENEURIAL ORIENTATION

A firm entrepreneurial orientation refers to the entrepreneurial activities, how the entrepreneur undertakes the methods, practices, and decision-making styles to act entrepreneurially. It is similar to how managers in big organisations used to act managerially, in the view of Mintzberg (1973). Specifically, entrepreneurial orientation refers to the entrepreneur’s disposition to autonomy, i.e., encourages experimentation (innovativeness), takes risk, takes initiatives (proactiveness) and aggressively competes within its market.

Anderson et al (2011) maintains that the recent progress in the understanding of EO and its effect on firm performance continues to confirm a relationship that researchers have suspected for some time. After more than thirty years of scholarly inquiry, it is generally accepted that firms that behave entrepreneurially perform better than those firms that are more conservative.

Covin (2011) et al stated that “the phenomenon of an entrepreneurial orientation (EO) as a driving force behind the organisational pursuit of entrepreneurial activities has become a central focus of the entrepreneurial literature and the subject of more than 30 years of research”.
Covin and Slevin (1989), Ginsberg (1985), Lumpkin and Dess (1996), Morris and Paul (1987) and Schafer (1990) advanced the work of Schumpeter (1934), (1942) and they defined innovativeness as the propensity of the firm to engage in new idea generation, experimentation, by research and development activities. This includes the development and enhancement of products and services and new administrative techniques and technologies for performing organisational functions.

Lumpkin and Dess (1996) categorise innovation as either product market or technological. They also stated that, EO has generally been conceived of as an organisational decision-making activity favouring entrepreneurial activities. Kraus et al (2012) stated that the entrepreneurial activities of an established firm should be referred to as its ‘Entrepreneurial Orientation’ (EO).

Miller and Friesen (1978) suggest that product-market innovation focuses on product design, market research, and advertising and promoting. Maidique and Patch (1982) suggest that technological innovation is comprised of product and process development, engineering, research, and an emphasis on technical expertise and industry knowledge.

Ingrid et al (2010) in their study found that, companies seek to enhance employee entrepreneurial behaviour by exploring how coaching firstly reduces role conflicts associated with acting entrepreneurial, and at the same time, improve efficiency, and reduce failure, and also increase the entrepreneurial self-efficacy of employees. Building on previous conceptual and empirical studies on intrapreneurship, social psychology and human resource management, they formulated several hypotheses concerning the relationship between self-efficacy, coaching and entrepreneurial behaviour of account managers, and tested them in the context of a large service
organisation operating in the financial sector which confirmed their insights on entrepreneurial behaviour in existing companies.

Venkatraman (1989) suggested that proactiveness refers to processes aimed at anticipating and acting on future needs, by seeking new opportunities, introducing new products and brands ahead of competition; and strategically eliminating operations that are in the mature or declining stages of the life cycle. Thus, proactiveness requires a desire and willingness to think and initiate actions to answer future situations and threats. Proactiveness is critical to entrepreneurial success because it suggests a forward-looking perspective that is accompanied by innovative activity.

Schumpeter (1950) in his theory of “creative destruction” aptly describes head-to-head rivalry between firms as an “incessant race to get and keep ahead of one another” in the view of Kirzner (1973). In a highly competitive market, leading firms are aggressively pursued by existing competitors and unforeseen challengers that relentlessly seek new ways to satisfy their customers maintain D’Aveni (1994) and Schumpeter (1950).

Lumpkin and Dess (1996) were of the view that, competitive aggressiveness refers to a firm’s propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace. They argue that competitive aggressiveness also reflects a willingness to be unconventional rather than rely on traditional methods of competing. Competitive aggressiveness can have numerous and diverse strategies and tactical manifestations. These manifestations or dimensions of aggressiveness have been the subject of several books and articles, Covin and Covin (1990). For example, Porter (1985) outlined a number of common “offensive strategies” for achieving and maintaining a competitive advantage.
Lumpkin and Dess (1996) further clarified the definitional issue in entrepreneurship in their 1996 seminal work, by making a distinction between entrepreneurship and entrepreneurial orientation. They suggested that Entrepreneurial Orientation (EO) represents entrepreneurial processes that address the question of how new ventures are undertaken, whereas the term entrepreneurship refers to the content of entrepreneurial decisions by addressing what is undertaken. Five dimensions of EO viz., autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness, were identified. These dimensions represent distinct constructs that may vary independent of one another in a given context.

Linking the relationship between psychological traits and entrepreneurial orientation is imperative for theoretical and empirical reasons, because entrepreneurs with certain psychological traits may have a tendency to exhibit a certain degree of entrepreneurial orientation and showing this tendency may provide benefits to the organisation. In prior research studies, achievement need, tolerance for ambiguity, risk taking and locus of control were analyzed with respect to entrepreneurial characteristics and were identified as correlates of being or desiring to be an entrepreneur, in the view of Begley and Boyd (1987), Bonnett and Furnham (1991).

Prior research findings related to psychological traits have been corroborative, and thus this research is aimed at identifying newer insights, and offer additional understanding of the relationship between psychological traits and entrepreneurial orientation. In the subsections that follow, some of the most researched psychological traits will be discussed, and how they are related to entrepreneurial orientation.

Barbara et al (2010) in their studies outlined by Lee and Peterson (2000) felt that countries with specific cultural tendencies experience more
entrepreneurial competitiveness. The Indian culture consists of characteristics that project a strong entrepreneurial orientation including weak uncertainty avoidance, small power distance, masculinity and individualism. These characteristics provide favorable conditions that aid in the establishment of entrepreneurial activity. The Chinese culture, which exhibits the opposite characteristics on each of these dimensions, a strong uncertainty avoidance, large power distance, femininity, and collectivism, is less likely to support entrepreneurial activity. This would tend to support the notion that within a culture, whether Chinese or Indian, there are cultural characteristics that dominate and influence behavior including entrepreneurial behavior.

Boling (2012) maintained that the influence of the top management team characteristics on entrepreneurial orientation, and the moderating effect of managerial discretion add to the discussion of EO, by invoking both the entrepreneurial orientation concept and upper echelons theory, in an attempt to evaluate how the characteristics of the top management team (TMT) are related to the firm’s exhibition of an entrepreneurial orientation. It is posited that the more heterogeneous the team in industry and its functional background, the greater the EO of an organisation. It is further argued that the level of education completed by the top management team will have a positive relationship with the EO. Industry-level managerial discretion (managerial discretion) is hypothesized to moderate the TMT characteristics-EO relationship.

Ricardo et al (2011) found that EO has been linked with organisational performance, whereby the higher the EO, the higher the level of performance. The study investigates the relationship between the EO dimension and organisational performance indicators, e.g. product performance, customer performance and sales growth among SMEs in Labuan. A total of 101 SMEs were selected and these establishments were
involved in service related, retail business and also wholesale businesses. The study concludes that risk taking, innovation, pro-activeness and competitive aggressiveness have significant positive relationship with organisational performance.

Bird (1988) and Long et al (1985) maintained that, the entrepreneurial process has attitudinal and behavioral components. Miller and Friesen (1982, 1984) were of the view that, attitudinally, it refers to the willingness of an individual or organisation to seek new opportunities and take responsibility for effecting creative change. This willingness is referred to as an “entrepreneurial orientation” (EO). Lumpkin and Dess (1996) were of the view that the term EO has been used to refer to the strategy-making processes and styles adopted by firms in their entrepreneurial activities. EO as a concept and approach refers to the process of behavior influences, decision-making styles and practices of a firm’s management and employees that leads to superior firm performance. The relationship between risk propensity and the entrepreneurial orientation of entrepreneurs is contingent to the set of entrepreneurs. Wiklund (1999), and Zahra and Covin (1995), in their studies found that firms which demonstrate more entrepreneurial strategic orientation perform better than the average companies.

Burgelman (1983) opines that entrepreneurial orientation promotes initiative and what Birkinshaw (1997) called “dispersed” entrepreneurship, which is the involvement of multiple management levels in the formulation and implementation of entrepreneurial strategies. Laurent (2012) maintains that for some researchers, EO has three dimensions: innovativeness, proactiveness, and risk taking, as outlined by Wiklund and Shepherd (2005), and Morris and Sexton (1996). For some others, the same concept has five dimensions: autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness, in the view of Dess and Lumpkin (1996). Some
Researchers used a different set of five dimensions: achievement, personal control, innovation, self-esteem, and opportunism (Robinson 1987; Shanthakumar 1992), and one researcher even included two more dimensions to the previous model: risk taking and independence. Solmossy (1998) and Hafizullah et al (2012) studied the association and influence of enterprise related factors on entrepreneurial orientation, and it was due to enterprise informalisation, value based compensation and access to resources.

Wiklund and Shepherd (2003) outlined that, EO is regarded as the sine quan non of firms that seek to succeed in today’s volatile and extremely dynamic business environment. It is a reflection of the firm’s commitment, capability and aspiration to pursue entrepreneurial activity. The EO construct derived from the early work of Miller and Friesen (1978), initially identified eleven strategy making process dimensions. In a later study, Miller (1983) provided the first operationalization of the EO construct, which was measured by three dimensions: innovation, risk-taking, and proactiveness. This work proved to be a seminal contribution, and was to become the most widely used pedestal for more recent studies in understanding firm level entrepreneurship (e.g. Wiklund and Shepherd 2005), Zahra and Covin (1995).

Initially, the EO construct was seen as a uni-dimensional concept as outlined by Covin and Slevin (1989) where the dimensions of EO were positively correlated. This meant that if a firm scored high on one dimension (e.g. risk-taking) then it was also expected to score high on the other dimensions (e.g. proactiveness and innovativeness). This view, however, has been challenged. Lumpkin and Dess (2001) assert that the EO dimensions need not covary, but could exist to characterize EO as a multi-dimensional construct. Depending on certain conditions (e.g. hostile or benign environments, or type of entrepreneurial opportunity pursued) a firm could
place greater emphasis on a certain EO dimension and therefore be stronger on that dimension than on others.

Dess and Lumpkin (2005) were of the view that, Entrepreneurial Orientation (EO) is a business strategy companies which invoke to assist in the search and pursuit of opportunities. “It represents a frame of mind and a perspective about entrepreneurship that is reflected in a firm's ongoing processes and corporate culture”. Rauch et al (2004) opined that, “An entrepreneurial orientation may be viewed as a firm-level strategy-making process that firms use to enact their organisational purpose, sustain their vision, and create competitive advantages”.

The widely accepted dimensions of EO were developed initially by Miller (1983), who was of the view that an entrepreneurial firm is one that “engages in product-market innovation, undertakes somewhat risky ventures, and is the first to come up with proactive innovations, beating competitors to the punch”. From this development, he contributes innovativeness, risk-taking, and proactiveness to the EO construct. Further, EO dimensions established by Lumpkin and Dess (1996) are: competitive aggressiveness and autonomy. Hence the five dimensions that comprise EO are: innovativeness, risk-taking, proactiveness, competitive aggressiveness, and autonomy. Explanations of these constructs are given in the following sections. Seongbae and Brooke (2011) conducted a study on university students in the U.S, Korea, Fiji, and Malaysia which represent nations with significantly different cultural contexts and found that male students scored higher on the four factors of entrepreneurial orientation than female students.

Some scholars use different terminologies in discussing this firm-level behaviour in entrepreneurship, such as strategic posture (Covin and Slevin (1991), corporate entrepreneurship as expressed by Zahra and
Covin (1995), Zahra et al (1999) and Kuratko (2007), and entrepreneurial orientation in the views of Lumpkin and Dess(1996), Becherer and Maurer (1997), Lyon et al (2000) and Moreno and Casillas (2008). However, in the view of Covin and Slevin (1991), entrepreneurial orientation (EO) is the most widely applied, as firm behaviour is the central and essential element in the entrepreneurial process; this has been the reason why some researchers are interested in investigating EO.

Previous studies showed that EO is a key ingredient for organisational success and has been found to lead to higher performance as suggested by Zahra and Covin (1995) and Wiklund and Shepherd (2005). Previous entrepreneurship research suggested that EO is only part of the essential factors in explaining the firm’s performance in the views of Coulthard (2007). While, Thomas and Mueller (2000) argued that certain dimensions of EO may differ across countries, Naldi. Nordqvist et al (2007) suggested that national culture may affect EO adoption. Kreiser et al (2002) and Morris et al (2008) expressed that, Entrepreneurial Orientation (EO) became a salient concept within strategic management and entrepreneurship literature in the last twenty years.

Rauch and Wiklund et al (2009) who reviewed previous EO- performance relationship studies, stated that an increase in the quantity of such studies has occurred around the world. Therefore, they concluded that "EO represents a promising area for building a cumulative body of relevant knowledge about entrepreneurship". "EO represents the policies and practices that provide a basis for entrepreneurial decisions and actions”. In other words, EO refers to how a firm acts entrepreneurially. As the majority of EO - firm performance relationship studies have been conducted in developed ('western') countries, their findings may not be applicable to firms in developing countries like India; they are likely to be identified from this research work.
2.4.1 Entrepreneurial Orientation Dimensions

Miller (1983) developed a scale to measure empirically, the firms’ degree of entrepreneurship on the basis of their entrepreneurial orientation (EO) score. A high EO score refers to a management that is characterized by the propensity to take risks, innovate, and act proactively. This measurement instrument was subsequently further developed by Covin and Slevin (1986, 1989) and enriched with two new dimensions: growth orientation and competitive aggressiveness. The measurement scale of Covin and Slevin has been in use ever since, as a baseline for several other researchers (just to mention a few, cf. Barringer and Bluedorn, 1999, Stopford and Baden-Fuller (1994), even though Zahra (1993) criticised it several times. Opinion is divided among researchers about the extent of EO dimensions, which need to be present for a firm to be considered entrepreneurial. Miller (1983) suggested that only firms that possess all three dimensions (i.e. innovative, risk-taking, proactive) should be considered as entrepreneurial.

In general, theorists would not call a firm entrepreneurial, if it changed its technology or product line ('innovated' according to our terminology) simply by directly imitating competitors, while refusing to take any risks. Some proactiveness would be essential as well. By the same token, risk-taking firms that are highly levered financially are not necessarily considered entrepreneurial. They must also engage in product-market or technological innovation.

Miller (1983) supported by Covin and Slevin (1991), emphasised that the EO dimensions are best viewed as a unidimensional concept. On the other hand, Lumpkin and Dess (1996) argued that any firms which engage in an effective combination of autonomy, innovativeness, risk taking, proactiveness, and competitive aggressiveness can be considered as
entrepreneurial. This suggests that to become an entrepreneurial firm, it is not necessary for all five dimensions to co-exist, in the view of Chow (2006). Lumpkin and Dess (1996) suggested that as a multidimensional concept, the effect of each dimension of EO on the firm’s performance can be observed independently as the value of each dimension can vary independently, and might not be the same at different stages of the firm’s development.

Despite the debate, on EO dimensions and their uniqueness in affecting the firm’s performance, as stated by Lumpkin and Dess (1996) that other factors, namely internal and external factors of the firm, may affect EO dimensions in influencing the success of the firm. Internal factors represent the organisational structure or the characteristics of founder and/or top manager, while external factors refer to the industry or business environment.

The influence of a nation's culture on entrepreneurship studies has also been discussed by Kreiser, Marino et al (2002). According to them, most entrepreneurship studies are based on samples from the United States, and employed the entrepreneurial measurements developed for studies in that country. They argued that these measurements might not be applicable in all international settings, due to differences in national culture.

Mueller and Thomas (2008) also found that some cultures are more favorable for entrepreneurship practices than others. Zahra (1993) and then Brown et al (2001) expressed their doubts regarding the validity of the variables. In their opinion, the questionnaire focuses on measuring partly overlapping factors, while the most significant features of entrepreneurship, i.e., the metrics of opportunity-driven, ambitious behavior, are left out of consideration and not measured at all. In particular, Zahra pointed out that these measurement instruments do not measure explicitly and directly the extent to which managers are committed to the exploitation of an opportunity.
The definition of the entrepreneur as a creative or innovative individual is not sufficient. There are innovative thinkers whose business ideas are never implemented.

2.4.2 Proactiveness

As outlined by Lumpkin and Dess (1996), proactiveness is characterised by “taking initiative by anticipating in emerging markets, pursuing new opportunities, and by participating in emerging markets”. Miller (1983) is of the view that being proactive means having a forward-looking perspective, “monitoring trends, identifying the future needs of existing customers, and anticipating changes in demand.”

2.4.3 Competitive Aggressiveness

Lumpkin and Dess (1996) also expressed that, Competitive Aggressiveness refers to how “firms relate to competitors, that is, how firms respond to trends and demands that already exist in the market place”. Competitive aggressiveness “refers to a firms’ responsiveness directed toward achieving a competitive advantage”.

2.4.4 Autonomy

Similar propagation by Lumpkin and Dess (1996) was that, autonomy means having the ability and motivation to self-direct the pursuit of opportunity. Specifically applied to an organisational context, autonomy is action taken free from organisational constraints.
2.4.5 Risk-taking

Risk-taking refers to a “firm's willingness to seize a venture opportunity even though it does not know whether the venture will be successful and to act boldly without knowing the consequences”. There are three categories of risks: business, financial, and personal. Business risk “involves venturing into the unknown without knowing the probability of success”. Financial risk pertains to a company’s propensity to take on debt or allocate resources in order to grow. Personal risk refers to the “risks that an executive assumes in taking a stand in favour of a strategic course of action”, in the view of Dess and Lumpkin (2005).

Mueller (2004) studied 2,700 students from 17 countries and found that the differences in entrepreneurial intention between males and females were associated with differences in locus of control and risk-taking propensity. The difference in male/female risk-taking was found to be negatively correlated with Hofstede’s (2001) masculinity index and the difference in risk-taking propensity negatively correlated with uncertainty avoidance index.

2.4.6 Innovativeness

Innovativeness is an organisation’s tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services or technological processes, as well as the pursuit of creative, unusual, or new solutions to problems and needs as outlined by Lumpkin and Dess (1996, 2001) and Certo et al (2009).

Firstly, there is a trend in entrepreneurship research to collect data primarily from manufacturing companies. Service companies, which represent one of the fastest-growing sectors in the global economy, have received only
modest attention in the view of Zahra et al (1999). The negative effect of focusing on one single industry is that the studies are missing the chance to capitalise on inter-industrial differences in structures and competitive dynamics.

Secondly, all of them relied on the methodology of factor analysis when testing the hypotheses. There are controversies regarding the applicability of the factor analysis, for the condition of normality is not met in the case of the variables. In connection with the methodology, Chandler and Lyon (2001) also pointed out that the application of up-to-date mathematical/statistical methods does not typically imply improvements in the reliability and quality of research work. When evaluating the comparison of 45 publications, assessing the preconditions and consequences of entrepreneurial management on a firm level, Zahra et al (1999) criticised their methodologically unilateral character, and called attention to the fact that methodological creativity is indispensable when testing research models.

According to the standpoint of Aldrich and Martinez (2001), the underdeveloped character of the scientific area is also shown by the fact that research on entrepreneurship is dominated by inductive studies that rely on qualitative methodologies. Arriving at a similar conclusion, Oviatt and McDougall (2005) call for models of greater explicatory force and analytical techniques suitable for testing deductive hypotheses, as opposed to exploratory research.

Table 2.1 summarises the main aspects of the most influential studies on entrepreneurial orientation where there is an ample justification which can be derived based on the points of views expressed.
Table 2.1 Summary of previous studies on Entrepreneurial Orientation

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Year</th>
<th>Country</th>
<th>Firm size</th>
<th>Industry</th>
<th>Sample size</th>
<th>Factor analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Covin and Slevin</td>
<td>1986</td>
<td>USA</td>
<td>Large</td>
<td>Manufacturing</td>
<td>200+</td>
<td>YES (✓)</td>
</tr>
<tr>
<td>Covin and Slevin</td>
<td>1989</td>
<td>USA</td>
<td>Small</td>
<td>Manufacturing</td>
<td>344</td>
<td>YES(✓)</td>
</tr>
<tr>
<td>Lumpkin and Dess</td>
<td>1996</td>
<td>USA</td>
<td>Medium to large</td>
<td>Heterogeneous</td>
<td>131</td>
<td>YES (✓)</td>
</tr>
<tr>
<td>Antonicic and Hisrich</td>
<td>2001</td>
<td>Slovenia / USA</td>
<td>Medium to large</td>
<td>Manufacturing</td>
<td>141/50</td>
<td>YES (✓)</td>
</tr>
<tr>
<td>Brown et al.</td>
<td>2001</td>
<td>Sweden</td>
<td>n.a.</td>
<td>n.a.*</td>
<td>1233</td>
<td>YES (✓)</td>
</tr>
<tr>
<td>Kemelgor</td>
<td>2002</td>
<td>Netherlands/ USA</td>
<td>Large</td>
<td>Manufacturing</td>
<td>4/4</td>
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<tr>
<td>Wiklund and Shepherd</td>
<td>2005</td>
<td>Sweden</td>
<td>Small</td>
<td>Heterogeneous</td>
<td>413</td>
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</tr>
</tbody>
</table>

*No Data is available

Thirdly, the validation of constructs is overwhelmingly performed upon American databases. Even though Europe is characterised by large differences between regions and countries, and there are various institutional settings that influence entrepreneurship in the view of Huse and Landstrom (1997), only a few attempts have been made to highlight differences in firm-level entrepreneurial activity in emerging markets.

Fourthly, the measurement of the Entrepreneurial Orientation (EO) level is carried out by the factor analysis in each case. The use of factor analysis is doubtful because it does not meet the normality criteria. In their review, Chandler and Lyon (2001) pointed out that, despite the use of more sophisticated statistical methods, the overall quality of the derived results did not necessarily improve. After reviewing 45 publications on the assessment of preconditions and consequences of entrepreneurial management,
Zahra et al (1999) concluded that the existing research tends to be unilateral in character, and hence, they called for greater creativity in testing the relationships depicted in research models. Arriving at a similar conclusion, Oviatt and McDougall (2005) call for a more sophisticated research design and for the use of more appropriate analytical techniques. The next step in entrepreneurial research is to move away from exploratory studies towards creativity, in order to generate theoretically derived hypotheses, develop measures, and apply state-of-the-art statistical techniques in the views of Aldrich and Martinez (2001).

Finally, the critical question posed by Gartner (1988) and what distinguishes the characteristics of entrepreneurial management from those of conventional management, remains to be answered. Hence, the understanding of why some entrepreneurs succeed in exploiting opportunities despite severe obstacles, has remained a major challenge for the entrepreneurship research community today, as opined by Aldrich and Martinez (2001).

2.4.7 Relationship between EO and Firm Performance

It is stated that the underlying theory behind this relationship is based on the belief that firms will gain an advantage by accentuating newness; e.g. innovation and responsiveness synonymous to being proactive and a degree of boldness, e.g. risk taking, in the view of Rauch et al (2004).

The question of why would relationship exists between EO and firm performance? needs to be answered. Nevertheless results on studies investigating this relationship are mixed; some find a positive relationship while others do not, as expressed by Wiklund and Shepherd (2005). This gives the indication that the relationship is quite complex. It is stated that EO can be measured, although no accurate measurement instrument has been identified to
measure EO at any level, viz, individual, organisational or societal levels. Studies which focused on examining the degree and frequency of entrepreneurship, including all its dimensions were said to have produced reliable and valid results in the view of Morris (1998). Nevertheless, the EO measure has been reported successful, when it was linked with a company’s strategic and performance variables, were identified by Miller and Friesen (1983). A cross-sectional study was performed among various industries to obtain affirmation on the validity of EO measurement with company performance. The results showed that five performance measures, which are percentage change in employment, percentage change in sales as compared with competitors, percentage change in number of employees, percentage change in number of new customers and percentage change in overall size of customers had significant correlation with EO/ EI. The higher the level of entrepreneurship, the higher the strength of relationship between the performance measures, thus it was concluded that EI affects company performance as outlined by Morris and Sexton (1996).

How is risk-taking related to organisational performance? The answers are mixed, some have a positive relationship, but others are negative. A meta-analysis investigating this relationship found positive correlation between the two elements in the view of Rauch et al (2004) and Davis (2007). Similarly study investigating this dimension, found that risk-taking and organisational performance produced a curvilinear relationship. This indicates that organisations adopting a modest level of risk-taking were the highest performers, when compared with their counterparts who assume very high or very low levels of this dimension as expressed by Kreiser et al (2002). The clarification for this phenomenon is found in another study in Australia, which found that calculated risk-taking had a positive impact on the firm performance, but taking risks which was considered as daring actions were considered as detrimental for the firm performance as outlined by Coulthard
(2007). Nevertheless, a longitudinal study of risk-taking and performance in Canadian ICT firms revealed that all three dimensions of EO were needed in an organisation, but the required levels of the EO required varied as the organisation developed in the view of Fouda (2007).

Risk-taking refers to a firm's willingness to take calculated business opportunities in the marketplace, even when their outcomes are uncertain as outlined by Lumpkin and Dess (2001). Firms with risk taking behaviour of EO are described as firms that are bold and aggressive in pursuing opportunities, such as incurring heavy debt or making large resource commitments, to obtain high returns by taking advantage of opportunities provided by the environment, in the opinion of Lumpkin and Dess (1996). Avlonitis and Salavou (2007) added that firms with strong entrepreneurial behaviour are attracted to projects with higher levels of risk to get a higher level of returns. On the contrary, a risk-averse firm will avoid doing something that produces uncertain yield in a changing environment. This behaviour will result in weaker performance as the firm is not willing to capture market opportunities, in the view of Hughes and Morgan (2007).

2.4.8 Relationship between EO and Performance

The relationship between EO and the firm’s performance has become the central focus of interest for studying EO as quoted by Covin et al (2006) and to date, the findings have been mixed. Research studies done by Wiklund and Shepherd, (2005) and Li et al (2009), Zahra and Garvis (2000), and Hughes and Morgan (2007) have showed that EO, directly or indirectly, has a positive relationship with the firm’s performance. This means that firms that adopt more EO perform better than those with lack of such orientation. This association may be related to the fact that today's dynamic business
environment causes product life cycles to become shorter and the uncertainty to increase as outlined by Rauch et al (2005).

Wiklund et al (2005) were of the view that, majority of the studies recorded assumes that EO has an effect on performance. This relationship has received considerable attention over the last decade. Prior studies have also theorised that firm-level entrepreneurial behaviors will be positively associated with firm profitability and growth. Recent studies by Keh et al (2007), suggest that in certain situations, firms exhibiting high levels of EO will achieve superior performance than those possessing low levels of EO.

In addition, the actions of competitors as well as customers are unpredictable. Firms therefore, are required to attempt innovation regularly, anticipate demand, take into account the risk, and aggressively compete to maintain or find new positions in the marketplace. However, the way they do this may vary, according to their position in the industry (leader/follower).

The work carried out by Hughes and Morgan (2007) is one of the studies that investigate the direct effect of each dimension of EO on performance. They discovered that the contribution of each EO dimension to the firm’s performance varies, and some dimensions are even found not correlated at all with the firm’s performance.

Researchers like Wang (2008), Wiklund and Shepherd (2005), however suggested, that investigating the direct effect of EO on the firm performance, will not provide a comprehensive description of the relationship. Therefore, most researchers have applied other variables to the model EO-firm performance as outlined by Covin and Slevin (1991). Interestingly, the empirical findings of EO-performance relationship studies were mixed. Covin, Slevin et al (1994) revealed no significant relationship
between strategic posture (EO) and the firm performance. Similarly, Slater and Narver (2000) were unable to provide any evidence of a positive relationship between EO and profitability.

2.4.9 Organisational Performance

Organisational performance can be categorised into financial or non-financial and may be assessed qualitatively or quantitatively as stated by Chin et al (2003). In the past, the popular method of arriving at performance conclusions was centered on financial measures and the process results. Meanwhile, Cameron (1978) and Chakravarthy (1982) maintained that, for the measure of performance on its link with EO, the performance measure is deemed as multidimensional. Therefore, the use of a single dimension to measure performance may lead to a wrong conclusion. Moreover, the measurement criteria are also influenced by the size and ownership of the organisations, whereby organisations which are privately owned prefer to remain small due to the owner’s preference for such arrangements to ensure control. Thus, in such situations, evaluating organisational performance based on the overall satisfaction and non-financial goals of the owner is more appropriate, in the view of Lumpkin and Dess (1996). These non-financial goals may include reputation, public image, goodwill and employee commitment and satisfaction. Nevertheless, the use of only perceptual indicators of performance, such as global success rating by the manager’s and non financial goals may produce a higher degree of biases, as the relationship between the EO and objective goals was stronger, than between the perceptual goals, as viewed by Rauch et al (2004).

The meta-analysis of the EO-organisational performances studies revealed that the objective indicators used were sales growth, employment growth, ROI and ROE, and indicators such as success ratings were used only
as perceptual indicators. Another factor which also stresses on the need to use multiple performance measures, is the variation in the firm performance with differences in the life-cycle of a particular firm, in the view of Zahra (1993). Moreover, it is said that EO contributes both to small firm’s growth and financial performance. In assessing performance measurement in small firms a combination of growth elements, and financial indicators were found to be better indicators for reflecting the relationship between EO and performance as suggested by Wiklund (1998). The growth elements such as employment growth and firm growth in comparison with its competitors were found to be good indicators of EO performance relationship.

2.4.10 EO Constructs and Independency

It is important to mention that the five EO dimensions viz. autonomy, proactiveness, innovativeness, risk-taking and competitive aggressiveness are independent. The balance and degree to which each of these dimensions utilized is dependent on the firm, the industry, and the environmental specifics within which the firm resides. Empirical evidence strengthening the multidimensional construct argument comes from a meta-analysis study conducted by Rauch et al (2004), where they conclude the existence of a multidimensional construct. An example of multidimensional use could be: in a mature, commodity-based company, the innovation of new products may be of little use; however, this same company may be significantly aggressive towards competitors; thus, this firm would have a lower innovative EO construct emphasis and a higher competitive aggressiveness EO construct emphasis.

Lumpkin and Dess (1996) propose that, “the developments of numerous typologies of entrepreneurial behaviour suggest that an EO can be best characterised by several dimensions in various combinations”. Moreover,
they offer the following explanation: “The salient dimensions of an entrepreneurial orientation–autonomy, innovativeness, risk-taking, proactiveness, and competitive aggressiveness–may vary independently of each other in a given context”. Hence the scope for various new and additional dimensions for EO, especially with special reference to EOE is ably supported by the review of literature and is significantly relevant.

2.4.11 EO and the Individual

According to Russel (1999), “All entrepreneurial activities originate in the creative acts of individuals”. This quote places significant importance on the individuals within an entrepreneurial firm. Entrepreneurial organisations need individuals who are alert to opportunities as expressed by Kollmann et al (2006). Individuals are more susceptible to identify opportunities through their Opportunity Recognition Capabilities (ORC), defined and outlined as: the individual’s prior knowledge of industries, markets, or customers. ORC, according to Baron (2006) are conditioned by intelligence, creativity, optimism, and perception of risk. Kollmann et al (2006) were of the view that, although ORC of individuals in an entrepreneurial organisation are important, opportunity recognition in itself does not produce tangible results. An entrepreneurial firm needs individuals who act upon these recognized opportunities. This propensity is termed as: Opportunity Exploitation Willingness (OEW). The existence of these two aspects ORC and OEW, is in effect entrepreneurial behaviour, and forms the common criterion of many entrepreneurship and corporate entrepreneurship definitions as expressed by Shane and Venkataraman (2000).

Nancy et al (2008) explored the interest in entrepreneurship among the undergraduate business students in South India and draws comparisons to
students enrolled in a U.S. Midwestern business school. Although, South Indian students demonstrate a significantly higher level of interest in starting new ventures than do their U.S. counterparts, the characteristics of entrepreneurially-oriented students in both countries are remarkably similar, and differ in important ways from non-entrepreneurial students.

2.4.12 EO and the Environment

Covin and Slevin (1991) identified that the environment a company inhabits has particular implications or insights into the degree of entrepreneurial orientation the company will posit. They also found that “entrepreneurial posture is more positively related to the firm’s performance among firms in dynamic environments than among firms in stable environments”.

Kollmann et al (2006), who proposed four environmental conditions that lead an entrepreneurial organisation to superior performance: environmental dynamism, heterogeneity, hostility and abundance. Organisations can be influenced by their environment, responding through change or can influence their environment, through the introduction of new products or entry into new markets.

Heterogenous environments according to Zahra (1991) are marked by multiple market segments with diverse customer characteristics and needs. Hostile environments demonstrate high levels of rivalry between industry competitors as expressed by Kollmann et al (2006). Dynamic environments are characterised by having high rates of change, rapid growth, and rich opportunity.
2.5 INTRAPRENEURSHIP

Pinchot (1985) coined the term ‘intrapreneurship’, short for intra-corporate entrepreneurship, which describes the practice of entrepreneurship within organisations. Pinchot and Pellman (1999) were of the view that intrapreneurs are employees who turn ideas into realities in an organisation. Kuratko et al (1990) defined intrapreneurship as an independent strategic behaviour by employees to exploit a given business opportunity. Carrier (1996) suggests that intrapreneurship and corporate entrepreneurship can be used as methods to stimulate innovation and utilize the creative energy of employees. Nonetheless, according to Hornsby et al (2002), there is still much to be learned about the substance and process of intrapreneurship. One of the ways to foster growth in a large or small business is to allow employees to introduce and implement innovation in the organisation Amo and Kolvereid (2005).

Antoncic and Hisrich (2003) defined intrapreneurship as entrepreneurship within an existing organisation, referring to the behaviour of an organisation (emerging and existing) that is different from the normal way of doing business in the organisation. Brunaker and Kurvinen (2005), as a result of their study of middle managers and shop floor workers conclude that the Intrapreneur is an initiating and driving change agent who brings clarity to unclear events. Wunderer (2001) discusses the concept of “co-intrapreneurship” as an employee transformation framework, where internal markets and organisational goals are mutually inclusive features of the flexible, learning enterprise. Corporate entrepreneurship, as suggested by Jennings (1994), focuses on intrapreneurship, or how entrepreneurs function within large corporations. Intrapreneurship is a term popularised by Pinchot (1985) and is better described by Covin and Miles (1999) as the phenomenon in which individuals champion new product ideas within a corporate context.
The challenges that such internal entrepreneurs face have to do with corporate culture, size and bureaucracy.

2.5.1 Corporate or Firm-Level Entrepreneurship

Gartner (1988) disagreed and defined entrepreneurship as the creation of new organisations, thus excluding many of the activities commonly associated with corporate entrepreneurship, such as championing and creating supportive structures and cultures to foster innovation. Other authors, such as Pinchot (1985) perceive corporate entrepreneurship as an extension of individual entrepreneurship within the context of existing organisations, that is, intrapreneurship. Still others approach corporate entrepreneurship from an organisational perspective, and are concerned with the organisational and environmental factors that influence the entrepreneurial initiatives within an organisation.

Entrepreneurship by established organisations in all its forms, some of which are described above, is a single phenomenon with multiple components in different environmental contexts as expressed by Gartner (1990) in Morris and Kuratko (2002). All the components of entrepreneurship should be present within one established organisation to create a situation, where the entrepreneurial spirit or philosophy permeates the entire organisation rather than individuals or other parts of the organisation exclusively. Such an ideal situation has been referred to in literature as true corporate entrepreneurship by Covin and Miles (1999), entrepreneurial management by Stevenson and Jarillo (1990), entrepreneurial posture by Covin and Slevin (1991), firm-level entrepreneurship, and strategic entrepreneurship as suggested by Dess and Picken (1999) and pioneering innovative management by Khandwalla (1987).
Drucker (1985) posits that knowledge-based innovation is the key source and driver of entrepreneurship. It should follow, therefore, that organisations ought to be entrepreneurial, and for them to be entrepreneurial, their knowledge workers need to be entrepreneurial. Knowledge-based innovations are characterised by long lead times from creativity to technology to products and services. They are also characterised by the convergence of several different kinds of knowledge from a number of different sources.

Hornsby et al (2002) established sound psychometric properties for an instrument that measures the five factors, and concluded that the existence of such stable organisational factors should be recognised in promoting entrepreneurial activities within an organisation. They proffered the view that these five factors represent a succinct description of the internal organisational factors that influence middle managers to foster entrepreneurial activity within established companies. Based on the results of the empirical studies documented in literature, it is concluded that the greater the extent to which an individual perceives the existence of management support, autonomy/discretion, rewards/reinforcements, resource/time availability, and flexible organisational boundaries, the higher the probability of entrepreneurial behaviour by that individual.

Barringer and Bluedorn (1999) and Zahra, Kuratko and Jennings (1999) assert that the ability of an organisation to increase its entrepreneurial activity is also determined by the compatibility of its management practices with its entrepreneurial intentions. Among the most pertinent of these management practices is strategic management leadership as expressed by Covin and Slevin (1991), Zahra (1993), Herbert and Brazeal (1998). In short, the facilitation of entrepreneurship appears more consistently with role flexibility and autonomy, which can be achieved if employees enjoy a high degree of autonomy and are empowered to exercise discretion and personal
initiative in performing their jobs. Hornsby et al (1992) profess that fostering corporate entrepreneurship requires that individuals be afforded time to incubate new and innovative ideas. Therefore, the workload of employees must be moderated to such an extent, that they are allowed to work with others on time-consuming innovations.

2.6 BUSINESS DYNAMICS

Forrester (1961) opines that, System Dynamics (SD) over time has been developed as a method for modeling the behavior of complex social economic systems and it can enhance the understanding of the nature of an organisation’s soft, strategic issues Brans et al (1998). The stock and flow notation used in SD can be applied to build detailed conceptual models and facilitate the identification of information needs at different levels of managerial activity.

Flood and Jackson (1993) perceives that SD models are used to redesign system structure and decision policies, which can then be implemented. Empirical research studies in management invariably use the term “Business Dynamics (BD)” in place of “System Dynamics (SD)”. System dynamics demonstrates how most of the decision-making policies are the cause of the problems that one usually blames on others, and how to identify policies to follow and to improve the situation as per Morecroft (1999).

Forrester (1961) expands on his basic model through further and more detailed analysis, and establishes a link between the use of the model and management education. Stewart (1997) maintains that validation is the process of ensuring that the model is sufficiently accurate for the purpose at hand. For the quantitative modeling process the Vensim PLE (Personal
Learning Edition) version was used. Vensim is a software program and a registered trademark of Ventana System, Inc. Co., Harvard, Massachusetts. Forrester and Senge (1980) view that validation is a process of establishing confidence in the soundness and usefulness of a model.

Law and Kelton (2000) suggest that if the model is “valid”, then the decisions made with the model should be similar to those that would be made by physically experimenting with the system. A model is said to be credible when a simulation model and its results are accepted by managers/customers as being valid, and used as an aid (tool) in making decisions. The business dynamics model used in this study was designed by Sterman (2000). Prasanna Devi and Rao (2010) who are of the view that the business dynamics model is designed by connecting words with arrows, and relationships among system variables.

Innovation is not only about technological innovations or how to use inventions. It also involves introducing new business models. Business model innovation is the introduction of a new means of production, new products, or new forms of organisation, as stated by Schumpeter (1934). Davila (2006) concurs, and goes on to make the proposition that business models describe how the company creates, sells, and delivers value to customers. Therefore, business model innovation is about value capture or commercialisation of creativity.

Drew (1995) maintains that, “The system approach is the modus operandi of dealing with complex systems. It is holistic in scope, creative in manner, and rational in execution. Thus, it is based on looking at a total activity, project, design, or system, rather than considering the efficiency of the component tasks independently. It is innovative, in that rather than seeking modifications of older solutions to similar problems, new problem
definitions are sought, new alternative solutions generated, and new measures of evaluation are employed if necessary”.

2.6.1 Origins and Fundamental Notations of System Dynamics

System Dynamics (SD) is a policy modeling methodology based on the foundations of (1) decision making, (2) feedback mechanism analysis, and (3) simulation. Decision making focuses on how actions are to be taken by decision-makers. Feedback deals with the way the information generated provided by insights into decision-making, and affects decision-making in similar cases in the future. Simulation provides decision-makers with a tool to work in a virtual environment where they can view and analyse the effects of their decisions in the future, unlike in a real social system.

Forrester (1961) first used the concept of System Dynamics in an article entitled “Industrial Dynamics: A Major Breakthrough for Decision Makers” which appeared in the Harvard Business Review in 1958. His initial work focused on analyzing and simulating micro level industrial systems, such as production, distribution, order handling, inventory control, and advertising. Forrester expanded his system dynamics techniques in Principles of Systems in 1968, where he detailed the basic concepts of system dynamics in a more technical form, outlining the mathematical theory of feedback system dynamics.

Systems’ thinking is advocated by many “thinkers” who advocate holistic thinking and the conceptualisation of “systems” wherein “everything is connected to everything else”. System Dynamics is an approach whose main purpose is to understand and model complex and dynamic systems. It employs concepts of nonlinear dynamics and feedback control, concepts which are discussed in detail later.
2.6.2 Feedback

Actions taken on an element in a system result in changes in the state of the element. These, in turn, bring about changes in other linked elements, and the effects may trail back to the “first” element. This is called feedback. Feedbacks are of two types: 1) Positive or self-reinforcing, which amplify the current change in the system; and 2) Negative or self-correcting, which seek balance and provide equilibrium by opposing the change taking place in the system. Complex systems are “complex” because of the multiple feedbacks/interactions among the various components of the system.

2.6.3 Business Dynamics Behavior

The feedback structure of a system generates its behavior. Most dynamics observed in systems fall under three fundamental modes of behavior: exponential growth, goal seeking, and oscillation, in the views of Sterman (2000). Exponential Growth arises from positive or self-reinforcing feedback. The greater a quantity is, the greater is its net change (increase/decrease), and this is the feed back to the process that further augments the net change. Thus, this is a self-reinforcing feedback and there is an exponential growth/decline. Goal seeking behavior arises from negative or self-controlling feedback. Negative feedback loops tend to oppose any changes or deviations in the state of the system; they tend to restore equilibrium, and hence, are goal seeking. The rate of change diminishes as the goal is approached, such that there is a smooth attainment of the goal/equilibrium state of the system.

Oscillation arises due to negative feedback with significant time delays. Corrective action to restore an equilibrium state or to achieve the goal of the system continues even after the equilibrium has been reached, due to
time delays in identifying the effects of the actions on the system. Thus, the goal is overshot. Corrective action taken again (negative feedback loop) leads to undershooting, and hence, oscillation. The principle that behavior is a result of the structure of the system enables a discovery of the system structure (its feedback loops, non-linear interactions) by observing the behavior of the system. Therefore, when the pattern of behavior is observed, conclusions can be drawn about the dominant feedback mechanisms acting in the system.

Nonlinear interactions among the three major feedback structures give rise to other complex patterns of behavior of the systems, as outlined by Sterman (2000). S-shaped growth arises when there is a positive feedback initially, and later negative feedback dominates, leading to the attainment of equilibrium by the system. S-shaped growth with overshoot occurs when, after an initial exponential growth phase, negative feedback with time delays kicks in. In this case, the system oscillates around the equilibrium state. Overshoot and collapse occurs, as a result of the equilibrium state itself declining after the exponential growth phase has commenced, and negative feedback is triggered. Since the equilibrium declines, a second negative feedback gets activated, wherein the system approaches the new equilibrium state.

### 2.6.4 Causal Loop Diagrams

The feedback structure of complex systems is qualitatively mapped using Causal loop diagrams. A Causal Loop Diagram (CLD) consists of variables connected by links, shown by arrows. Each link has a polarity. A positive (denoted by “+” on the arrow) link implies that if the cause increases (decreases), the effect increases (decreases) above (below) what it would otherwise have been. A negative (denoted by “-” on the arrow) link implies
that if the cause increases (decreases), the effect decreases (increases) below (above) what it would otherwise have been in the view of Sterman (2000).

Morecroft (1999) stated that, modeling a dynamic system involves capturing the interactions of its components through feedback loops, where a change in one variable affects other variables over time, which in turn affects the original variable. System dynamics demonstrates how most of our own decision-making policies are the cause of the problems that we usually blame on others, and how to identify policies we can follow to improve our situation.

Brans et al (1998) were of the view that System Dynamics Modelling can enhance understanding the nature of an organisation’s soft, strategic issues. The stock and flow notation used in SD can be applied to build detailed conceptual models and facilitate identifying information needs at different levels of managerial activity.

Law and Kelton (2000) suggest that if the model is ”valid”, then the decisions made with the model should be similar to those that would be made by physically experimenting with the system. A model is said to be credible when a simulation model and its results are accepted by managers/customers as being valid, and used as an aid (tool) in making decisions.

Causal loop diagrams are the basis on which the SD model is built. They depict, graphically, the interactions and cause-and-effect relationships among the different system parameters. Causal loops help in eliciting and capturing the mental models of the decision-makers in a qualitative fashion. Interviews and conversations with people who are a part of the system are important sources of the quantitative as well as qualitative data required in modeling. Views and information from people involved at different levels of
the system are elicited, and from these, the modeler is able to form a structure of the system.

Raczynski (2006) states that, simulation is classified into two broad categories, namely continuous and discrete simulation. System Dynamic Simulation (SDS) is the continuous simulation type. SDS models represent real world phenomena using stock and flow diagrams, Causal loop diagrams (to represent a number of interacting feedback loops) and differential equations.

According to Robinson (2004), studies of human behaviour have received increased attention from simulation researchers in the UK. As explained by Pew and Mavor (1998), Human Behaviour Representation (HBR), also known as human behaviour modeling, refers to computer-based models which imitate either the behaviour of a single person or the collective actions of a team of people. Nowadays, research into human behaviour modeling is well documented globally and discussed in a variety of application areas. Simulation appears to be the preferred choice as a modeling and simulating tool for investigating human behaviour. This is because the diversity of human behaviours is more accurately depicted by the use of simulation.

Owen et al (2008) felt that, the choice of an inappropriate simulation technique could lead to an ineffective modeling process for instance; it could take longer to build models. McHaney (1991) reports that simulation models have been ranked by the practitioners and academics as the second most important quantitative modeling technique and statistics is the first.
2.6.5 Stocks and Flows

Sterman (2000) was of the view that, causal loops are used effectively at the start of a modeling project to capture mental models. However, one of the most important limitations of the causal diagrams is their inability to capture the stock and flow structure of systems. Stocks and flows, along with feedback, are the two central concepts of the dynamic systems theory. Stocks are accumulations as a result of a difference in the input and output flow rates of a process/component in a system. Stocks give the systems inertia and memory, based on which decisions and actions are taken. Stocks also create delays in a system and generate disequilibria.

2.6.6 Business Dynamics Notation

All stock and flow structures are composed of stocks (represented by rectangles), inflows (represented by arrows pointing into the stock), outflows (represented by arrows pointing out from the stock), valves, and sources and sinks for flows (represented by clouds).

Stocks are the state variables or integrals in the system. They accumulate (integrate) their inflows less than their outflows. Flows are all those which are rates or derivatives. If a snapshot of a system was taken at any instant of time, what would be seen is the state of different processes or components of the system. These are the stocks in the systems. The inflows and outflows are what have been frozen and so cannot be identified. Stocks and flow networks undoubtedly follow the laws of the conservation of matter. The contents of the stock and flow networks are conserved in the sense that items entering a stock remain there until they flow out. When an item flows from one stock to another, the first stock loses exactly as much as the second one gains.
2.6.7 Auxiliary Variables

Auxiliary variables are often introduced in stock and flow structures to provide a better understanding. Auxiliary variables are neither stocks nor flows; they are functions of stocks and exogenous inputs. They are variables used for computational convenience.

Table 2.2 Notations used in Business Dynamics

<table>
<thead>
<tr>
<th>Termiology</th>
<th>Symbol / Notation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock</td>
<td>![Stock Symbol]</td>
<td>A stock represents things in the model that can accumulate. The stock will rise and drop depending on its flows, and will remain constant while in equilibrium.</td>
</tr>
<tr>
<td>Flow</td>
<td>![Flow Symbol]</td>
<td>A flow is the rate of change of a stock. Inflows add to a stock, out flows take away from the stock. Equilibrium occurs when the inflows to all stocks are equal to the outflows.</td>
</tr>
<tr>
<td>Influence Arrow</td>
<td>![Influence Arrow]</td>
<td>The blue arrows in the model represent when one variable, a, directly influences the current value of another, b.</td>
</tr>
</tbody>
</table>

The contribution of Stocks to Dynamics is multifold: (1) Stocks denote the state of a particular element in the system, and based on this information, decisions can be made or actions can be taken. (2) They provide the system with inertia and memory. For example, intangible stocks like beliefs and memories characterise our mental states. (3) They induce delays in
the system. A stock or accumulation occurs when the output lags the input to a process, and whenever this happens, delays occur. (4) Stocks decouple the inflow from the outflow. Inflows and outflows are controlled or decided upon by different people/resources in the system. A difference in the inflow and the outflow rates creates disequilibria.

2.7 ENTREPRENEURIAL ORIENTATION FOR EMPLOYEES

Burgelman (1983) opines that an entrepreneurial orientation promotes initiative and what Birkinshaw (1997), called “dispersed” entrepreneurship, which is the involvement of multiple management levels in the formulation and implementation of entrepreneurial strategies.

Dietrich and Harrison (2005) illustrated that, heavy reliance on human resources as the primary determinant of productive capacity implies that a key challenge for professional service managers is the acquisition, training and termination of resources.

Krishnakumar et al (2009) have invented and extended the concept of EOE, with newer dimensions and made substantial inroads through this approach. EOE is a novel and unique approach for enhancing and ensuring employee development in particular and organisational development at large, through EOE training, by experimentation.

Lumpkin and Dess (2001) argue that entrepreneurial orientation may occur in different dimensions; there are some researchers who suggest that the dimensions of EO tend to vary independently rather than co-vary, in the view of Rauch et al (2004). Morris and Kuratko (2002) further advance that EO also provides a platform to empower employees in decision-making.
Neiman and Pretorius (2004) continue that personal entrepreneurial orientation should be encompassing creativity and innovation.

Russell et al (1985) in their research indicate that investments in training employees in problem-solving, decision-making, teamwork, and interpersonal relations results in beneficial firm level outcomes. Training also has a significant effect on employees’ performance. Firms can develop and enhance the quality of the current employees by providing comprehensive training and development.

Bartel (1994) found that training was correlated with sales volume per employee and store image in a sample of retail outlet stores. Brockhaus (1980) defined the risk taking propensity as “the perceived probability of receiving the rewards associated with the success of a proposed situation, which is required by an individual before he will subject himself to the consequences associated with failure, the alternative situation providing less reward as well as less severe consequences than the proposed situation”.

Lumpkin and Dess (1996) are of the view that, risk taking propensity is a behavioral dimension of an entrepreneurial orientation along which opportunity is pursued. In terms of different contexts, the effects of the dimensions of entrepreneurial orientation, including risk taking propensity, were expected to differ in terms of their effect on performance according to the specific context.

Brockhaus and Horwitz (1986) maintained that an internal locus of control and a high need for achievement have been associated with higher performance by individuals. The psychological theories of the locus of control and need for achievement were associated with a moderate level of risk taking
propensity. This might predict that a moderate level of risk taking propensity would be associated with higher levels of performance.

The training intervention component of the research study undertaken, is based on the theoretical underpinnings of the entrepreneurship theory, particularly, the theory that entrepreneurial characteristics can be nurtured among employees in organisation, and that entrepreneurial actions are associated with the perceiving of opportunities and the creation of organisations to pursue them.


Opposing tasks would be the management of: efficiency vs. flexibility, differentiation vs. low-cost strategic positioning or global integration vs. local responsiveness, in the view of Kollmann et al (2006). Ambidextrous management seeks to balance opposing poles on a single continuum while simultaneously allowing the importance and necessity of co-existence. The ambidexterity relationships of a high EO or low EO simultaneously as a principle, is being applied to a two sided classification of the EOE scores into, “Average EOE” and “High EOE.” Strengthening the validity of this, Kollmann et al (2006) cite the initial empirical findings of
Gibson and Birkinshaw (2004) “who claim that firms, which master this balance effectively, have indeed a competitive edge over companies merely focusing on either exploitation (i.e. bureaucratic management) or exploration (i.e. EO)”.

The factors which are identified for Entrepreneurial Orientation for Employees (EOE) have significant support from the review of literature and are derived for the purpose of the study. The EOE Metrics consist of the variables namely: (i) Training and Development, (ii) Learning and Development, (iii) Affiliation Need, (iv) Locus of Control, (v) Tolerance for Ambiguity, (vi) Risk taking Propensity, (vii) Achievement Motivation, (viii) Creativity, (xi) Commitment and (x) Decision Making.

2.7.1 Training and Development

Goldstein and Ford (2002) were of the view that, training is an organised method of learning and development which expand the efficiency of the individual, the group, and the organisation. Development mentions the accomplishments leading to the gaining of new abilities and skills for the personal growth of employees.

Mel Kleiman (2000) claimed that the essential parts of a worthy employee training program are constructed on orientation, management skills, and operational skills of employees. Employee development programs include a variety of teaching techniques, schedules, and helping a learning environment that ensures employees to improve their skills and later apply them on their jobs as outlined by Gerbman (2000).

Sherman et al (1998) identified that, training has become increasingly vital to the success of any modern organisations. Nowadays
organisations need to have competencies, especially core sets of knowledge and expertise that will give the companies an edge over their competitors. The only way to arrive at this is through having a dedicated training program that plays a central role to nurture and strengthen these competencies.

Research studies have identified in the past that there are sound connections between various training and development practices and different measures of organisational performance (for eg. Delery and Doty (1996), Becker and Huselid (1998). Training and development and its continued learning process has always been the leverage with various industries, and now it has become rather an over arching trend of social needs, emphasising that organisations must inculcate learning culture as a social responsibility.

Peteraf (1993) found that, a comprehensive training and development program helps in deliberating on the knowledge, skills and attitudes necessary to achieve organisational goals and also to create a competitive advantage. Stavrou et al (2004) were of the view that, as the start of the twenty-first century Human Resource Managers have opined that one of the main challenges they would have to confront involved issues related to training and development.

2.7.1.1 Training and Development and its Process

In order to ensure that employees are equipped with the right kind of skills, knowledge and abilities to perform their assigned tasks, training and development plays a crucial role towards the growth and success of any organisation in the context of business. By choosing the right type of training, it can be ensured that the employees possess the right skills for business, and the same need to be continuously updated in the follow up of the best and new HR practices.
In order to meet the current and future business demands, the training and development process has assumed a strategic role, and in this regard a few studies by Stavrou et al (2004) and Apospori et al (2008) had deduced that there is a considerable impact of training on organisational performance and hence, has gained much importance, as its highlight the Training and Development practices in cross-national contexts. Different from these studies, Cunha et al (2003) were the only ones who could not determine the impact of training on organisational performance.

2.7.1.2 Training need analysis

Cascio (1991) studied the need to have a proactive approach to Training Need Analysis (TNA), in which involvement of all the managerial cadre employees within an organisation is more meaningful since he/she is required to document the training needs, and also carry out a cost benefit analysis while deliberating the return on investment vis-à-vis training costs. Therefore, analyzing the training needs and the tools for measuring their effectiveness are important, and hence an alignment of strategic and training objectives of the organisation is necessary. TNA provides a benchmark (pre-measure) of the skills trainees have before training, and the same can be compared to a measure of the skills acquired during training (post-measure) which highlights the cost savings or value additions achieved as a result of training. TNA ensures that training focuses on those skills, which are to be acquired by the trainees to perform their assigned jobs.

Blanchard and Thacker (1999) were of the view that, training must be relevant, and organised in a manner that an interest and value is created to ensure active participation by the trainees. Therefore, a good TNA achieves its objectives by ensuring that only those who need the training are included, and
hence, training provides complete details to all the trainees, as to why the training is needed.

2.7.1.3 Training and development activities and employee performance

In a changing businesses environment, the relationship between the organisation and the employee warrants for a greater importance. It is attached to the value of individuals and the team’s contributions, to find effective business solutions, which play a key role towards successful organisational performance. The employee is viewed as a ‘learning customer’, bringing personal preferences and motivation to the workplace, thereby displaying innovation in his/her managerial skills. There are positive relationships between training and development strategies and organisational performances; and job satisfaction, competitive advantage and measured performances are the important levers to attain employee’s good performance.

To quote a few research studies, Aycan (2003), House et al (2004) and Javidan (2004) in which performance orientation was included as an important association in training. Delery and Doty (1996) opine that, in the case of learning organisations, training has been linked to both corporate strategy and organisational performance; training must be aligned to organisational strategy in order to result in high performance.

Abdus (2011) is of the opinion that, imparting training through the use of new technologies and adapting to innovative training methods, like PI (programmed instructions), computer/simulated games, role playing and audio/visual tools are more effective, and therefore, extensively used in training curriculums. Training and development, has its strategic positioning, and directly contributes towards organisational business goals and objectives.
Emily (2012) investigated whether training costs had an impact on small business profitability between 2006 and 2010. The result was that companies which increased or maintained their spending on training between 2006 and 2010 had higher profitability overall, compared to companies that cut or did not invest in training.

Panagiotakopoulos (2011) talks about employee training and learning in Small and Medium-sized Enterprises (SMEs) and suggests barriers that negatively impact business profitability. One particular barrier he mentions is negative attitudes or “ignorance” towards training. He states that most owners think that training costs outweigh their returns. Some are so caught up in the short-term business pressures that owners do not think to invest in their employees.

Hence a training and development module in EOE training as a newer approach/technique combined with conventional methods, i.e., lectures, conferences, movie/films and case studies provide effective means for training and education, and have ample scope to be imparted in organisation. Hence, to undertake the EOE training in the premises of on-the-job industrial work setting is necessary.

Jayaraman et al (2012) have attempted to study the factors, such as the curriculum design, i.e., the course structure of the MBA programme, the delivery mechanism of the MBA faculty, the academic environment of the B-Schools, the networking of the B-Schools with Business and Industry, the parental guidance and support in venture creation, and the Government policy encouraging the technocrats for venture creation, and to come out with recommendations to groom MBA students with entrepreneurial competencies.
Khanka (2012) completed the research on a strategic approach to encourage entrepreneurs to strive for better business performances. This focuses on the entrepreneur’s behaviour and motivation, gathered as data from 243 first-generation entrepreneurs from the manufacturing and service industries in Assam in North-East India.

Jayawarna et al (2007) conducted a quantitative research on “training commitment and performance in manufacturing SMEs” which aimed to investigate activities related to management development, and its impact on the firm’s performance regardless of formal and informal training. Data was collected from 198 manufacturing SMEs in the UK. SMEs that invest in management capacity training showed a statistically vital contribution to an increase in employees’ compensation and the firm’s revenues, when compared to those SMEs that were not interested in management training. They also stated that the number of training interventions is important, because their research suggests that as the firm grows the intensity of training is likely to increase, as the number of employees grows. The research also indicates that formal training is likely to be targeted, because it contributes significantly to the firm’s performance - more than informal training.

2.7.2 Learning and Development

According to Manning (1992) learning is not about standardised routines repeated ad infinitum, but rather about the ability of human beings to rapidly exploit their knowledge in new ways and to continually improve whatever they do. Many organisations have therefore become proficient in developing an ability to scan the environment, set objectives and monitor the general performance of the system in relation to these objectives. Senge (1990) describes the ‘learning organisation’, where people continually expand their capacity to create the results they truly desire, where new and expansive
patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together”.

Kreitner and Kinicki (2001) points out that, a learning organisation is one that proactively creates, acquires, and transfers knowledge and that changes its behaviour on the basis of new knowledge and insights. According to Oden (1997), the most successful companies of the future will be learning organisations, which he describes as “adaptive enterprises where workers are free to think for themselves, to identify problems and opportunities, and to go after them”.

2.7.3 Affiliation Need

People in high need for achievement get satisfaction from unique accomplishments, strive for successful attainment of standards of excellence, but feel disappointed with failure or lack of excellence as expressed by McClelland (1985).

Schultheiss (2008) opined that people in high need for affiliation take pleasure in establishing, maintaining, or restoring a positive affective or intimate relation with another person or a group of people, and evaluate separation or disruption of friendly relationships as unpleasant.

McClelland (1961) in his scholarly work mentioned, that the need for achievement has been empirically linked to entrepreneurial activity. The need for achievement is defined as a tendency to choose and persist in activities that hold a moderate chance of success or a maximum opportunity of personal achievement satisfaction without the undue risk of failure. From diverse samples of business executives, the findings revealed that senior marketing managers have the highest need for achievement. He posited that
needs are learned and therefore culturally, not biologically determined, and some cultures produced more entrepreneurs because of the socialisation process that creates a high need for achievement.

In a longitudinal analysis of the need for achievement, scores of college freshmen, McClelland (1965) concluded that a high need for achievement is a predictor of entrepreneurship and is based on influences of childhood and adult training and experiences. McClelland’s work was initially influenced by Murray (1938) in his studies about the development of his Need for Achievement Theory in the view of Fineman (1977). McClelland shared with Murray the belief that the analysis of fantasy is the best way to assess motives, which are primarily based on an unconscious state. Through the usage of the Thematic Apperception Test (TAT), which requires the writing of imaginative stories by subjects in response to a set of pictures, the stories were content analysed for achievement imagery to obtain an Need for Achievement (nAch) score by the author. Through the correlation studies in the laboratory, McClelland determined that those high in Need for Achievement (nAch), as measured by the TAT, tended to exhibit the original five behavioral traits and was reduced to three. They firstly, take personal responsibility for finding solutions to problems; secondly, they set moderate achievement goals and take calculated risks; and thirdly, want concrete feedback regarding performance. McClelland conducted a number of studies demonstrating that high nAch and the subsequent manifestation of the above behavior correlated strongly with entrepreneurial success as suggested by McClelland (1961), (1965).

A number of studies suggest that the Need for Achievement is higher in company founders, compared to managers as outlined by Begley and Boyd (1987), Miner et al (1989) expressed that it is also related to company growth. The findings reveal that the level of need for achievement
of the founders and the financial growth of the organisation may come from a relationship, between the psychological traits of the founders and the levels of entrepreneurial orientation they exhibit.

2.7.4 Locus of Control

Rotter (1966) defined the Locus of Control as an individual's perception about the underlying main causes of events in his/her life. An individual believes that his/her behaviour is guided by his/her personal decisions and efforts (internal), or is unrelated to his/her actions, and is guided by fate, luck, or other external circumstances (external). People with an internal locus of control believe that they can control what happens in their lives. On the other hand, people with an external locus of control tend to believe that most of the events in their lives result from luck, being at the right place at the right time with the right (powerful) people.

Research indicates that individuals with an internal locus of control often have a more expressed need for achievement as outlined by Brockhaus (1982), Lao (1970) and Gurin et al (1969). In an empirical study conducted by Khan and Manopichetwattana (1989), they addressed the proposition of whether the characteristics of innovative and non-innovative small firms have significant differences. Their sample comprised of 50 manufacturing small businesses in the Texas area, using the cluster and correlational analyses to analyse the data. They found a positive relationship between the internal locus of control and innovation.

Boone et al (1996) in their empirical research investigation focused on the furniture industry with a sample comprised of small firms and family owned small businesses were interested in getting at whether the Chief Executive Officers or top management team’s internality had a positive effect
on organisational outcomes. Replicating previously tested hypotheses, they found the internal locus of control to be associated with the company’s performance. Their findings corroborated the prior study findings of Begley and Boyd (1987), Bonnett and Furnham (1991) and Nwachukwu (1995) were of the view that the internal locus of control is an important entrepreneurial psychological trait.

2.7.5 Tolerance for Ambiguity

Budner (1962) defined tolerance for ambiguity as the “tendency to perceive ambiguous situations as desirable,” whereas intolerance for ambiguity was defined as “the tendency to perceive ambiguous situations as sources of threat”. An ambiguous situation is one in which the individual is provided with information that is too complex, inadequate, or apparently contradictory as stated by Norton (1975). The person with a low tolerance of ambiguity experiences stress, reacts prematurely, and avoids ambiguous stimuli. On the other hand, a person with a high tolerance of ambiguity perceives ambiguous situations/stimuli as desirable, challenging, and interesting, and neither denies nor distorts their complexity of incongruity.

Frenkel-Bruswik (1948) reported a study comprised of 100 adults and 200 Californian children from 9 to 14 years of age, in which the researcher looked at their attitudes to ethnic prejudice, and argued that tolerance for ambiguity is to be conceived as “a general personality variable relevant to basic social orientation”. Entrepreneurial managers are generally believed to tolerate more ambiguity than conservative managers, because entrepreneurial managers confront less-structured and more uncertain set of possibilities in the view of Bearse (1982), and actually bear the ultimate responsibility for their decision, as outlined by Gasse (1982) and Kilby (1971). Theoretically, people who best tolerate ambiguity are those who
obtain superior results, if their strategic objective is to pursue growth. Entrepreneurs who seek to increase market shares in their respective industries face more uncertain phenomenon than those who seek to increase profitability. Because the strategy utilized to implement the increase in market share is based on conditions of uncertainty, which requires a greater tolerance of ambiguity.

Thompson (1967) stipulates that in a determinist world, the higher the number of external dependencies faced by firms, the greater the degree of uncertainty. Dollinger (1983) with a sample size of 79 entrepreneurs, using Budner’s scale, found that entrepreneurs scored high in the tolerance for ambiguity test. The results showed that the tolerance for ambiguity trait is positively related to entrepreneurial activity. Gupta and Govindarajan (1984) gathered data from 58 strategic business units, which revealed that greater marketing/sales experience, greater willingness to take risk, and greater tolerance for ambiguity, on the part of the strategic business unit general manager, contribute to effectiveness in the case of “build” strategic business units; but hamper in the case of “harvest” strategic business units.

Carland et al (1989) maintained that people who best tolerate ambiguity are also the most innovative. Tolerance for ambiguity is reported to relate to personal creativity in the opinion of Tegano (1990) and the ability to produce more ideas during brainstorming as outlined by Comadena (1984). These findings suggest that creativity and innovativeness require a certain degree of tolerance for ambiguity. The ability to tolerate ambiguous situations may also be positively related to the risk-taking behavior of the entrepreneur. Risk-taking requires a certain degree of tolerance for ambiguity. In addition, research indicates that individuals with intolerance for ambiguity tend to perceive higher degrees of risk under the same circumstances in the view of Tsui (1993). Proactive entrepreneurs do not abide by traditional ways of the
status quo, but continually question it in an attempt to improve and devise better operational methods and managerial styles.

2.7.6 Risk Taking Propensity

Any project or venture which has an element of risk gives the indication that there is a chance that the actual output may be different from prediction. Risk-taking also involves a willingness to pursue opportunities that have a probability of producing losses or considerable performance inconsistencies, as outlined by Morris (1998). An organisation which assumes responsibility for a specific amount of risk, signals that it is ready to accept the consequences for the ambiguity on the outcomes of future prospects as stated by Hughes and Morgan (2007). Krauss et al (2005) maintains that, in the context of small business owners, it is recommended that a positive orientation towards risk is important when faced with unavoidable risk. Nevertheless, successful entrepreneurs are individuals who take calculated risks.

2.7.7 Achievement Motivation

During the early 1960s, McClelland developed the ‘need to achieve’ concept as published. “McClelland and winter’s original treatise, Motivating Economic Achievement, continues to be one of the more comprehensive efforts to determine the impact of such training programmes” as outlined by Cooley (1991). They subsequently developed a behavioral training programme, called the Achievement Motivation Training (AMT), premised on devising the best method to stimulate the acquisition of new traits. The AMT was tested in different contextual settings, namely, American, Asian and European, with relatively consistent results. Except for one such programme in Kenya, no AMT programmes were used in Africa.
According to Cooley (1991), who suggested that training had a positive effect on the economy of the city, where it was administered, resulting in a ‘spill-over’ effect. Researchers and scholars tried to identify personal entrepreneurial characteristics related to success and develop training programmes, but the AMT was first applied to a group of 52 businesses in the 1960s. The trainee group was referenced as the experimental group and the non-trained business people in that city as well as the non-trained business people in another city were referenced as the control group. The data collected from the participants of the study from different locations showed that the two cities were similar in size, workforce division and geographical location. The evaluation of the training showed significant improvements in entrepreneurial performance measures. Compared to the control group and the prior performance of the experimental group, the experimental group reported to have worked longer hours, attempted and started more new businesses, invested more in fixed productive capital, employed more people. In a series of studies, which consisted of the assessment of 72 entrepreneurship training programmes, most of them based their explicitly ‘behavioral components ‘on the work done by McClelland in the 1960s. The median duration of the programmes was four and a half weeks.

2.7.8 Creativity

Creative ideas are valued increasingly in all kinds of organisations, even outside creative industries, and organisations seek to make use of employees’ abilities and creative potential. The globalising economic system has intensified the need for creativity, and stimulated organisations to search for ways to attract and bind creative knowledge workers in the view of Boltanski and Chiapello (2005). Simulating creativity promotes values such as entrepreneurship, networking, flexibility and creativity; only, these
seem to have a negative relation with the attachment of employees to the organisation and long-term commitment to the organisation. This effect is confirmed by Haunschild (2003) who concludes in relation to Marsden (1999) that temporary work relations and high labour mobility might restrict the development of the workplace community and commitment to the organisation.

Organisations seek employees to be creative and committed; nevertheless, studies are divided on the relation between the two concepts. Besides the negative association, a contrasting view posits a positive relation between commitment and creativity. For eg, Choi (2007) finds high commitment to the organisation to be associated with higher levels of creativity.

Organisations in creative industries are dependent on employees as the input in the creative process, as they generate ideas that are both novel and useful as outlined by Amabile (1996). More and more creative ideas are also valued in all kinds of organisations outside creative industries, and organisations seek to make use of employees’ abilities and creative potential. Management in the creative industries may represent changing employment structures as suggested by Cappelli (2008) and the general management of creativity by Boltanski and Chiapello (2005). In creative industries, human capital is an important creative resource, because it generates knowledge and innovation, in the view of, Lazzeretti, Boix, and Capone (2008).

McLean (2005) compares innovation without creativity to an engine without fuel. Creativity, the “unique human characteristic”, has recently been recognised as the only distinct feature as opposed to other routine based skills, which are likely to be taken over by computers and machines Cropley (1999), and Runco and Pritzker (1999). Creativity in
organisations is viewed as the continuous effort of the individual, to develop, carry, react to, and modify ideas as outlined by Van de Ven (1986).

Sharma (1999) is of the view that, creativity is the generation of ideas, whereas innovation is the application of those generated ideas. In large organisations where established bureaucracies are prevalent, the creativity necessary for radical innovation and the individual initiative pertinent to embarking on new ventures are often suppressed. The sheer size of these organisations demands that there be control and order, but such order and predictability, if strictly adhered to, work against innovation.

The rigidity or inflexibility that is often associated with defined processes and systems is not about systems and processes per se. The literature confirms that the problem is more about the inability to change them when they are no longer useful as outlined by Cameron (1986), Miller (1990) and Leonard-Barton (1995). The obsolescence of competencies and the inability to renew them is called the ‘competency trap’, in the view of Levitt and March (1988).

It is therefore wrong to assume that structure, processes and systems are the natural foes of creativity, or to feel that imposing any order on ‘intrapreneurs’ will have a detrimental effect on the results. What should be realised is that structure, systems and processes can enhance creativity, and ultimately innovation, if they are built and used in the right way. In this research study, the premise that structure, processes and systems are in place, and focus rather on testing the employees’ views on how these elements are allowed to evolve to facilitate innovation and entrepreneurial activity, is given its due importance.
2.7.9 Commitment

Commitment is an important and complex construct that has long been studied in various fields of research. In organisational studies, commitment is mostly studied as the relation between individuals and the organisations they belong to, as outlined by Klein et al (2009).

In psychology, commitment often refers to the strength of a person’s determination to pursue a goal as suggested by Nesse (2001). Commitment is also defined as becoming bound or obligated to some course of action or inaction in the view of Schelling (2001). Being bound to a course of action often means that other courses of action are deliberately abandoned. Somewhat counter-intuitively, Elster (2000) observed that the ability to restrict one’s own freedom by pre-committing to one option at the expense of others can be valuable in certain circumstances. It was emphasized that rationality often requires taking steps to make pre-commitments in anticipation of temptations that would yield a short-term gain but a long-term cost.

Klinger (1975) maintained that, when a commitment to a goal involves intent to persist despite difficulty or to resist the temptation of a short term gain at the expense of a long term cost, its influence is on the self. Commitment, however, can also be used to influence someone else’s choices. Commitment does so by affecting that other person’s expectation of one’s behavior as outlined by Schelling (2001).

Scout (2010) was of the view that entrepreneurial activities and programs are more accurate predictors of the intention and entrepreneurial behavior, than demographic factors, personality and other situational factors. The value of commitment has also been stressed in strategy literature, ie for
e.g. Ghemawat (1991) both as an influence on the self and on others. He remarks that, commitment is the tendency of strategies to persist over time. “A strategy embodies commitment to the extent that, if adopted, it is likely to persist.” Commitment in this sense involves selecting an organisational domain based on the prediction of an expected future as suggested by Wernerfelt and Karnani (1987) at the expense of several possible ones. The argument in this stream of research is that making early commitments (such as adding manufacturing capacity) may secure future market space and discourage rivals from investing (Pacheco de Almeida, Henderson and Cool (2008), accelerate learning and enable economies of scale and provide with a first mover advantage through technological leadership, preemption of scarce assets, and switching costs as expressed by Lieberman and Montgomery (1988).

In entrepreneurship literature, it is observed that a focused commitment to an organisational domain, defined at the outset as the venture to which entrepreneurs are bound during the execution phase, also allows the development of routinised behavior in the view points of Nelson and Winter (1982), which enables the venture to effectively handle liabilities of newness, as outlined by Stinchcombe (1965).

Entrepreneurial commitment is also defined as the commitment of the entrepreneurs to their project itself as per Fayolle, Basso and Tornikoski (2011), i.e. it corresponds to the entrepreneurs’ persistence in their efforts despite experiencing negative outcomes as cited by Garud and Van de Ven (1992) or under performance, in the view of DeTienne, Shepherd and Castro (2008). At the extreme, it can lead to the well described syndrome of escalation of commitment in the view of Staw (1981). However, this persistence might be explained by ambiguity, i.e., the uncertainty of nascent markets, where determining precisely when a goal is unreachable is hard as
suggested by Nesse (2001). There might be value in persisting, and persistence may eventually lead to success.

Entrepreneurial commitment, has other benefits to the organisational domain or to the project, it helps convince investors, as outlined by Garud and Van de Ven (1992) and other stakeholders such as employees, of the support of who is necessary for the venture to acquire resources. This is because a stakeholder invests in the relation with the entrepreneur, and like any relation, the investment does not make sense unless both parties expect the relationship to continue for an extended period as suggested by Frank (2001). For instance, entrepreneurial commitment to the project, in turn leads to employee commitment to the venture, a crucial but challenging task in the opinion of Breugst et al (2012).

Silberzahn (2013) maintains that, researchers disagree on the role that entrepreneurial commitment plays in nascent markets. One view is that uncertainty requires a flexible approach, which precludes commitments. Another view is that flexibility and commitment can be simultaneous and that successful entrepreneurs balance the two views by differentiating the forms of flexibility on the basis of commitment. In sum, commitment has been mainly studied as the ability of entrepreneurs to persist despite the initial difficulties, or as the abandonment of all possible options but one (Focused commitment), regarding the organisational domain in order to increase the chance of success and to obtain the support of stakeholders to acquire the needed resources. However, in both cases, commitment is studied regardless of the nature of the environment as far as the availability of information is concerned. In short, entrepreneurial commitment has essentially been studied as a focused commitment to an organisational domain and a course of action, and its relation to the resolution of uncertainty that characterizes nascent markets has largely been ignored.
Thompson and Heron (2005) and Choi (2007), from their studies including commitment to the organisation, propounded that, a set includes the theoretical reasoning of a positive relation between organisational commitment and creativity. In these theoretical contributions, commitment is conceived to be important for knowledge creation and may lead to change-oriented organisation citizenship behaviour, which includes creativity. A positive relation is found between the loyalty of the employee with organisational commitment and job performance, including creativity as outlined by Cheung (2005).

Shipton et al (2006) show a positive relation between job satisfaction and the generation of creative ideas. Other studies indicate the need for the stimulation of the organisational commitment for creative employees, for example by encouraging employees to master new thinking skills and by the creation of an infrastructure that ensures the use of these skills, as outlined by Basadur (1997). In addition, for Autonomous Venture Managers (AVMs), several types of innovative challenges affect the long-term orientation, internal locus and commitment to the organisation, in the view of Brazeal (1993). In contrast to the theoretical studies, empirical studies are unable to provide considerable support for a positive relation between organisational commitment and creativity.

Moss and Ritossa (2007) who fail to find empirical support for the commitment creativity relation, separating the effects of the three different kinds of commitment, affective commitment, normative commitment and continuance commitment. An interesting effect found by Zhou and George (2001) includes a positive relation between the dissatisfaction of the employee and creativity, only if the situation is moderated by high continuance commitment and high perceived organisational support. Although
assumptions and theoretical reasoning propose a positive effect of organisational commitment, empirical studies show non-significant results.

2.7.10 Decision Making

Hisrich and Peters (2002) are of the view that a typical corporate culture favors risk-averse, cautious and rational decision-making practices and processes. People are discouraged from taking the initiative, being proactive, making learning most or failing, and acting outside the strictly defined boundaries of their functional areas. A participative decision-making environment is more conducive to entrepreneurship, observe Pearce and David (1983), Kuratko and Hodgetts (2007).

2.7.11 Entrepreneurial Orientation for Employees and Performance

There are mixed opinions on the relationship between entrepreneurial orientation and performance. Zahra et al (1999) suggested that there is substantial evidence for a link between EO and performance and those firms with EO achieve superior performance. In contrast a meta-analysis of 37 empirical studies in the view of Rauch et al (2004) shows EO to be only moderately linked to performance. Hart (1992) outlines that, there is a possible negative consequences of EO and hypothesises that entrepreneurial and intrapreneurial strategy-making modes are likely to lead to lower rather than higher performance. Wiklund (1999) maintains that, due to these divergent opinions; it may be worthwhile to understand the relationships between some of the factors that affect the EO-performance relationship.

The ability of an organisation to positively align itself with these three factors will determine the level of performance they will experience.
For example, if the employees of an organisation recognise and exploit many opportunities they have the potential to perform better. If this same firm resides in a dynamic environment where opportunities are abundant and they exploit them effectively, the firm will further enhance its potential for improved performance. The discussion presented upto this point explains the concept of Entrepreneurial Orientation for Employees (EOE) along with Entrepreneurial Orientation (EO) and relates some of the individual constructs of EO.

### 2.7.12 Employee Performance

Khawaja et al (2013) in their conceptual study paper established the need for employees’ training and development program and its benefits. They inspected the structure and elements of the employees’ training and development program, and later the study presented the positive outcomes for employees and organisations. Organisations find it difficult to stay competitive in the recent global economy. Hence, the importance of an employee development program is growing for organisations which shall pursue the gain of an advantage among competitors. Employees are an esteemed resource of the organisation, and the success or failure of the organisation depends on the performance of the employees. Therefore, organisations are financing large amount on employee training and development programs.

Training effects on the behavior of employees and their working skills resulted in enhanced employee performance and further constructive changes as prescribed by Satterfield and Hughes (2007) that serve as increased employee performance which was outlined by Kraiger (2002). Arthur et al (2003) developed an analysis of 1152 sample from 165 resources, and revealed that on comparing employees with the distinction between
employees with no-training or pre-training conditions; training had a commonly positive result on job-related performance. However, dissimilarities in the positions of effect sizes were not big, the efficiency of training vary regarding the training transfer technique and the skill being trained. Benefits of training program are also related to the technical skills of the employees. For instance, Davis and Yi (2004) conducted two research works with approximately 300 contributors with the help of behavior-model training and were capable of increasing computer skills significantly. Psychologically practicing tasks permitted trainees to grow learned knowledge, abilities and task. Training positively affects employees’ performance.

Barber (2004) during a qualitative study concerning mechanics in India stated that on-the-job training headed to superior novelty and implicit skills. Technical and professional skills are very important for the employees to perform a job in an effective way. Providing training opportunities to employees can enhance the performance of the employees. Reference to invention, training increased the educated mechanics to figure up two Jeep bodies using only a homemade hammer, chisel, and oxyacetylene welder. The result of an effective training that a mechanic had worthy emotion of how to hit the metal at the particular spot so that work must be performed in a systematic and proper way.

There are many methods available to gather the information of an employees’ performance in the appraisal process. This information must be used for organisational needs and communicated to employees so that it will result in a high level performance as expressed by Chris (1996), Thwala et al (2012), and Abdullah et al (2012). Performance management can focus on the performance of an organisation, a department, employee, or even the processes to build a product or service, as well as many other areas.
2.7.13 Organisational Performance

Schuler and MacMillan (1984) defines, training as the main contributing factor to organisational effectiveness. Further study of this topic recommends that investment in training and development program can be justified by the impact it creates to develop individual and organisational effectiveness, as outlined by Bartel (2000). Furthermore, Blundell et al (1999) maintains that the earlier researches have mentioned the causation between training and effectiveness of the organisation. Bartlett (2001) recommends that one of the glitches that is usually problematic to identify, is proposing an effective calculation of performance of the organisation.

Blundell et al (1999) supported this by describing that lack of suitable data and methodological difficulties prevents the adequate assessment of impact of the human capital appreciation and performance of the organisation. However, there is an increasing factor that Human resource management practices impacts on attitudes and work-related manners, in the view of Allen et al (2003). To evaluate the effectiveness of training and development program it is necessary to check directly the relationship of training and organisational commitment. Further, it has been revealed as certainly correlated to the efficiency of the organisation as outlined by Bartlett (2001).

Work-related performance and attitudes depend mainly on the perception of the employees that their organisations are taking care of them as advanced by Allen et al (2003). Employees respond with optimistic attitudinal and behavioral replies which are supportive of their organisation as opined by Settoon, Bennett and Liden (1996). However training can be used to produce the preferred results that may contain enhanced organisational commitment as stated by Bartlett (2001). Garrow (2004) was of the view that the facility of
training and development program is likely consent by employee that their organisations need to produces a durable psychological bond between employee and organisation.

2.8 RESEARCH GAP

The impact of EO on a firm’s performance is a widely studied topic within the field of entrepreneurial research, but the results vary from a strong positive relationship to no significant direct relationship between performance of a firm and EO as studied by Rauch, Wiklund, Lumpkin and Frese (2009). Covin and Slevin (1991), Hughes and Morgan (2007) outlined that, due to the lack of consistency in the outcome of the previous studies, and especially because adopting an EO requires resources, there is a need for more studies to determine in which context an EO may be beneficial. A review of literature revealed that (i) EO was researched on the firms, meaning “entrepreneurs” as the unit of analysis. (ii) Entrepreneurship and EO are different (iii) The research studies in the past have been undertaken only in the developed economies like the US, UK, Europe etc., and (iv) Past research does not include any orientation for employees entrepreneurially. Thus, for establishing the purpose of this research study, employees in organisation are considered as the unit of analysis.