

## CHAPTER 3

### LITERATURE REVIEW: BACKGROUND AND DEFINITIONS

#### 3.0 Overview of Chapter 3

The main purpose of this first part of literature review's chapter is to develop clear understanding of the variables under study by discussing their background and definitions. The first section outlines the background and definitions of entrepreneurship. The second section presents the background and definitions of corporate entrepreneurship followed by the corporate entrepreneurship dimensions. The dimensions of corporate entrepreneurship which include entrepreneurial orientation and corporate venturing are discussed in the third and fourth section. The fifth section discusses the organizational structure. The sixth section discusses dynamism and the hostile environment. The final part of this study discusses firm performance.

#### 3.1 Entrepreneurship's Background and Definition

The entrepreneurship in national level is considered as an important driver of economic growth, job creation, and innovation (OECD, 2008). However, there is minimal consensus on the definition of the term entrepreneurship even though it has been used for decades. There are at least seven perspectives on the nature of entrepreneurship including creation of wealth, creation of new venture or enterprise, creation of innovation, creation of change, creation of employment, creation of value, and creation of growth (Morris, 1998; Morris et al., 2008). Most of the researchers use the definition given by Stevenson and Jarrillo-Mossi (1986:10) that define

entrepreneurship as a process of creating value by bringing together a unique package of resources to exploit an opportunity. According to Morris et al. (2008), this definition is widely accepted as it captures all the core keywords of entrepreneurship literatures.

The entrepreneurship or entrepreneurial activities are not only essential in start-up firms but also within established firms regardless of their size and age (Kraus et al., 2011). The differences between entrepreneurship in start-ups and large and established firms (corporate entrepreneurship) are shown in Table 3-1. Among the differences are although both start-ups and established firms have similar risks in terms of financial, market, supplier, and others, the small firm's owners are responsible for the risks. Meanwhile, for large firms, the company assumes most of the risks. Entrepreneurship in small firms is more flexible especially in doing experiments of new products or services as compared to the large firms that are subjected to many rules, procedures, and bureaucracy. Despite the difficulty of being flexible, the large firms have more access to resources such as finance, R & D, facilities, an established customer base, good reputation and image and others. (Morris et al., 2008).

The terms used to describe the entrepreneurial activities inside existing and established firms include corporate entrepreneurship (Burgelman, 1983; Zahra, 1993), entrepreneurial orientation (Lumpkin & Dess, 1996; Wiklund, 1999), or intrapreneurship (Antoncic & Hisrich, 2001, 2004). Since this research is conducted among the large firms in Malaysia, the term corporate entrepreneurship will be used throughout the study. The primary aim of corporate entrepreneurship is to improve the firm's profitability and growth by creating competitive advantage (Zahra & Covin, 1995; Zahra & Garvis, 2000).

Table 3-1: Major Differences between Corporate and Start-Up Entrepreneurship

<b>Start-Up Entrepreneurship</b>	<b>Corporate Entrepreneurship</b>
Entrepreneur takes the risk.	Company assumes the risks, other than career-related risks.
Entrepreneur “owns” the concept and business.	Company owns the concept, and typically the intellectual rights surrounding the concept.
Entrepreneur owns all or much of the business.	Entrepreneur may have no equity in the company, or a very small percentage.
Potential rewards for the entrepreneur are theoretically unlimited.	Clear limits are placed on the rewards entrepreneurs can receive.
One Misstep can mean failure.	More room for errors, company can absorb failure.
Vulnerable to outside influence.	More insulated from outside influence.
Independence of the entrepreneur, although the successful entrepreneur is usually backed by a strong team.	Interdependence of champion with many others; may have to share credit with any number of people.
Flexibility in changing course, experimenting, or trying new directions.	Rules, procedures, and bureaucracy hinder the entrepreneur’s ability to maneuver.
High speed decision-making.	Longer approval cycles.
Little security.	Job security.
No safety net.	Dependable benefit package.
Few people to talk to	Extensive networks for bouncing around ideas.
Limited scale and scope initially.	Potential for sizeable scale and scope fairly quickly.
Severe resource limitations	Access to finances, R & D, production facilities for trial runs, an established sales force, an existing brand, existing distribution channels, existing databases, existing databases and market research resources, and an established customer base.

Source: Morris et al. (2008: 36)

### 3.2 The Background and Definition of Corporate Entrepreneurship

Entrepreneurial activities within an existing corporation, a firm-level phenomenon or corporate entrepreneurship have evolved over the last four decades in strategic management, innovation, and strategic change literature (Kuratko, 2010; Yang et al., 2007). The definition of corporate entrepreneurship has varied considerably over time, with scholars giving various definitions on the entrepreneurial activities within existing organizations based on their observations and opinions.

Additionally, different authors use different terms to describe entrepreneurial efforts inside existing firms while at the same time, the same term is used differently by different authors to describe the same phenomenon (Sharma & Chrisman, 1999).

Among the terms used to describe entrepreneurial behaviour at the firm level are:

1. intrapreneuring (Pinchot, 1985);
2. intra-corporate entrepreneurship (Cooper, 1981);
3. corporate entrepreneurship (Burgelman, 1983; Guth & Ginsberg, 1990; Hornsby et al., 1993; Stopford & Baden-Fuller, 1994; Covin & Miles, 1999; Sharma & Chrisman, 1999; Antoncic & Zorn, 2004; Morris et al., 2008);
4. internal corporate entrepreneurship (Jones & Butler, 1992);
5. corporate venturing (von Hippel, 1977; MacMillan, 1986; Vesper, 1990);
6. internal corporate entrepreneurship (Schollhammer, 1981; Schollhammer, 1982; Jones & Butler, 1992);
7. innovative (Miller & Friesen, 1983);
8. entrepreneurial strategy making (Dess et al., 1997);
9. firm-level entrepreneurial posture (Covin & Slevin, 1986; Covin, 1991; Kantur & Iseri-Say, 2013);
10. firm's entrepreneurial orientation (Lumpkin & Dess, 1996; Knight, 1997), and;
11. organizational entrepreneurship (Stevenson et al., 1985; Wood et al., 2000; Hjorth, 2005; Handfield et al., 2009).

However, the terms that are often used to describe entrepreneurship at the firm level, especially large firms, are corporate venturing, internal corporate entrepreneurship, corporate entrepreneurship, intrapreneurship and organizational entrepreneurship. The lists of definitions by prior researchers of these terms are

illustrated in Appendix B (Table B-1, Table B-2, Table B-3, and Table B-4). In this research, the term corporate entrepreneurship is used to describe the entrepreneurial activities of established firms.

Corporate entrepreneurship activities have been mentioned in the literature as early as in the 1970s. During this time the study focused on corporate venturing and how to develop entrepreneurship inside existing developed organizations (Hanan, 1976; Hill & Hlavacek, 1972; Peterson & Berger, 1972; von Hippel, 1977). von Hippel (1977) referred to corporate venturing as the organizations' activity to find new ventures internally or externally. Corporate venturing has been further defined by Biggadike (1979) as a means for firms to launch new businesses for the product or in service markets where they had not previously competed. In order to be diversified, the parent company must acquire new equipments, people or new knowledge.

Furthermore, in the 1980s, Scholhammer (1981) defined internal (or intra-corporate) entrepreneurship as all formalized entrepreneurial activities within existing business organizations. Formalized internal entrepreneurial activities are those which receive explicit organizational sanctions and resource commitments for the purpose of innovative corporate endeavours – new product developments, product improvements, new methods or procedures (Scholhammer, 1982: 211). Burgelman (1984) and Sathe (1989) defined corporate entrepreneurship as organizational entrepreneurship which is the willingness to strive for organizational renewal through the pursuit of new ventures and opportunities. Other researchers who used the term organizational entrepreneurship were Stevenson et al. (1985), Morris and Paul (1987), referred to it as the willingness to support creativity, flexibility, and calculate risk-taking. In other words, corporate entrepreneurship requires organizational sanctions and resource commitments to develop capabilities.

In the 1980s, an additional term, intrapreneurship, was used to describe the entrepreneurial efforts within existing organizations. The term was introduced by Pinchot III (1985) who argued that intrapreneurs are any of the “dreamers who do.” The intrapreneur is the person in an organization that initiates the innovation, which turns ideas into reality and thus transforms to profitable manners. Other than Pinchot, there were a few researchers who used the intrapreneurship term such as Carrier (1994, 1997) Antoncic and Hisrich (2000; 2001; 2003; 2007), Carland (2007), and Parker (2009). Antoncic and Hisrich (2001:497) defined intrapreneurship as entrepreneurship within an existing organization and refers to a process that goes on inside an existing firm, regardless of its size. This leads not only to new business ventures but also to other innovative activities and orientation such as development of new products, services, technologies, administrative techniques, strategies, and competitive posture.

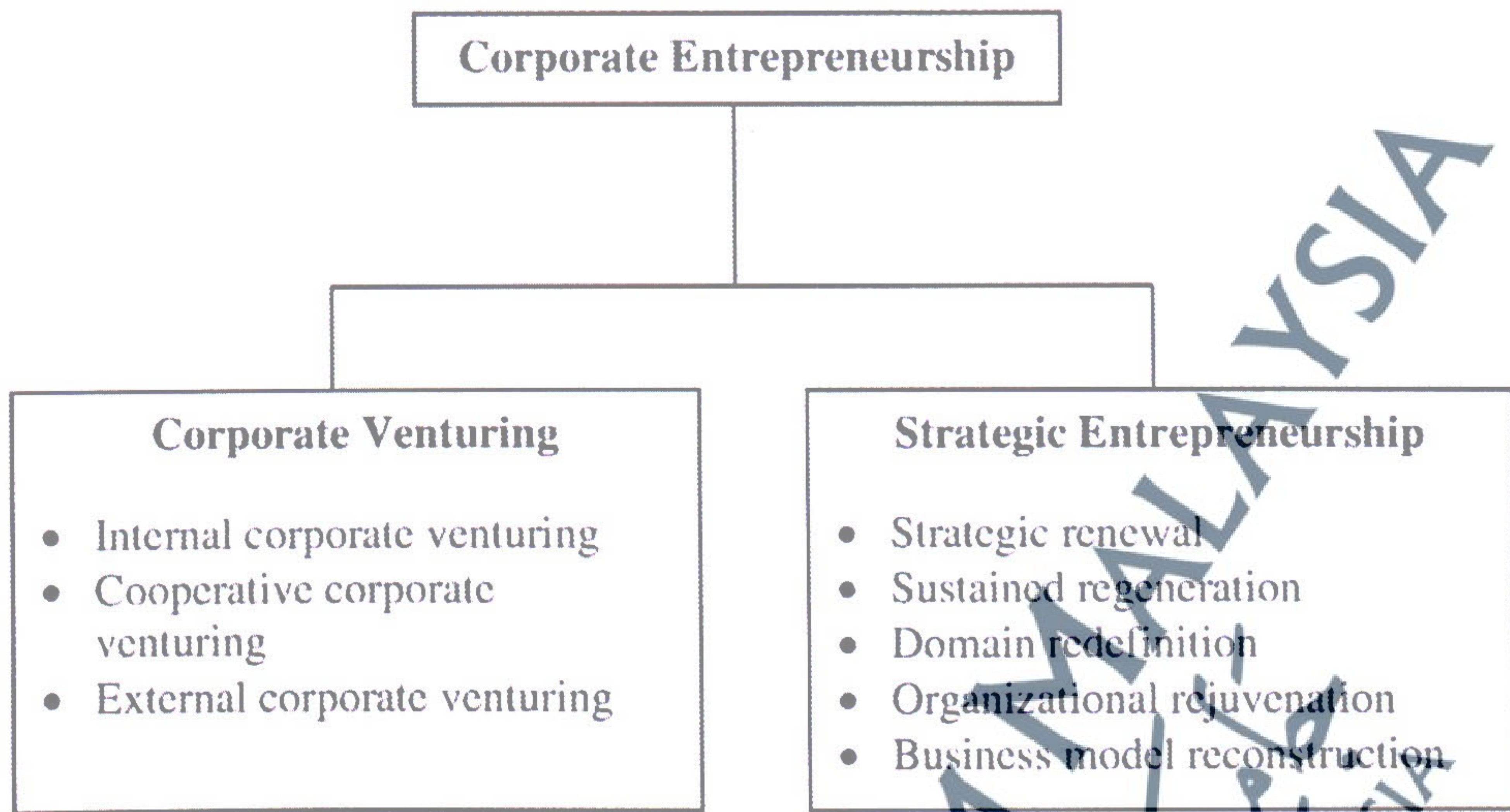
In the 1980's, scholars held the same opinion that the corporate entrepreneurship phenomenon involved the entrepreneurial behaviour inside existing large organizations such as new venture creations, new markets, new products or new services creation (Spann et al., 1988; Jennings & Lumpkin, 1989). Moreover, Vesper (1984) added that corporate entrepreneurship behaviour was the employees' initiative from the lower level to do innovation by producing something different without instruction or permission from the higher level manager. If the organization is able to produce higher than the average number of new products and markets, the organization is considered entrepreneurial (Jennings & Lumpkin, 1989).

In the 1990s, the definitions and concepts of corporate entrepreneurship became more comprehensive and began to take shape (Kuratko, 2010). The well-known literature on corporate entrepreneurship defined corporate entrepreneurship as

formal or informal activities to create new businesses in established companies through product and process innovations and market developments. These activities may take place at the corporate, division (business), functional, or project levels, with the unifying objective of improving a company's competitive position and financial performance (Zahra, 1991). Sharma and Chrisman (1999:18) suggested that corporate entrepreneurship is the process whereby an individual or a group of individuals, in association with an existing organization, create a new organization or instigate renewal or innovation within that organization. These researches on corporate entrepreneurship illustrate that such initiatives re-energizes and enhances the firm's ability to innovate (Kuratko, 2010).

In this 21<sup>st</sup> century, there is a widening of the definitions of corporate entrepreneurship, with references made not only to the creation of new business ventures but also to other innovative activities and orientations such as development of new products, services, technologies, administrative techniques, strategies and competitive postures. The three most pronounced elements of organizational entrepreneurial activities are: new venture formation, product/service innovation and process innovation (Antoncic & Zorn, 2004:6). Sathe (2003) defined corporate entrepreneurship as a new business creation within the existing business that requires top management support. According to him, in order to survive, firms must create new businesses which constitute the most important task for senior executives in established firms. He added that the creation of a new business is crucial for the nation's economic and social stability particularly in its attempts to compete with other countries (Sathe, 2003). With all these definitions, Morris et al. (2008) described corporate entrepreneurship as being manifested in companies either through corporate venturing or strategic entrepreneurship as shown in Figure 3-1.

Figure 3-1: Defining Corporate Entrepreneurship



Source : Morris et al. (2008:81)

Corporate entrepreneurship activities, which include corporate venturing, innovativeness, proactiveness, risk taking, and strategic renewal all aim for higher firm growth and profitability. Most researchers observed that corporate entrepreneurship constitutes the entrepreneurial efforts of the large firm rather than the smaller one. This is because large organizations have the sufficient resources to be more innovative, invest in high-risk projects, acquire potential ventures, and other entrepreneurship activities. However, entrepreneurial efforts occur in large and small organizations because it is beneficial for revitalization and performance of the organizations regardless of its size (Carrier, 1994; 1997).

### 3.3 The Dimensions of Corporate Entrepreneurship

The literature on corporate entrepreneurship has no standardized framework that conceptualizes and operationalizes the multidimensional constructs of corporate entrepreneurship (Wong & Zhang, 2009; Zahra et al., 1999). Besides, the relationship between corporate entrepreneurship and other organizational variables are immature and underdeveloped (Zahra et al., 1999). Prior researchers have been using different

dimensions of corporate entrepreneurship. The most popular dimension used to describe the firm-level entrepreneurship was entrepreneurial orientation (Lumpkin & Dess, 1996). Zahra (1996) stated that the entrepreneurial orientation dimensions, which include the firm's innovativeness, propensity to take risk, and proactiveness, are the essence of corporate entrepreneurship. These characteristics form the necessary ingredients for the firm to be entrepreneurial and were used as foundations for prior researches on entrepreneurial organizations (Karacaoglu et al. 2013).

Apart from the entrepreneurial orientation dimensions, previous researches used the corporate entrepreneurship activities such as corporate venturing, innovation and self-renewal (Antoncic & Hisrich, 2001; Zahra, 1993; 1995) as proxy for corporate entrepreneurship as shown in Table 3-2. Corporate venturing refers to the acts of pursuing and entering new businesses that involve current products or markets. A new business creation is the most salient characteristic of corporate entrepreneurship as it creates new businesses within existing organizations (Stopford & Baden-Fuller, 1994). Innovation refers to new products, services and technologies. The self-renewal emphasizes the strategy formulation, reorganization, and organizational change (Antoncic & Hisrich, 2001).

It can be seen from Table 3-2 that the corporate venturing and entrepreneurial orientation dimensions were consistently used by previous researchers, thus influencing the use of the entrepreneurial orientation and corporate venturing dimensions to measure corporate entrepreneurship in this study. These two dimensions will be discussed in the next subsections.

Table 3-2: The Dimensions of Corporate Entrepreneurship Used in Literatures

No.	Author, Year	Dimension
1.	Antoncic & Hisrich, (2001) Yonggui et al.(2009) Zehir & Eren (2007)	a. Corporate venturing b. Innovativeness c. Self-renewal d. Proactiveness
2.	Lumpkin & Dess (1996)	a. Innovativeness b. Proactiveness c. Risk taking d. Autonomy e. Competitive aggressiveness
3.	Kantur & Iseri-Say (2013) Miller (1983) Luo et al. (2005) Kemelgor (2002) Zahra (1996) Zehir et al. (2012)	a. Proactiveness b. Risk taking c. Innovativeness
4.	Romero-Martinanez et al. (2010)	a. Product innovation b. Process innovation c. Organizational innovation d. National venturing e.. International venturing f. Strategic renewal
5.	Sally (2001)	a. Innovativeness b. Proactiveness c. Risk taking d. Corporate venturing e. Self-renewal
6.	Thornberry (2002)	a. Corporate venturing b. Intrapreneuring c. Organizational transformation d. Industry rule-breaking
7.	Zahra & Garvis (2000)	a. Proactiveness b. Risk taking c. Innovativeness d. Corporate venturing
8.	Zahra (1993, 1995)	a. Venturing b. Innovation c. Self-renewal
9.	Zhang (2008)	a. Corporate venturing b. Innovativeness c. Strategic renewal

### 3.4 Entrepreneurial Orientation Background and Definition

Entrepreneurial orientation research has existed for decades, with the entrepreneurial orientation concept having its roots in the work of Mintzberg (1973).

He features the joint factors of pro-activity and risk-taking with entrepreneurship. Afterwards, Khandwala (1977) defined entrepreneurship at firm level as a strategic choice and developed an instrumentation to capture the relevant characteristics. Subsequently, by using Khandwala's (1977) scale in the instrumentation, Miller and Friesen (1982) further refined entrepreneurial orientation dimensions to measure relative degrees of entrepreneurship in firms. In addition, Miller and Friesen (1983) stated that entrepreneurial firms have higher propensity towards product marketing innovation, risky ventures and proactive innovations. Most researchers credited Miller (1983) for his contribution in initiating entrepreneurial orientation activities though he did not use the term entrepreneurial orientation in his initial writings on the topic. According to him, an entrepreneurial firm has three characteristics, namely; innovative, proactive and able to take risks. He distinguishes the entrepreneurial firm and conservative firm by describing that 'the entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with "proactive" innovations, beating competitors to the punch. A non-entrepreneurial firm is one that innovates very little, is highly risk averse, and imitates the moves of competitors instead of leading the way' (Miller, 1983: 771). These three dimensions of entrepreneurial orientation have been widely used in various fields such as entrepreneurship, strategic management, organizational behaviour, marketing, and operations (Dess et al., 2011).

The introduction of the conceptual foundations by Miller (1983) and Khandwala (1977) contributed significantly towards the building of entrepreneurial orientation as a construct. In the following years, Covin and Slevin (1986, 1989, 1990) characterized entrepreneurial firms with high levels of innovativeness, risk-taking, and proactiveness based on the platform of earlier research. Covin and Slevin (1989, 1990)

labeled these characteristics as the firm's strategic posture which is utilized as the firm's general competitive orientation. Before the term entrepreneurial orientation was introduced, over the years, previous research used different labels for the entrepreneurial orientation phenomenon, for example, entrepreneurial mode (Mintzberg, 1973), entrepreneurial style (Khandwalla, 1976, 1977), strategic posture (Covin & Slevin, 1989) and entrepreneurial strategy making (Li et al., 2005). Lumpkin and Dess (1996) later introduced the concept of entrepreneurial orientation which refers to the processes, practices, decision making styles and operating management philosophy related to the strategy of the entrepreneurial firm (Lumpkin & Dess, 1996; Dess & Lumpkin, 2005). Entrepreneurial orientation can also be defined as the firm's overall competitive orientation that can be used as the firm's strategy to compete in their industry (Jogarathnam & Tse, 2006). Various definitions of entrepreneurial orientation are presented in Table 3-3.

The unidimensional versus multidimensional construct of entrepreneurial orientation has also been subject to debate. In early research on entrepreneurial orientation, Miller (1983) and Covin and Slevin (1989) conceptualized entrepreneurial orientation as either a unidimensional or composite construct. They argued that each of the dimensions are highly correlated (Rauch et al., 2009), meaning that innovativeness, proactiveness and risk taking are manifested by the firm simultaneously. The weakness of this unidimensional construct is that it neglects the individual influences by each dimension and assumes that all dimensions have similar effects on firm performance (Hughes & Morgan, 2007; Lumpkin & Dess, 2001; Wang & Yen, 2012). Whether the unidimensional or multidimensional construct was employed does not pose a problem or point of disagreement as one is not necessarily superior to one another. The choice is highly dependent on the objective of the study.

However, for the firm to be highly entrepreneurial, they should score on all three dimensions (Covin et al., 2006).

In contrast, according to Lumpkin and Dess (1996), not all of the dimensions of entrepreneurial orientation would have direct or positive effects on firm performance under different circumstances. It is believed that firms can vary in degree of innovativeness, proactiveness, and risk taking as they may not be equally entrepreneurial across all the three dimensions. However, it is recommended that all dimensions should be positively correlated (Lumpkin & Dess, 2001). The meta-analysis by Rauch et al. (2004) supported the suggestion by Lumpkin and Dess that the sub-dimensions of entrepreneurial orientation vary independently with performance. Therefore, it is necessary to assess the relative impact of each dimension of entrepreneurial orientation (Kraus et al., 2012; Monsen & Boss, 2009). In order to enhance a firm's performance, these dimensions often work together (Dess & Lumpkin, 2005). However, even if only some dimensions of entrepreneurial orientation exist within a firm, the organization can still be very successful (Lumpkin & Dess, 2001). Despite the caution advocated by Lumpkin and Dess (1996), a majority of prior literature have utilized combined dimensions of entrepreneurial orientation. For instance, in the meta-analysis conducted by Rauch, et al. (2009), only 25% (13 out of 51) of the articles included in the analysis used multidimensional entrepreneurial orientation dimensions, whereby, each of the entrepreneurial orientation dimensions measured separately. Other studies supporting Lumpkin and Dess (1996) reported that entrepreneurial orientation is a multidimensional construct and affect a firm's performance differently. For instance, Swierczek and Ha (2003) found that proactiveness and innovativeness were positively related to firm performance in Vietnam and Thailand, while risk taking was not. Another study in the

UK found that both innovativeness and risk taking are not significantly related to customer performance (Hughes & Morgan, 2007). However, the most important concern is that entrepreneurial orientation should bring about improvements in firm performance in general (Kraus et al., 2012). Given these arguments, this research examines the entrepreneurial orientation as the multi dimensional constructs that adds to the theoretical and practical understanding.

Research on entrepreneurial orientation has increased rapidly in many fields, reflecting attempts to fill the gap in the literature in context of firm level entrepreneurship. Consequently, the overwhelming researches on the entrepreneurial orientation has led to the recognition of entrepreneurial orientation as a major construct in the field of strategic management and entrepreneurship literature (Morris & Kuratko, 2002). There are at least three reasons stated by Covin and Lumpkin (2011) why entrepreneurial orientation is given much attention by researchers. First, entrepreneurial orientation is most appropriate in explaining the characteristics of an entrepreneurial firm at the most fundamental level (Covin & Lumpkin, 2011) with researchers agreeing that the construct theoretically captures the relevant (Miller, 1983), requisite (Lumpkin & Dess, 1996) characteristics of entrepreneurial firms. Notably, evolutionary theorists and strategic management scholars recognize the importance of entrepreneurial orientation as the overall strategic posture that is essential to sustain the firm's viability. In an era where product life cycles are ever decreasing, industry boundaries are continuously morphing and competitive advantages are characteristically unsustainable, entrepreneurial orientation has proven to be a useful construct for the purposes of understanding why and how some firms are able to regularly renew themselves via new growth trajectories while others are not (Covin & Lumpkin, 2011: 862). The second reason why entrepreneurial

orientation fills the gap in the literature on firm level entrepreneurship is because it is a continuous variable or set of variables that is represented by a multidimensional construct that can be plotted by all firms. These dimensions are common and have universal characteristics that can be possessed by other firms. Thirdly, since entrepreneurial orientation is the practice of entrepreneurial firms, it makes it easier to assess the level of the entrepreneurship in the firm. The next sections are discussed on the entrepreneurial orientation dimensions.

Table 3-3: Selected Past Definitions of Entrepreneurial Orientation

<b>Authors</b>	<b>Definition of entrepreneurial orientation</b>
Mintzberg (1973:45)	In the entrepreneurial mode, strategy-making is dominated by the active search for new opportunities" as well as "dramatic leaps forward in the face of uncertainty.
Khandwalla (1976/1977:25)	The entrepreneurial [management] style is characterized by bold, risky, aggressive decision-making. ([ ] added).
Miller & Friesen (1982:5)	The entrepreneurial model applies to firms that innovate boldly and regularly while taking considerable risks in their product-market strategies.
Miller (1983:771)	An entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch.
Morris & Paul (1987:249)	An entrepreneurial firm is one with decision-making norms that emphasize proactive, innovative strategies that contain an element of risk.
Covin & Slevin (1998:218)	Entrepreneurial firms are those in which the top managers have entrepreneurial management styles, as evidenced by the firms' strategic decisions and operating management philosophies. Non-entrepreneurial or conservative firms are those in which the top management style is decidedly risk-averse, non-innovative, and passive or reactive.
Merz & Sauber (1995:554)	Entrepreneurial orientation is defined as the firm's degree of proactiveness (aggressiveness) in its chosen product-market unit (PMU) and its willingness to innovate and create new offerings.
Lumpkin & Dess (1996:136-137)	Entrepreneurial orientation refers to the processes, practices, and decision-making activities that lead to new entry" as characterized by one, or more of the following dimensions: "a propensity to act autonomously, a willingness to innovate and take-risks, and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities.

Zahra & Neubaum (1998:124)	Entrepreneurial orientation is “the sum total of a firm’s radical innovation, proactive strategic action, and risk taking activities that are manifested in support of projects with uncertain outcomes.
Voss et al. (2005:1134)	We define entrepreneurial orientation as a firm-level disposition to engage in behaviors [reflecting risk-taking, innovativeness, proactiveness, autonomy, and competitive aggressiveness] that lead to change in the organization or marketplace. [ ] added).
Avlonitis & Salavou (2007:567)	Entrepreneurial orientation constitutes an organizational phenomenon that reflects a managerial capability by which firms embark on proactive and aggressive initiatives to alter the competitive scene to their advantage.
Cools & Van den Broeck (2007/2008:27)	Entrepreneurial orientation (EO) refers to the top management’s strategy in relation to innovativeness, proactiveness, and risk taking.

Source : Covin and Wales (2011)

### 3.5 The Dimension of Entrepreneurial Orientation

The dimensions of entrepreneurial orientation have been derived from both the strategy-making process and entrepreneurship literatures (Dess & Lumpkin, 2005). Lumpkin and Dess (2001: 431) defined the individual dimensions of entrepreneurial orientation as, first, innovativeness, referring to a willingness to support creativity and experimentation in introducing new products/services besides novelty, technological leadership, and R&D in developing new processes. Second, risk taking means a tendency to take bold actions such as venturing into unknown new markets, committing a large portion of resources to ventures with uncertain outcomes, and/or borrowing heavily. Lastly, proactiveness is an opportunity-seeking, forward-looking perspective involving introducing new products or services ahead of the competition and acting in anticipation of future demand to create change and shape the environment.

Later, Chen and Hambrick (1995) pointed that entrepreneurial firms should have the characteristics of competitive aggressiveness. This is agreed by Lumpkin and Dess (1996), who formally added two additional dimensions; autonomy and

competitive aggressiveness. Competitive aggressiveness reflects the firm's efforts to outperform industry rivals through combative posture or aggressive and forceful response in order to improve the firm's position or conquering rivals threat in a competitive marketplace. On the other hand, autonomy refers to the entrepreneurial efforts of an individual or a team to bring forth a business concept or vision and carrying it through completion. The literature shows that these dimensions permeate the decision making styles and practices of a firm's members. However, the majority of the entrepreneurial orientation studies focused on the three dimensions (George & Marino, 2011; Morris & Sexton, 1996; Soininen et al., 2011; Zahra, 1993a). Thus, this study also employed the three dimensions of entrepreneurial orientation.

Table 3-4 illustrates examples of previous dimensions used in the literature. The most popular dimensions of entrepreneurial orientation are innovativeness, proactiveness, and risk taking. Another two dimensions of entrepreneurial orientation which are autonomy and competitive aggressiveness are also used in prior research. Other researchers (Venkatraman, 1989a; Tan and Tan, 2005; Smart & Conant, 1994) developed their own instrumentation and its dimensions to measure the level of entrepreneurial in a firm. They added other variables such as analysis, defensiveness, strategic planning activities, customer needs and want identification, vision to reality, and identifying opportunities.

This study employed three dimensions of entrepreneurial orientation which were originally introduced by Miller (1983) and agreed upon by most of the researchers. These dimensions of entrepreneurial orientation which are innovativeness, proactiveness, and risk taking will be explained in the next subsection.

Table 3-4: Examples of Entrepreneurial Orientation Dimensions Used by Previous Researchers

Item	Author, Year	Dimensions of Entrepreneurial Orientation	Unidimensional or Multidimensional
1.	Kraus et al. (2012), Gibb & Haar (2010)	Innovativeness, proactiveness, and risk taking.	Multidimensional
2.	Lumpkin & Dess (1996), Lee & Peterson (2000)	Innovation, proactiveness, and risk taking autonomy, and competitive aggressiveness.	Multidimensional
3.	Miller (1983), Covin & Slevin (1989)	Innovation, proactiveness, and risk taking.	Unidimensional
4.	Smart & Conant (1994), Churchill & Peter (1984)	Risk taking, strategic planning activities, customer needs and wants identification, innovation, vision to reality, and identify opportunities.	Unidimensional
5.	Tan & Tan (2005)	Futurity, proactiveness, risk affinity, analysis, and defensiveness.	Multidimensional
6.	Venkatraman (1989a), Morgan & Strong (2003)	Aggressiveness, analysis, defensiveness, proactiveness, futurity, and risk taking.	Multidimensional

### 3.5.1 Innovativeness

It is widely agreed that innovativeness is a key component of entrepreneurial orientation constructs (Lumpkin & Dess, 1996). However there is no consensus among researchers on the terms, innovation and innovativeness, (Garcia & Calantone, 2002) especially in entrepreneurial orientation constructs. Some studies called it innovation and some regarded it as innovativeness. It can be seen in Tables 3-5 and 3-6 that the researchers used the terms innovation and innovativeness to represent the components of entrepreneurial orientation. Although the terms are different, they have similar meanings, and thus the previous researchers used similar instrumentations to

measure innovation or innovativeness in entrepreneurial orientation as seen in Tables 3-5 and 3-6.

The inconsistent usage of the terms in the literature sometimes caused confusion and emphasizes the need for the researchers, policymakers and managers of large and small firms to understand the relationship and difference between the terms innovation and innovativeness (Kamaruddin et al., 2010). Therefore in this study, the term innovativeness is used to refer to one of the dimensions under the entrepreneurial orientation construct. In order to enhance understanding, innovation will be first defined as the term innovativeness is its derivative. Innovation is the creation of new products, services, processes, technologies, structure or administrative systems and other newness (Hult et al., 1998). Thus, innovativeness or innovative behavior is the propensity to support the innovation (Moreno & Casillas, 2011) or defined as the capacity to introduce a new process, product, or an idea in the organization (Damanpour, 1991; Hurley & Hult, 1998).

The origin of the word innovation can be traced back to the 1540s. It is derived from the Latin word *innovationem* which is the noun form of the verb 'innovare'. Innovare is defined as 'to renew or change into new (in-novare)'. In other words, it refers to the process of innovating which is to produce a new idea, product, method and others (Gudem & Welo, 2010). Thus, to innovate means to make changes to something that has already been established, especially by introducing new methods, ideas, or products (Oxford University Press).

Generally, innovations are a major driving force for economic growth and wealth creation. Innovation at firm level aims for the survival of the firm and to adapt with the rapid change of product life cycle, technologies, competitors, customer preferences and laws (Kamaruddin et al., 2010). Schumpeter (1934:66), the first to

introduce innovation in an entrepreneurial process (Lumpkin & Dess, 1996), defined innovation as ‘the setting up of a new production function and as an entrepreneurship tool which includes five specific attributes; (1) the introduction of a new good, (2) the introduction of a new method of production, (3) the opening of a new market, (4) the conquest of a new source of supply of new materials, and (5) the carrying out of a new organization of any industry (creating a monopoly position or the breaking up of a monopoly)’.

Most of the literature on innovation is based on the works of Schumpeter. For example, Damanpour and Gopalakrishnan (1998:3) defined innovation as the adoption of an idea or behaviour new to the organization and can be a product or service, an organizational process or an administrative program, a technology, or a policy or a system related to organizational members. Innovation can also be defined as the introduction of new products, processes or business systems (Knowles et al., 2008: 24). Firm level innovation also refers to the application of new ideas to the firm which are transformed into new products, processes, services, or work organizations and management or marketing systems (Gibbons et al., 1994).

The process of generating innovation in an organization requires a few stages; idea generation, project definition, design and development of the product or services and marketing and commercialization (Baker & McTavish, 1976; Copper & Kleinchmidt, 1990; Damanpour & Gopalakrishnan, 1998; Rothwell & Robertson, 1973). This innovation process was explained by Carlson and Wilmot (2006) as in Figure 3-2 which illustrates the lifecycle of a product or service in the form of an S-curve. ‘A’ indicates the inception of a new idea or concept, which through development becomes a new product or service, working its way up the customer and company value axis. ‘B’ marks the point of market introduction. The product or

process is offered to customers until it reaches maturity, point 'C', where it is either commoditized or obsolete. Ensuring continued profits beyond this point calls for development of new products or services that offer greater value to customers (Gudem & Welo, 2010: 314). Thus, innovation can be defined as the process of creating and bringing new customer value in the market or to transform an idea into commercial value (Carlson & Wilmot, 2006). This definition is described in Figure 3-2 as the process of getting from point 'A' to 'B'. Innovation is thus, more than idea generation but rather, is an activity that requires a process such as inventions, product and process development until the product is available in the marketplace (Gudem & Welo, 2010).

Based on the definition of innovation, it can be concluded that it is the process from idea generation to production of the new invention until it is brought to the marketplace. The new invention could be products, services, processes, new business system, new market, new method, new technology, and others. In order to ensure these new creations are successful, the firm must commercialize it by bringing it to the customer or market. The Doblin Group (Innovation Consultant) identified ten types of innovation which is depicted in Table 3-7. These ten types of innovation developed in 1998 were revised and rapidly became a key tool for firm innovation by entrepreneurs at start-ups and by industry leaders across the globe (<http://www.doblin.com/thinking/>). According to an international innovation consultancy firm, there are three major categories of innovation, namely; configuration, offering and experience. The ten sub-dimensions are profit model, network, structure, process, product performance, product system, service, channel, brand, and customer engagement. These are the ten areas that the firm can do innovation in, to achieve superior firm performance.

Subsequently, some researchers have classified innovation into four forms; technical innovation (e.g. new production methods), nontechnical aspects of innovation (e.g. new markets, new forms of organization), product innovations (e.g. new products or services) and process innovations (e.g. new production methods) (Anderson & King, 1993; Totterdell et al., 2002).

Innovation comes to an organization in two ways, whether it is generated or adopted by the firm. The firm can generate innovation through the development of new products, services, programs, or technology but it can also be adopted by buying it from another firm (Damanpour & Gopalakrishnan, 1998). Usually the process of buying this innovation is called corporate venturing which acquires highly innovative small ventures. However, innovation in the entrepreneurial orientation dimensions refers to the innovation that is generated within the firm.

Next, the definition for innovativeness will be explained. Previous researchers largely adopted the definition of innovativeness given by Lumpkin and Dess (1996:142). They defined innovativeness as a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes. This definition is widely used by other researchers such as Chen, Certo, Moss, and Short (2009), Javalgi and Todd (2011), Kraus et al.(2012), Kollmann and Stockmann (2012), Kreiser (2010), Kropp et al, (2008), Li and Evans (2012), Li et al. (2009), Moreno and Casillas (2008), Schiavone (2007), Wang (2008), Wiklund and Sheperd (2005), Wiklund and Shepherd (2003), and Wiklund and Shepherd (2003) as shown in Table 3-8.

Another definition of innovativeness used in the literature on entrepreneurial orientation is illustrated in Table 3-8. For example, innovativeness can also be defined as the willingness of the firm to depart from existing or familiar capabilities or

practices and venture beyond to seek creative solutions to problems and needs (Lofsten & Lindelof, 2005; Short et al., 2009; Soininen et al., 2011). Zahra (1993) and Kreiser (2011) defined innovativeness as the firm's strong commitment to develop new products and placing it in the marketplace. Innovativeness can also be both the efforts of the firm to discover new products and/or service opportunities, or/and make improvements to existing processes, products, and systems (Hage, 1980). In short, innovativeness is the willingness of the firm to embark on innovation, experimentation, technological leadership, and research and development (R & D) to generate new products, services, and processes (Miller & Friesen, 1984).

Yet some other researchers combined the definition of innovativeness from other researchers. For example; Morris et al. (2011: 949) defined innovativeness as an organizational characteristic reflected in a tendency to experiment, generate novel ideas, and participate in activities to create new products, processes, and services, as well as the openness of an organization's culture to new ideas and combinations (Hurley & Hult, 1998; Lumpkin & Dess, 1996). However, this current study employs the definition by Lumpkin and Dess (1996) that is widely used in the study on entrepreneurial orientation-performance relationship.

The dimensions of innovative behaviour at the organizational level can be manifested in a product/process, behaviour, method, idea, novelty, strategic or/and business system. These dimensions, presented in the Table 3-9, are extracted from past literature. In addition, Morris, Kuratko and Covin (2008), developed a range or continuum of innovativeness and categorised innovativeness in terms of product/services and processes as presented in Figure 3-3 and Table 3-10. According to them, in terms of product/services, there are at least eight areas in which innovativeness can take place, ranging from minor to major innovation; first, the cost

of production can be reduced for an existing product or services. Second, repositioning of existing products or services through entrance into new markets or expanding the market. Third, firms can introduce new applications for existing products or services and fourthly, introduce product improvements and revisions. The firm can also introduce additions to existing product/service lines or create new products or service lines. Introductions of new products/services to the marketplace also account for innovativeness besides the commercialization of novel product/services worldwide. Simply put, the innovation in a product can take the form of new or improved services (Morris et al., 2009). The only difference is whether the innovation is minor or major.

Other than products and services, innovativeness also takes place in business processes as shown in Table 3-10. The newness in the process can be major (e.g. administrative and service delivery system), minor (e.g. production and financing methods, significant revision of existing process (e.g. marketing or sales approach) and lastly, modest improvement to existing process (e.g. compensation methods, distribution methods, pricing, etc). The innovativeness in products and processes aims to capture the customers' demands and to create a new market segment. This will eventually increase the profitability and growth of the firm. On the other hand, innovativeness in processes concerns simplifying the firm's business system to enhance effectiveness in daily operations. This will facilitate the stakeholders in dealing with the firm besides assisting the firm to reduce costs with the introduction of up to date technology.

It can be concluded that innovativeness is essential for every firm in order to survive and remain competitive. The previous literature on the effect of innovativeness on firm performance will be discussed in the next chapter.

Table 3-5: List of Researchers that Use the Term Innovativeness in Entrepreneurial Orientation Research

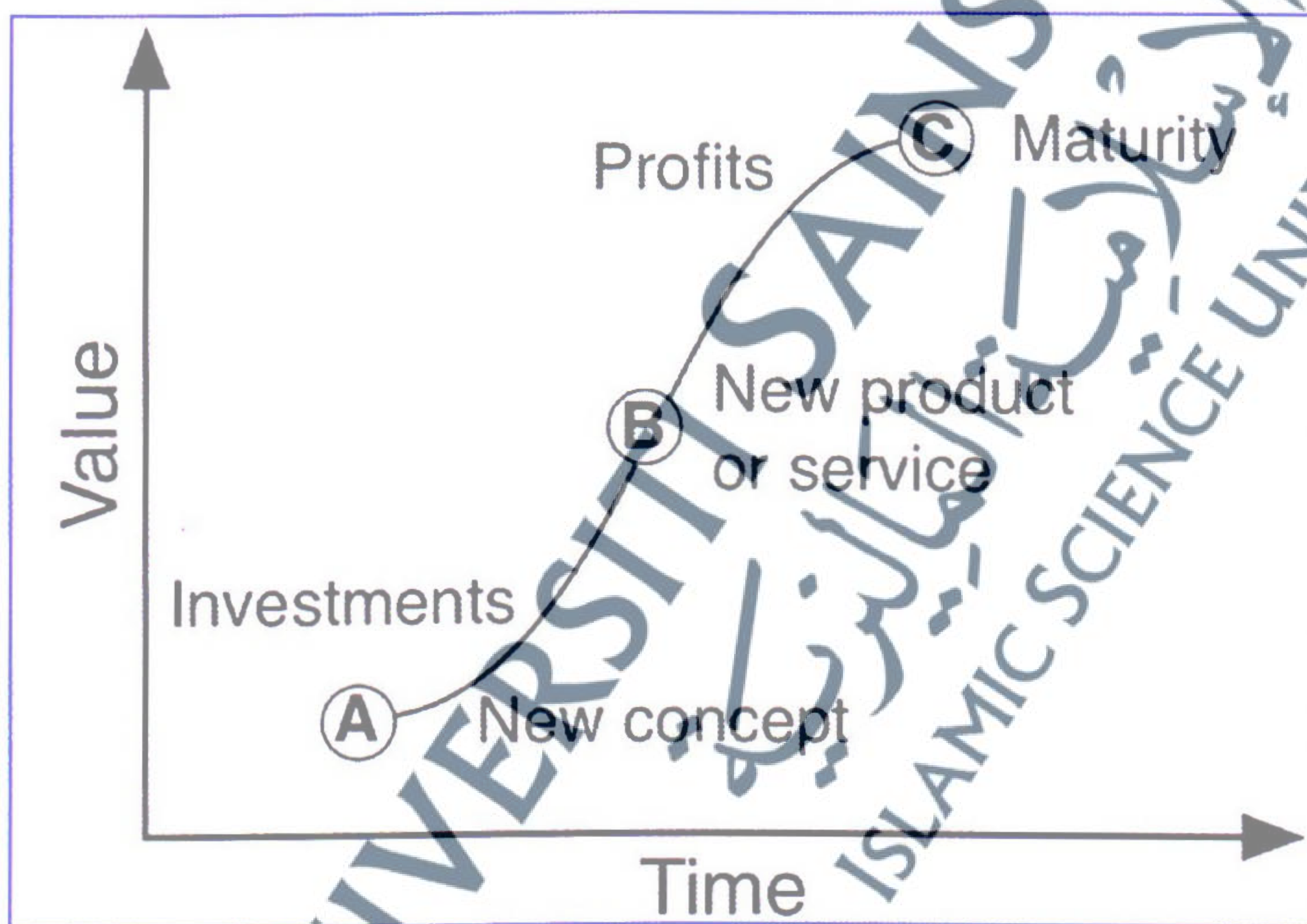
Researcher(s)	Instrumentations used in Research
Avlonitis & Salavou (2007)	Covin & Slevin (1986, 1988)
Barrett & Weinstein (1998)	Covin & Slevin (1989)
Bhuan et al.(2005)	Miller & Friesen (1982)
Dimitratos et al.(2004)	Miller & Friesen (1982)
George et al.(2001)	Lumpkin & Dess (1996)
Hult et al. (2003)	Hurley & Hult (1998)
Jambulingam et al. (2005)	Own
Jantunen et al. (2005)	Naman & Slevin (1993) and Wiklund (1998)
Javalgi & Todd (2011)	Covin & Slevin (1989)
Kemelgor (2002)	Covin & Slevin (1986)
Lee et al. (2001)	Lumpkin & Dess (1996)
Lumpkin & Dess (2001)	Khandwalla (1977), Miller (1983), Covin & Slevin (1986) and Covin & Covin (1990)
Monsen (2005)	Covin and Slevin (1989)
Moreno & Casillas (2011)	Covin & Slevin (1989)
Moreno & Casillas (2008)	Lumpkin (1998)
Naman & Slevin (1993)	Covin & Slevin (1986, 1989)
Poon et al. (2006)	Covin and Slevin (1989)
Rauch et al. (2009)	Not applicable
Slater & Narver (2000)	Naman & Slevin (1993)
Soininen et al. (2011)	Covin & Slevin (1990)
Stam & Elfring (2006)	Covin & Slevin (1989)
Stam & Elfring (2006)	Covin & Slevin (1989)
Wiklund & Sheperd (2005)	Miller (1983) 8 items

Table 3-6: List of Researchers that Use the Term Innovation Terminology in Entrepreneurial Orientation Research

Author(s)	Instrumentation
Atuahene-Gima (2001)	Covin & Slevin (1989)
Caruana et al. (2002)	Miller & Friesen (1982)
Chadwick et al. (1999)	Khandwalla (1977)
Covin & Slevin (1986)	Miller & Friesen (1982)

Author(s)	Instrumentation
Covin et al. (2006) Covin et al. (1994) Covin et al. (1990) Green et al. (2008) Jogarathnam & Tse (2006) Kreiser et al. (2002b) Richter (1999) Wiklund & Shepherd (2003)	Covin & Slevin (1989)
Li et al. (2000)	Miller (1987) and Zahra (1993)
Harms & Thomas (2003)	Covin & Slevin (1986)
Miller & Toulouse (1986)	Miller (1983)
Miller & Breton-Miller (2011)	Own
Rauch et al. (2006)	Covin & Slevin (1986)
Smart & Conant (1994)	Churchill & Peter (1984)
Zahra (1991;1993) Zahra & Neubaum (1998) Zahra & Garvis (2000)	Miller (1983)

Figure 3-2: The Product or Service Life-Cycle, as Reproduced



Source: Carlson and Wilmot (2006:38)

Table 3-7: The Ten Types of Innovation, as Presented by Doblin Group

Innovation category	Innovation type
Configuration	1. Profit Model
	2. Networks
	3. Structure
	4. Process
Offering	5. Product performance

	6. Product system
Experience	7. Service
	8. Channel
	9. Brand
	10. Customer experience

Source : Doblin Group - Innovation Consultant (2013)

Table 3-8: Definitions of Innovativeness by Previous Researchers

Author(s)	Definition
Covin & Wales (2011:694)	Innovativeness refers to a the exhibition of experimentation, exploration, and creative acts as reflected in, for example, new products/services, new process technologies, new methods of operation, and new business strategies.
Dess & Lumpkin (2005:148)	Innovativeness - A willingness to introduce newness and novelty through experimentation and creative processes aimed at developing new products and services, as well as new processes.
Ferreira & Azevedo (2010:82).	<i>Innovativeness</i> – is concerned with supporting and encouraging new ideas, experimentation and creativity likely to result in new products, services or processes
Huang & Wang (2011:564)	Innovativeness means an organization is willing to pursue new ideas and concept in process, products, or services development.
Hult et al. (2004:430)	Innovativeness relates to the firm's capacity to engage in innovation; that is, the introduction of new processes, products, or ideas in the organization.
Keh et al. (2007:596).	Innovativeness refers to a firm's tendency to engage in creative processes, experimentation of new ideas, which may result (p.595) in the institution of new methods of production and/or bringing new products or services to current or new markets (p.596).
Kim (2010)	This study defines innovativeness as the willingness to seek the adoption of new services and the reconstruction of managerial processes (p.786).
Lofsten & Lindelof (2005:726).	Innovativeness involves seeking creative or unusual solutions to problems and needs. In entrepreneurship research and economic studies, innovativeness is often viewed as a surrogate measurement for entrepreneurship
Lumpkin & Dess (1996:142)	Innovativeness reflects a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes.
Lumpkin & Dess (2001)	<i>Innovativeness</i> refers to a willingness to support creativity and experimentation in introducing new products/services, and novelty, technological leadership and R&D in developing new processes.

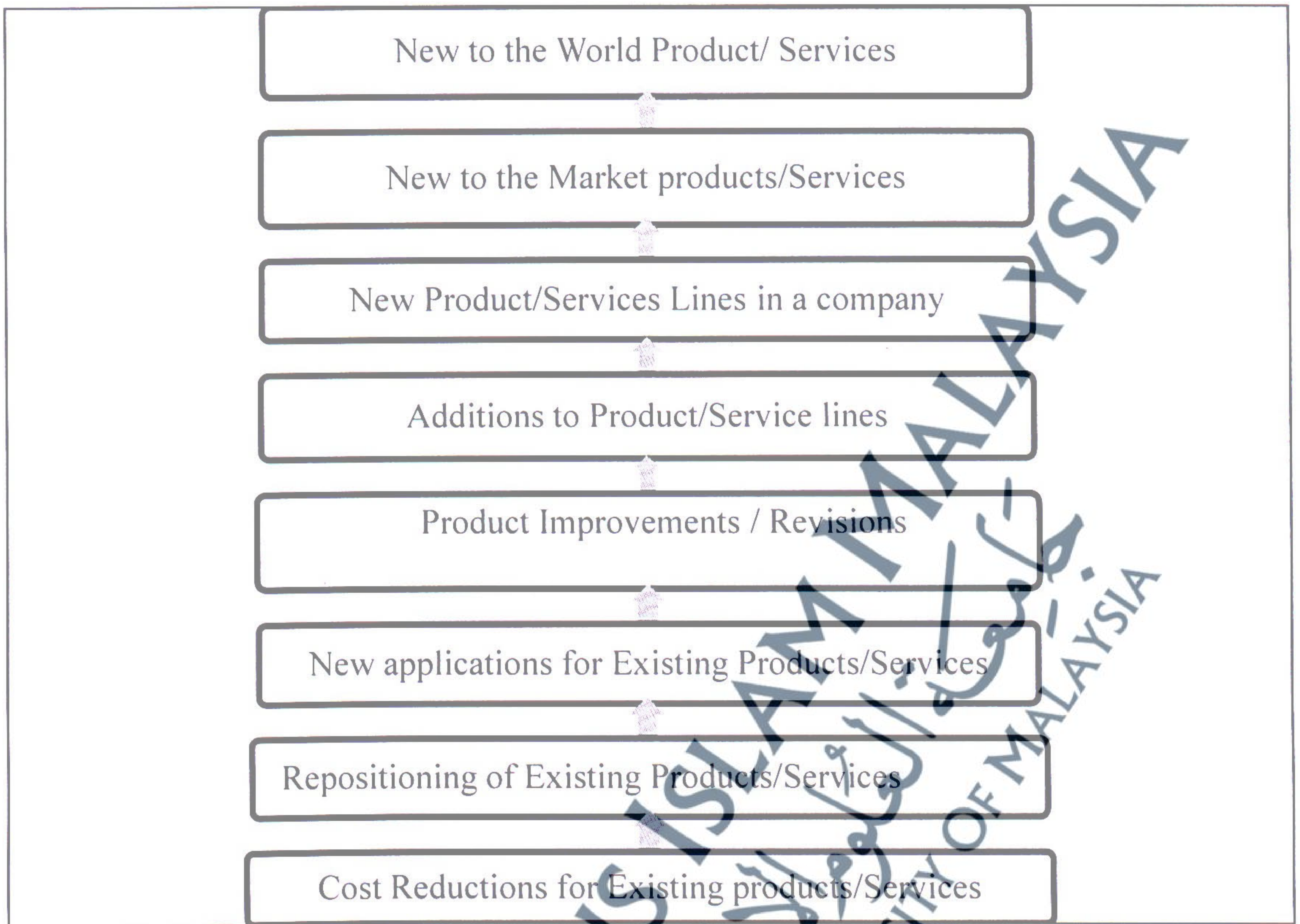
Author(s)	Definition
Lumpkin et al. (2010:247)	Innovativeness is viewed as essential to maintaining a company's viability because it is a key source of the new ideas that lead to product introductions, service improvements, and managerial practices that advance and sustain a thriving company.
Lyon et al. (2000:1056)	Innovativeness refers to attempts to embrace creativity, experimentation, novelty, technological leadership, and so forth, in both products and processes.
Morris et al. (2008:54)	Innovativeness refers to what extent is the company doing things that are novel, unique, or different?
Rauch et al. (2009:763)	<i>Innovativeness</i> is the predisposition to engage in creativity and experimentation through the introduction of new products/services as well as technological leadership via R&D in new processes.
Soininen et al. (2011:2)	Innovativeness represents a basic willingness to depart from existing technologies or practices and venture beyond the current state of art.
Urban & Barreria (2010:332)	Innovativeness as an attribute describes an organization's willingness to add newness with added value.
Walter et al. (2006:549).	Innovativeness indicates a firm's tendency to support new ideas and to foster creative processes that are aimed at developing new products and services.
Wiklund & Shepherd (2003:1309)	Innovativeness reflects a tendency to support new ideas, novelty, experimentation, and creative processes, thereby departing from established practices and technologies (adapted from Lumpkin & Dess, 1996)

Table 3-9: Dimensions of Innovativeness as Conceptualized in Previous Research

Author	Product	Market	Process	Behavior	Strategic	Business Systems
Schumpeter (1934)	X	X	X			
Miller and Friesen (1983)			X	X	X	
Capon et al. (1992)		X			X	
Avlonitis et al. (1994)	X		X	X	X	
Subramanian and Nilkanta (1996)			X			
Hurley and Hult (1998)				X		
Rainey (1999)				X	X	
Lyon et al. (2000)	X		X			
North and Smallbone (2000)	X	X	X	X		
Boer and During (2001)	X		X			X
Wang and Ahmed (2004)	X	X	X	X	X	
Crespell et al. (2006)	X		X			X
Knowles et al. (2007)	X		X			X

Source: Wang and Ahmed (2004) and Hovgaard and Hansen (2004)

Figure 3-3: A Range of Options: Innovativeness as it Applies to Products and Services



Source: Morris et al. (2008:55)

Table 3-10: A Range of Options: Innovativeness as it Applies to Processes

Degree of innovation	Type of Process
Major new process	Administrative systems
	Service delivery systems
Minor new process	Production methods
	Financing methods
Significant revision of existing process	Marketing or sales approaches
	Procurement techniques
Modest improvement to existing process	Compensation methods
	Supply chain management technique
	Distribution methods
	Employee training programs
	Pricing approaches
	Information management systems
	Customer support programs
	Logistics approaches
Hiring methods	

Source: Morris et al. (2008)

### 3.5.2 Proactiveness

Proactiveness is the second entrepreneurial orientation dimension, otherwise also sometimes called proactivity. The essence of proactiveness was derived from the well-known Nike slogan “Just do it” (Morris et al., 2008). Lumpkin and Dess (1996) defined the term proactiveness based on Webster's Ninth New Collegiate Dictionary (1991: 937) as "acting in anticipation of future problems, needs, or changes", thus highlighting that proactiveness aims to be ahead of other competitors by creating change and shaping the environment. In order to be ahead of other competitors, the proactive firm always introduces a new product or service before others. The proactive firm is always looking for business opportunities (Lumpkin & Dess, 2001; Rauch et al., 2001), also displaying higher adaptability and tolerance of failure (Urban & Barreria, 2010). Conceptually, proactiveness is the opposite of passiveness as passive firms are unable to seize opportunities in the market. Thus, they are followers rather than leaders in the marketplace (Lumpkin & Dess, 1996).

The seeking of new opportunities in proactiveness may or may not be related to the present product lines (Venkatraman, 1989a). Even though the proactive firm is often the first to enter new markets, sometimes fast followers may seize upon new ideas and improve the initial efforts of the first mover (Certo et al., 2009). In other words, a firm can be novel, forward thinking, and fast without always being first (Lumpkin & Dess, 1996: 146). The list of the definitions of proactiveness is depicted in Table 3-11 and illustrates that a majority of research defined proactiveness based on the definition given by Lumpkin and Dess (1996, 2001). The definition of proactiveness by Lumpkin and Dess is based on the earlier definition by Miller and Friesen's (1978) and Venkatraman (1989a). As such, the proactive firm is the firm that is the quickest in innovation and the first to introduce newness. This concurs with the

suggestion by Miller (1983:771) that the entrepreneurial firm is “first to come up with ‘proactive’ innovations”.

The idea of proactiveness is closely related to the prospector type as suggested by Miles and Snow (1978) who stated that finding and exploiting new products and market opportunities is the main capability of the Prospector. Prospectors are frequently the creators of change in their respective industries. Change is one of the major tools used by the Prospector to gain an edge over competitors (Miles & Snow, 1978: 551-553). Additionally, the differentiation strategy by Porter’s (1980) also recognizes the importance of proactiveness.

Table 3-11: Definitions of Proactiveness by Previous Researchers

Author	Definition
Covin & Wales (2011:694)	Proactiveness refers to engaging in forward-looking actions targeted at the exploitation of opportunity in anticipation of future circumstances, as would be typical of firms that lead and/or preempt the actions of others (e.g., market pioneers, early adopters of new technologies).
Dess & Lumpkin (2005:148)	Proactiveness - A forward-looking perspective characteristic of a marketplace leader that has the foresight to seize opportunities in anticipation of future demand.
Ferreira & Azevedo (2010:82)	<i>Proactiveness</i> – is concerned with first mover and other actions aimed at seeking to secure and protect market share and with a forward looking perspective reflected in action taken anticipation of future demand.
Hameed & Ali (2011:103)	Similarly, proactivity is the second entrepreneurial orientation dimension taken as an ability to benefit from contextual opportunities such as introducing new products and services, technologies and management techniques in attaining competitive advantage.
Huang & Wang (2011:564)	Proactiveness refers to an organization with a characteristic that is forward-looking and responsive in the industrial environment it involves in.
Jambulingam et al. (2005:25-26)	Proactiveness refers to a firm’s processes aimed at anticipating and acting on future needs (adapted from Venkatraman, 1989a)
Jantunen et al. (2005:226)	Proactiveness refers to the propensity to anticipate future needs and changes in the operating environment, and to pioneer new methods and techniques.
Javalgi & Todd (2011:1006)	Proactiveness refers to opportunity seeking that involves, for example, introducing new products, services and processes ahead of the competition (adapted from Lumpkin & Dess, 1996).

Author	Definition
Kollmann & Stöckmann (2012:3)	Proactiveness refers to a posture of anticipating and acting on future needs and trends, thereby creating first-mover advantages over competitors (Lumpkin & Dess, 1996).
Kraus et al. (2012:949)	Proactiveness refers to processes which are aimed at "seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition and strategically eliminating operations which are in the mature or declining stages of the life cycle" (adapted from Venkatraman 1989a).
Kreiser (2011:1027)	Proactiveness represents an opportunity-seeking perspective involving strategic moves that anticipate future demand ahead of competing firms (Lumpkin & Dess, 2001).
Kropp, Lindsay and Shoham (2008:104)	Proactiveness refers to an opportunity-seeking, forward-looking perspective that involves introducing new products ahead of the competition (Lumpkin & Dess, 1996)
Lofsten & Lindelof (2005:726)	Proactiveness is defined in terms of the firm's propensity, aggressively and proactively to compete with its rivals.
Lumpkin & Dess (2001:431)	<i>Proactiveness</i> is an opportunity-seeking, forward-looking perspective involving introducing new products or services ahead of the competition and acting in anticipation of future demand to create change and shape the environment.
Lumpkin & Dess (1996:146)	Proactiveness refers to how a firm relates to market opportunities in the process of new entry. "It does so by seizing initiative and acting opportunistically in order to "shape the environment," that is, to influence trends and, perhaps, even create demand.
Lyon et al. (2000: 1056)	Proactiveness relates to forward-looking, first mover advantage-seeking efforts to shape the environment by introducing new products or processes ahead of the competition.
Morris et al. (2011:949)	Proactiveness is the tendency of an organization to anticipate future wants and needs and to pursue change ahead of the competition (adapted from Lumpkin & Dess, 1996)
Rauch et al. (2009:763)	<i>Proactiveness</i> is an opportunity-seeking, forward-looking perspective characterized by the introduction of new products and services ahead of the competition and acting in anticipation of future demand.
Short et al. (2009:14)	<i>Proactiveness</i> refers to acting in anticipation of marketplace changes or future needs and problems. Thus, proactiveness suggests an opportunity-seeking perspective, characteristic of a marketplace leader who has the foresight to act in anticipation of changing market demand.
Urban & Barreria (2010:332)	Proactiveness is perseverance in ensuring that initiatives are implemented, and is concerned with adaptability and tolerance of failure.
Venkatraman (1989a:949)	Seeking new opportunities which may or may not be related to the present line of operations, introduction of new products and brands ahead of competition, strategically eliminating operations which are in the mature or declining stages of life cycle.

Author	Definition
Walter et al. (2006:549).	Taking initiative by anticipating and pursuing new business opportunities and by participating in emerging markets is often referred to as proactiveness.
Wang (2008:637)	For the purpose of conceptual distinction, this study considers the introduction of new products and services to capitalize on market opportunities as an element of market proactiveness.
Wiklund & Sheperd (2005:75)	Proactiveness refers to a posture of anticipating and acting on future wants and needs in the marketplace, thereby creating a first-mover advantage vis-a-vis competitors (adapted from Lumpkin & Dess, 1996). With such a forward-looking perspective, proactive firms have the desire to be pioneers, thereby capitalizing on emerging opportunities.
Wiklund & Shepherd (2003:1309)	Proactiveness refers to a posture of anticipating and acting on future wants and needs in the marketplace, thereby creating a first-mover advantage <i>vis-à-vis</i> competitors (adapted from Lumpkin & Dess, 1996). With such a forward-looking perspective, proactive firms capitalize on emerging opportunities.

### 3.5.3 Risk Taking

The foundations for risk taking comes from the early definitions of entrepreneurship by Cantillon (1734), who was the first to argue that entrepreneurs are the persons who are able to take risk by setting up their own business. Numerous empirical researches also concur that risk taking is a characteristic of entrepreneurs (Begley & Boyd, 1987). Depending on the context in which it is applied, risk has various meanings. In the entrepreneurial orientation context, risk taking behaviour is the willingness of firms to make huge and risky resource commitments on venture opportunities even though they do not know whether it will be successful (Lumpkin & Dess, 2001; Wiklund & Shepherd, 2005). As such, boldness and tolerance for risk are the characteristics of entrepreneurial firms. The purpose of risk taking at the firm level includes opportunity seeking (Hills et al, 1997) and decision making (Busenitz, 1999). There are three dimensions of risk taking, which are venturing into unknown markets, committing a relatively large portion of assets to venture with uncertain returns, and borrowing heavily (Baird & Thomas, 1985; Lumpkin & Dess, 2001). The risk taking

of the firm reflects the willingness to break away from the tried-and-true and venturing into the unknown. This also shows that the risk taker firm's determination to seize business opportunities by venturing into new markets even if the uncertainty is high, with uncertain outcomes (Wiklund & Shepherd, 2005).

The willingness to venture into the unknown despite having little knowledge about the possible outcome is exemplified by investing in unproven technologies or entering untested markets, borrowing heavily or committing to financial liabilities. This initiative is important to achieve organizational objectives (Baird & Thomas, 1985; Covin & Slevin, 1991). Prior research suggests that many entrepreneurs either did not perceive their action as risky (Simon et al., 2000) or took action only after significantly reducing the uncertainty through research and planning (Bhide, 2000: 249). Yet, risk taking is considered as one of the entrepreneurial characteristics (Lumpkin et al., 2010). The list of previous study definitions on risk taking are depicted in Table 3-12.

Table 3-12: Risk Taking Definitions by Previous Researchers

Author	Definitions
Certo et al. (2009:321)	Risk-taking refers to a firm's tendency to engage in high-risk projects and managerial preferences for bold versus cautious actions in order to achieve firm objectives (adapted from Miller, 1983).
Covin & Wales (2011:694)	Risk-taking refers to a willingness to commit resources to projects, ideas, or processes whose outcomes are uncertain and for which the cost of failure would be high.
Dess & Lumpkin (2005:148)	Risk-taking - Making decisions and taking action without certain knowledge of probable outcomes; some undertakings may also involve making substantial resource commitments in the process of venturing forward.
Ferreira & Azevedo (2010:82)	<i>Risk taking</i> – measuring the extent to which individuals differ in their willingness to take risk is contentious.
Hameed & Ali (2011:103)	Risk-taking is regarded as a tendency towards high return initiatives under the probability of failure.
Huang & Wang (2011:564)	Risk-taking means an organization pursues an

Author	Definitions
	entrepreneurial opportunity without regarding the resources it may have or may not have.
Kraus et al. (2012:166)	Risk-taking is often used to describe the uncertainty that follows from behaving entrepreneurially. Entrepreneurial behaviour involves investing a significant proportion of resources to a project prone to failure.
Kreiser (2011:1027)	Risk taking refers to the degree to which companies are willing to make large resource commitments with a reasonable chance of failure and uncertain outcomes.
Lofsten & Lindelof (2005:726)	The risk-taking dimension refers to the willingness of management to commit significant resources to opportunities in the face of uncertainty.
Lumpkin & Dess (2001:431)	Risk taking means a tendency to take bold actions such as venturing into unknown new markets, committing a large portion of resources to ventures with uncertain outcomes, and/or borrowing heavily.
Lyon et al. (2000:1056)	Risk taking consists of activities such as borrowing heavily, committing a high percentage of resources to projects with uncertain outcomes, and entering unknown markets.
Miller & Friesen (1978:923)	Risk taking refers to the degree to which managers are willing to make large and risky resource commitments — i.e., those which have a reasonable chance for a costly failure.
Morris et al. (2008:62)	Risk taking involves a willingness to pursue opportunities that have a reasonable likelihood of producing losses or significant performance discrepancies.
Morris et al. (2011:949)	Risk taking concerns the willingness to commit significant resources to uncertain projects where outcomes are unknown and there is a potential for meaningful loss.
Rauch et al. (2009:763)	Risk taking involves taking bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments.
Short et al. (2009:14).	Risk taking generally refers to bold actions taken in the face of uncertainty.
Walter et al. (2006:549).	Risk taking reflects a firm's proclivity to support projects in which the expected returns are uncertain.

### 3.6 The Measurement of Entrepreneurial Orientation

The entrepreneurial orientation scale was initially developed by Khandwalla (1977), Miller and Friesen (1982) and Miller (1983). Most of the researchers credited

Miller on the development of entrepreneurial orientation measurement. Miller's idea was derived from the work of Khandwalla (1977), Mintzberg (1973), Collins and Moore (1970), Normann (1971), Shapero (1975) and others. Afterwards, Covin and Slevin (1989), and Covin and Covin (1990) further refined the scale. In doing so, Miller and Friesen (1982) were concerned about three things, firstly; product-market innovation which measures whether they are innovative in terms of the numbers and novelty of the new products and services, and the new markets they entered. Secondly, proactiveness is related to whether the firm is a leader or follower, where they are the first to introduce new products, technologies, administrative techniques and others. Lastly, for risk taking, the question is whether the firm is a risk taker or not and has risky resource commitments (Miller & Friesen, 1982). Later, this scale was widely used by numerous researchers and scholars such as Zahra and Covin (1995), Wiklund (1999), Wiklund and Sheperd (2005), Moreno and Casillas (2008), and Rauch et al. (2009). These scales were further advanced by Lumpkin (1998) with the addition of five new items to the earlier scales. The reasons for extending these scales were to capture aspects of the constructs that were not included in the previous scales. For example, the prior scales did not include the process of innovation. Thus, two items in innovativeness include the firm's preference to design its own unique process and methods and its favour of experimentation and original approaches to problem solving. For proactiveness, one item added which is whether the firm has a strong tendency to be the first in introducing novel ideas or products. Lastly, for risk taking, two items were added which are organizational analysis and decision making processes.

Until recently, numerous authors used different number of items to capture entrepreneurial orientation. The number of items used to tap the three entrepreneurial

orientation dimensions varies from six to fourteen. Some researchers used the original semantic differential statements response format initiated by Covin and Slevin (1989) while the rest used the converted Likert scale.

Yet, there are some researchers, who developed their own entrepreneurial orientation scales such as Smart and Conant (1994), and Hughes and Morgan (2007). However these scales are seldom used by other researchers. The majority of the researchers use ones by Covin and Slevin (1989), Miller (1983) and Lumpkin (1996;1998) which was discussed before.

Recently, researchers found that entrepreneurial orientation can also be captured using secondary data. This is particularly suitable for large public firms that generate publicly accessible data. Among those researchers who used the objective indicators of entrepreneurial orientation include Miller and Breton-Miller (2011), Mousa and Wales (2012) and Zahra and Garvis (2000). The indicators used to measure innovativeness are the research and development cost or R & D (Miller & Breton-Miller, 2011; Zahra & Garvis, 2000), patents (Lee & O'Neill, 2003) and number of total products (Mousa & Wales, 2012). Firms that invest more abundantly than their competitors in product and process research and development, is, broadly defined, and tend to be more innovative (Miller & Breton-Miller, 2011: 1061). Thus, Miller and Breton-Miller (2011) used R & D to sales ratio to capture the innovativeness of the firm. However, a limitation of the R & D measure is that it does not incorporate innovations reflected by expenditures on new forms of organization, training programs, market research, or for mines prospecting, which is a routine function. Thus, these activities could not be assessed. Moreover, where R&D is so minimal as to be “not material to decision making,” there is no statutory requirement to report it. Thus, while firms that do not report R&D are assumed to have a very low

level of expenditure, they cannot be assumed strictly to have zero level expenditure (Miller & Breton-Miller, 2011: 1064). However, in Malaysia, the R & D investments by the enterprises have been significantly lower than their counterparts from developed countries. For instance, the business expenditure on R&D per capita in Malaysia in 2003 was merely \$US18.06 compared to Sweden (\$US815.83), Japan (\$US725.22), the USA (\$US673.81), Singapore (\$US285.43), South Korea (\$US254.18) and Taiwan (\$US193.43) (Aniza et al., 2008).

For proactiveness, the objective measure used was a company's advertising (Zahra & Garvis, 2000) and the short term aggregate investment practices of the firm, using the percentage of profits reinvested in the company each year compared to rivals in the same industry (Miller & Breton-Miller, 2011:1064). Risk taking is measured by using the fluctuations that a firm experiences in its market valuation *vis-à-vis* other firms in its industry (Miller & Breton-Miller, 2011) and the number of risks declared in the prospectus (Mousa & Wales, 2012).

Early research on entrepreneurial orientation theorized that the three elements, innovativeness, proactiveness, and risk taking, are operationalized as one construct and work together with each other (Covin & Slevin, 1989; Covin et al., 2004; Wiklund & Shepherd, 2003). This was supported by many researches, with its validity and reliability reported to be satisfactory. However, since the work of Lumpkin and Dess (1996), recent empirical studies also suggested that the three dimensions of entrepreneurial orientation vary from one another and each shown to have different relationships with firm performance. Some of them are positively related and others were negatively related to firm performance (Kreiser et al., 2002b; Lumpkin & Dess, 2001; Rauch et al., 2009). Subsequently, it is essential to conduct research using the different constructs of entrepreneurial orientation dimensions because they may each

possess different relationships with firm performance (Kreiser et al, 2002a). Thus, in this research, the three dimensions were used as separate construct.

### 3.7 Corporate Venturing Background and Definition

Corporate venturing is one of the two major categories of corporate entrepreneurship enacted and controlled by the larger corporation (Kuratko, 2007). The large and established firms usually use corporate venturing to compete in this globalized, shortened product life-cycle and turbulent business environments. Using a new innovative business model development makes these firms more responsive to market changes, enabling them to capture the customers' preferences (Engel, 2011).

The corporate venture is always associated with corporate entrepreneurship or labelled as "intrapreneuring" by Gifford Pinchot due to the fact that it is an entrepreneurial effort to create new business within existing firms (Dess & Lumpkin, 2005). Peters and Hisrich (1986) also suggested that intrapreneurship has a similar concept to corporate venturing. Corporate venturing represents one of the corporate entrepreneurship's components (Ginsberg & Hay, 1994) that emphasize the creation of new business inside or outside an existing organization (Sharma & Chrisman, 1999).

Just like corporate entrepreneurship, corporate venturing does not use any standardized terms used by prior researchers and scholars. Corporate venturing terms appeared in management literature in the 1970s (King, 2010) with various terms and definitions used to describe the creation of new business inside or outside the firm, such as "new business venturing" (Stopford & Baden-Fuller, 1994), "venturing" (Hornsby et al., 1993; Zahra, 1996) and "corporate venture capital" (Dushnitsky & Lenox, 2006; Yang et al., 2009). Fundamentally, corporate venturing involves the

efforts of large and well-established organizations in creating or adding new businesses to the firm.

Table 3-13 illustrates the list of suggested definitions on corporate venturing which leads to the conclusion that corporate venturing is the firm's efforts or activities that lead to the creation of new businesses. This new business is located inside or outside existing parent corporations. However, researchers have debated whether the new business creation could relate to the current products or services produced by the parent company. Some argued that corporate venturing involves new business units producing new products or services and thus require resources such as equipment, people, and knowledge (Biggadike, 1979; Block & MacMillan, 1993; Ellis & Taylor, 1987). In contrast, other researchers stated that corporate venturing does not necessarily have to produce novel products or services to the parent company but may involve the extension of the existing business or market (Sharma & Chrisman, 1999; Zahra, 1996).

Similarly, research on corporate venturing illustrates that researchers are still unclear and inconsistent about their theoretical framework (Narayanan et al., 2009). The early stages of corporate venturing research showed two types of corporate venturing, which are internal and external corporate venturing (Ginsberg & Hay, 1994; Sharma & Chrisman, 1999). More recently, research uncovered another form of corporate venturing i.e. cooperative corporate venturing or joint corporate venturing or collaborative corporate venturing (Covin & Miles, 2007; Morris et al., 2008) although its concept and definition is actually similar to external corporate venturing. In practice, these three types of corporate venturing developed by established firms are through single venturing mode, any two venturing modes or all three venturing modes (Morris et al., 2008). Most of the researchers usually recognize two types of corporate

venturing which is internal and external corporate venturing because cooperative corporate venturing can be basically subsumed under external corporate venturing. Thus, for the purpose of this study, the terms internal and external corporate venturing will be used and further explained in the next section.

The evolution of corporate venturing history is presented in Table 3-14. Originating in the 1950s, the venture capital industry was one of entrepreneurship strategies spreading across the USA and developing in European and Asian financial centres. Internal venture capital started in the 1960s in USA (King, 2002) but the rise of the B2B (business-to-business) and B2C (business-to-customer) that involved online transactions, jeopardized the venture capitalist in the late 90s. However, in 2001, the succession of the dot.com marketplace fell short and corporate venturing took place where mergers, acquisitions and new business model development were used as strategies to avoid huge losses. To date, corporate venturing activities are still on the rise especially in 2011, when such venturing activities were seen as the resurgence of the golden age (Mawson, 2011). There were increasing numbers of large firms that launched or expanded venturing programs, for example the Baxter, BMW, WPP, Tencent (China's largest Internet conglomerate), Google, and Intel among others that actively financed start-ups and supported new entrepreneurial ventures (Battistini et al., 2013). The corporate venturing activities were not only limited to certain locations or industries but rather, diversified industrial sectors, widened geographical regions, and expanded into emerging markets (Ernst & Young, 2012). For further details, the following subsections presented the definition and background of the each of the corporate venturing dimensions.

### 3.7.1 Internal Corporate Venturing

Internal corporate venturing happens when new businesses are created and owned by the corporation. Usually these businesses are located within the corporate structure but, sometimes it can be located outside the firm and operate as semi-autonomous entities (Sharma & Christman, 1999; Morris et al., 2008). The creation of internal corporate venturing is attributed to major new products, development of new markets, commercialization of new technology, and major innovative projects (Block & MacMillan, 1993). The definition of internal corporate venturing has its roots in von Hippel's (1977) empirical research that internal corporate venturing refers to all aspects involved in generating a new product until it is brought to the market place by an individual or groups within an organization. This individual or group is usually the manager of the new venture.

For internal corporate venturing, the resources often used are new business incubation and innovation (Narayanan et al., 2009). The innovation comes from new products or entrance into new markets. Corporate venturing and innovations in entrepreneurial orientation are two distinct concepts in terms of activities. Even though corporate venturing activities are related to innovation, these innovation activities are not necessarily conducted by the organization itself. The innovation in corporate venturing can be bought from external sources (Veugelers & Cassiman, 1999). Conversely, the innovation dimension in entrepreneurial orientation is conducted by the company itself and is initiated by the management team of the firm. Other than that, the corporate venturing activities emphasize heavily on the pursuit of and entering a new business by creating new business ventures. Innovation in entrepreneurial firms also emphasizes the creation of new products, services, technologies, administrative techniques and new methods within an existing

organization (Antoncic & Hisrich, 2001). Entrepreneurial efforts are crucial to ensure that internal corporate venturing is a success because it highly depends on internal development.

Internal corporate venturing receives funding directly from the parent company's budget and requires the commitment from the management team. In terms of autonomy, the parent company has two choices, first, to give autonomy to the ventures within a project organization or secondly, creating other independent organizational units (Reimsbach & Hauschild, 2012). The primary motive for internal corporate venturing manifestation in a large firm is the pursuit for new growth opportunities by the top management (Burgelman & Valikangas, 2005).

### 3.7.2 External Corporate Venturing

External corporate venturing is opposed to internal corporate venturing in that it is an entrepreneurial activity that acquires or invests a new business that has been created by others. These new ventures are usually located outside the parent company's boundaries (Lai et al., 2010; Zahra & Hayton, 2008). The objectives of external corporate venturing include exploring and exploiting business opportunities outside the firm's boundaries whether locally or internationally (Keil, 2002). These external businesses are typically young ventures and innovative start-up firms. It is important to invest in highly innovative companies as they are the "window on technology" (Anokhin et al., 2011; Benson & Ziedonis, 2009; Reimsbach & Hauschild, 2012) and have access to radically new technologies (Teng, 2007). The expertise and competencies may not be possible to be developed internally, thus by acquiring high technology firms, the large firms can obtain a new business model or innovation that is initiated by the innovative start-up (McGrath, 1997; Teng, 2007). This strategy can create alertness towards technological changes and anticipation of

forthcoming technological trends and hence, bring a firm ahead of its competitors (Reimsbach & Hauschild, 2012).

In other words, the presence of investment intermediation is part of external corporate venturing activities. It includes direct investment of capital by the larger firm in the start-up business or smaller firms and indirect corporate venturing where the larger firm finances or acts as a financial mediator between the corporation and the entrepreneurial ventures in which the investments are made. According to Miles and Covin (2002:23), investment intermediaries add value to the venturing activity of the corporation by, (1) pooling funds from various sources, resulting in diversification and the amelioration of risks faced by corporate investors; (2) minimizing the costs to the corporation of due diligence assessments; and (3) subjecting the venture to objective, market-based assessments. Past examples of corporations that made sizable investments include Exxon, General Electric, DuPont, and AT&T. Currently, corporations such as Protector and Gamble, Lucent, 3M, and Nortel Networks are among the major venture capital investors (Miles & Covin, 2002).

In external venturing, the firm usually uses external resources such as acquisitions, alliances and corporate venture capital (Zahra & Hayton, 2008). The acquisitions involve purchasing start-ups or established firms to gain access to their innovations, technologies and other discoveries (Narayanan et al., 2009). Next, the alliance's activity includes the arrangements between two or more firms to achieve organizational resources by sharing resources and skills. Examples of alliances are joint ventures, marketing or product development partnerships, and technology licensing (Zahra & Hayton, 2008). A joint venture is the creation of a new firm by two or more existing companies and/or commercializes new technologies or builds various organizational skills such as R & D, marketing or production (Narayanan et al., 2009).

The reasons for companies to embark on joint ventures are because they can spread business risks, speed up the start-up process, and overcome the incapability to initiate internal venturing (Kambil et al., 2000).

Licensing can be obtained by paying a fee to gain access to other companies' knowledge, innovations, technologies or patents, and discoveries (Narayanan et al., 2009; Zahra et al., 2005). Franchising is one of the licensing forms (Dawn, 2005). Lastly, corporate venture capital refers to equity investments made by incumbents in start-ups (Narayanan et al. 2009: 59). Figure 3-4 summarizes the types, definitions and examples of the corporate venturing.

Table 3-13: List of Suggested Definitions of Corporate Venturing

Author(s)	Suggested Definition
Von Hippel (1977:163)	Corporate venturing is an activity which seeks to generate new businesses for the corporation in which it resides through the establishment of external or internal corporate ventures.
Biggadike (1979:104)	A corporate venture is defined as a business marketing a product or service that the parent company has not previously marketed and that requires the parent company to obtain new equipment or new people or new knowledge.
Ellis & Taylor (1987:528)	Corporate venturing was postulated to pursue a strategy of unrelatedness to present activities, to adopt the structure of an independent unit and to involve a process of assembling and configuring novel resources.
Venkataraman et al. (1992:488)	Venturing is the process by which members of an existing firm bring into existence products and markets which do not currently exist within the repertoire of the firm.
Block & MacMillan (1993:14)	A project is a corporate venture when it (a) involves an activity <i>new</i> to the organization, (b) is initiated or conducted <i>internally</i> , (c) involves significantly <i>higher risk of failure</i> or large losses than the organization's base business, (d) is characterized by <i>greater uncertainty</i> than the base business, (e) will be <i>managed separately</i> at some time during its life, (f) is undertaken for the purpose of increasing sales, profit, productivity, or quality.
Homsby, et al. (1993:30)	Venture may be applied to the development of new business endeavors within the corporate framework.
Stopford & Baden-Fuller (1994: 522)	New Business Venturing occurs when individuals and small teams form entrepreneurial groups inside an organization capable of persuading others to alter their behavior, thus influencing the creation of new corporate resources.
Zahra	Venturing means that the firm will enter new businesses by

Author(s)	Suggested Definition
(1992:1715)	expanding operations in existing or new markets.
Sharma & Chrisman (1999:19)	Corporate venturing refers to corporate entrepreneurial efforts that lead to the creation of new business organizations within the corporate organization. They may follow from or lead to innovations that exploit new markets, or new products offerings, or both. These venturing efforts may or may not lead to the formation of new organizational units that are distinct from existing organizational units in a structural sense (e.g., a new division).
Narayanan et al. (2009:59)	Corporate venturing is the set of organizational systems, processes and practices that focus on creating businesses in existing or new fields, markets or industries-using internal and external means.

Source: Adapted and modified from Sharma and Chrisman (1999)

Table 3-14: The Evolution of Corporate Venturing

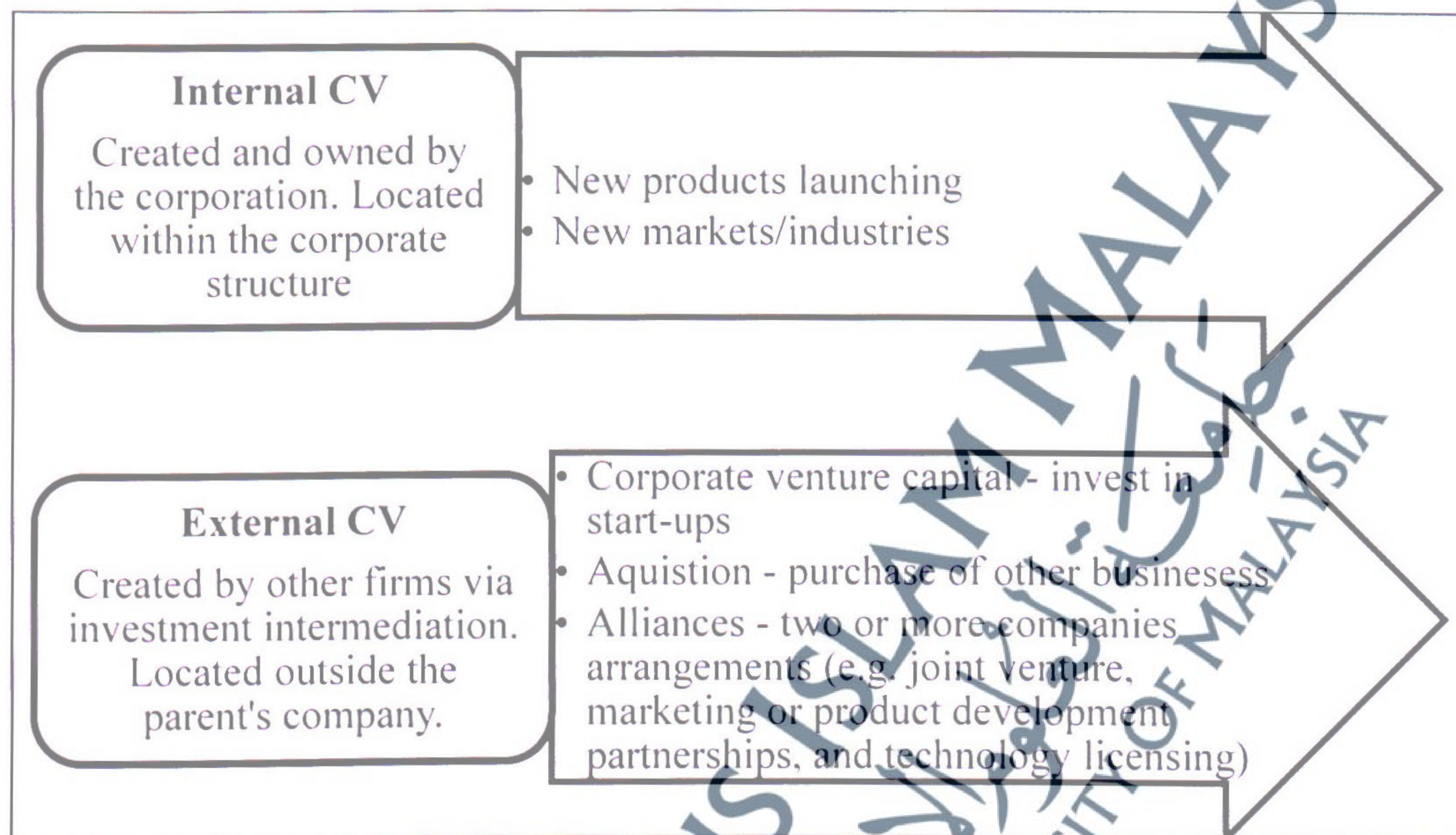
Year	Events
1950s	Venture capital industry develops rapidly in USA and starts to develop in European and Asian financial centres.
1958	American Research & Development Corporation makes monumental return on the start-up financing it provides for computer maker Digital Equipment Corporation; achieves reputed annualized rate of return of 130%.
1960s	Companies start setting up their own corporate venture funds, mainly in the USA
1960s and 1970s	Technology fuels interest in enterprise; Silicon Valley and academic centers like Stanford and MIT became synonymous with new technology; venture capital firms focus investment on start-up and expanding technology companies; early successes include Intel, Apple Computer, Lotus Development and Federal Express; venture capital comes to be almost synonymous with technology Finance.
1970s and 1980s	Xerox Parc, the Palo Alto Research Center of Xerox Corporation, invents some of the best computing technology of the decade – from the GUI (graphical user interface that Apple made famous) to the Ethernet, the high-speed local area network that links millions of PCs – but fails to commercialize them.
1972/3:	Recession following oil crisis sends the stock market into decline and abruptly puts an end to the prospects for new public offerings.
Mid-1970s	Almost one quarter of Fortune 500 firms have now tried their hand at corporate venturing
1984	Kohlberg, Kravis & Roberts finances the \$25bn leveraged buy-out of RJR Nabisco, with debt from the junk-bond house Drexel Burnham Lambert (West Coast office headed by the infamous Michael Milken).
1987	“Wall Street”, the movie. Gordon Gecko, the callous financial buyer (Michael Douglas) takes over companies to sell off their assets, at the expense of blue-collar jobs; tells his fictional shareholders “Greed is good.”
1985	Venture Economics starts collecting the data to calculate the return on

Year	Events
	venture capital investments in the USA.
Late 1980s	Collapse of communism unleashes market forces in Eastern Europe and the former Soviet Union; a rush of Western capital into the economies of Poland, Hungary, Czechoslovakia and Russia mops up some of the best investment opportunities; increased liquidity makes raising money much easier, allowing local entrepreneurs to seize new opportunities
1985	Gifford Pinchot coins the term “intrapreneur” to describe in-house entrepreneurial behavior.
1987	Stock market crash again flattens the market for new public offerings.
Late 1980s	Rosabeth Moss Kanter, the management guru, finds signs that high-tech companies encourage entrepreneurship among employees; carries outmatch of her research among large USA hi-tech companies like General Electric and Hewlett Packard. More than 100,000 companies now use electronic data interchange.
1989	Tim Berners-Lee invents the World Wide Web.
1990s	Academic centers of excellence in entrepreneurship spring up; for example Babson College and the Kauffman Center, in the USA; the London Business School, UK; and INSEAD, France. In conjunction with 3i, the venture capital company, INSEAD sets up a research center in entrepreneurial management in Fontainebleau; its campus in Singapore makes it possible to do comparative studies of enterprise culture in Asia Pacific and Western markets.
1991	Cisco Systems, the data networking company, launches Cisco Connection Online (CCO), a network for vendors, partners and customers.
1994	Jeff Bezos founds the online bookstore, Amazon.com.
1995	Michael Hagen and Michael McNulty found VerticalNet, to operate industry specific online communities.
1996	Cisco adds online ordering to CCO, making it one of the first private B2B (business-to-business) exchanges.
1997	GEM, Global Entrepreneurship Monitor starts; first systematic study to compare enterprise and entrepreneurial behavior between countries; collaborative project between 21 academic institutions across the world, led by Babson College, USA, and the London Business School, UK; study confirms that entrepreneurship is strongly associated with economic growth.
Late 1990s	Paul Gompers and Josh Lerner of Harvard Business School analyze the record of corporate venturing programs and separate the cyclical factors like the effect of the stock markets, from the management issues, like difference in pay for corporate venture managers and private venture capitalists.
1999	B2C (business-to-consumer) wobble starts. B2B seen as the real way to make money for investors, as \$85bn in B2B transactions take place online.
2000	B2B bubble starts to pop in March. Hi-tech bubble bursts around May; venture capitalists retreat, dot.com marketplaces postpone IPOs. <b>Big shake-out from August onwards.</b>

Year	Events
2001	A succession of dot.com marketplaces fail, merge or adapt to new business model.

Source: King (2002:19-21)

Figure 3-4: Summary of the Types and Examples of the Corporate Venturing (CV) Activities



### 3.8 Organizational Structure Background and Definition

The organizational structure is vital in every organization to control employees and to ensure that efforts are channelled towards business activities that facilitate the achievement of organizational goals (Laworski, 1988; Katsikea et al., 2011). Therefore, an appropriate organizational structure must be in place to ensure that the objectives of the firm, to obtain greater firm performance, are met.

Organizational structures have been defined in many ways. Among these definitions include the idea that 'whether formally or informally defined, it has two aspects. It includes, first, the lines of authority and communication between the different administrative offices and officers and, second, the information and data that flow, through these lines of communication and authority' (Chandler, 1962;14). Chandler (1962) divided the organization structure into two types; formal and

informal and has two characteristics; the lines of authority and communication and the flow of the information and data in the organization. This definition is augmented by Thompson (1967) and Covin and Slevin (1990) who stated that the organizational structure is the arrangement of workflow, the pattern of relationships, authority, and communication. Other than that, the structure is used as power allocation, tasks, channels collaboration, and prescribes levels of formality and complexity (Bower, 1970). The organizational structure can also be defined according to its roles such as the tools to assign job responsibilities according to the department, for example production, finance, marketing, administration, and so on (Andrews, 2010; Galbraith & Nathanson, 1978).

Another definition of organizational structure is 'the enduring allocation of work roles and administrative mechanisms that allow organizations to conduct, coordinate, and control their work activities' (Jackson & Morgan, 1982: 81). This definition has clearly defined the function and purpose of the organizational structure. It can be concluded that the organizational structure is the design of an administration of the organization where the formal allocation of work roles are used as a control mechanism to ensure that work is executed through the efficient placement of employees. It consists of specialization, departmentalization, centralization of authority, complexity, coordination, standardization, formalization and flexibility (Farhanghi et al., 2013).

Several scholars have classified the organizational structure into two continuums. First, Burns and Stalker (1961), proposed the mechanistic versus organic type of organizational structure. Prior to this, Weber's classic theory suggested that only one type of organizational structure can be used in all forms of organization; the bureaucratic organization or formal structure where there are clear rules and

regulations, reporting channels, availability of job descriptions, and hierarchy. According to Weber (1947), this formal structure is better in terms of greater accuracy, faster decision making, task knowledge, and minimizing mistakes and reducing ambiguity. However, Burns and Stalker (1967) disagreed and according to them, organizational structure and firm performance have a contingent relationship; mechanistic or bureaucratic form is more appropriate in a stable environment while organic is conducive in a dynamic environment. The mechanistic or bureaucratic type has more managerial or hierarchical levels, higher centralization, more formal rules, a narrower control range, and a greater dependence on vertical instruction in communication. In contrast, organic or adaptive structures are less hierarchical, decentralized, have less formal rules, a wider control range and vertical mode of instruction in communication (Hage, 1980; Nahm et al, 2010; Tosi & Carroll, 1976). The mechanistic and organic continuum will be further explained in the next section.

The second type of organizational structure is formal versus informal, which is initiated by Chandler (1962). This is the most basic structure and draws from the mechanistic-organic firm structure as proposed by Burns and Stalker (1961). The formal structures have the same vein as the mechanistic type which is stricter and inflexible (Menguc & Auh, 2010) and encourage formalization in work practices. Among the characteristics of formal structures are the availability of formality on paper about rules, work procedures, policies, and routines to define how tasks are accomplished (Miller & Friesen, 1984). Besides, there are formal organizational charts, performance measures, plans, and strategies (Hage, 1980). These standardized rules constrain the flexibility of the employees (Homburg & Furst, 2005) as the rigid work practices inhibit the employees' creativity. Departmentalization is also one of the examples in a formal structure (Ansoff & Bradenburg, 1971). Usually

departmentalization is carried out according to the functional, divisional, hybrid (Duncan, 1979), and matrix categories (Lawrence et al., 1977).

In contrast, informal structures are similar to organic structures which are more flexible and fluid (Menguc & Auh, 2010) and less formal in their work practices. The advantage of informal structures is that it is more adaptable for creativity, risk taking and experiment in the organization because of the decentralized decision making and less formal rules of the organization.

The important elements in organizational structures are the work division, and coordination mechanisms. Work division is the distribution of tasks and activities, while the coordination mechanisms involve its standardization and formalization (Meijaard et al., 2005).

There are at least eight dimensions of an organizational structure identified in previous studies; centralization, formalization, specialization or complexity or structural differentiation, standardization, flexibility, traditionalism, coordination or integration and hierarchy as showned in Table 3-15 (Claver-Cortés et al., 2012; Gosselin, 1997; John & Martin, 1984; Kerlinger, 1964; Lee & Yang, 2010; Lysonski et al., 1995; Pugh et al., 1965; Robbins, 1993; Willem & Buelens, 2009). However, there are three basic dimensions often used by previous researchers that represent the most important foundations of organizational design which are centralization, formalization, and specialization (Adria & Chowdhury, 2004; Olsen et al., 2005; Miller & Droge, 1986; Perrow, 1967; Pugh & Hinings, 1976; Robbins, 1993; Thompson, 1967; Willem et al., 2007).

Centralization can be defined as the distribution of power in an organization (Adria & Chowdhury, 2004). This means that greater centralization happens when the top management or higher levels of the firm have a higher proportion in the

distribution of authority. An example of authority includes decision making powers. Similar definitions of centralization come from Hage (1967) who stated that centralization is the degree to which the locus of decision making is located at the top level in an organization, in other words; the lower level in an organization participate less in decision making.

Formalization refers to the degree to which employee roles were defined by various formal documents such as job descriptions, organizational charts, information booklets, policy manuals and other written procedures (Reimann, 1974; Daft, 2009). In other words, the daily business operations and activities are clearly documented and executed according to formal rules, policies and procedures (Ford & Slocum, 1977; Michaels et al., 1996). The rules and regulations are used as tools to control the business process, act as guidelines and as a standard job execution (Ramamurthy, 1990). Besides, formalization ensures there is variability in the job assigned to each staff because formalization can be used to direct, influence and shape the employees' behavior (Jaworski, 1988).

Standardization and formalization are closely associated (Dalton et al., 1980). For example, Gosselin (1997) refers to formalization as the degree to which jobs are standardized. The standardization sets down how the employees work and prescribe the procedures that they must follow, while formalization refers to the job descriptions of the employees (Dalton et al., 1980).

Specialization or complexity or structural differentiation refers to the division of labor within the organization, the distribution of official duties among a number of positions (Pugh et al., 1965: 72). Examples of divisions in an organization are the advertising department, market research, human resources, quality control, maintenance, and others (Reimann, 1974). The employees are divided among these

departments according to their expertise, tasks and activities. The level of complexity in an organization can be seen in the degree of vertical, horizontal and spatial differentiation (Claver-Cortés et al., 2012). An example of complexity is the horizontal differentiation which is characterised by a high degree of division. The greater the specialization, the higher the proportion of ‘specialists’ in an organization, thus, channelling their expertise and efforts to the organization. They are experts in their fields and usually given substantial authority to act in accordance with the changes in the business environment (Olsen et al., 2005).

Coordination can be defined as the organizational process using the firm’s specific mechanism to inform employees how tasks are to be performed as planned (Martinez & Jarillo, 1989; Willem & Buelens, 2009). The integration dimension is similar to coordination, which involves ‘the degree to which the activities of separate actors in the organization can be coordinated through a formal coordination mechanism’ (Lee & Grover, 2000: 192). Integration is important to minimize differentiation among departments or divisions, so that there is effective collaboration from all the departments (Miller & Friesen, 1982).

The hierarchy dimension or vertical differentiation refers to the deepness of the organizational structure. The total number of hierarchical levels below the chief executive officer in the organization determines the deepness of the organizational structure. In an organic structure, there are less managerial levels or vertical differentiation is lower compared to the mechanistic structure (Gosselin, 1997). The following subsections presented the mechanistic-organic continuum that used in this study.

Table 3-15: List of the Dimensions of Organizational Structure Identified by Previous Scholars

Item	Author, Year	Dimensions	Area of Study
1.	Gosselin (1997)	1. Decentralization 2. Formalization 3. Hierarchy	Management Accounting
2.	Lee & Yang (2010)	1. Decentralization 2. Formalization 3. Hierarchy 4. Horizontal integration	Management Accounting
3.	Adria & Chowdhury, (2004)  Olsen et al. (2005)  Miller (1987)  Robbins (1993)  Willem et al. (2007)  Claver-Cortés et al (2012)  Reimann (1974)	1. Centralization 2. Formalization 3. Specialization	Information and Management  Business  Management  Not applicable (Text book)  Nursing Studies  Business Research  Management
4.	Pugh et al. (1965)	1. Centralization 2. Formalization 3. Specialization 4. Standardization 5. Configuration/Hierarchy 6. Traditionalism	Administrative Science
5.	Germain (1996)	1. Centralization 2. Formalization 3. Specialization 4. Integration	Business Research
6.	John & Martin (1984)	1. Centralization 2. Formalization 3. Specialization	Marketing
7.	Lysonski et al. (1995)	1. Locus of authority 2. Participation 3. Formalization 4. Specialization	Product and Brand Management
8.	Lee & Groover		Management Information

Item	Author, Year	Dimensions	Area of Study
	(2000)  Liao et al. (2010)	1. Centralization 2. Formalization 3. Specialization 4. Integration	System  Business Research
9.	Katsikea et al., (2011)	1. Centralization 2. Formalization	Business Research
10.	Willem, & Buelens (2009)  Cunningham et al. (2001) Tsai (2002)	1. Centralization 2. Formalization 3. Specialization 4. Integration 5. Coordination	Information Management  Organizational Design
11.	Sollund (2006)	1. Division of works 2. Hierarchy 3. Communication 4. Empowerment	Hospitality and Tourism

### 3.8.1 Mechanistic-Organic Continuum

This study focuses on the mechanistic-organic continuum as proposed by Burns and Stalker (1961). The mechanistic-organic structure represents two different continuums in terms of the internal patterns of relationship, authority, and communication (Thompson, 1967). According to Burns and Stalker (1961), both mechanistic and organic structures are ideal for organizations depending on the external environment where the firm is operating. The mechanistic organizational structure is characterized by bureaucratic authority and more suitable in stable environments. In contrast, the organic type is informal and flexible and more appropriate in unstable, unpredictable and turbulence external business environments (Burns & Stalker, 1961; Khandwalla, 1977). It is also proven that the mechanistic and organic theory of organizational structures is quite durable over the years (Courtright et al., 1989).

According to Covin and Slevin (1990: 126), the organizational structure can take many forms, ranging from highly mechanistic to highly organic. The mechanistic structure has the characteristics of many formal rules and procedures or is highly formalized, non-participative, tightly controlled, inflexible, hierarchical, practices centralized decision making and vertical communication (Khandwalla, 1977). In other words, as shown in Figure 3-5, the mechanistic structure is higher in formalization, specialization or complexity and centralization (Robbins, 1993). There is a tight pyramid organizational structure for the mechanistic structure, where decision making is made by top level management and follows a strict chain of command.

There are three types of mechanistic structures according to Mintzberg (1979); first, machine bureaucracy where the task is highly standardized and specialized. The manufacturing based organization always uses this type of structure as the consistency and quality of products are required. Machine bureaucracy is suitable in stable and simple environments. The second type is professional bureaucracy which is often found in organizations that consist of specialists and well trained professionals such as universities and hospitals. Their expertise allows them to make decisions within their disciplines. This kind of mechanistic structure works better in stable but complex environments. The third type of mechanistic structure is divisionalized bureaucracy which is a mix between machine and professional bureaucracy. The management of an organization coordinates by division according to product, location, and client or operates individually as machine bureaucracies. The top management at the corporate level coordinates these dimensions. This type of management is common in large firms especially for conglomerates. Diversified markets and stable environments are suitable for this type of structure.

The organic structure is ideal when the firm's size grows and the environment becomes more complex and dynamic (Sul & Khan, 2006; Kuratko, 2007). This is because during uncertain business environments, the decision making must be quick in order to respond faster to changes than their rivals. The organic structure contrasts with the mechanistic structure in that the formalization, specialization, and specialization is low (Robbins, 1993). The organic structure is characterized by the following: fewer rules or is less formalized, decentralization of authority, open channels of communication, less division of labor, wider span of control, encourage widespread communication within the firm and broad and fluid definition of job scopes (Khandwalla, 1977; Pillai & Meindl, 1998). Besides, the organic structure must have a flexible network of multi-tasking employees that are able to perform a variety of tasks (Morand, 1995).

There are two categories of organic structure according to Mintzberg (1979); the simple structure and the adhocracy. The simple structure usually exists in small firms where the organizational structure consists of one or a few at managerial level. This simple structure enables the owners to control the employees because of its simplicity and small size. Besides, the simple structures give freedom to the employees and thus encourage them to be creative and take risks. With this simple structure and decentralized decision making, it will adapt easily to the dynamic and changing business environments. The adhocracy type of organic structure is based on the knowledge and expertise of the staff. This is highly decentralized and the employees work as a team. This team usually consists of skilled personnel that work together on projects or cross-functional groups. This kind of structure is very important to encourage continuous innovation and proactive action in this dynamic and unpredictable environment.

According to Burns and Stalker (1961), there are eleven elements that differentiate mechanistic and organic structures as shown in Table 3-16. The elements that differentiate between these two continuums are the distribution of tasks, nature of individual task, who defines the tasks, the scope of task, how the task conformance is ensured, structure of control, authority and communication, locating of knowledge, communication mode, instruction and decision, insistence on loyalty, and attachment to internal or external affiliations and expertise.

Table 3-16: Differences between Mechanistic and Organic Structures

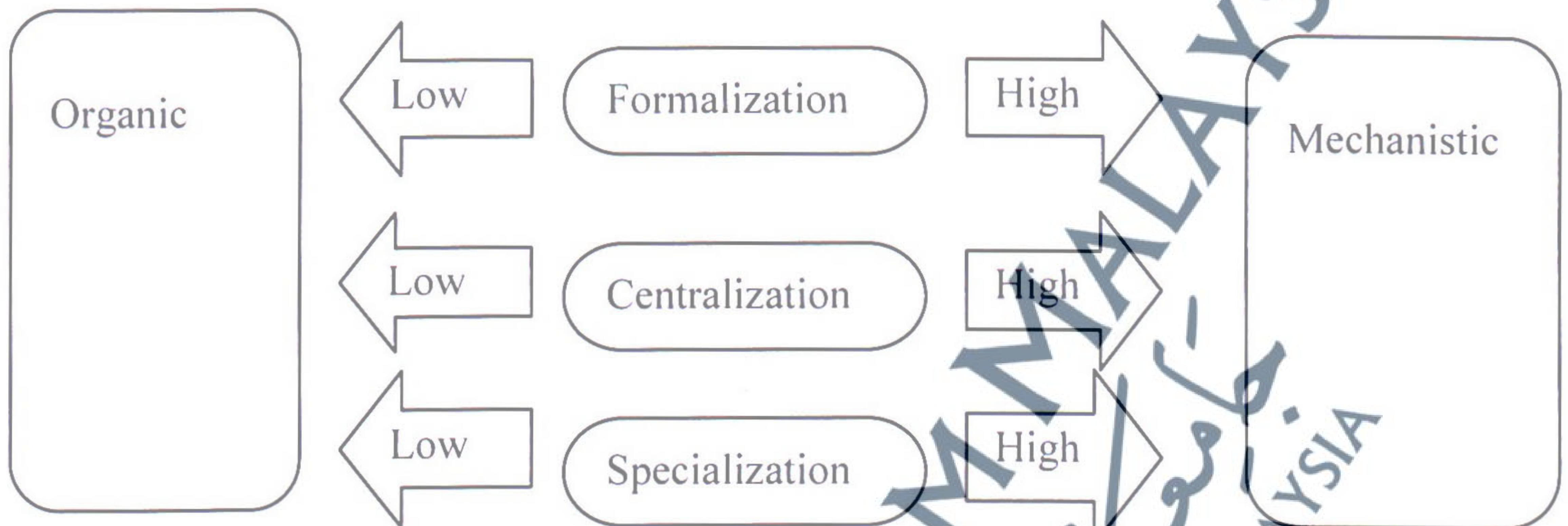
Item	Characteristics	Mechanistic	Organic
1.	Appropriate external environments	Stable conditions	Changing conditions
2.	Distribution of tasks	Specialized differentiation of functional task into which the problems and tasks facing a concern as a whole are broken down.	Contributive nature of special knowledge and experience to the common task of the concern.
3.	Nature of individual task	The abstract nature of each individual task, which is pursued with techniques and purposes more or less distinct from those of the concern as a whole (i.e. the unctionaries tend to pursue the technical improvements of means, rather than the accomplishment of the ends of the concern).	The "realistic" nature of the individual task, which is seen as set by the total situation of the concern
4.	Who (re)defines task	The reconciliation, for each level in the hierarchy, of these distinct performances by the immediate superiors, who are also, in turn, responsible for seeing that each is relevant in his own special part of the main tasks.	The adjustment and continual redefinition of individual tasks through interaction with others.
5.	Task scope	The precise definition of rights and obligations and technical methods attached to each functional role.	The shedding of "responsibility" as a limited field of rights, obligations and methods

Item	Characteristics	Mechanistic	Organic
			(problems may not be posted upwards, downwards or sideways as being someone else's responsibility).
6.	How is task conformance ensured	The translation of rights and obligations and methods into the responsibilities of a functional position.	The spread of commitment to the concern beyond any technical definition.
7.	Structure of control, authority and communication	Hierarchic structure of control, authority, and communication.	Network, presumed community of interest.
8.	Locating knowledge of	Reinforcement of the hierarchic structure by the location of knowledge of actualities exclusively at the top of the hierarchy, where the final reconciliation of distinct tasks and assessment of relevance is made.	Omniscience no longer imputed to the head of the concern; knowledge about the technical or commercial nature of the here and now may be located anywhere in the network.
9.	Communication mode	A tendency for interaction between members of the concern to be vertical (i.e., between superior and subordinate).	A lateral rather than a vertical direction of communication through the organization, communication between people of different rank, also, resembling consultation rather than command.
10.	Instruction and decisions	A tendency for operations and working behavior to be governed by the instructions and decisions issued by superiors.	A content of communication which consists of information and advice rather than instructions and decisions.
11.	Insistence on loyalty	Insistence on loyalty to the concern and obedience to superiors as a condition of membership.	Commitment to the concern's tasks and to the "technological ethos" of material progress and expansion is more highly valued than loyalty and obedience.
12.	Attachment to internal or external affiliations and expertise	A greater importance and prestige attaching to internal (local) than to general (cosmopolitan) knowledge, experience, and skill.	Importance and prestige attach to affiliations and expertise valid in the industrial and technical and commercial milieu

Item	Characteristics	Mechanistic	Organic
			external to the firm.

Source: Burns and Stalker (1961, 1994)

Figure 3-5: The Characteristics of Mechanistic versus Organic Organizational Structure



Source: Robbins (1993)

### 3.9 Environmental Dynamism and Hostility as Moderating Variables

Previous researchers conclude that superior firm performance can be achieved when the key variables are correctly aligned and fit (Naman & Slevin, 1993). As mentioned in contingency theory, optimal performance can be obtained when the key variables such as environmental and industry conditions, organizational structure, and strategy (Lawence & Lorsch, 1967; Child et al., 2003) are aligned. Based on this argument, this study included the environment factor as a moderating variable so as to achieve greater clarity and understanding of the underlying factors of firm performance. The environment refers to all elements outside the boundary of the organization such as, industry, government, customers, suppliers, and competitors (Daft, 2009).

Organizational theory provides the concept of environmental dynamism, complexity, and munificence that must be considered when seeking the relationship between strategies and firm performance (McArthur & Nystrom, 1991). This

argument has been confirmed by previous studies on organizational theory and business policy which suggested that context is identified as a crucial element to mediate the relationship between the firm's strategies and its performance (Porter, 1980; Hofer & Schendel, 1978; Pfeffer & Salancik, 1978; Sherer, 1970). Environmental factors usually play a key role as contingency variables due to the fact that businesses have no control or little control over them (Hambbrick & Lee, 1985) and the strategies must be developed by considering the current situation (McArthur & Nystrom, 1991).

Another reason on why environment was chosen as a moderating variable in this study is because prior researches illustrate some disagreement on the firm's level of entrepreneurship and firm performance relationship. According to Rauch et al., (2009) in their meta-analysis, the 75% rule suggests that there are moderators of the entrepreneurial orientation-performance relationship. Although the vast majority of the findings show that there was a positive relationship between the direct effect of entrepreneurial orientation and firm performance, studies that empirically tested report that the environment conditions have a moderating effect on this relationship. According to past results, it is essential to include environmental factors in theorizing about the relationship (Covin & Slevin, 1991; Wiklund, 1999; Zahra, 1993a, 1993b). Besides, entrepreneurial orientation is not equally appropriate in all environments (Covin & Slevin, 1989; Miller & Friesen, 1982; Zahra, 1993b). Thus, it is important to investigate the interaction effects for theoretical and empirical contributions (Rauch, et al., 2009).

In this study, the environmental dimensions used are dynamism and hostility. These two dimensions are the most widely used dimensions of the environment in previous researches (Hough & White, 2003; Lumpkin & Dess, 2001; Moreno &

Casillas, 2008; Wiklund & Shepherd, 2005; Zahra & Garvis, 2000). The strategy, organizational structure, top management's decision making-style, and corporate entrepreneurship have all been found to differ depending on the type of environment a firm encounters (Wiklund & Shepherd, 2005). Thus, these two dimensions were included in this study. Moreover, dynamism and hostility also influence the firms' everyday operations and goal achievement and includes sectors such as competitors, suppliers and customers (Daft et al., 1988).

Dynamism, or often called uncertainty, (Miller, 2007; Miller & Friesen, 1983) is characterized by the rate of change and innovation in the industry and also the unpredictable actions by competitors and customers (Miller & Friesen, 1983; Lawrence & Lorsch, 1967; Burns & Stalker, 1961). It also delineates the rapid market and technology changes (Jaworski & Kohli, 1993). In a dynamic environment, there is rapid and discontinuous change in demand, competitors, technology, or regulation so that information is often inaccurate, unavailable, or obsolete (Eisenhardt & Bourgeois, 1988:738). The widely used scale of dynamism was initiated by Miller and Friesen (1982) and extensively employed by numerous researchers (Hameed & Ali, 2011). To deal with uncertainty, the firm needs be more entrepreneurial and the organizational structure must be flexible, less hierarchical, and less formal in order to seize the opportunity and response faster (Zahra & Covin, 1995). The performance should be highest for those firms that have an orientation for pursuing new opportunities because they have a good fit between their strategic orientation and the environment (Wiklund & Shepherd, 2004).

The second environmental dimension examined in this study was environmental hostility or unfavourable external forces for a firm's business (Zahra & Garvis, 2000). Hostility is always regarded as the opposite of munificence (Lumpkin

& Dess, 2001). According to Khandwalla (1977), the environments are hostile when it is risky, stressful, and dominating. Hostility is manifested by the degree of threat to the firm and characterized by unsafe industry setting, intense competition, and lack of business opportunities (Covin & Slevin, 1989). Hostile environmental conditions result from radical industry changes, intense regulatory burdens placed on the industry, or fierce rivalry among competitors (Werner et al., 1996). These unfavourable environmental poses a significant threat to firm viability and success (Jogaratham, 2002). Thus, the firms must devote scarce resources to managing such an unfavorable environment in order to ensure the achievement of their organizational goals (Zahra 1993).

The combination of dynamism and hostility environment with corporate entrepreneurship dimensions and organic structure (a three-way interaction model) explains variance in large firm performance (Wiklund & Shepherd, 2004).

### 3.10 Firm Performance

Prior literatures on the measurement of firm performance revealed no consensus among the researchers on the appropriate measures of business performance. Thus, various measures were used to tap into business performance indicators across different studies (Chakravarthy, 1986; Combs et al., 2005; Murphy, Trailler & Hill, 1996; Venkataraman & Ramanujam, 1986; Vij & Bedi, 2012). These diverse measures may affect the corporate entrepreneurship-performance relationship due to the different indicators used to assess performance (Lumpkin & Dess, 1996). This will also lead to variation in theory development (Delmar, 2006). There are three major types of firm performance measurements that are often used in the studies on corporate entrepreneurship-performance relationship; growth, financial and non-financial. Basically, the proxy for financial measures includes profitability, revenue,

ROI, ROE, ROA, and others (Davis et al., 2010). In contrast, the nonfinancial measures include the customers', employees' and other stakeholders' level of satisfaction. The overall performance, public image and success ratings by owners or managers are also used as measures of nonfinancial performance. The indicator of firm growth includes the growth in sales, employment, market share and assets. Financial performance and growth are two distinct performance indicators, each of which, reveal important and unique information (Wiklund, 2006). For example, the long-term growth can be a trade-off for short-term profitability (Zahra, 1991).

There are three choices of calculation for growth for growth and financial performance are absolute, relative, and logarithmized measures (Delmar, 2006). The absolute measure refers to the actual difference from one observation to another. For example, if we intend to measure the turnover for 5 years period, the absolute measure is the differences between year 5 and year 1. If the differences are negative, it illustrates that performance has decreased. By dividing the absolute growth by the initial value (year 1), the relative value will be obtained. Usually the relative measure concerns the rate of change such as growth rates. Both measures are related to the problem of the effect of initial value. The absolute measures have positive relationships with initial value, but are negatively correlated with relative measures (Davidsson & Wiklund, 2006; Delmar, 1997; Storey, 1994; Weinzimmer et al., 1998). The most used method of calculation is relative measure (Delmar, 2006). The logarithmized measure was used to correct skewed distribution, thus fulfilling the assumption of the normal distribution of residuals (Delmar, 2006: 68). This method is always used for obtaining a higher fit and better use of the data (Delmar, 2006).

Another issue in the firm performance in corporate entrepreneurship studies is the measurement period; with past studies using various time frames to monitor the

effect of corporate entrepreneurship on firm performance. The measurement periods often used are one year, three years and five years. Although they did not state the reasons for using the different time frames, this choice should be based on the objective or problem of the study (Delmar, 2006). Nevertheless, decisions on the varying measurement periods may be based on the fact that the entrepreneurial effort and new venture activities may take time to generate returns to the firms.

In entrepreneurial orientation-performance relationships, researchers often used the firm's growth and financial measurements as entrepreneurial orientation usually focuses on increasing the firm's growth and profitability. Even though these two groups are empirically and theoretically related, there are also significant differences between them (Combs et al., 2005). For example, the investment in venturing and high risk projects may be for long-term growth, thus jeopardizing the short-term profits (Rauch et al., 2009). Additionally, the firms with high entrepreneurial orientation will be leaders in the markets and have the advantage of premium market segments and thus, charge high prices. This will enable them to gain more profits and allow them to expand faster (Zahra & Covin, 1995). Consequently, it is recommended to use multidimensional firm performance indicators. As suggested by Wiklund (1999: 40), taken together, growth and financial performance give a richer description of the actual performance of the firm than each does separately.

The relationship between corporate entrepreneurship and nonfinancial measures such as satisfaction is less straightforward. According to Rauch et al. (2009), there is a small probability that corporate entrepreneurship and nonfinancial measures have a positive relationship because this relationship is tenuous. This is due to the fact that corporate entrepreneurship requires employees to be more proactive, creative, faster than competitors, take bold initiatives and higher risk taking that may lead to

stress at work, more time in the office, sleepless nights and less satisfaction. On the other hand, because of better financial performance, their satisfaction may increase. However, other than satisfaction as a proxy for nonfinancial measures, entrepreneurial orientation has a positive effect on the increase in the employees' morale, collaboration and a creative working environment (Hayton, 2005). Corporate entrepreneurship also results in the creation of new business models by innovative managers (Altman & Zacharackis, 2003; Hornsby et al., 1993). Hence, it is reasonable to assume that corporate entrepreneurship-financial performance will be higher than entrepreneurial orientation-nonfinancial performance (Rauch et al., 2009).

The sources of data on firm performance are also divided into two; the objective or secondary data and the subjective or primary data. The objective data are obtained from secondary sources such as annual reports and others which are only available for publicly held companies. Thus, it is almost impossible for the small firms to provide actual financial data for researchers. It is also agreed by researchers that objective measures of performance are favourable compare to the subjective measures. However, for non-publicly held companies, financial performance is sensitive and confidential information to the outsiders (Dess & Priem, 1995). Subjective firm performance also has its own advantages such as offering great opportunities for measuring various performance measurements such as comparisons with competitors and rating the importance of performance measures (Wiklund & Shepherd, 2005). The weakness of self-reported data includes the common method variance issue, social desirability, and memory decay (Rauch et al., 2009). The subjective measures of firm performance such as the satisfaction measure of growth or performance index as proposed by Gupta and Govindarajan (1984), have been criticized by Chandler and Hanks (1993), who have questioned the validity of these

measures (Delmar, 2006). The issues in subjective measures include the differences in the level and expectation of the performance among respondents. It is also dependent on their knowledge and perceptions of the situation (Delmar, 2006). Since firm performance is multidimensional in nature, it is advantageous to incorporate various subjective and objective measures of performance to ensure reliability and validity (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2005).

There is some misunderstanding on the type of measurement models, whether they are formative or reflective measures. Most researchers assume that firm performance is a reflective measure and in assessing its reliability and validity, consequently, drop the items with low loadings. For formative measures, there is no requirement to assess reliability and validity because deleting the low loadings item may alter the meaning of the constructs. This is because, in formative measures, the indicators form the construct and are not correlated with others. For example, increase in sales is not necessarily accompanied by an increase in the number of employees. This is because other than hiring more employees, firms can meet demand in many ways such as subcontracting, changing the method of production or improving productivity (Delmar, 2006). However, whether the firm performance is a formative or reflective measure, depends on the objectives of the study and how the researcher defines firm performance and the indicators that they use. When the measures are conceptualized as interchangeable, they are expected to covary at high level and to have similar antecedents and consequences, and omitting one of them would not alter the conceptual domain of the construct, then it is appropriate to model it as a reflective measure. For example, in this study, as firm performance is divided into two groups, which is growth and profitability, the ROA and ROS measure the profitability

of the firm and should be correlated. Thus, the reflective measurement model should be used (Podsakoff et al., 2006).

Some researchers used unidimensional firm performance and others used multidimensional firm performance. Unidimensional firm performance usually employs a single indicator of firm performance, whereas for multidimensional firm performance the firms used various indicators. However, the use of a single firm performance measurement is not advisable as it may produce misleading results. According to Lumpkin and Dess (1996:153), 'research that only considers a single dimension or a narrow range of the performance construct (e.g. multiple indicators of profitability) may result in misleading descriptive or normative theory building' (Lumpkin and Dess 1996: 153).

Thus, using multidimensional firm performance reflects the actual overall performance of the firm. Besides, firm performance is viewed as multidimensional in nature and it is valuable to incorporate various dimensions of firm performance (Wiklund, 2006). In addition, the entrepreneurial activity or processes may at times lead to favourable outcomes to one performance dimension and unfavourable outcomes on a different performance dimension (Lumpkin & Dess, 1996:153). Therefore, in this study, both unidimensional and multidimensional firm performance measure are used.

### 3.11 Summary of Chapter 3

This chapter discusses the definitions, background and dimensions of the variables under study. The variables used in this study constitute the corporate entrepreneurship dimensions which are entrepreneurial orientation and corporate venturing. The entrepreneurial orientation dimensions can be divided into three categories which are innovativeness, proactiveness, and risk taking. Corporate

entrepreneurship and start-up entrepreneurship are two different concepts. While corporate entrepreneurship involves the entrepreneurial efforts of the established and large firms, start-up entrepreneurship refers more to individual level entrepreneurship. Second, the organizational structure, which is the mechanistic-organic continuum, is also discussed in this chapter. Compared to the mechanistic structure, the organic structure is less formalized, decentralized and less specialized. Based on the literature, there are two environmental types that are often used in corporate entrepreneurship-performance study, i.e. hostility and dynamism. These two dimensions are also called environmental uncertainties. Third, firm performance can be measured using multiple variables. Usually there are three major types of firm performance measurements often used in studies on corporate entrepreneurship and performance relationship; growth, financial and non-financial. The sources of firm performance data can be objective or subjective. The next Chapter 4 details the theoretical underpinning and hypotheses development.