An assessment of corporate entrepreneurship in the personal protective equipment industry

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ABSTRACT

Since the early 1990s entrepreneurship education has experienced a significant interest and growth in South Africa, due to the fact that it plays a very important part in the success of businesses, whether it is a new or an existing business venture. Corporate entrepreneurship can be defined as the development of new ideas and opportunities within a large organisation and is characterized by individuals who are energetic, creative, innovative, self-confident and take calculated risks.

When looking at the entrepreneurial orientation variables, **Autonomy, Innovativeness, Risk-taking, Pro-Activeness** and **Competitive aggressiveness** in any organisation, they require an acceptable climate to ensure that each dimension prosper. The line, middle and senior managers play an important role in entrepreneurial actions, whether it is part of creating the climate or driving the process once initiated. Entrepreneurial success factors such as creativity, innovation, risk orientation, leadership, good human relations, a positive attitude and perseverance, are all attributes of successful entrepreneurs.

The primary research focus of this study has been to investigate the influence of entrepreneurial orientation variables (Autonomy, Innovativeness, Risk-taking, Pro-Activeness and Competitive aggressiveness) on the perceived success in a personal protective equipment organisation in South Africa. For the purpose of this study, the business success has been measured by means of two dependent variables namely **Business growth** and **Business development and improvement**.

An empirical study has been conducted by using a questionnaire that measured five dimensions regarding entrepreneurial orientation. Data from 42 participants have been collected and analysed, and the results indicate that the organisation have certain aspects of entrepreneurial orientation present.

The results show that the managers in the personal protective equipment business perceived that the entrepreneurial orientation variable **Innovativeness** have a positive influence on their **Business Growth**. An important relationship between the independent variable **Innovativeness** and the dependent variable **Business development and improvement** has been found to exist**.**

Entrepreneurship and entrepreneurial orientation are more than just vibrant words in the industry; they play important roles in the survival and growth of organisations. It is also crucial to understand that the correct climate needs to be fostered within the organisation to ensure that all the various aspects of corporate entrepreneurship are achieved. The organisation will reap greater benefits that could contribute to the business staying the leader in the industry, being more competitive, creating new ventures, and introducing new products and services.

The area of significant concern for the organisation is a low or poor tolerance for risk-taking. Practical recommendations, suggestions and an action plan are presented in order to improve the entrepreneurial climate of the organisation.

KEYWORDS: Personal protective equipment, entrepreneurship, corporate entrepreneurship, entrepreneurial orientation and perceived success.

DEDICATION

I dedicate this in memory of my beloved late father, Johannes Albertus Pieterse (30/10/1934 – 13/11/2014), who inspired me with his love, values, patience and determination to live life to the fullest.

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I would like to thank the following people who supported me to complete my MBA studies over the past 3 years. My deepest appreciation goes to:

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CHAPTER 1
NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

Given the many challenges and opportunities in the global marketplace, today's managers must do more than set long-term strategies and hope for the best (Dess, Lumpkin & Eisner, 2006:8). In today's competitive environment, enterprising organisations must innovate in order to establish themselves, survive and grow (Lowe & Marriott, 2006:xvi). According to Morris, Kuratko and Covin (2008:188), entrepreneurship is more than the course of action one pursues; it is more than a mind-set.

At the level of the organisation, entrepreneurship can provide a theme or direction to a company's entire operation (Morris *et al*., 2008:188). For large organisations, creating new businesses and demonstrating healthy growth figures, is a challenge on a day to day basis. Intensifying global competition, corporate downsizing and delayering, rapid technological progress, and many other factors have heightened the need for organisations to become more entrepreneurial in order to survive and prosper (Dess, Lumpkin & McGee, 1999:85).

According to Morris *et al*. (2008:3), new forms of business organisations and business relationships are appearing almost daily. In recent years, the research on corporate entrepreneurship has escalated rapidly; it has been depicted that corporate entrepreneurship reflects the development and implementation of new ideas in an organisation and might be a vital element of successful organisations (Shah & Bhutta, 2013:79).

Shah and Bhutta (2013:79) stated further that corporate entrepreneurship can enhance the shareholder's value by creating a work environment that boosts the individual's as

well as the organisation's growth, presenting employees with an opportunity to utilise their creative skills and formulating the organisational culture that enhances the market performance of the firm. According to Thornberry (2001:526), corporate entrepreneurship encompasses a set of activities, attitudes, and actions that are believed to help large companies regain some of the lost magic.

Corporate entrepreneurship can be a powerful antidote to large organisational staleness, lack of innovation, stagnated growth, and the inertia that often overtakes the large, mature companies of the world (Thornberry, 2001:526). Organisations have also realised that they cannot grow rapidly by altering existing offerings, taking over rival companies or moving into developing countries.

Current interest in corporate entrepreneurship arose from its potential usefulness as a means for renewing established organisations and increasing their ability to compete in their chosen markets (Zahra & Covin, 1995:46). Since technologies started changing and growing continuously, it is imperative that organisations create, develop and sustain innovative new products and business models to stay competitive in the market. Most organisations must strive to do things differently and better in order to differentiate their offerings from those of the competitors in the minds of the customers and clients.

According to Dess *et al*. (2006:331), most organisations begin very small and either die or remain small. Those few that survive and prosper embark on strategies designed to increase the overall scope of operations and enable them to enter new product-market domains. A bureaucratic organisational structure leads to perceived boundaries, creating obstacles to corporate entrepreneurship activities (Scheepers, Hough & Bloom, 2008:56). Scheepers *et al*. (2008:56) state that in such organisations, people tend to focus on their departments' problems and fail to see the bigger picture.

Corporate entrepreneurship (CE) has two primary aims, the pursuit of new venture opportunities and strategic renewal (Dess *et al*., 2006:404). Entrepreneurial activities within organisations are more and more considered as a valuable instrument for

rejuvenating existing companies to be more competitive and adding to the revenue stream.

Corporate entrepreneurship can enhance shareholders' value by creating a work environment that supports individual and corporate growth, giving employees an opportunity to use their skills, quickening a company's response to the market, and creating an organisational culture that fosters cross-functional collaboration (Zahra, 1996:1715).

1.2 PROBLEM STATEMENT

Uncertainty in the world economy remains a concern, resulting in world economic growth remaining under pressure. South Africa continues to face a challenging economic environment, with various obstacles hampering the expansion and growth of businesses. Corporate entrepreneurship (or Intrapreneurship) therefore involves the fostering of entrepreneurial behaviours within an established organisation (Echols & Neck, 1998:38).

Select Personal Protective Equipment (Select PPE) is the leading organisation in offering and providing a one stop, on-site personal protective equipment solutions store on the client's premises. The organisation was founded 16 years ago and was the first mover in the market to offer the solution to customers of an onsite one stop personal protective store. It was not long before the manufacturers of PPE and other personal protective equipment suppliers realised that the mining segment in the market has accepted the PPE service offering as well as the one-stop store model and that the market was mainly untapped.

The PPE service industry solutions model has become more competitive over the last 5 years with numerous new players in the market, each one competing for a piece of market share. Although the solution offered to clients is very similar and based on the

initial model founded 16 years ago, additional offerings and techniques add to the client's overall saving and advantage (Stols, 2013).

According to WILLIS Mining Risk Review (Spring 2014), the relative calm that accompanied 2013's "strike season", obscured significant shifts within familiar industrial relations structures, along with factional contests among union leaders. It decreased predictability in future labour relations, while the wage growth-productivity gap continues to widen inexorably.

Greater new mining investment in South Africa has been deterred by the unfavourable legislative and regulatory environments, and the heightened labour risks. Numerous mining houses have been forced to restructure or close their operations, such as Pamodzi, Eastplats, Uranium One and Blyvoor gold mine. Additional obstacles such as electricity outages, load shedding and industrial actions have added to the many organisations not meeting their targets and being less profitable.

The mining sector continues to face low commodity prices combined with rising operational costs, as well as supply and demand imbalances. However, 2014 is also dogged by an uncertain financial future. Mining stocks fell some 30% in 2013 and there is little sign of improvement on the horizon. Shareholders still want to see good returns, thus increasing the pressure still further (WILLIS Mining Risk Review, Spring 2014). Once organisations experience financial difficulties, expenses are scrutinised to minimise the effect on business, ultimately creating opportunities for cost saving initiatives.

According to Dess *et al*. (1999:88), differentiators rely on strong marketing abilities, to be successful, creative flair, product engineering skills, and effective coordination across functional areas, whereas low cost leaders emphasize tight controls, process engineering skills, efficient distribution systems, and structured sets of organisational responsibilities (Porter, 1980:40-41). Organisations in South Africa face the challenge of globalisation and adapting to a constant changing economy and environment.

According to McGregor (2011:402), the Black Economic Empowerment (BEE) Act (No. 53 of 2003), provides a legislative framework for the promotion of BEE, empowering the Minister to issue the Codes of Good Practice, publishing Transformation Charters and establishing mechanisms for monitoring and evaluating BEE in the entire economy. It is possible that the Government may apply more pressure on companies to adopt BEE practices in the future.

It is imperative for management on all levels of the organisation to understand innovation and corporate entrepreneurship, in order to fight the war against rival companies and staying abreast in the daily changing environment. According to Zahra and Covin (1995:45), corporate entrepreneurship indicates that a company is willing to engage in business ventures or strategies in which the outcome may be highly uncertain. Together, product innovation, pro-activeness, and risk-taking capture the essence of corporate entrepreneurship (Zahra & Covin, 1995:45).

The research problem therefore revolves around the role and influence that entrepreneurial orientation has within local South African organisations (more specifically, the personal protective equipment business) and to what extend organisations cultivate an entrepreneurial climate to increase its autonomy, innovativeness, pro-activeness, competitive aggressiveness and risk-taking.

The purpose of this study is to understand the corporate entrepreneurial climate, and how it is maintained in order to contribute to the company's success; future growth; performance; and to be competitive in the market. From the findings of the study, a framework of practical guidelines will be developed to facilitate the process of creating and maintaining an entrepreneurial climate within the Select PPE workforce.

1.3 OBJECTIVES OF THE STUDY

1.3.1 Primary objective

The primary objective of the study is to investigate the entrepreneurial orientation within the management of the organisation. In the conclusion, recommendations will be made on how to foster and encourage an entrepreneurial climate in the organisation that may lead to success.

1.3.2 Secondary objectives

In support of the primary objective of the study, the following secondary objectives have been formulated:

1.3.2.1. Gaining insight into the business environment of Select PPE.

1.3.2.2. Defining entrepreneurship and its importance in the economy by means of a literature review.

1.3.2.3. Discussing the characteristics of entrepreneurs.

1.3.2.4. Defining corporate entrepreneurship by means of a literature review.

1.3.2.5. Defining entrepreneurial orientation by means of a literature review.

1.3.2.6. Obtaining insight into the dynamics of corporate entrepreneurship, entrepreneurial climate and the role of top and middle management within these concepts.

1.3.2.7. Assessing the perceived entrepreneurial orientation at Select PPE by means of the questionnaire.

1.3.2.8. Determining if any relationship exists between entrepreneurial orientation and the perceived success of the business.

1.3.2.9. Drawing a conclusion from the quantitative data obtained and making practical recommendations to ensure that corporate entrepreneurship orientation and innovation are enhanced in the company.

1.3.2.10. Validating the reliability of the questionnaire by means of statistical analysis.

1.3.2.11. Providing recommendations and suggestions to Select PPE to foster entrepreneurial orientation and innovation within the organisation.

1.4 SCOPE OF THE STUDY

1.4.1 Field of the study

The field of this study falls within the subject discipline of entrepreneurship, with specific reference to assessing the entrepreneurial orientation of management in the personal protective equipment industry.

1.4.2 The organisation under investigation

The business under investigation will be Select PPE – South Africa, with its head office situated at 5 Protea Road, Unit 17, Industrial Park, Aureus, Randfontein. Select PPE currently holds contracts with a number of South Africa's leading mining and industrial organisations for the supply, distribution and control of personal protective equipment. Select PPE is a division of the Mine Safety Appliances (MSA), the global leader in safety, and a New York Stock Exchange listed company, providing it with financial stability and access to international product expertise.

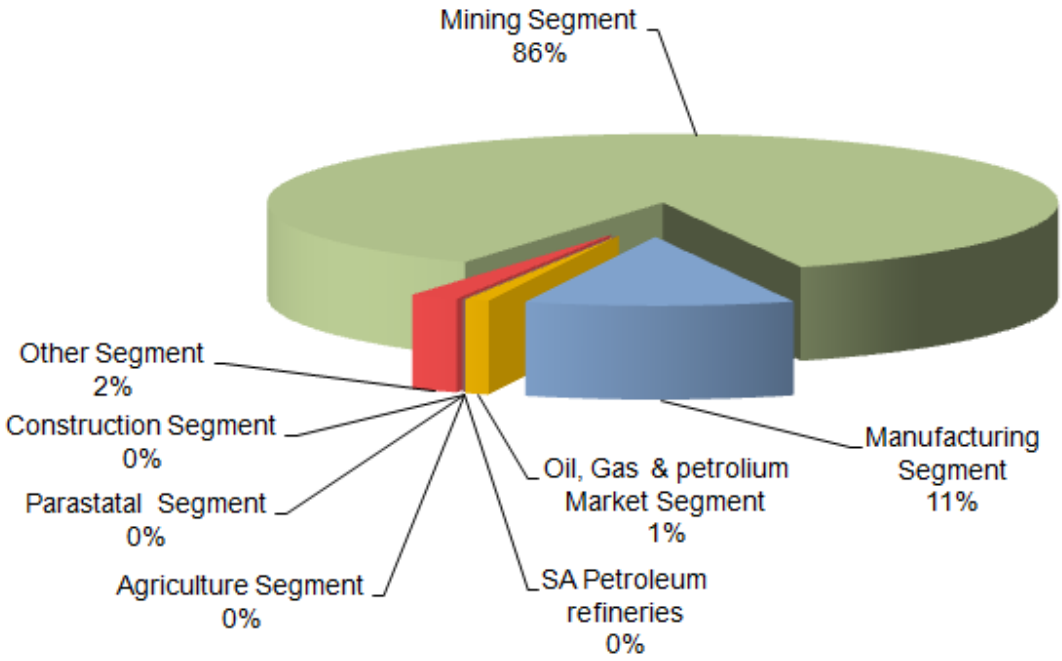
Select PPE, a multi-brand service provider of customised, on-site Personal Protective Equipment (PPE) managed solutions in sub-Saharan Africa. The company was founded in 1998, and provides customers with partnership-based management solutions for the procurement and individually recorded issues of PPE. Select PPE was established to serve a niche market, and has since inception grown in experience and dominated market share (Stols, 2013:14).

Select PPE currently employs in excess of 320 people to run its South African operation, and serves an impressive complement of over 160 on-site stores, supported by five strategically placed distribution centres as per Figure 1.1.

Figure 1.1: Select PPE's distribution centres of SA operations

Select PPE is also proud of its BEE partnership with the Mineworkers Investment Company (MIC), and its status as a level four contributor. Select PPE ensures that the everyday protection of workers is according to the client's specifications, procedures and codes of practice with supporting documentation. This is achieved by providing products that comply with regulations, recording the issuing thereof, and providing records to individual product users. The company aims to achieve fast, flexible, efficient and cost-effective management processes that leverage application-specific expertise. Its system flexibility and logistic network, allows the company to further its goals of providing solutions to all sub-Saharan countries and all industry segments (Author's own view, 2013).

Figure 1.2: Select PPE's business partners in South Africa per segment



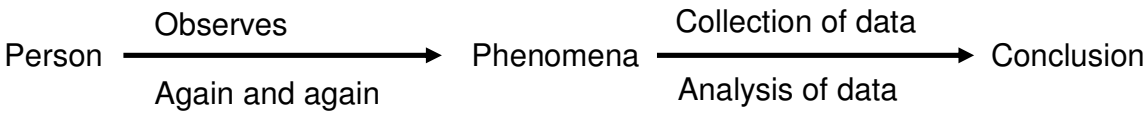
For almost two decades, managers have been learning to play by a new set of rules (Porter, 1996:4). According to Porter (1996:4), companies must be flexible to respond rapidly to competitive and market changes, they must benchmark continuously to achieve the best practices and nurture a few core competencies in the race to stay ahead of rivals. This rare ability to manage continuity and change, requires a consciously practiced discipline and is closely linked to the ability to develop a vision (Collins & Porras, 1996:44).

1.5 RESEARCH METHODOLOGY

According to Singh (2006:2), the term 'research' consists of two words:

Research = Re + Search

"Re" means again and again and "Search" means to find out something, the following indicates the process:



Research is a process during which a person observes the phenomena again and again, collects data and on the basis of the data, draws some conclusions (Singh, 2006:2).

According to Goddard and Melville (2001:1), research is not just a process of gathering information; it is rather about answering unanswered questions or creating that which does not currently exist. Research methodology considers and explains the logic behind research methods and techniques (Welman, Kruger & Mitchell, 2005:2). It is a process to find out the result of a given problem on a specific matter or problem that is also referred to as a research problem.

1.5.1 Literature review

The following topics were researched:

- The definition of entrepreneurship and entrepreneurial orientation.
- Entrepreneurship and entrepreneurial orientation in general.
- The dimensions measuring entrepreneurial orientation, i.e. autonomy, innovativeness, risk-taking, pro-activeness and competitive aggressiveness.
- The role played by managers in creating and fostering the entrepreneurial orientation.
- The perceived success of the organisation.

To conduct the literature review, various publications were sourced, including textbooks, previous research studies, and journals.

1.5.2 Empirical research

The empirical research will be done by means of a questionnaire, specifically focussed on the line, middle and senior management levels. All completed questionnaires received will be printed and analysed accordingly.

1.5.2.1 The questionnaire

The empirical study will be done by adapting and using a questionnaire developed by Lotz and Van der Merwe (2013:15-31) to measure the entrepreneurial orientation and perceived success of the organisation within SPPE. Lotz and Van der Merwe (2013:21) designed the questionnaire founded on the entrepreneurial orientation items as identified by Lumpkin and Dess (2001:442). The questionnaire measures five constructs regarding entrepreneurial orientation, including autonomy, innovativeness, risk-taking, pro-activeness and competitive aggressiveness. This therefore incorporates the dimensions of entrepreneurial orientation investigated in this study.

The questionnaire consists of three sections, which are:

Sections A and B

The line, middle and senior managers will be required to complete the questionnaire measuring the ***Autonomy, Innovativeness, Risk-taking, Pro-activeness*** and ***Competitive aggressiveness*** of the entrepreneurial orientation within SPPE.

Section A has gathered ***attitudes towards the entrepreneurial orientation of the business*** using 27 statements, **while** Section B has used 11 statements to assess the ***attitudes towards the success of the business*** in the organisation.

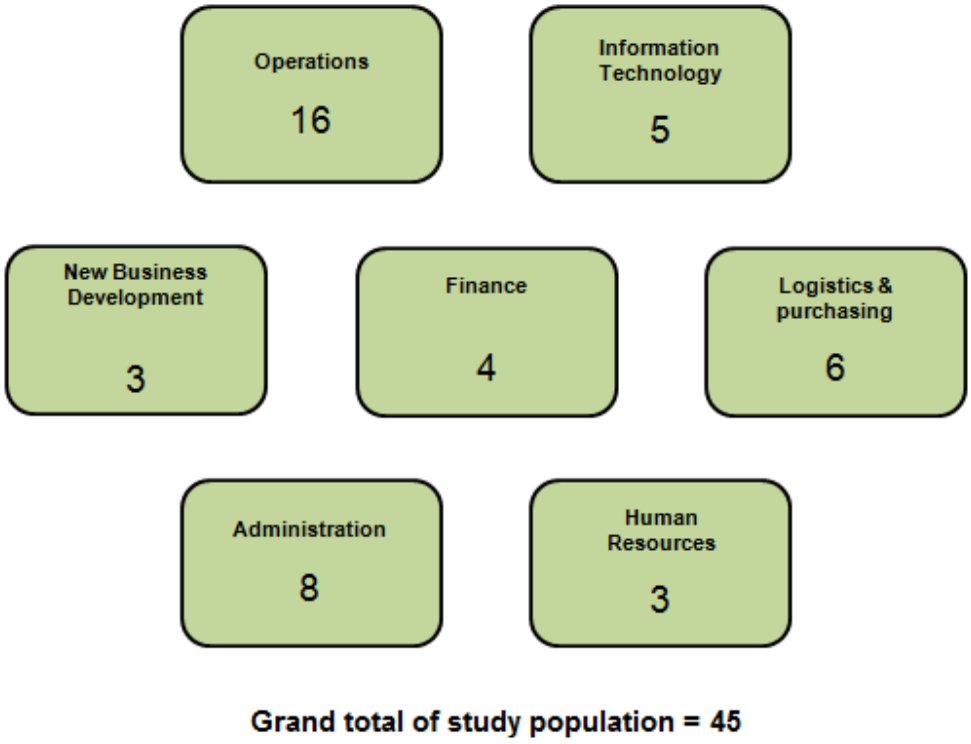
Section C

The ***biographical information of the participating managers*** *has been* collected in Section C**.**

1.5.2.2 Study population

The target population for this study is the line, middle and senior management levels within Select PPE. Due to the economy and competitive forces in the industry, Select PPE is forced to be vigilant and therefore requires employees to be pro-active, positive and innovative in their approach to daily work and strategic planning. The study population includes samples of all the various departments within Select PPE, as illustrated in Figure 1.3 below.

Figure 1.3: Study population



1.5.2.3 Data gathering

Preceding the distribution of the survey questionnaires, an electronic communication will be sent out to the relevant individuals to explain the purpose of the survey and to request their pledge to complete the questionnaire successfully by the target date. The data will be gathered by emailing copies of the questionnaire to the individuals who have been identified and forms part of the study population. Assurance will be given to all participants that all the information and responses will be treated as confidential and will be handled as such.

1.5.2.4 Statistical analysis

The completed questionnaires received will be statistically analysed by the Statistical Consultation Services (SCS) of the North-West University, Potchefstroom campus. The analysis will consist of descriptive statistics entailing the arithmetic mean; standard deviation; Cronbach's Alpha coefficient testing the reliability of the questionnaire; inferential statistics such as the independent t-test and effect sizes; and multiple linear regression analyses.

1.5.2.5 Questionnaire measuring scale

The questionnaire has used a five-point Likert scale, varying between 1 (for **strongly disagree**) to 5 (**strongly agree**) and the respondents had to indicate their agreement or disagreement to a specific question or statement. The Likert scale is probably the most widely used scale in survey research (de Vos, Strydom, Fouché & Delport, 2011:211). According to Neuman (2006:207), the Likert scale is used in research where people express their attitudes or other responses in terms of ordinal-level categories (e.g. agree or disagree), that are ranked along a continuum (de Vos *et al*., 2011:212). Welman *et al*. (2005:157) state that the Likert scale, unlike other scales, may be used for multidimensional attitudes.

1.6 LIMITATIONS OF THE STUDY

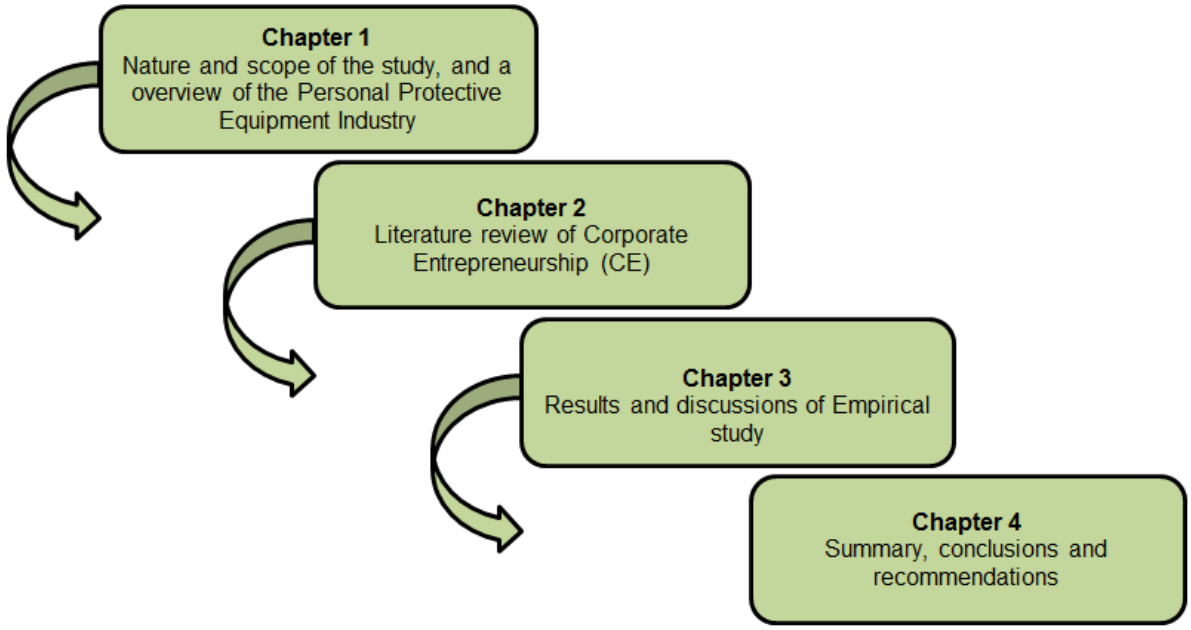
The study has been directed to assess the level of corporate entrepreneurship within Select PPE in South Africa, as well as whether it is part of the company's culture. Electronic communication with the identified population is fundamental to the success rate of the questionnaires as the commitment and buy-in by participants will determine the quality of the feedback received.

This study has been limited to the line, middle and senior management levels within Select PPE, due to financial and logistical constraints. While the ideal would have been to obtain participation from employees at all levels, it also would have necessitated adaptation of the questionnaire in order to accommodate all staff lower than line management. Although employees at any level of the organisation can make a contribution towards innovation and benefit from the right entrepreneurial climate, this study will exclude all staff lower than line management.

1.7 LAYOUT OF THE STUDY

The layout of the study is presented in Figure 1.4.

Figure 1.4: Layout of the study



Source: Author's own view

Chapter 1: **Nature and scope of the study**

Chapter one provides the background to the study. During the introduction the nature and scope of the study are discussed in detail. The problem statement is defined followed by the primary and secondary objectives. Research has been conducted through a literature review and empirical research. The empirical research has been executed by means of a questionnaire, completed by a predefined study population where after the gathered data has been statistically analysed.

Chapter 2: **Literature review on corporate entrepreneurship and entrepreneurial orientation**

The literature review and corporate entrepreneurship are discussed in detail in Chapter two. The origin, definitions and research trends with regards to entrepreneurship are dealt with. The entrepreneurial characteristics are tabled and discussed, where after the push and pull factors of entrepreneurship are explained in Figure 2.1. The ten commandments of an intrapreneur are also tabled.

Corporate entrepreneurial models of organisations are compared and discussed in detail. The changing nature of competitive advantage and entrepreneurial orientation are discussed in conjunction with the five dimensions, namely autonomy, innovativeness, pro-activeness, competitive aggressiveness and risk-taking. Towards the end of the chapter the hypothesis model is discussed, followed by the development and implementation of corporate entrepreneurship.

Chapter 3: **Empirical research and results**

Chapter three includes a comprehensive explanation of the research methodology that has been followed to complete the empirical study. The formulated questionnaire I used to conduct the empirical study in order to investigate the entrepreneurial orientation and perceived business success in the participating organisation has been discussed. An explanation of the statistical method used to analyse the data is discussed in detail during the chapter. The data has been gathered, processed, analysed and discussed in a user-friendly format.

Chapter 4: **Conclusion and recommendations**

The final chapter draws conclusions from the findings after the data have been analysed. Select PPE has been provided with a final conclusion and recommendations in terms of their entrepreneurial orientation. The objectives set for the study in Chapter

one is evaluated to confirm whether they have been achieved. Practical recommendations are made with suggestions to ensure an entrepreneurial orientation in Select PPE.

CHAPTER 2
LITERATURE REVIEW OF ENTREPRENEURIAL ORIENTATION

2.1 INTRODUCTION

Although the term entrepreneurship has been in use for well over 200 years, there is considerable disagreement over its meaning (Kuratko, Morris & Covin, 2011:9). According to Kuratko *et al*. (2011:28), many people associate entrepreneurship with the start-up of a new business, but this is a very narrow view.

Entrepreneurship is a way of thinking, reasoning, and acting, that is opportunity obsessed, holistic in approach, and leadership balanced for the purpose of value creation and capturing (Spinelli & Adams, 2012:87). According to Nieman and Nieuwenhuizen (2009:9), the motivation for entrepreneurial activities is to make profit.

Nieman and Nieuwenhuizen (2009:9) further state that entrepreneurship is also the process that causes changes in the economic system through the innovations of individuals who respond to opportunities in the market. According to Morris and Kuratko (2002:22), entrepreneurship is the process of creating value by bringing together a unique package of resources to exploit an opportunity (refer to Stevenson *et al*., 1999).

Over the years, literally hundreds of perspectives and views have been published. Nieman and Nieuwenhuizen (2009:9) comment that the distinguishing factors of entrepreneurs are most strongly innovation, and then opportunity recognition and growth in a business (Watson 2001:50).

2.2 DEFINING ENTREPRENEURSHIP

Entrepreneurship is one of the four mainstream economic factors: land, labour, capital and entrepreneurship (Holt, 1992:3). According to Holt (1992:3), the word entrepreneurship derived from 17th-century French word *entreprendre,* referring to individuals who were *undertakers,* meaning those who undertook the risk of new enterprises.

The way our notion of an entrepreneur has been crafted has a long history, dating back to Cantillon in 1755 (Burns, 2008:9). Table 2.1 summarises some of the significant developments in the theory.

Table 2.1: The antecedence of modern entrepreneurship

Date	Author	Concept
1755	Cantillon	Introduced the concept of entrepreneur from "entreprendre".
1803, 1815	Jean-Baptiste Say	Emphasized the ability of entrepreneurs to "marshal" resources in order to respond to unfulfilled opportunities.
1871, 1981	Carl Menger	Noted the ability of entrepreneurs to distinguish between "economic goods" – those with a market or exchange value – and all others.
1893	Ely and Hess	Attributed to entrepreneurs the ability to take integrated action in the enterprise as a whole, combining roles in capital, labour, enterprise and entrepreneur.
1911/1934, 1928	Schumpeter	Envisioned that entrepreneurs proactively "created" opportunity using "innovative combinations" which often included "creative destruction" of passive or lethargic economic markets.

1921	Knight	Suggested that entrepreneurs were concerned with the efficiency in economic factors by continually reducing waste, increasing savings and thereby creating value, implicitly understanding the opportunity-risk-reward relationship.
1948, 1952, 1967	Hayek	Continued the Austrian tradition of analytical entrepreneurs giving them capabilities of discovery and action, recognizing the existence of information asymmetry, which they could exploit.
1975, 1984, 1985	Shapero	Attributed a "judgement" ability to entrepreneurs to identify "credible opportunities" depending on two critical antecedents – perceptions of "desirability" and "feasibility" from both personal and social viewpoints.
1974	Drucker	Attributed to entrepreneurs a sense to foresee market trends and make a timely response.
1973, 1979, 1997, 1999	Kirzner	Attributed to entrepreneurs a sense of "alertness" to identify opportunities and exploit them accordingly.

Source: Burns (2008:9)

According to Boehm (2008:12), the phenomenon of entrepreneurship is intertwined with a complex set of contiguous and overlapping constructs such as the management of change, innovation, technological and environmental turbulence, new products development, small business management, individualism, and industry evolution.

Furthermore, the phenomenon can be productively investigated from disciplines as varied as economics, sociology, finance, history, psychology, and anthropology, each of which uses its own concepts and operates within its own frame of reference.

According to Nieman and Nieuwenhuizen (2009:7), research trends of entrepreneurship are divided into five periods in Table 2.2 on page 21.

Table 2.2: Research trends in entrepreneurship

Period	Topic	Authors and Researchers
What entrepreneurs do 1700 – (1950)	From an economic perspective	Cantillon, Say, Schumpeter
Who entrepreneurs are 1960 – (1980)	From a behaviourist perspective	Weber, McClelland, Rotter, De Vries
What Entrepreneurs do 1980 -	From a management science perspective (finance, marketing, operations, human resources)	Drucker, Mintzberg
What support is needed by entrepreneurs 1985 -	From a social perspective, including economists, geographers and sociologists	Gartner, Welsh, Bygrave, Reynold
What entrepreneurial activities are and what competencies are required to perform them 1990 -	From an entrepreneurship perspective	Timmons, Vesper, Brockhaus

Source: Nieman and Nieuwenhuizen (2009:8)

According to Kuratko *et al*. (2011:9), entrepreneurship has four key components, namely:

First: entrepreneurship involves a process. It is manageable, can be broken down into steps or stages, and is on-going. Moreover, as a process, entrepreneurship can be applied to any organisational context.

Second: entrepreneurs create value where there was none before. They create value within organisations, and they create value in the marketplace.

Third: entrepreneurs put resources together in a exceptional way. A unique combinations of money, people, procedures, technologies, materials, facilities, packaging, distribution channels, and other resources represent the means by which entrepreneurs create value and differentiate their efforts.

Fourth: Entrepreneurship is an opportunity-driven behaviour. It is the pursuit of opportunity without regard to the resources currently controlled (Stevenson *et al*., 2006).

2.2.1 Entrepreneurship defined

Entrepreneurship is more than the mere creation of business (Kuratko & Hodgetts, 2004:3). Entrepreneurship is the process of conceptualising, organising, launching and, – through innovation – nurturing a business opportunity into a potentially high growth venture in a complex, unstable environment (Rwigema & Venter, 2004:6).

There are numerous definitions that boil down to the notion of value creation through new ventures. According to Rwigema & Venter (2004:5), the following definitions are just a sample of what is available:

"Entrepreneurship is the act of forming a new organisation of value" (Bateman & Snell, 1996:208).

"Entrepreneurship is the seemingly discontinuous process of combining resources to produce new goods or services" (Stoner, Freeman & Gilbert, 1995:160).

"Entrepreneurship is the creation of new enterprise" (Bartol & Martin, 1998:672).

"Entrepreneurship is the creation of an innovative economic organisations (or network of organisations) for the purpose of gain under conditions of risk and uncertainty" (Dollinger, 1995:7).

"Entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, physical and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence" (Hisrich & Peters, 1998:9).

Although literally hundreds of perspectives have been presented, seven of the most prevalent themes are summarised in Table 2.3.

Table 2.3: Seven perspectives on the nature of entrepreneurship

Theme	Explanation
Creation of Wealth	Entrepreneurship involves assuming the risks associated with the facilitation of production in exchange for profit.
Creation of Enterprise	Entrepreneurship entails the founding of a new business venture where none existed before.
Creation of Innovation	Entrepreneurship is concerned with unique combinations of resources that make existing methods or products obsolete.
Creation of Change	Entrepreneurship involves creating change by adjusting, adapting, and modifying one's personal repertoire, approaches, and skills to meet different opportunities available in the environment.
Creation of Employment	Entrepreneurship is concerned with employing, managing, and developing the factors of production, including the labour force.
Creation of Value	Entrepreneurship is the process of creating value for customers by exploiting untapped opportunities.
Creation of Growth	Entrepreneurship is defined as a strong and positive orientation toward growth in sales, income, assets and employment.

Source: Morris and Kuratko (2002:23)

2.2.2 Characteristics of entrepreneurs

Researchers worldwide have tried to summarise the characteristics that entrepreneurs need to have, but it remains a complicated task, as every entrepreneur is different and unique (Nieman & Nieuwenhuizen, 2009:32). According to Nieman and Nieuwenhuizen (2009:32), entrepreneurs are not necessarily born with these characteristics – they can be acquired through life experience and even through the entrepreneurial process itself.

According to Kuratko *et al*. (2011:223), there appears to be a few characteristics on which a consensus has emerged between authors, in Table 2.4 a comprehensive list of the psychological traits associated with the entrepreneurial personality are listed.

Table 2.4: Sixteen common traits and characteristics associated with the entrepreneurial Individual

No.	Description	No.	Description
1	Achievement motivation	9	Persistent problem solving
2	Internal Locus of control	10	Opportunity orientation
3	Calculated risk-taking	11	Integrity and reliability
4	Tolerance of ambiguity	12	High energy level/work ethic
5	Commitment/perseverance/determination	13	Resourcefulness
6	Independence	14	Creativity and innovativeness
7	Self-confidence and optimism	15	Vision
8	Tolerance for failure	16	Team Building

Source: Kuratko *et al*. (2011:223)

According to Timmons and Spinelli (2009:44), scholars have continued to characterise the special qualities of entrepreneurs. A summary of this earlier research is listed in Table 2.5 on page 25.

Table 2.5: Characteristics of entrepreneurs

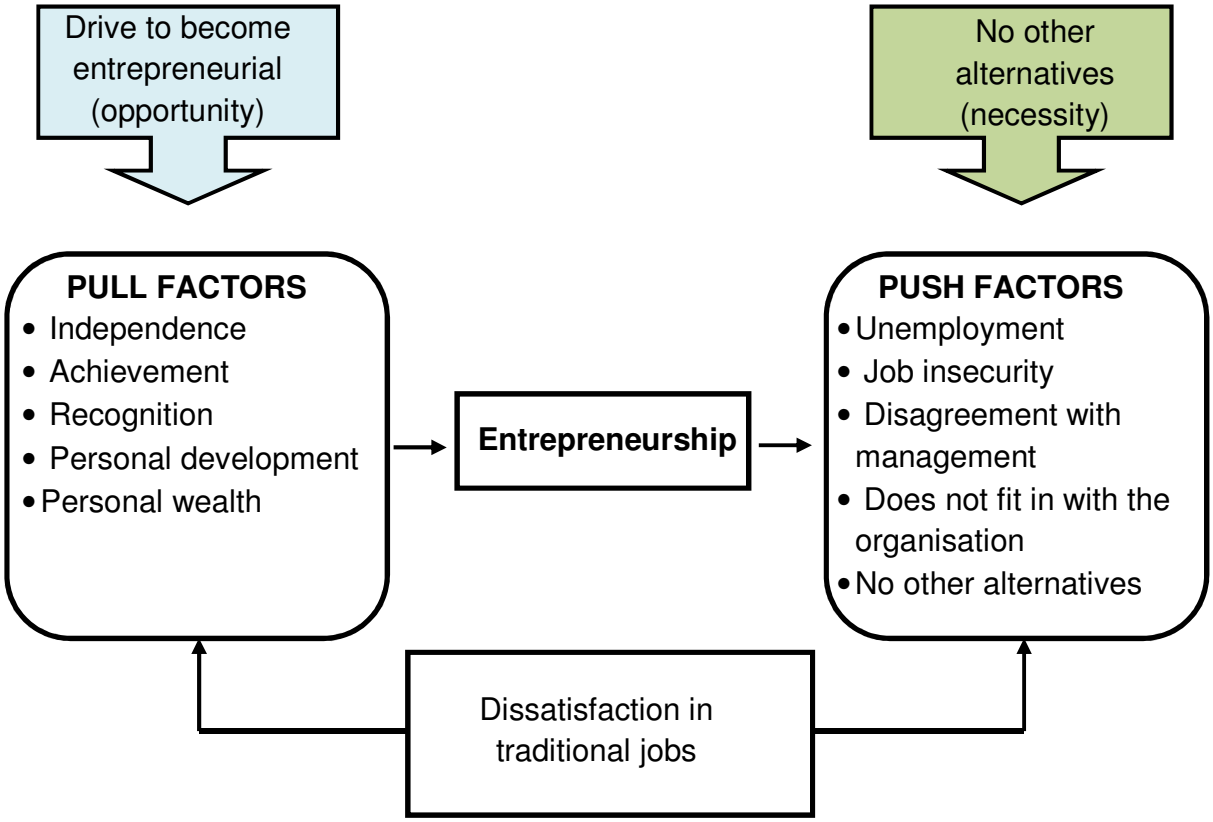
Date	Author	Explanation
1848	Mill	Risk bearing
1917	Weber	Source of formal authority
1934	Schumpeter	Innovation; initiative
1954	Sutton	Desire for responsibility
1959	Hartman	Source of formal authority
1961	McClelland	Risk-taking; need for achievement
1963	Davids	Ambition; desire for independence, responsibility, self-confidence
1964	Pickle	Drive/mental; human relations; communication ability; technical knowledge
1971	Palmer	Risk measurement
1971	Hornaday and Aboud	Need for achievement; autonomy; aggression; power; recognition; innovative/independent
1973	Winter	Need for power
1974	Borland	Internal locus of power
1982	Casson	Risk; innovation; power; authority
1985	Gartner	Change and ambiguity
1987	Begley and Boyd	Risk-taking; tolerance of ambiguity
1988	Caird	Drive
1998	Roper	Power and Authority
2000	Thomas and Mueller	Risk; power; internal locus of control; innovation
2001	Lee and Tsang	Internal locus of control

Source: Timmons and Spinelli (2009:44)

2.2.3 Outcomes of entrepreneurship

Although the decision to become an entrepreneur is an individual and personal one, it is possible to see some commonalities in the push and pull factors that influence the personal decision to choose self-employment (Lowe & Marriott, 2006:46). Entrepreneurship is not always seen as a legitimate or desirable career choice (Nieman & Nieuwenhuizen, 2009:34).

Figure 2.1: The pull and push factors of entrepreneurship



Source: Nieman and Nieuwenhuizen (2009:34)

2.2.4 Entrepreneur

According to Timmons and Spinelli (2009:45), the entrepreneur is one of the most intriguing and at the same time most elusive characters in the cast that constitutes the subject of economic analysis.

An entrepreneur is a person who sees an opportunity in the market, gathers resources, and creates and grows a business venture to meet the needs (Nieman & Nieuwenhuizen, 2009:9). They continue by stating that he or she bears the risk of the venture, and is rewarded with a profit if it succeeds.

There is a tendency to think of entrepreneurs as gunslingers – as people who shoot from the hip and ask questions later (Morris & Kuratko, 2002:27). The term entrepreneur may be properly applied to those who incubate new ideas, start enterprises based on those ideas, and provide added value to society, based on their independent initiative (Holt, 1992:11).

2.2.5 Intrapreneur

Kuratko and Hodgetts (2004:43) state that the intrapreneur may be the creator or the inventor, but is always the dreamer who figures out how to turn an idea into a profitable reality. Intrapreneurs are not necessarily the inventors of new products or services, but are the persons who can turn ideas or prototypes into profitable realities (Kuratko & Hodgetts, 2004:67). According to Kuratko and Hodgetts (2004:69), intrapreneurs are self-determined goal setters who go beyond the call of duty in achieving their goals as set out in Table 2.6 on page 28.

Table 2.6: The ten commandments of an intrapreneur

No.	Commandments
1	Come to work each day willing to be fired
2	Circumvent any orders aimed at stopping your dream
3	Do any job needed to make your project work, regardless of your job description
4	Network with good people to assist you
5	Build a spirited team: Choose and work with only the best
6	Work underground as long as you can – publicity triggers the corporate immune mechanism
7	Be loyal and truthful to your sponsors
8	Remember it is easier to ask forgiveness than for permission
9	Be true to your goals, but be realistic about the ways to achieve them
10	Keep the vision strong

Source: Kuratko and Hodgetts (2004:69)

2.3 CORPORATE ENTREPRENEURSHIP (CE)

Corporate entrepreneurship is a term used to describe entrepreneurial behaviour inside established mid-sized and large organisations (Kuratko *et al*., 2011:11). According to Dess *et al*. (2006:404), corporate entrepreneurship (CE) has two primary aims: the pursuit of new venture opportunities and strategic renewal.

Several studies have made it clear that corporate entrepreneurship could foster organisational growth (Zahra, 2005:xvi), and stated the following:

- Zahra reported a positive association between his measures of corporate entrepreneurship and sales and revenue growth (Zahra, 1991:259).

- Wiklund (1999) also found a positive association between corporate entrepreneurship and revenue growth.
- Zahra and Covin reported a positive association between changes in corporate entrepreneurship and organisational growth (Zahra & Covin, 1995:43).

According to Wolcott and Lippitz (2007:75), corporate entrepreneurship is defined as the process by which teams within an established company conceive, foster, launch and manage a new business that is distinct from the parent company but leverages the parent's assets, market position, capabilities or other resources.

Kuratko *et al*. (2011:58) state that the challenge is to determine how entrepreneurial a given organisation is. The answer to the question lies in the three underlying dimensions of entrepreneurship namely Innovativeness, Risk-taking and Pro-activeness.

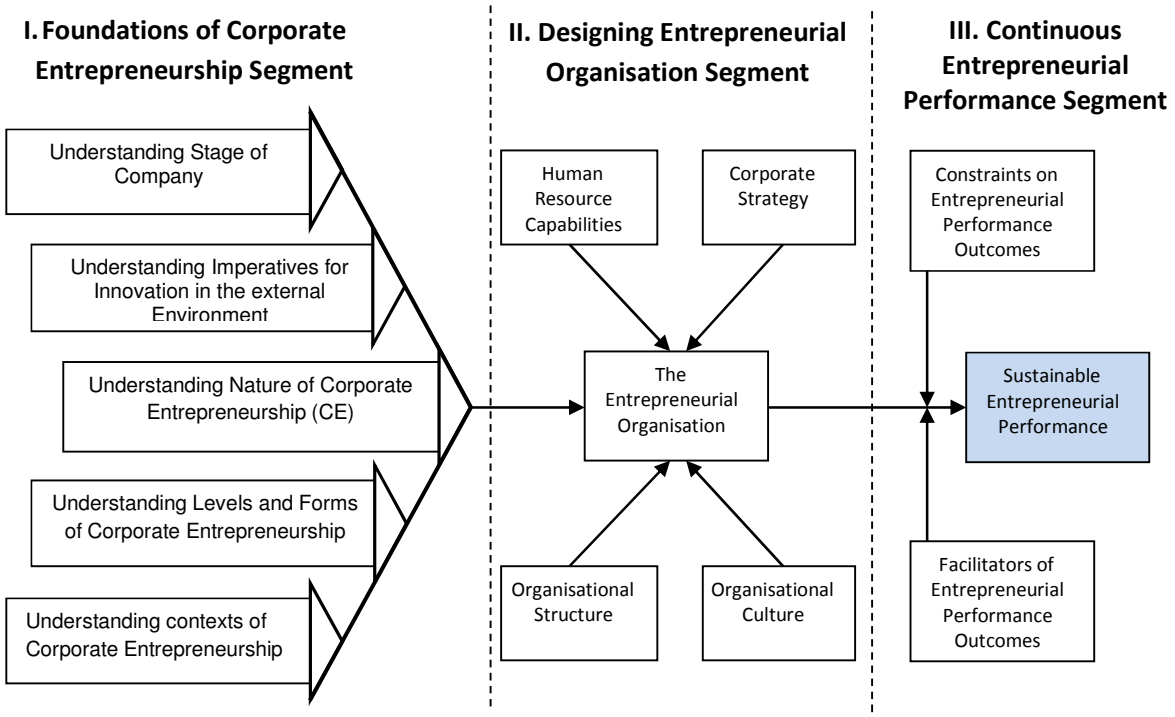
Corporate entrepreneurship uses the fruits of the innovation process to help firms build new sources of competitive advantage and renew their value propositions (Dess *et al*., 2006:404).

The question comes to mind of how entrepreneurship applies to the established organisation. The following model in Figure 2.2 illustrates the three segments of corporate entrepreneurship namely;

i. Foundations of Corporate Entrepreneurship
ii. Designing Entrepreneurial Organisation
iii. Continuous Entrepreneurial Performance

There are four key elements that play a significant role in the work environment of the entrepreneurial organisation, namely the organisational strategy, structure, culture and human resources management system.

Figure 2.2: A model of corporate entrepreneurship (CE)



Source: Kuratko *et al*. (2011:22)

Antoncic and Zorn (2004:7) point out that organisational and management support for entrepreneurial activities is one important organisational element that is beneficial to corporate entrepreneurship (Van Vuuren, Groenewald & Gantsho, 2009:333). Kuratko *et al*. (2011:21) state that the Corporate Entrepreneurship model can be applied in addressing the entrepreneurial challenges within any organisation.

Most of the markets are very competitive due to the fact that competitors can find out about a recently introduced products or services, wherever it is in the world. By making use of the Internet, finding out information takes a few minutes whereas research could take weeks. Pressure is also applied to innovators, as many of the more successful product introductions are copied fast by lower-cost manufacturers from emerging markets (Lowe & Marriott, 2006:201).

According to Kuratko *et al*. (2011:8), remaining competitive is very difficult unless the company achieves a sustainable competitive advantage. It is specifically believed that advantage derives from five key company capabilities. These include:

- *Adaptability* – the ability to adjust on a timely basis to new technologies, new customer needs, new regulatory rules, and other changes in conditions, without losing focus or causing significant disruptions in the core operations and commitments.

- *Flexibility* – the ability to design company strategies, processes and operational approaches that can simultaneously meet the diverse and evolving requirements of customers, distributors, suppliers, financiers, regulators and other key stakeholders.

- *Speed* – the ability to act quickly on emerging opportunities, to develop new products and services more rapidly, and to make critical operational decisions without lengthy deliberations.

- *Aggressiveness* – an intense, focused and proactive approach to eliminating competitors, delighting customers and growing employees.

- *Innovativeness* – a continuous priority placed on developing and launching new products, services, processes, markets, and technologies and on leading the marketplace.

These five capabilities ultimately come down to one – entrepreneurship (Kuratko *et al*., 2011:9).

2.4. ENTREPRENEURIAL ORIENTATION (EO)

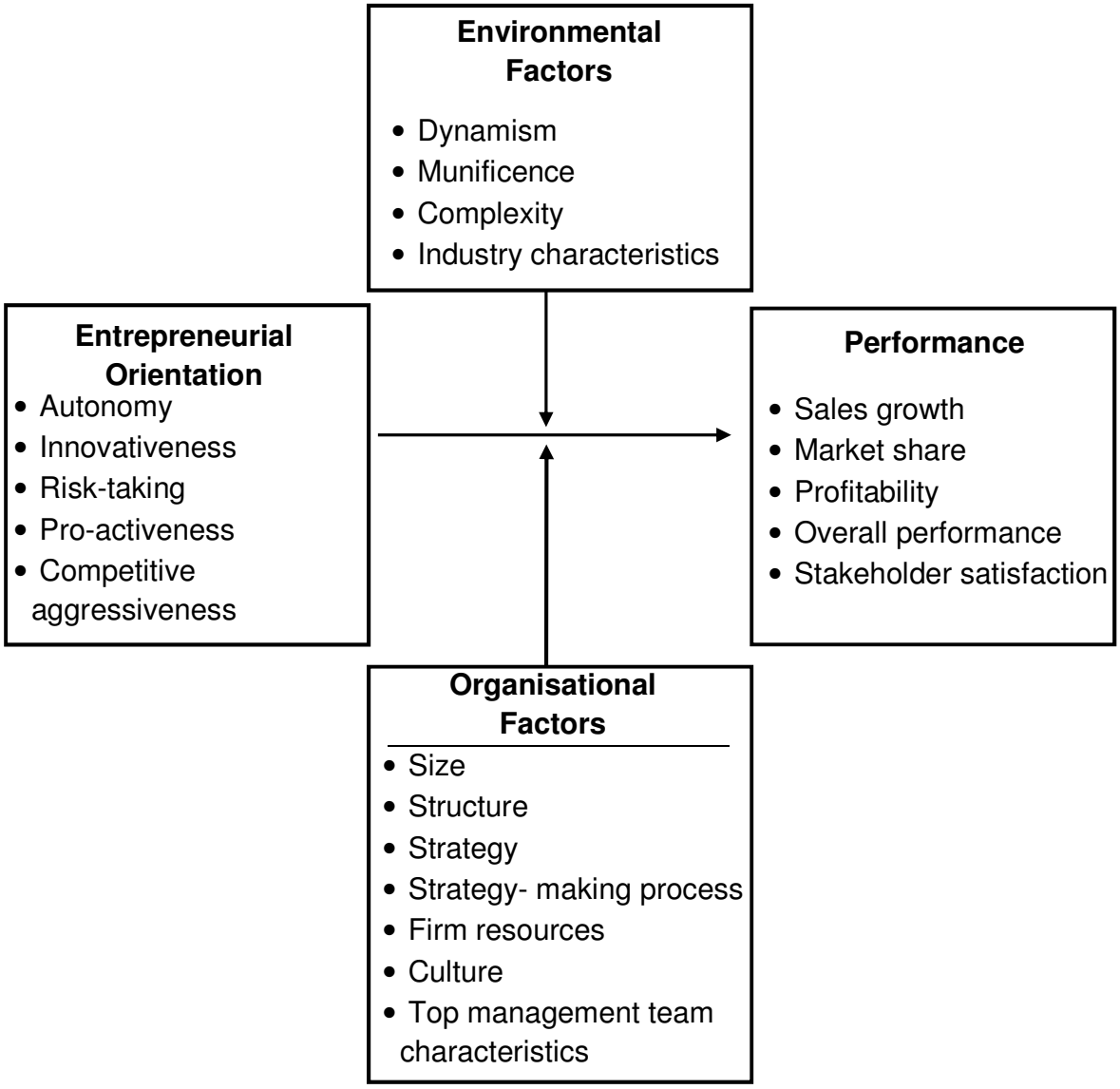
Entrepreneurial orientation refers to a firm's strategic orientation, capturing specific entrepreneurial aspects of decision-making styles, methods, and practices (Wiklund & Shepherd, 2005:74). Wiklund and Shepherd (2005:74) state that it reflects how a firm operates, rather than what it does (Lumpkin & Dess, 1996). Entrepreneurial orientation involves the intentions and actions of key players functioning in a dynamic generative process, aimed at pre-empting emerging opportunities (Chang, Lin, Chang & Chen, 2007:999).

According to Lumpkin and Dess (1996:135), entrepreneurship for both start-up and existing firms are the carrier for the pursuit of business opportunities that spurs to business expansion, technological progress, and wealth creation. Firms that want to engage in successful corporate entrepreneurship need to have an entrepreneurial orientation (EO) (Dess *et al.*, 2006:414).

Dess *et al*. (2006:414) state further that entrepreneurial orientation refers to the strategy-making practices that businesses use in identifying and launching corporate ventures. According to Lumpkin and Dess (1996:136), strategies are developed to place emphasis on the entrepreneurial processes that assist managers to act entrepreneurially.

The framework suggested in Figure 2.3 on page 33, present factors that may affect the relationship between an entrepreneurial orientation and performance.

Figure 2.3: Conceptual framework of entrepreneurial orientation



Source: Lumpkin and Dess (1996:152)

According to Nieman and Nieuwenhuizen (2009:11), entrepreneurial orientation is critical to the survival and growth of firms, as well as the economic prosperity of nations. Entrepreneurial orientation is fostered by a unique blend of factors, such as culture, family and role models, education, work experience and personal orientation (Nieman & Nieuwenhuizen, 2009:11).

The five dimensions – Autonomy, innovativeness, risk-taking, pro-activeness, and competitive aggressiveness – have been useful for characterizing and distinguishing key entrepreneurial processes, that is, a firm's *entrepreneurial orientation* (EO) (Lumpkin and Dess, 1996:136). Table 2.7 summarizes the dimensions of an entrepreneurial orientation and how the five dimensions have been used to enhance internal venture development.

Table 2.7: Dimensions of entrepreneurial orientations

Dimension	Definition
Autonomy	Independent action by an individual or team aimed at bringing forth a business concept or vision and carrying it through to completion.
Innovativeness	A willingness to introduce novelty through experimentation and creative processes aimed at developing new products and services as well as new processes.
Risk-taking	Making decisions and taking action without certain knowledge of portable outcomes; some undertakings may also involve making substantial resource commitments in the process of venturing forward.
Pro-activeness	A forward-looking perspective characteristic of a marketplace leader that has the foresight to seize opportunities in anticipation of future demand.
Competitive aggressiveness	An intense effort to outperform industry rivals. It is characterized by a combative posture or an aggressive response aimed at improving position or overcoming a threat in a competitive marketplace.

Source: Dess *et al*. (2006:414)

For the purpose of this study, these five dimensions have been considered as independent variables influencing the dependable variable, perceived success.

2.4.1 Autonomy

Autonomy refers to a willingness to act independently in order to carry forward an entrepreneurial vision or opportunity (Dess *et al*., 2006:414). Entrepreneurship has flourished because independently minded people have elected to leave secure positions in order to promote novel ideas, or venture into new markets, rather than to allow organisational supervisors and processes to inhibit them (Lumpkin & Dess, 1996:140).

Lumpkin and Dess (1996:140) state that autonomy refers to the independent action of an individual or a team in bringing forth an idea or a vision and carrying it through to completion. According to Dess *et al*. (2006:415), two techniques that organisations often use to promote autonomy, include:

- *Using skunk works to foster entrepreneurial thinking*.
  To help managers and other employees set aside their usual routines and practices, companies often develop independent work units called "skunk works", to encourage creative thinking and brainstorming about new venture ideas.

- *Designing organisational structures that support independent action*.
  Sometimes corporations need to do more than create independent think tanks to help stimulate new ideas.

Considering the above arguments, the following hypothesis was formulated:

H[1]: There is a positive relationship between autonomy in the workplace and the perceived success of the participating personal protective equipment business.

2.4.2 Innovativeness

Innovativeness is the predisposition to engage in creativity and experimentation through the induction of new products or services, as well as technological leadership via research and development (R&D) in new processes (Rauch, Wiklund, Lumpkin & Frese, 2009:763). Innovativeness reflects a firm's tendency to engage in and support new ideas, novelties, experimentation, and creative processes that may result in new products, services, or technological processes (Lumpkin & Dess, 1996:142). Innovativeness refers to a firm's efforts to find new opportunities and novel solutions (Dess *et al*., 2006:416).

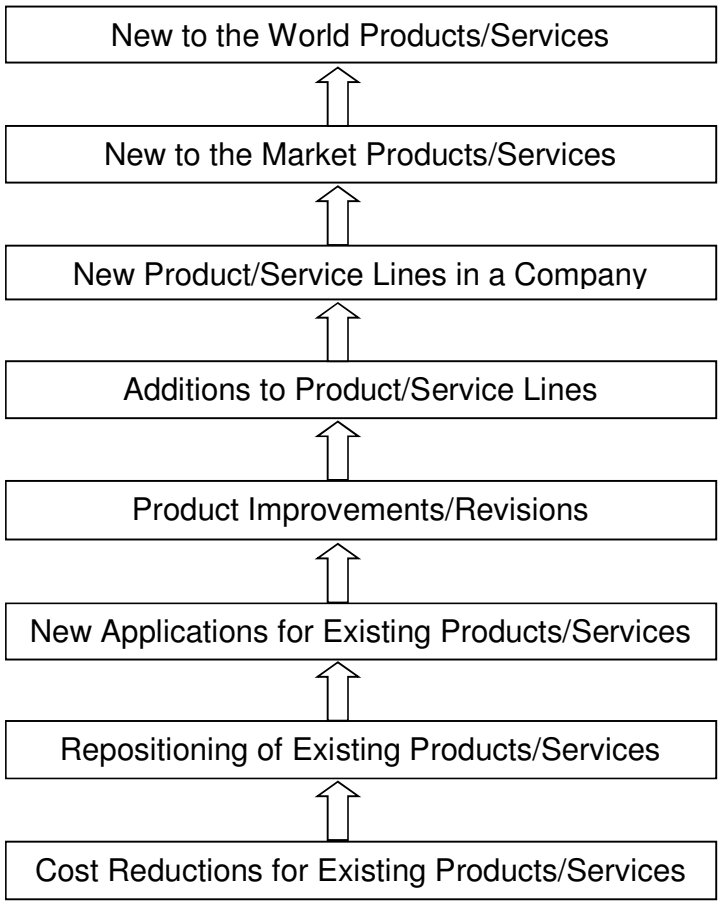
According to Dess *et al.* (2006:416), two of the methods companies can use to enhance their competitive position through innovativeness are:

- *Fostering creativity and experimentation*.
  To innovate successfully, firms must break out of the moulds that have shaped their thinking.

- *Investing in new technology, R&D, and continuous improvement*.
  For successful innovation, companies must seek advantages from the latest technologies.

Morris *et al*. (2008:54) summarises the innovativeness dimension of the entrepreneurial orientation of products and services in Figure 2.4 on page 37.

Figure 2.4: Innovativeness as it applies to products and services



Source: Morris *et al*. (2008:55)

Innovation is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or service. It is capable of being presented as a discipline, capable of being learned, capable of being practiced (Drucker, 1985:17).
For the reasons above and the confidence through research that a positive relationship exists between innovativeness and perceived business success, the following hypothesis was formulated:

H^2: There is a positive relationship between innovativeness in the workplace and the perceived success of the participating personal protective equipment business.

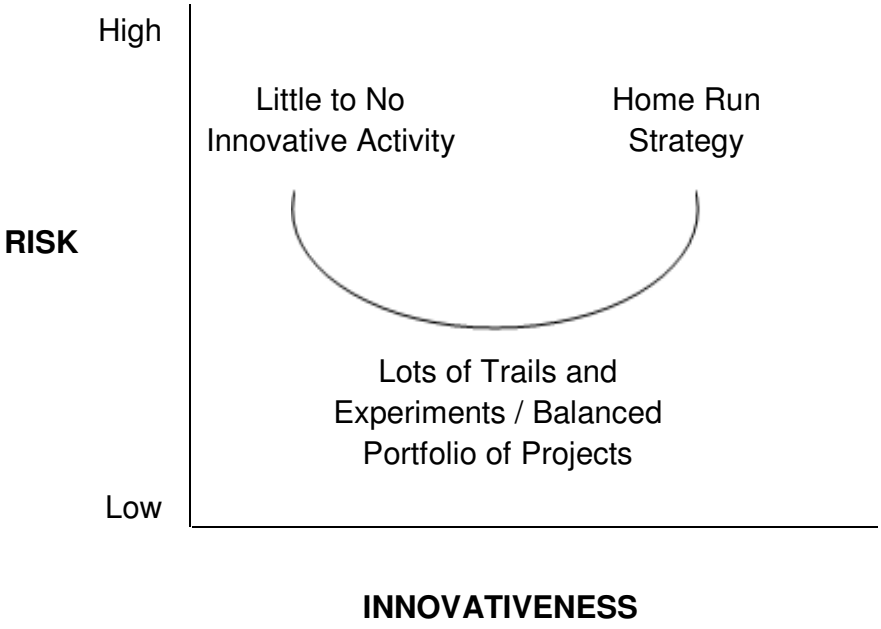
2.4.3 Risk-taking

Risk-taking is associated with the willingness of the entrepreneur to take calculated business related risks (Rwigema, Venter and Urban, 2008:506). Risk-taking involves taking bold actions by venturing into the unknown, borrowing heavily, and/or committing significant resources to ventures in uncertain environments (Rauch *et al*., 2009:763). In life, anything new involves risk, or some likelihood that actual results will differ from your expectations. Risk-taking involves a willingness to pursue opportunities that have a reasonable likelihood of producing losses or significant performance discrepancies (Morris *et al*., 2008:62).

According to Morris *et al*. (2008:62), the relationship is shown as a curvilinear function. The risk is high when the company ignores new product and service opportunities, and engages in little or no innovation as per Figure 2.5 on page 39. Only carefully managed risk is likely to lead to competitive advantages (Dess *et al*., 2006:423). Companies that do not innovate are faced with a higher risk of market and technology shifts that are capitalised on by competitors (Morris *et al*., 2008:62).

Morris *et al*. (2008:62) state that one might be tempted to assume that innovativeness and risk-taking are directly correlated, that doing more innovative things means taking higher risks and vice versa. In reality, the relationship may be more complex, as shown in Figure 2.5 on page 39.

Figure 2.5: Relating innovation to risk



Source: Morris *et al*. (2008:63)

In view of the above uncertainty, the researcher is of the opinion that a positive relationship exists between risk-taking and the perceived success of a business. Based on this, the following hypothesis was formulated to test the relationship:

H^5: There is a positive relationship between risk-taking in the workplace and the perceived success of the participating personal protective equipment business.

2.4.4 Pro-activeness

Pro-activeness 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 (Rauch *et al*., 2009:763). The essence of pro-activeness is

captured in the well-known Nike slogan "Just do it" (Morris *et al*., 2008:66). Pro-activeness refers to a firm's efforts to seize new opportunities (Dess *et al*., 2006:418).

Dess *et al.* (2006:419) state that there are two methods that can be used to act pro-actively, namely:

- *Introducing new products or technological capabilities ahead of the competition:* Maintaining a high level of pro-activeness is central to the corporate culture of some major corporations. Sony's mission statement asserts for instance, "We should always be the pioneers with our products – out front leading the market. We believe in leading the public with new products rather than asking them what kind of products they want."
- *Continuously seeking out new product or service offerings:* Firms that provide new resources or sources of supply can benefit from a pro-active stance.

Because pro-activeness suggests an emphasis on initiating activities, it is closely related to innovativeness and is likely to be implemented together with it, as in the case of new product introductions (Lumpkin & Dess, 1996:148).

The researcher is of the opinion that the literature has proved that a positive relationship exists between pro-activeness and the perceived success of a business, therefore the following hypothesis is mentioned in support:

H^3: There is a positive relationship between pro-activeness in the workplace and the perceived success of the participating personal protective equipment business.

2.4.5 Competitive aggressiveness

Competitive aggressiveness is the intensity of a firm's efforts to outperform rivals and is characterized by a strong offensive posture or aggressive responses to competitive

threats (Rauch *et al*., 2009:763). Overall, competitive aggressiveness induces a firm to effectively enhance its product mix flexibility and volume flexibility (Chang *et al*., 2007:1006).

Dess *et al*. (2006:420) state that there are two ways to enhance competitively aggressive organisations, namely:

- Entering markets with drastically lower prices, and
- Copying the business practices or techniques of successful competitors.

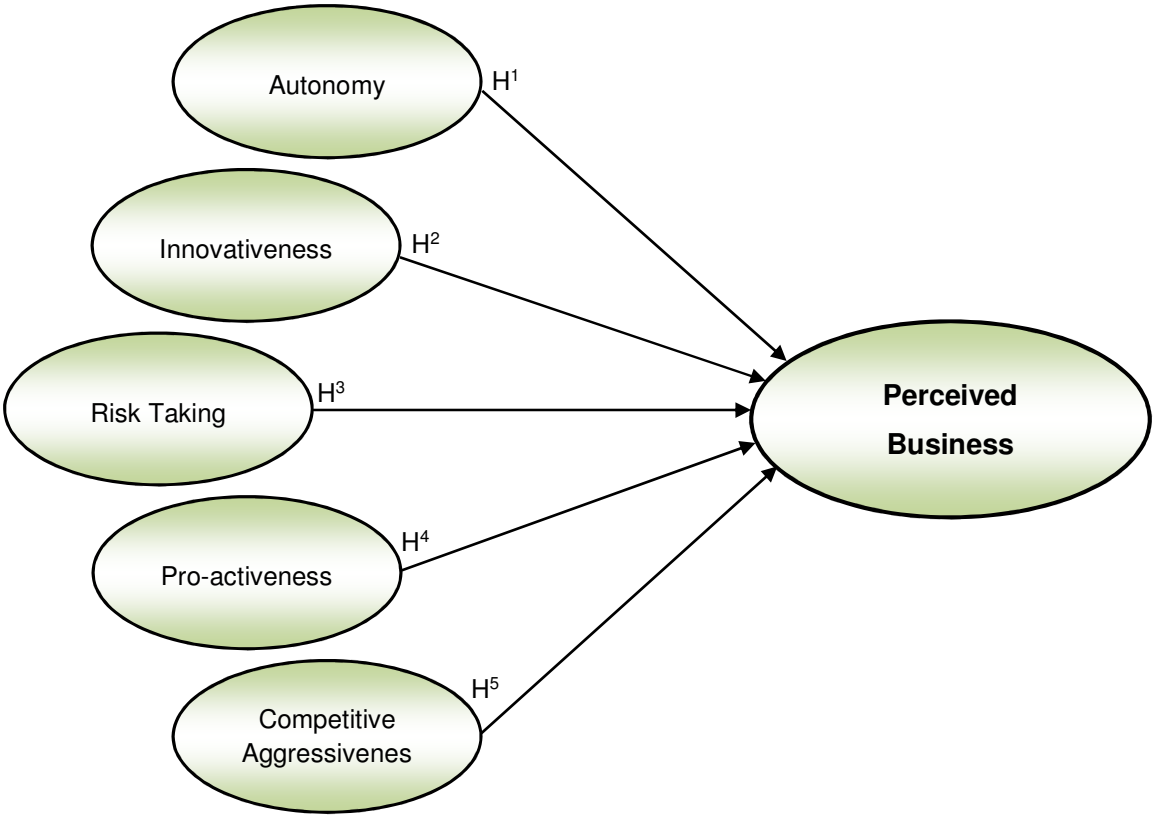
Competitive aggressiveness refers to a firm's efforts to outperform its industry rivals (Dess *et al*., 2006:419). The following hypotheses need further investigation:

H^4: There is a positive relationship between competitive aggressiveness in the workplace and the perceived success of the participating personal protective equipment business.

2.5. THE HYPOTHESIS MODEL

In Figure 2.6 (the hypothesised model), the dimensions of entrepreneurial orientation are hypothesised as influencing the dependent variable, perceived success of the organisation as depicted, namely Autonomy, Innovativeness, Pro-activeness, Risk-taking and Competitive aggressiveness (Lotz and Van der Merwe, 2013:17). They state that the dimensions of entrepreneurial orientation, investigated in the study, have positively influenced the *perceived success* of the organisation.

Figure 2.6: Hypothesis model



Source: Lotz and Van der Merwe (2013:17)

According to Lotz and Van der Merwe (2013:17), the dimensions of an entrepreneurial orientation investigated in this study are justified by a sufficiency of theory in corporate entrepreneurship literature. No claims are made that the model has an exhaustive coverage of every possible factor influencing the perceived success of the organisation.

The dependent variable, *perceived business success*, for the purpose of this study, has been measured by two variables namely, *business growth* and *business development*. It is therefore necessary to reformulate the hypotheses to incorporate both dependent variables, measuring business success.

The amended hypotheses are:

H^{1a}: There is a positive relationship between *Autonomy* in the workplace and *Business growth* of the participating personal protective equipment business.

H^{1b}: There is a positive relationship between *Autonomy* in the workplace and *Business development and improvement* of the participating personal protective equipment business.

H^{2a}: There is a positive relationship between *Innovativeness* in the workplace and *Business growth* of the participating personal protective equipment business.

H^{2b}: There is a positive relationship between *Innovativeness* in the workplace and *Business development and improvement* of the participating personal protective equipment business.

H^{3a}: There is a positive relationship between *Risk-taking* in the workplace and *Business growth* of the participating personal protective equipment business.

H^{3b}: There is a positive relationship between *Risk-taking* in the workplace and *Business development and improvement* of the participating personal protective equipment business.

H^{4a}: There is a positive relationship between *Pro-activeness* in the workplace and *Business growth* of the participating personal protective equipment business.

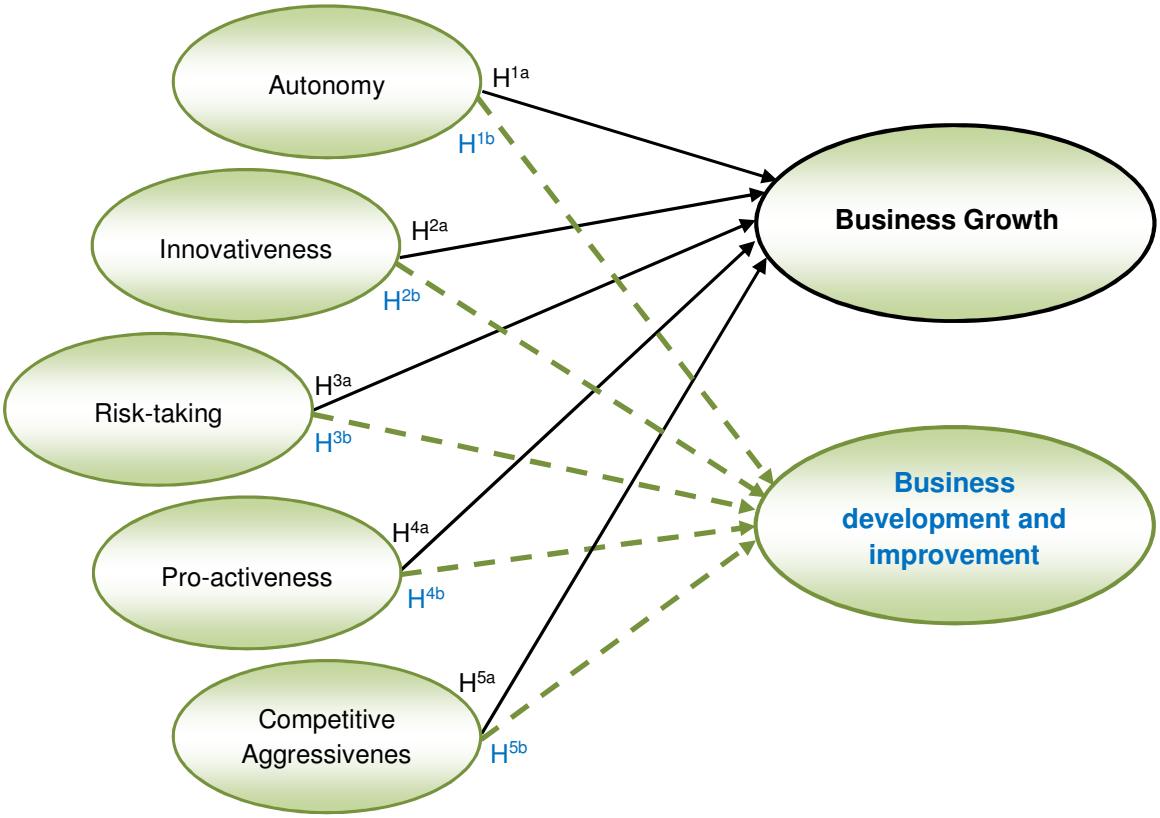
H^{4b}: There is a positive relationship between *Pro-activeness* in the workplace and *Business development and improvement* of the participating personal protective equipment business.

H^{5a}: There is a positive relationship between *Competitive aggressiveness* in the workplace and *Business growth* of the participating personal protective equipment business.

H^{5b}: There is a positive relationship between *Competitive aggressiveness* in the workplace and *Business development and improvement* of the participating personal protective equipment business.

The amended hypothesis model is illustrated in Figure 2.7.

Figure 2.7: Amended Hypothesis model



Source: Lotz and Van der Merwe (2013:25)

2.6 DEVELOPING AND IMPLEMENTING CORPORATE ENTREPRENEURSHIP IN AN ORGANISATION

Scheepers *et al.* (2008:69) emphasise that to become more entrepreneurial, companies should firstly start at the top, and that strategic leadership and top management support for corporate entrepreneurship are crucial for cultivating corporate entrepreneurship capabilities. It also plays an instrumental role in developing an entrepreneurial climate. The managerial challenge is concerned with how to make it sustainable and how to

maintain the desired frequency and degree of entrepreneurship on an on-going basis (Kuratko *et al*., 2011:234).

Table 2.8 provides some general guidelines for managers, as they attempt to move the organisation in the right direction, by applying rules for fostering an innovative organisation.

Table 2.8: Rules for fostering an innovative organisation

Rule #	Description
Rule #1: Unreasonable expectations	• Only when people subscribe to unreasonable goals will they start searching for breakthrough ideas. • There are no mature industries, only mature managers who unthinkingly accept someone else's definition of what is possible.
Rule #2: Elastic business definition	• Too many companies define themselves by what they do rather than by what they know (core competencies) and what they own (strategic assets).
Rule #3: A cause, not a business	• Revolutionaries draw much of their strength from their allegiance to a cause that goes beyond growth, profits, or even personal wealth accumulation. • The courage to leave some of one self behind and strike out for parts unknown comes not from some assurance that "change is good" but from a devotion to a wholly worthwhile cause.
Rule #4: New voices	• Let the youth be heard. • Listen to the periphery. • Let new comers have their say.
Rule #5: An open market for ideas	• Create a market for entrepreneurial ideas inside your company. • New ideas are the currency of the realm.

Rule #6: Create an open market for capital	• Within a corporation, why set the hurdle for assessing a small investment for the purpose of funding an unconventional idea, building a prototype, or designing a market trail at the same difficulty as obtaining a large investment in an irreversible, existing business?
Rule #7: Open a market for talent	• "A" people work on "A" opportunities. • Provide incentives for employees who are willing to take a "risk" on something out of the ordinary.
Rule #8: Low-risk experimentation	• Being revolutionary does not mean being a high-risk taker. • False dichotomy: Cautious follower vs. high-risk taker. Neither is likely to pay off in the age of revolution.

Source: Kuratko *et al*. (2011:45)

Yet, the real barriers to creative thinking are sometimes the inadvertent "killer phrases" that we use in our communication (Kuratko & Hodgetts, 2004:140). Table 2.9 describes fifteen most common idea stoppers:

Table 2.9: The most common idea stoppers

No.	Description
1	"Naah"
2	"Can't" (said with a shake of the head and an air of finality)
3	"That's the dumbest thing I ever heard"
4	"Yeah, but if you did that....."(poses an extreme or unlikely disaster case)
5	"We already tried that - years ago"
6	"We've done all right so far; why do we need that?"
7	"I don't see anything wrong with the way we're doing it now"
8	"That doesn't sound to practical"
9	"We've never done anything like this before"
10	"Let's get back to reality"
11	"We've got deadlines to meet – we don't have time to consider that"
12	"It's not in the budget"
13	"Are you kidding?"
14	"Let's not go off on a tangent"
15	"Where do you get these weird ideas"

Source: Kuratko and Hodgetts (2004:140)

2.7 SUMMARY

Kuratko *et al*. (2011:3) stated that we are in the midst of a global entrepreneurial revolution. In virtually every nation, every industry, and every market, entrepreneurs are challenging existing assumption and creating value in novel ways. Entrepreneurship is about creating organisations, change, innovation and wealth (Kuratko *et al*., 2011:9). According to Echols and Neck (1998:38), *corporate entrepreneurship* may be viewed as a system enabling individuals to use creative processes that enable them to apply and invent technologies that can be planned, deliberate, and purposeful in terms of the level of innovative activity desired.

Entrepreneurial businesses ensure growth in the economy (Nieman & Nieuwenhuizen, 2009:3). Entrepreneurs will continue to be critical contributors to economic growth through their leadership, management, innovation, research and development effectiveness, job creation, competitiveness, productivity, and the formation of new industries (Kuratko & Hodgetts, 2004:3).

Corporate entrepreneurship can be a *powerful antidote* to large company's staleness, lack of innovation, stagnated top-line growth, and the inertia that often overtakes the large, mature companies of the world (Thornberry, 2001:526).

CHAPTER 3

RESULTS AND DISCUSSION

3.1 INTRODUCTION

The primary purpose of the research was to study the relationship between the entrepreneurial orientation dimensions, specifically ***autonomy, innovativeness, risk-taking, pro-activeness*** *and* ***competitive aggressiveness*** (independent variables) and the ***perceived business success*** *towards* ***Business Growth*** *and* ***Business development and improvement*** (dependent variables) in the organisation being investigated.

According to Bhattacherjee (2012:3), theories and observations are the two pillars of science. Scientific research operates at two levels, namely a theoretical level and an empirical level. Bhattacherjee (2012:3) state that the empirical level is concerned with testing the theoretical concepts and relationships to see how well they reflect our observations of reality, with the goal of ultimately building better theories.

The quantitative research approach has been followed in this study. According to Welman *et al*. (2005:6), the positivist approach to research is also known as the quantitative approach. Welman *et al*. (2005:13) comment that when you follow a quantitative methodology process you are attempting to measure variables or count occurrences of a phenomenon.

3.2 RESEARCH METHODOLOGY, DATA COLLECTION AND STATISTICAL ANALYSIS

3.2.1 Gathering of data

A clear distinction exists between a research design and a research methodology, which includes data-collection methods (de Vos *et al*., 2011:171). Bhattacherjee (2012:10)

state that understanding the unit of analysis is important because it shapes what type of data you should collect for your study and from whom to collect it.

Babbie (2007:246) define a questionnaire as a document containing questions and other types of items designed to solicit information appropriate for analysis (de Vos *et al*., 2011:186). They continue by stating that although the term questionnaire suggests a collection of questions, a typical questionnaire will probably contain as many statements as questions, especially if the researcher is interested in determining the extent to which respondents hold a particular attitude or perspective.

Forty five (45) emails were disseminated to all the Select PPE line, middle and senior managers with the questionnaire attached (refer to Annexure A on page 106), and a detailed message explaining the purpose of the study. Ninety three percent (93%) participation was achieved with the forty two (42) participants that completed their questionnaires successfully. The completed questionnaires were submitted to the Statistical Consultation Services (SCS) department, and analysed.

The mean and standard deviation supported the extent of the differences between how managers in the personal protective equipment organisation under investigation rated themselves on the five entrepreneurial orientation dimensions. During the results discussions, the five entrepreneurial orientation dimensions were discussed individually and collectively, with reference to the various means and standard deviations. The Cronbach's alpha coefficient was used as a measuring instrument to measure the reliability. The two dependent variables of perceived success, namely *business growth* and *business development and improvement,* were discussed independently and assisted in presenting the data as a whole to portray the significance and results thereof.

3.2.2 Study population

The study population that was targeted in Select PPE was the line, middle and senior managers representing the various departments. The number of the targeted individuals and the various departments are presented in Figure 1.3 on page 12.

Researchers cannot study entire populations, because of feasibility and cost constraints; hence, they must select a representative sample from the population of interest for observation and analysis (Bhattacherjee, 2012:65). He continues to state that it is extremely important to choose a sample that is truly representative of the population, so that the inferences derived from the sample can be generalized back to the population of interest.

Only Select PPE as an organisation was selected in the personal protective equipment services industry for the study, due to the limitation of financial resources. Taking the above limitation into consideration it is suggested that further research will be useful in the personal protective equipment service industry.

3.2.3 Questionnaire used

The empirical research performed was through the administration of a standard questionnaire, compiled by Lotz (2009:324). The questionnaire was customised to measure entrepreneurial orientation and the perceived business success (refer to Annexure A) of the line, middle and senior managers in the organisation being investigated.

Section A of the questionnaire measured the ***entrepreneurial orientation***; Section B measured the success factors, such as business growth and ***business development and improvement*** within the organisation; and Section C the ***biographical information*** of the participant.

3.3 RESULTS OF BIOGRAPHICAL INFORMATION

3.3.1 Classification of respondents by age groups

- *Rationale of the question*

The purpose of Question C1 in Section C (Biographical information) of the questionnaire (Annexure A) was to determine the age group category of the respondents.

- *Results obtained*

The age group classification of the respondents is presented in Table 3.1.

Table 3.1: Classification of respondents by age group

Age	Total	Percentage
<29	7	16.7
30-39	23	54.7
40-49	10	23.8
50-59	2	4.7
Total	**42**	**100.0**

- *Results analysed*

The largest representative age group category was the age group of 30-39 years which equated to 54.8%. The category 40-49 years old represented 23.8% of the respondents. When combining the age categories 30-39 and 40-49, it makes up 78.6% of the respondents presented in Table 3.1. This indicated that Select PPE has a team that is in the midst of their career span. Only 4.8% of respondents formed part of the age category 50-59 years, and 16.7% was younger than 29 years.

3.3.2 Gender of respondents

- *Rationale of the question*

The purpose of Question C2 in Section C (Biographical information) of the questionnaire (Annexure A) was to determine and differentiate between the number of male and female respondents.

- *Results obtained*

The following table describes the gender of the participating candidates (Table 3.2).

Table 3.2: Gender distribution of respondents

Gender	Total	Percentage
Female	20	47.6
Male	22	52.4
Total	**42**	**100.0**

- *Results analysed*

A total of 20 respondents (47.6%) in this study were women and 22 were males (52.4%). There is a good balance (nearly 50/50 %) between male and female in the organisation; which falls in line with the Government's mandate to increase woman employee numbers in the industry.

3.3.3 Classification of respondents by race

- *Rationale of the question*

The purpose of Question C3 in Section C (Biographical information) of the questionnaire (Annexure A) was to determine the race group categories of the respondents.

- *Results obtained*

The race group classification of the respondents is presented in Table 3.3.

Table 3.3: Classification of respondents by race group

Race	Total	Percentage
Black	12	28.6
White	26	61.8
Coloured	2	4.8
Indian	2	4.8
Total	**42**	**100.0**

- *Results analysed*

The largest representative race category was Whites, with 26 respondents (61.8%) while the second highest race category was Blacks, with 12 respondents (28.6%). The other 4 respondents were Coloured and Indian with 4.8% respectively. It is evident that the organisation being studied is employing all racial groups, representing a diverse population.

3.3.4 Highest academic qualifications of respondents

- *Rationale of the question*

The purpose of Question C4 in Section C (Biographical information) of the questionnaire (Annexure A) was to determine the highest academic qualifications of the respondents.

- *Results obtained*

The highest academic qualifications of the respondents are presented in Table 3.4.

Table 3.4: Highest academic qualifications of respondents

Qualification	Total	Percentage
Lower than matric	0	0
Matric	11	26.2
Certificate	16	38.1
Diploma	10	23.8
Post Graduate	5	11.9
Total	**42**	**100.0**

- *Results analysed*

The results indicated that 16 (38.1%) of the participating managers had a certificate and 11 (26.2%) of the respondents had matric. Ten (23.8%) of the respondents obtained a diploma and 5 (11.9%) of the respondents were post graduates.

3.3.5 Management level of respondents

- *Rationale of the question*

The purpose of Question C5 in Section C (Biographical information) of the questionnaire (Annexure A) was to determine the management levels of the respondents.

- *Results obtained*

The management levels of the respondents are presented in Table 3.5 on page 56.

Table 3.5: Management levels of respondents

Management Level	Total	Percentage
Top/senior management	5	11.9
Middle management	15	35.6
Junior management and field workers	18	42.9
Technical	1	2.4
Other	1	2.4
Not indicated	2	4.8
Total	**42**	**100.0**

- *Results analysed*

The results indicated that 18 (42.9%) of respondents were junior management and field workers, while 15 (35.6%) of the respondents represented middle management. Five (11.9%) of the respondents were from senior and top management, while 2 (4.8%) were from other and technical levels in the organisation. There were 2 (4.8%) of the respondents who did not indicate their management level in the questionnaire.

3.3.6 Functional departments of respondents

- *Rationale of the question*

The purpose of Question C6 in Section C (Biographical information) of the questionnaire (Annexure A) was to determine the functional departments of the respondents.

- *Results obtained*

The functional departments of the respondents are presented in Table 3.6 on page 57.

Table 3.6: Functional departments of the respondents

Functional department	Total	Percentage
Finance	2	4.8
Administration	12	28.6
Human Resources	1	2.4
Information Technology	4	9.5
Purchasing and logistics	4	9.5
Operations	14	33.3
New business development	4	9.5
Not indicated	1	2.4
Total	**42**	**100.0**

- *Results analysed*

The majority of respondents were from operations, while 14 (33.3%) individuals represented the sales force of Select PPE. The second most respondents represented administration, with 12 (28.6%), where after information technology, new business development, purchasing and logistics had 4 (9.5%) respondents respectively.

3.4 ASSESSMENT OF ENTREPRENEURIAL ORIENTATION

The questionnaire measured each question on the following numbering scale:

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Where a respondent agreed or strongly agreed to a question, the respondent in fact recognised the statement as true within his own entrepreneurial environment.

- *Rationale of the question*

The purpose of Section A of the questionnaire was to determine the entrepreneurial orientation of the respondents working at Select PPE. The questionnaire was divided into the five dimensions measuring Entrepreneurial orientation namely: *Autonomy, Innovativeness, Risk-taking, Pro-activeness and Competitive aggressiveness.* The outcome of the questionnaire can be used to determine the influence of the dimensions on the perceived success of the personal protective equipment organisation.

- *Results obtained*

The average or mean and the standard deviation of each of the 27 items measuring the entrepreneurial orientation of Select PPE managers are indicated in Tables 3.7 to 3.11.

Table 3.7: Dimensions measuring entrepreneurial orientation

Entrepreneurial Orientation Dimension (EO)	**n**	**Mean ($\bar{x}$)**	**Std. Deviation (s)**
Autonomy	42	3.63	0.49
Innovativeness	42	3.82	0.65
Risk-taking	42	3.18	0.76
Pro-activeness	42	3.67	0.79
Competitive aggressiveness	42	3.57	0.75
Average EO-levels		**3.58**	

- *Results analysed*

All 5 of the dimension means or averages fall within the same scale category, namely "Neutral - 3" and "Agree – 4". The highest ranked dimension was *Innovativeness* ($\bar{x}$ = 3.82), followed by *Pro-activeness* ($\bar{x}$ = 3.67) and *Autonomy* ($\bar{x}$ = 3.63). All three dimensions were ranked higher than the average of 3.58. *Competitive aggressiveness* ($\bar{x}$ = 3.57) and *Risk-taking* with the lowest mean of ($\bar{x}$ = 3.18) were the two dimensions ranked lower than the combined mean between the five dimensions.

The results of Table 3.7 (standard deviation scores) indicated that there was general consensus regarding the entrepreneurial orientation variables. The five dimensions were discussed in detail below.

3.4.1 Autonomy

- *Rationale of the question*

In section A of the questionnaire, the first five statements, A1 to A5, measured the levels of *autonomy* in Select PPE.

- *Results obtained*

Table 3.8 indicates the results showing the mean and standard deviation for each variable.

Table 3.8: Autonomy levels of respondents

Autonomy statement	n	Mean ($\bar{x}$)	Std. Deviation (s)
A1: I have enough autonomy in my job without continual supervision to do my work.	41	4.15	0.76
A2: Our business allows me to be creative and try different methods to do my job.	42	3.81	0.77
A3: Employees in our business are allowed to make decisions without going through elaborate justification and approval procedures.	42	2.74	0.91
A4: Employees in our business are encouraged to manage their own work and have flexibility to resolve problems.	42	4.00	0.66
A5: I seldom have to follow the same work methods or steps while performing my major tasks from day to day.	42	3.48	0.94
Average		**3.63**	**0.49**

- *Results analysed*

Three of the five statements evaluated had a mean score above the average mean ($\bar{x}$ = 3.63). The highest mean ($\bar{x}$ = 4.15) was obtained for the statement A1 relating to *I have enough autonomy in my job without continual supervision to do my work*. The second highest mean ($\bar{x}$ = 4.00) was statement A4, *Employees in our business are encouraged to manage their own work and have flexibility to resolve problems*. Statement A2, *Our business allows me to be creative and try different methods to do my job*, was ranked third with a mean of ($\bar{x}$ = 3.81).

The following statement ended up with a mean below the average mean of 3.63, A5: *I seldom have to follow the same work methods or steps while performing my major tasks from day to day* with a mean of ($\bar{x}$ = 3.48). The statement with the lowest mean ($\bar{x}$ = 2.74), was *A3: Employees in our business are allowed to make decisions without going through elaborate justification and approval procedures.* The standard deviation of the statements measured ranged between a high of 0.94 and a low of 0.66.

3.4.2 Innovativeness

- *Rationale of the question*

In section A of the questionnaire, statements A6 to A14 were used to measure the levels of **Innovativeness** in Select PPE.

- *Results obtained*

Table 3.9 indicates the results showing the mean and standard deviation for each variable.

Table 3.9: Innovativeness in the participating business

Innovativeness Statement	n	Mean ($\bar{x}$)	Std. Deviation (s)
A6: Our business regularly introduces new services/products/processes.	42	3.79	1.02
A7: Our business places a strong emphasis on new and innovative products/services/processes.	42	3.86	0.90
A8: Our business has increased the number of services/products offered during the past two years.	42	4.07	0.89
A9: Our business is continually pursuing new opportunities.	42	4.07	0.81
A10: Over the past few years, changes in our processes, services and product lines have been quite dramatic.	42	3.52	1.06
A11: In our business there is a strong relationship between the number of new ideas generated and the number of new ideas successfully implemented.	42	3.38	0.79
A12: Our business places a strong emphasis on continuous improvements in products/service delivery/processes.	42	4.02	0.75
A13: Our business has a widely held belief that innovation is an absolute necessity for the business's future.	42	4.00	0.80
A14: Our leaders seek to maximise value from opportunities without constraint to existing models, structures or resources.	42	3.69	1.02
Average		**3.82**	**0.65**

- *Results analysed*

Five of the statements evaluated resulted in a score above the average mean ($\bar{x}$ = 3.82); A8: *Our business has increased the number of services/products offered during the past two years* ($\bar{x}$ = 4.07); A9: *Our business is continually pursuing new opportunities* ($\bar{x}$ = 4.07); A12: *Our business places a strong emphasis on continuous improvement in products/service delivery / processes* ($\bar{x}$ = 4.02); A13: *Our business has a widely held*

belief that innovation is an absolute necessity for the business's future ($\bar{x}$ = 4.0); and A7: *Our business places a strong emphasis on new and innovative products/services/processes* ($\bar{x}$ = 3.86).

The remaining four statements had a score below the mean ($\bar{x}$ = 3.82), with A11 obtaining the lowest result below the mean ($\bar{x}$ = 3.38): *In our business there is a strong relationship between the number of new ideas generated and the number of new ideas successfully implemented*. The standard deviation of the statements measuring Innovativeness ranged between a high of 1.06 and a low of 0.75.

3.4.3 Risk-taking

- *Rationale of the question*

In section A of the questionnaire, statements A15 to A19 were used to measure the levels of *risk taking* in Select PPE.

- *Results obtained*

Table 3.10 indicates the results showing the mean and standard deviation for each item measuring the dimension, risk-taking.

Table 3.10: Levels of risk-taking in the participating business

Risk-taking Statements	n	Mean ($\bar{x}$)	Std. Deviation (s)
A15: When confronted with uncertain decisions, our business typically adopts a bold posture in order to maximise the probability of exploiting opportunities.	42	3.43	0.91
A16: In general, our business has a strong inclination towards high-risk projects.	42	2.90	1.05
A17: Owing to the environment, our business believes that bold, wide-ranging acts are necessary to achieve the business's objectives.	42	3.38	0.85
A18: Employees are often encouraged to take calculated risks concerning new ideas.	42	3.14	0.90
A19: The term "risk-taker" is considered a positive attribute for employees in our business.	42	3.02	1.12
Average		**3.18**	**0.76**

- *Results analysed*

The following two of the five statements obtained more than the average mean ($\bar{x}$ = 3.18), the highest was A15: *When confronted with uncertain decisions, our business typically adopts a bold posture in order to maximise the probability of exploiting opportunities* ($\bar{x}$ = 3.43) and the second highest was A17: *Owing to the environment, our business believes that bold, wide-ranging acts are necessary to achieve the business's objectives* ($\bar{x}$ = 3.38).

The three statements that obtained a ranking less than the average mean of ($\bar{x}$ = 3.18), were in third place A18: *Employees are often encouraged to take calculated risks concerning new ideas* ($\bar{x}$ = 3.14); fourth was A19: *The term "risk-taker" is considered a positive attribute for employees in our business* ($\bar{x}$ = 3.02); and the statement that scored the lowest was A16: *In general, our business has a strong inclination towards high-risk projects* ($\bar{x}$ = 2.90). The standard deviation of the risk-taking statements ranged between a high of 1.12 and a low of 0.85.

3.4.4 Pro-activeness

- *Rationale of the question*

In section A of the questionnaire, statements A20 to A23 were used to measure the levels of *Pro-activeness* in Select PPE.

- *Results obtained*

Table 3.11 indicates the results showing the mean and standard deviation for each variable.

Table 3.11: Pro-activeness in the participating business

Pro-activeness Statements	n	Mean ($\bar{x}$)	Std. Deviation (s)
A20: Our business is very often the first to introduce new products/services/processes.	42	3.38	0.96
A21: Our business typically initiates actions that competitors respond to.	42	3.60	0.91
A22: Our business continuously seeks out new products/processes/services.	42	3.95	0.91
A23: Our business continuously monitors market trends and identifies the future needs of its customers.	42	3.76	1.01
Average		**3.67**	**0.80**

- *Results analysed*

The following two statements obtained a result higher than the average mean ($\bar{x}$ = 3.67): A22: *Our business continuously seeks out new products / processes / services* ($\bar{x}$ = 3.95) and A23: *Our business continuously monitors market trends and identifies future needs of customers* ($\bar{x}$ = 3.76).

The Statements that attained results lower than the average mean ($\bar{x}$ = 3.67) were A21: *Our business typically initiates actions that competitors respond to* ($\bar{x}$ = 3.60); and A20: *Our business is very often the first to introduce new products/services/processes* ($\bar{x}$ = 3.38). The standard deviation of the pro-activeness statements ranged between a high of 1.01 and a low of 0.91.

3.4.5 Competitive aggressiveness

- *Rationale of the question*

In section A of the questionnaire, statements A24 to A27 were used to measure the levels of *Competitive aggressiveness* in Select PPE. The table reports the competitive aggressiveness of managers in the personal protective equipment industry.

- *Results obtained*

Table 3.12 indicates the results showing the mean and standard deviation for each variable.

Table 3.12: Competitive aggressiveness of the participating business

Competitive aggressiveness Statements	n	Mean ($\bar{x}$)	Std. Deviation (s)
A24: In dealing with competitors our business typically adopts a very competitive undo-the-competitor posture.	42	3.36	1.01
A25: Our business is very aggressive and intensely competitive.	42	3.67	1.00
A26: Our business effectively assumes an aggressive posture to combat trends that may threaten our survival or competitive position.	42	3.50	0.97
A27: Our business knows when it is in danger of acting overly aggressive (this could lead to the erosion of our business's reputation or to retaliation by our competitors).	42	3.76	0.85
Average		**3.57**	**0.75**

- *Results analysed*

The two statements that attained a result higher than the average mean ($\bar{x}$ = 3.57) were A27: *Our business knows when it is in danger of acting overly aggressive (this could lead to erosion of our business's reputation or to retaliation by our competitors)* ($\bar{x}$ = 3.76), as the highest ranked item for *competitive aggressiveness;* and second highest was A25: *Our business is very aggressive and intensely competitive* ($\bar{x}$ = 3.67).

The statements that attained results lower than the average mean ($\bar{x}$ = 3.57) were A26: *Our business effectively assumes an aggressive posture to combat trends that may threaten our survival or competitive position* ($\bar{x}$ = 3.50); and A24: *In dealing with competitors our business typically adopts a very competitive undo-the-competitor posture* ($\bar{x}$ = 3.36). The standard deviation of the pro-activeness statements ranged between a high of 1.01 and a low of 0.85.

3.4.6 Summary

The mainstream of the statements fell within the 3 to 4 scale, indicating that these statements varied between neutral and agreed to the entrepreneurial orientation items of the business in the personal protective equipment industry in which the respondents were managers. A total of 52% of the statements attained a mean above the average mean of 3.61 ($\bar{x}$ = 3.61), which indicated a higher tendency towards agreeing with the statements posed to the respondents in the questionnaire.

3.5 THE PERCIEVED BUSINESS SUCCESS

- *Rationale of the question*

The two dependent variables measuring perceived success, namely *Business growth* and *Business development and improvement*, were measured in Section B of the questionnaire (refer to Annexure A). The participants were asked to answer the eleven statements related to perceived success of the personal protective equipment industry covering business growth, business development and improvement.

- *Results obtained*

Table 3.13 indicates the results showing the mean and standard deviation measuring the dependent variable, *Perceived business success*.

Table 3.13: Dimensions measuring perceived business success

Perceived Business Success	n	Mean ($\bar{x}$)	Std. Deviation (s)
Business growth	42	3.82	0.63
Business development and Improvement	42	3.66	0.69
Average		**3.74**	

- *Results analysed*

Business growth obtained the highest mean ($\bar{x}$ = 3.82) where after *business development and improvement* obtained the second highest mean ($\bar{x}$ = 3.66). The standard deviation ranged between 0.63 and 0.69, demonstrating a broad concurrence amongst the respondents regarding the two variables.

3.5.1 The growth of the business

- *Rationale of the question*

In section B of the questionnaire (refer to Annexure A), the first four statements B1 to B4 were used to measure the levels of *Business growth* in Select PPE. The table reports the perceived business growth as a measure of the success in the business.

- *Results obtained*

Table 3.14 indicates the results showing the mean and standard deviation for each item measuring the variable.

Table 3.14: Business growth

Business growth statements	n	Mean ($\bar{x}$)	Std. Deviation (s)
B1: Our business has experienced growth in turnover over the past few years.	42	4.05	0.73
B2: Our business has experienced growth in profit over the past few years.	42	3.83	0.73
B3: Our business has experienced growth in market share over the past few years.	42	3.71	0.77
B4: The competitive position of our business has improved over the past few years.	42	3.69	0.87
Average		**3.82**	**0.63**

- *Results analysed*

The following two statements attained a result higher than the average mean ($\bar{x}$ = 3.82): B1: *Our business has experienced growth in turnover over the past few years* ($\bar{x}$ = 4.05), ranked as the highest item for *business growth* and second highest was B2: *Our business has experienced growth in profit over the past few years* ($\bar{x}$ = 3.83).

The statements that attained results lower than the average mean ($\bar{x}$ = 3.82) were B3: *Our business has experienced growth in market share over the past few years* ($\bar{x}$ = 3.71); and B4: *The competitive position of our business has improved over the past few years* ($\bar{x}$ = 3.69). The standard deviation of the business growth statements ranged between a high of 0.87 and a low of 0.73.

3.5.2 Business development and improvement

Table 3.15 on page 70 show the results of the development and improvement of the participating businesses.

Table 3.15: Business development and improvement

Business development and improvement statements	n	Mean ($\bar{x}$)	Std. Deviation (s)
B5: The effectiveness (doing the right things) of our business has improved over the past few years.	42	3.98	0.84
B6: The efficiency (doing things right) of our business has improved over the past few years.	42	3.76	1.01
B7: In our business, employees are viewed as the most valuable asset of the business.	42	3.64	1.03
B8: Our employees are highly committed to our business.	42	3.83	0.99
B9: The morale (job satisfaction) of our employees has improved over the past few years.	42	3.43	0.99
B10: The image (stature) of our business, relative to our competitors, has grown over the past few years.	42	3.81	0.71
B11: During difficult economic periods, investments in Research and Development/innovative projects continue and no significant financial cuts are made.	42	3.14	0.95
Average		**3.66**	**0.69**

- *Results analysed*

The following four out of the seven statements, achieved more than the mean, listed from the highest to the lowest ($\bar{x}$ = 3.66): B5: *The effectiveness (doing the right things) of our business has improved over the past few years* ($\bar{x}$ = 3.98); B8: *Our employees are highly committed to our business* ($\bar{x}$ = 3.83); B10: *The image (stature) of our business, relative to our competitors, has grown over the past few years* ($\bar{x}$ = 3.81); and B6: *The efficiency (doing things right) of our business has improved over the past few years* ($\bar{x}$ = 3.76).

The following three statements attained a result below the average mean ($\bar{x}$ = 3.66): B7: *In our business, employees are viewed as the most valuable asset of the business* ($\bar{x}$ =

3.64); B9: *The moral (job satisfaction) of our employees has improved over the past few years* ($\bar{x}$ = 3.43); and B11: *During difficult economic periods, investments in research and development/innovative projects continue and no significant financial cuts are made* ($\bar{x}$ = 3.14). The standard deviation ranged from a high of 1.03 to a low of 0.71.

3.5.3 Summary

The mainstream of the statements fell within the 3 to 4 scale, thus indicated that these statements varied between neutral and agreed to the perceived success items of the business in the personal protective equipment industry in which the respondents were managers. A total of 55% of the statements attained a mean above the average mean of 3.72 ($\bar{x}$ = 3.72), which indicated a higher tendency towards agreeing with the statements directed to the respondents in the questionnaire.

Table 3:16 below summarises that the mean values of all the variables that attained a result above 3. With regard to the standard deviations, the variables attained a result of below 0.8 (s < 0.8). The values displayed in the table below are considered acceptable for the purpose of this study.

Table 3.16: Summary of the measured variables (constructs)

Variable Item	n	Mean ($\bar{x}$)	Std. Deviation (s)
Entrepreneurial orientation dimension (EO)			
Autonomy	42	3.63	0.49
Innovativeness	42	3.82	0.65
Risk-taking	42	3.18	0.76
Pro-activeness	42	3.67	0.80
Competitive aggressiveness	42	3.57	0.75
Perceived business success			
Business Growth	42	3.82	0.63
Business Development and Improvement	42	3.66	0.69

3.6 THE RELIABILITY OF THE MEASURING INSTRUMENT

The most commonly used reliability measure is the Cronbach's alpha coefficient (de Vos *et al*., 2011:177). The authors continue to state that the coefficient values range between 0 and 1, and that figures closer to 1 (0.8 – 0.9) generally indicate a highly reliable scale. According to Cohen, Manion and Morrison (2011:639), researchers need to know how reliable their instrument for data collection is. Reliability in quantitative analysis takes two forms, both of which are measures of internal consistency: the split-half technique and the alpha coefficient (Cohen *et al*., 2011:639).

Cronbach's alpha is a reliability measure designed by Lee Cronbach in 1951, factors in scale size in reliability estimations, calculated using the following formula:

$$\alpha = \frac{K}{K-1}\left(1 - \frac{\sum_{i=1}^{K} \sigma_{Y_i}^2}{\sigma_X^2}\right)$$

Where:
K is the number of items in the measure,

σ_X^2 is the variance (square of standard deviation) of the observed total scores,

$\sigma_{Y_i}^2$ is the observed variance for item i (Bhattacherjee, 2012:57).

Table 3.17: Cronbach's alpha, internal consistency guideline

Cronbach's alpha	Internal consistency
> 0.90	Very highly reliable
0.80 - 0.90	Highly reliable
0.70 - 0.79	Reliable
0.60 - 0.69	Marginally/minimally reliable
< 0.60	Unacceptably low reliability

Source: Cohen *et al*. (2011:640)

Table 3.18 represents the calculated Cronbach alpha coefficients for this study, the only variable that resulted in being below .06 as per table 3.17, was Autonomy (0.56).

Table 3.18: Cronbach's alpha coefficient of the questionnaire

Variable	Cronbach alpha
Autonomy	0.56
Innovativeness	0.89
Risk-taking	0.84
Pro-activeness	0.86
Competitive aggressiveness	0.79
Business Growth	0.82
Business Development and Improvement	0.86

The results as per table 3.18 pointed out that the instrument used in this study to measure *entrepreneurial orientation* and *perceived success* in the organisation being studied had an acceptable reliability with only one variable below the acceptable value of 0.6. The variable, *Autonomy,* was measured against an unacceptably low reliability of 0.56. The low result could have been the consequence of the entrepreneurs not understanding the statements in the questionnaire; they may have interpreted the statements in a different way or felt that autonomy was irrelevant to the business industry in which the research was conducted.

3.7 MULTIPLE REGRESSION ANALYSIS RESULTS

According to Cohen, Manion and Morrison (2007:539), multiple regression analyses enable researchers to predict and weight the relationship between two or more explanatory (independent) variables and an explained (dependent) variable. Beta weighting (β) gives the researcher an indication of how many standard deviation units will be changed in the dependent variable for each standard deviation unit of change in each of the independent variables (Cohen *et al*., 2007:539).

During the study, the attempt was to determine the impact or influence that the dimensions of entrepreneurial orientation namely *Autonomy, Innovativeness, Risk-taking, Pro-Activeness and Competitive aggressiveness* had on the perceived success of a business. *Business growth* and *Business development and improvement* were dependent variables, while the dimensions of entrepreneurial orientation were the independent variables. In the study, multiple linear regression analyses were used to calculate the effect that the independent variables had on the dependable variables.

In Table 3.19 below and Table 3.20 on page 75, linear regression models were used and the results are discussed.

Table 3.19: Multiple regression results: The impact of independent variables on the dependent variable: Business growth

Model	Non-standardised coefficients		Standardised coefficients	t-value	p-level
	B	Std. Error	Beta		
(Constant)	1.335	0.691		1.933	0.061
Autonomy	0.099	0.222	0.078	0.447	0.658
Innovativeness	0.438	0.249	0.455	1.756	0.088*
Risk-taking	-0.117	0.186	-0.142	-0.630	0.533
Pro-activeness	0.112	0.194	0.142	0.575	0.569
Competitive aggressiveness	0.116	0.150	0.139	0.774	0.444

R^2 = 0.368 (*p<0.10)

Table 3.19 illustrates that a significant number of variation (36.8%) in *Business growth* can be explained by the dimensions of entrepreneurial orientation**.**

The outcome of the results demonstrated that there was a significant relationship between the dependent variable, namely *Business growth* and the independent variable, *Innovativeness* (p = 0.088). Therefore hypothesis H^{2a} was accepted and the rest of the hypotheses (H^{1a}, H^{3a}, H^{4a} and H^{5a}) were not accepted.

Table 3.20: Multiple regression results: The impact of independent variables on the dependent variable: Business development and improvement

Model	Non-standardised coefficients		Standardised coefficients	t-value	p-level
	B	Std. Error	Beta		
(Constant)	0.306	0.634		0.482	0.633
Autonomy	0.128	0.204	0.091	0.625	0.536
Innovativeness	0.688	0.229	0.649	3.005	0.005**
Risk-taking	-0.039	0.171	-0.043	-0.226	0.823
Pro-activeness	0.040	0.179	0.047	0.226	0.822
Competitive aggressiveness	0.065	0.138	0.070	0.468	0.642

R^2 = 0.561 (**p<0.05)

Table 3.20 illustrates that 56.1% of the *Business development and improvement* construct can be explained by the dimensions of entrepreneurial orientation**.**

The outcome of the results demonstrated that there is a significant relationship between the dependent variable, namely *Business development and improvement,* and the independent variable, *Innovativeness* (p = 0.005). Therefore hypothesis H^{2b} was accepted and the rest of the hypotheses (H^{1b}, H^{3b}, H^{4b} and H^{5b}) were not accepted.

3.8 RELATIONSHIP BETWEEN SELECTED DEMOGRAPHIC VARIABLES AND ENTREPRENEURIAL ORIENTATION, INCLUDING THE PERCEIVED BUSINESS SUCCESS OF THE ORGANISATION

The t-test was introduced in 1908 by William Sealy Gosset, a chemist working for the Guinness Brewery in Dublin, Ireland to monitor the quality of stout – a dark beer popular with 19th century porters in London (Bhattacherjee, 2012:132). Because his employer did not want to reveal the fact that it was using statistics for quality control, Gosset published the test in Biometrika using his pen name "Student" (he was a student of Sir Ronald Fisher). The test involved calculating the value of t, which was a letter used frequently by Fisher to denote the difference between two groups.

According to Cohen *et al*. (2007:543), the t-test is used to discover whether there are statistically significant differences between the means of two groups, using parametric data drawn from random samples with a normal distribution. The t-test has two variants: the t-test for independent samples and the t-test for related (or "paired") samples.

An effect size can lie between 0 to 1 (Cohen *et al*., 2007:521). In using Cohen's d-values, the following measurements were deemed acceptable:

0 – 0.20	=	Weak effect;
0.21 – 0.50	=	Modest effect;
0.51 – 1.00	=	Moderate effect;
>1.00	=	Strong effect.

In this study, the relationships between the variables measuring the independent and dependent variables with regard to the demographic variable, gender, was investigated.

A total of 22 male and 20 female respondents participated in the study. Table 3.21 points out the relationship between the different independent variables of *entrepreneurial orientation* combined with the dependent variables of *perceived*

business success and the *demographic variable*, *gender* (male or female). The number of participants (n), mean values ($\bar{x}$) and standard deviation (s) of the different variables, were calculated independently for males and females to indicate whether there was a difference in belief based on gender. The tests for statistical significance between the opinions of males and females were calculated using the *t*-test (*p*-value) and the practical significant differences were calculated using Cohen's d-values or effect sizes.

Table 3.21: The relationships between the variables measuring entrepreneurial orientation and perceived business success and the variable: gender

Variable	Male			Female			Comparison	
	N	Mean	S	N	Mean	S	*p*	*d*
Autonomy	22	3.629	0.482	20	3.64	0.513	0.946	0.02
Innovativeness	22	3.798	0.678	20	3.850	0.639	0.799	0.08
Risk-taking	22	3.127	0.739	20	3.230	0.800	0.669	0.13
Pro-activeness	22	3.670	0.857	20	3.675	0.748	0.985	0.01
Competitive aggressiveness	22	3.59	0.725	20	3.550	0.801	0.864	0.05
Business growth	22	3.897	0.684	20	3.737	0.564	0.411	0.23
Business development and improvement	22	3.649	0.682	20	3.664	0.719	0.945	0.02

Comparing the *p*-values of the demographic variable, gender, it yielded reliable *p*-values. No dimension obtained a result smaller than 0.05. Therefore, according to the *p*-value, there is no statistical significance in the opinions related to the genders of the participants.

The outcome of the *d*-values revealed a small effect between the measurements of gender with regards to the variables as per Table 3.20. The following variables obtained a result ≤ 0.2: autonomy ($d = 0.02$), innovativeness ($d = 0.08$), risk-taking ($d = 0.13$), pro-

activeness (d = 0.01), competitive aggressiveness (d = 0.05) and business development and improvement (d = 0.02). These values equated to a “weak effect”. Business growth (d = 0.23) was the only variable that obtained a result between 0.21–0.50 that equals a modest effect. The result indicated no practical significant differing opinions between the males and the females with regard to the dependent and independent variables.

3.9 CHAPTER SUMMARY

The empirical research done for this study of corporate entrepreneurship in the personal protective equipment industry was of a quantitative nature. A survey questionnaire was used to investigate the five variables of entrepreneurial orientation (autonomy, innovativeness, risk-taking, pro-activeness and competitive aggressiveness) and the two variables of perceived success (business growth and business development and improvement) in the Select PPE organisation, as defined in the literature study done in Chapter 2.

The total number of 42 usable questionnaires, 22 completed by males and 20 by females were used for the purpose of this study. The target population for this study was the line, middle and senior managers of Select PPE, an organisation in the personal protective equipment and service industry. The Cronbach’s alpha coefficients were used to measure the internal consistency and reliability of the responses of the respondents. According to Cortina (1993:98), coefficient alpha (Cronbach, 1951) is certainly one of the most important and pervasive statistics in research involving test construction and use.

Muijs (2009:223) highlighted the following:

- That if you have a high Cronbach alpha, it is not necessarily reliable. Cronbach’s alpha gives us a measure of internal consistency, but does not tell us anything about the other aspects of reliability, such as test-retest reliability.

- With a Cronbach's alpha test you do not necessarily demonstrate good consistency. Remember that alpha is merely a measure or inter-correlation between two items, and is sensitive to the number of items in the analysis. With a high number of items, we may achieve high levels of alpha, even if they do not really measure the same thing.

Only one variable had a Cronbach's alpha coefficient lower than 0.6, namely Autonomy (0.56), which was an unacceptably low reliability. The low result could be the consequence of the entrepreneurs not understanding the statements in the questionnaire; or they may have interpreted the statements in a different way; or felt that autonomy was irrelevant to the business industry in which the research was conducted.

The mean values and standard deviations of all individual statements asked in the questionnaire, were presented in tabular format and discussed with regard to:

- rationale of the question;
- results obtained;
- results analysed.

The mean ($\bar{x}$) value varied from the lowest variable, *Risk-taking* (3.17), to the highest variable, *Innovativeness* (3.82), which indicated that the respondents of the questionnaire concurred to the significance of the entrepreneurial orientation dimensions. At the centre of entrepreneurship was innovativeness (Rwigema *et al.*, 2008:505). According to Rwigema *et al*. (2008:506), innovativeness as an attribute describes an organisation's willingness to add newness to added value.

Multiple regression analysis implies that a variation of 36.8% in *Business growth* can be explained by the dimensions of entrepreneurial orientation**.** The outcome of the results demonstrated that there was a significant relationship between the dependent variable, namely *Business growth* and the independent variable, *Innovativeness* ($p = 0.088$). Therefore hypothesis H^{2a} was accepted and the rest of the hypotheses (H^{1a}, H^{3a}, H^{4a} and H^{5a}) were not accepted.

A variation of 56.1% in *Business development and improvement* can be explained by the dimensions of entrepreneurial orientation**.** The outcome of the results demonstrated that there was a significant relationship between the dependent variable, namely *Business development and improvement* and the independent variable, *Innovativeness* ($p = 0.005$). Therefore hypothesis H^{2b} was accepted and the rest of the hypotheses (H^{1b}, H^{3b}, H^{4b} and H^{5b}) were not accepted.

In Chapter 4, conclusions were drawn from the findings discussed in this chapter where after recommendations were made.

CHAPTER 4
CONCLUSION AND RECOMMENDATIONS

4.1 INTRODUCTION

Select PPE is currently the leader in the provision of on-site Personal Protective Equipment solutions. The IT platform and control systems that the company have developed and refined over the last 16 years in association with its major clients, was executed with the aim to *deliver an appropriate level of service, control and management information*. The approach of providing real time information, places the client in control of its own health and safety requirements, costs and product selections, at all times. The company has an abundance of knowledge and experience and the staff is fully qualified to organise, financed, and equipped to fulfil the client's needs.

The vision of Select PPE is: "To be the leading innovator and provider of quality products, related technologies and services that protect people's health, safety and the environment in all key markets Select PPE serves".

In this chapter, conclusions and recommendations are discussed, based on:

- Results of the literature study and findings of the empirical study (Chapter 2 and 3).
- Evaluations done to determine whether the primary and secondary objectives, as identified in Chapter 1, were achieved.
- Recommendations for future research are made and the study is concluded with a summary of the research.

The purpose of this chapter is to discuss the implications of entrepreneurial orientation in the personal protective equipment industry. The major aim of the recommendations is to increase the perceived success in the organisation. An action plan which is aligned to the recommendations is presented to facilitate this process.

4.2 CONCLUSIONS

The main purpose of the study was to investigate the relationship between the entrepreneurial orientation of the personal protective equipment industry in South Africa, and their perceived success. Different variables of entrepreneurial orientation and perceived success in the personal protective equipment industry were assessed, and conclusions regarding the combined results were discussed.

4.2.1 Demographical information

The demographical information of respondents, as collected per section C of the questionnaire (refer to Annexure A), was obtained regarding age, gender, race, highest academic qualifications, management levels and functional departments. Forty two (42) participants out of the forty five (45) individuals approached, completed the questionnaire successfully and returned it.

The following general conclusions were drawn regarding the demographical data received from the 42 respondents:

Age

The majority of managers were between 30 and 39 years of age (54.8%), followed by managers in the 40 to 49 years range (23.8%). When combining the age categories 30-39 and 40-49, it makes up 78.6% of the respondents which indicated that the Select PPE had a team that is in the midst of their career span. This could impact positively on innovativeness in general terms in the organisation. Managers younger than 29 years (16.7%) and in the 50 to 59 years range (4.8%) equated to 21.4%.

Gender

A total of 20 respondents (47.6%) in this study were female and 22 were male (52.4%), which indicated a good balance (nearly 50/50%) between males and females in the

organisation which falls in line with the Government's mandate to support woman in industry goals.

Race

The largest representative race category was Whites, with 26 respondents (61.8%) and the second race category was Blacks with 12 respondents (28.6%). The other 4 respondents were Coloured and Indian with 4.8% respectively. It is evident that the organisation studied employs all racial groups, representing a diverse population.

Academic qualifications

The results indicated that 16 (38.1%) of the respondents had a certificate while 11 (26.2%) of them had matric. Ten (23.8%) of the respondents obtained a diploma and 5 (11.9%) of them were post graduates. No respondents had a university degree, and none had a qualification lower than a Matric Certificate as that is the minimum academic qualification required by the organisation. The results also indicated that 61.9% of the respondents had studied further, which could impact positively on entrepreneurial orientation in the organization.

Management Level

The results indicated that 18 (42.9%) of respondents were junior management and field workers, while 15 (35.6%) of them represented middle management. Five (11.9%) of the respondents were from senior and top management, while 2 (4.8%) were from other technical levels in the organisation.

Functional departments

The 14 (33.3%) of respondents were from operations, they represent the sales force of Select PPE. The second most respondents represented administration, with 12 (28.6%), where after information technology, new business development, purchasing and logistics had 4 (9.5%) respondents respectively.

In summary, there were no extraordinary effects recognised from the *demographic data* apart from the age distribution and highest academic qualification of respondents. It is quite evident that Select PPE has a young management team who are reasonably educated; this could impact positively on entrepreneurial orientation and the future success of the organization.

4.2.2 Reliability of the questionnaire

When critically analysing the results of the survey, only one of the variables measuring the entrepreneurial climate obtained a Cronbach alpha coefficient below 0.7.

- *Autonomy* measured 0.56, thus the statements used to test this variable need to be investigated further to improve the internal consistency of the questionnaire.

Both of the two variables measuring the perceived success of the organisation obtained a Cronbach alpha coefficient calculated above 0.7, the results were as follows:

- *Business development and improvement:* 0.86.
- *Business growth:* 0.82.

The results of the Cronbach alpha coefficient indicated that 3 out of the 5 variables measuring entrepreneurial orientation obtained a value exceeding 0.80. That can be interpreted as highly reliable when applying Table 3.17 (Cronbach alpha's internal consistency guideline). The three variables were *Innovativeness* (0.89), *Pro-activeness* (0.86) and *Risk-taking* (0.84). Competitive aggressiveness obtained a value of 0.79; which was *reliable* according to the guideline table.

Both variables measuring the *perceived success* of the organization achieved a value exceeding 0.8. It was therefore concluded that the research instrument used in this study to assess the entrepreneurial orientation and perceived success in the Select PPE organisation had acceptable reliability.

4.2.3 Assessment of entrepreneurial orientation

Throughout section A of the questionnaire (refer to Annexure A), 27 statements were assessed that measured the attitude of *Entrepreneurial Orientation* in the personal protective equipment organisation. A total of twenty seven statements were presented to respondents, measuring the five variables of entrepreneurial orientation, namely ***Autonomy, Innovativeness, Risk-taking, Pro-activeness*** *and* ***Competitive aggressiveness.***

The responses from the participants were measured on a five-point Likert scale with:

- 1 indicating that the respondent strongly disagreed with the statement.
- 3 indicating that the respondent felt uncertain or neutral about the statement.
- 5 indicating that the respondent strongly agreed with a statement.

The closer the values get to the extremes (1 or 5) the stronger is the disagreement or agreement respectively.

The average mean of all independent variables as evaluated by the line, middle and senior management levels within Select PPE was ($\bar{x} = 3.58$), which can be regarded as just above the average score in terms of the five-point Likert scale. The average score on the Likert scale, 3, is used as a benchmark for the purpose of making recommendations.

Three out of the five independent variables evaluated had a *mean* that *ranked higher* than the *average mean* of 3.58, namely:

- *Innovativeness* ($\bar{x}$ = 3.82).
- *Pro-activeness* ($\bar{x}$ = 3.67).
- *Autonomy* ($\bar{x}$ = 3.63).

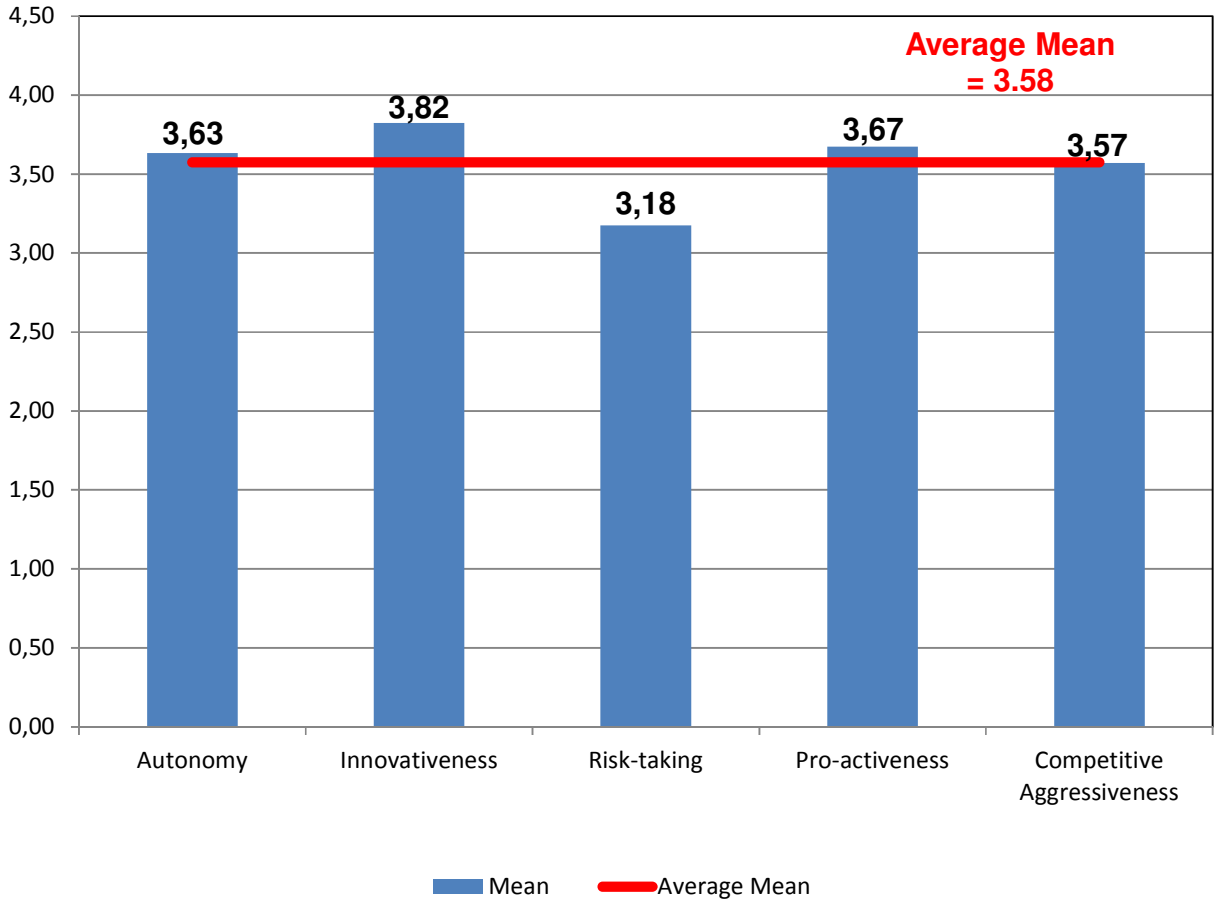
The two independent variables that had a *mean* that *ranked lower* than average mean of ($\bar{x}$ = 3.58) were:

- *Competitive aggressiveness* ($\bar{x}$ = 3.57).
- *Risk-taking* ($\bar{x}$ = 3.17).

For the purpose of this study, this indicated a relatively strong prevalence of entrepreneurial orientation constructs within Select PPE since all the constructs had a mean closer to four than to three. This was an indication of a slight agreement with the related items.

In Figure 4.1 below the means of the five variables are displayed in conjunction with the average mean of ($\bar{x} = 3.58$).

Figure 4.1: Dimensions measuring entrepreneurial orientation



4.2.3.1 Overall entrepreneurial orientation

This research explored how the five dimensions of entrepreneurial orientation: ***Autonomy, Innovativeness, Risk-taking, Pro-activeness*** and ***Competitive aggressiveness*** were aligned with the two perceived success variables, namely; ***Business growth*** and ***Business Development and Improvement***.

According to a study conducted by Chang *et al.* (2007:1012), innovativeness, pro-activeness, autonomy, competitive aggressiveness and risk-taking can stimulate a firm's capability to develop new products, offer different product options, and adjust production levels as needed. The study completed by Lotz and Van der Merwe (2013:26), indicated that the variables Pro-activeness, Risk-taking and Autonomy had a positive relationship to business development and improvement, and that Pro-activeness, Autonomy and Innovativeness had a positive relationship toward business growth.

The results of this study showed that the line, middle and senior management of Select PPE perceived that the variable, ***Innovativeness*** of entrepreneurial orientation had an influence on ***Business Development and Improvement***. When looking at it differently and from another perspective, the personal protective equipment industry is continuously monitoring market and legislation trends, and future client requirements. The secret of success would be to continuously improve your product and service offerings that are created by these trends and client requirements and exploiting opportunities in the market.

4.2.4 Assessment of perceived success

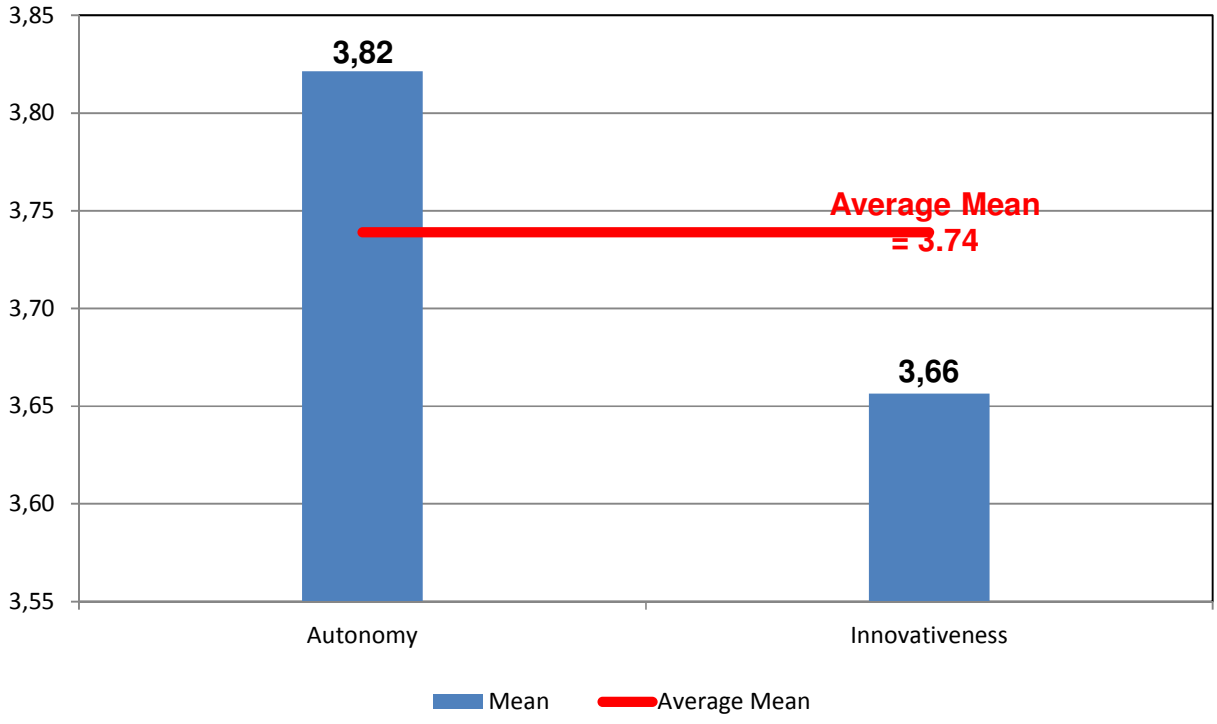
During Section B of the questionnaire (refer to Annexure A), 11 statements that measured perceived success within Select PPE were evaluated. A total of eleven statements were presented to respondents, measuring the two variables of perceived success, namely ***Business development and improvement*** and ***Business growth***.

The average mean of the two dependent variables as evaluated by the line, middle and senior management levels within Select PPE was ($\bar{x}$ = 3.74), which can be regarded as an above average score in terms of the five-point Likert scale. The average score on the Likert scale, 3, is used as a benchmark for the purpose of making recommendations.

The Business growth dependent variable obtained the highest value with a mean of ($\bar{x}$=3.82), compared to the ***Business development and improvement*** variable that obtained a value of ($\bar{x}$=3.66).

Standard deviation ranged from 0.63 to 0.69, indicating a general concurrence amongst the respondents concerning the two variables. Both variables obtained a Cronbach's alpha coefficient above 0.8, with ***Business growth*** with a value of 0.82 and ***Business development and improvement*** with a value of 0.86. In Figure 4.2 below, the means of the five variables were displayed in comparison to the average mean of $\bar{x}$ = 3.74.

Figure 4.2: Dimensions measuring business growth and business development and improvement.



The study showed that the line, middle and senior management of Select PPE perceived that the variable ***Innovativeness*** of perceived success had an influence on ***Business Growth*** and ***Business Development and Improvement.*** When looking at it differently and from another perspective, the personal protective equipment industry is continuously monitoring market and legislation trends, and future client requirements. Employees need to be encouraged to work independently and without supervision, think outside the box and continuously strive to be more creative in improving products and service offerings, and to take advantage of needs and trends in the market.

Rwigema *et al.* (2008:9), state that the entrepreneurial venture is usually based on a significant innovation, which is based on differentiated offerings, marketing, distribution, or in the way the organisation is structured and managed differently, or in the way the relationships are maintained between organisations.

4.2.5 Multiple regressions analysis

Table 3.19 illustrates that the significant number ($R^2 = 0.368$) implied that the variation of 36.8% in *Business growth* can be explained by the dimensions of entrepreneurial orientation.

The outcome of the results demonstrated that there was a significant relationship between the dependent variable, namely ***Business growth*** and the independent variable ***Innovativeness*** *(*p = 0.088). Therefore the hypothesis H^{2a} was accepted and the rest of the hypotheses (H^{1a}, H^{3a}, H^{4a} and H^{5a}) were not accepted (Autonomy, Pro-activeness, Risk-taking and Competitive aggressiveness).

The p-values indicated in Table 3.19 were used to test for individual significance of the independent variables. The multiple regression analysis indicated that ***Innovativeness*** *and* ***Business growth both*** have significant relationships as independent variables. Table 3.20 illustrated that the significant number ($R^2 = 0.561$) implied that a variation of

56.1% in ***Business development and improvement*** can be explained by the dimensions of entrepreneurial orientation.

The outcome of the results demonstrated that there was a significant relationship between the dependent variable, namely ***Business development and improvement*** and the independent variable ***Innovativeness*** ($p = 0.005$). Therefore the hypothesis H^{2b} was accepted and the rest of the hypotheses (H^{1b}, H^{3b}, H^{4b} and H^{5b}) were not accepted (Autonomy, Pro-activeness, Risk-taking and Competitive aggressiveness).

The p-values indicated in Table 3.20 were used to test for individual significance of the independent variables. The multiple regression analysis indicated that ***Innovativeness and Business development and improvement*** both had significant relationships as independent variables.

4.3 RECOMMENDATIONS AND ACTION PLAN

Enhancement of entrepreneurial orientation for Select PPE is imperative if the organisation wants to stay the leader in the market, and therefore the following recommendations are put forward:

Vision and strategic intent

- The vision and strategic intent of Select PPE is clear but need to be re-emphasised and communicated directly to all levels of the organisation at meetings and in conversations with employees.
- Departmental objectives and Key Performance Indicators must be aligned with the organisation.
- Management must lead by example and endorse the company's vision and strategies, while employees must take ownership of the vision and strategies to ensure that these are embraced as a workforce.

- More focus and consideration must be applied to combine all the current innovation activities into a combined focused entrepreneurship strategy and plan.
- Employees need to be assessed to identify entrepreneurial training needs and an action plan must be drafted and followed through to enhance and improve entrepreneurship in the organisation.

According to Kuratko *et al*. (2011:433), whatever the format, having a shared vision allows the organisation's personnel to catch the dream and become an integral part of creating the future (Hanks and McCarrey, 1993).

Entrepreneurial leadership

- Entrepreneurial leadership must be driven from all levels of management to ensure that all employees are exposed to entrepreneurship and the organisation's entrepreneurial strategies.
- Training courses need to be conducted by an accredited institution to develop the leadership team at all levels of the organisation.
- Employees' training records must be continuously updated and new training needs and training schedules must be drafted to ensure continuous improvement.

According to Lowe and Marriott (2006:48), any responsible manager will scan the environment for opportunities of growth. Responsible managers should also apply their expertise and provide leadership.

Creativity and Innovation (encouraging new ideas and products)

- Creativity and innovation play significant roles in the survival of organisations, and thus can be considered as core competencies.
- Creativity and innovation must form part of the leadership training program to enhance the process of employees being more creative and innovative.
- A platform must be established where these new ideas, creativity and innovative plans can be submitted and reviewed at least on a monthly basis and the appropriate feedback returned to the individual.

Reward systems play an important part in ensuring that employees are engaged in and participate in the process. Creativity can involve the adjustment or refinement of existing procedures or products, the identification of opportunities as well as the solutions to problems (Nieman & Nieuwenhuizen, 2009:14).

Strong customer orientation

- The foundation of Select PPE businesses is built on the customer and therefore external customer involvement is of significant importance.
- Annual customer surveys must be conducted to ensure that constructive feedback is received and analysed.
- The analysed data must be processed and improvements and enhancements to the product and service offering need to be implemented once approved by the leadership team.

Management should also look into more demanding and complex customers, markets that are more fragmented and more narrowly segmented, with the emphasis on investing in and capturing a customer's life time value (Kuratko *et al*., 2011:5).

Tolerance of risks, mistakes and failure

- The readiness to take calculated risks involves preparedness to make use of opportunities identified in the market, even if there is a possibility of financial loss.

Successful entrepreneurs do not take chances, but sometimes feel that it is necessary to take calculated risks (Nieman & Nieuwenhuizen, 2009:15).

Empowered teams, teamwork and diversity

- Teams are empowered through the business processes to have reasonable freedom to make decisions and be accountable for them.

Empowerment is the authority to take control and make decisions (Kuratko & Hodgetts, 2004:715). This process involves two essential elements, namely delegation of authority and assignment of resources, whereby the teams are empowered to complete work and provide a service.

Recognition and appropriate rewards

- To inspire employees to think about their work in new and stimulating ways, and to continuously participate in the program.
- Recognition and rewards would apply to enhance the competitive edge in the market, with specific reference to new ideas and innovations in the business, where-after the employees are rewarded.
- These rewards issued to employees need to be communicated to the employees through the monthly newsletter, in order to promote creativity and innovation.

According to Kuratko *et al*. (2011:261), a valuable human resource management approach to foster entrepreneurship involves the creation of a formal champions program.

4.3.1 Action plan

A short action plan with proposed recommendations for ***fostering a corporate entrepreneurial climate*** in Select PPE is illustrated in Table 4.1 on page 94. The action plan includes specific activities, Key Performance Indicators (KPIs), as well as the managers responsible for executing these activities.

Table 4.1: Action plan to facilitate the fostering of Corporate Entrepreneurship and Entrepreneurial Orientation

No.	Activity	Responsible person	Methods and tools	Standard (KPI's)	Target Date
1.	Give feedback to executive management on the findings of the study and the recommendations made.	➢ Researcher	➢ Presentation in Power - Point	➢ Executive management familiar with the findings of the study	➢ 31 Jan. 2015
2.	Review the values of Select PPE, get the employees of the organisation to participate, identify significant dominant values and get their buy-in.	➢ Executive Management	➢ Brainstorming sessions and questionnaires ➢ Suggestion boxes ➢ Mass meetings per regions	➢ Align values to the entrepreneurial variables ➢ Obtain aligned commitment from all employees	➢ 28 Feb. 2015
3.	Develop a strategy for entrepreneurship that focuses on the variables: autonomy, innovativeness, risk-taking, pro-activeness and competitive aggressiveness.	➢ Executive Management	➢ Brainstorming sessions and questionnaires ➢ Operational meetings	➢ Align strategic plan to the entrepreneurial variables ➢ Obtain aligned commitment from all employees	➢ 31 Mar. 2015

No.	Activity	Responsible person	Methods and tools	Standard (KPI's)	Target Date
4.	Review the organisational structure of the organisation.	➢ Line, middle and senior management	➢ Management involvement ➢ Brainstorming sessions and questionnaires	➢ Obtain aligned commitment from all heads of departments and executive management	➢ 31 Mar. 2015
5.	Establish a communication strategy: ➢ Effective communication channels in place (horizontal & vertical); and ➢ Organisation values re-enforcement.	➢ Line, middle and senior management	➢ Management involvement ➢ Brainstorming sessions and questionnaires ➢ Intranet ➢ News letters	➢ Obtain aligned commitment of all employees ➢ Monthly news letter ➢ Quarterly feedback ➢ Quarterly rewards	➢ 28 Feb. 2015
6.	Communicate the company's strategic entrepreneurial strategy to all employees.	➢ Human Resource Department	➢ Newsletter and communication update ➢ Global notice	➢ Monthly newsletter ➢ Notices to improve communication	➢ 15 Apr. 2015
7.	Identify entrepreneurial training needs for the line, middle and senior managers.	➢ Human Resource Department	➢ Brainstorming sessions and questionnaires	➢ Short term courses available at NWU ➢ Business management diploma	➢ 31 May 2015

No.	Activity	Responsible person	Methods and tools	Standard (KPI's)	Target Date
8.	Source a training institute to conduct the required training.	➢ Human Resource Department	➢ Training offerings available to enhance entrepreneurial orientation	➢ Accredited short term courses at universities ➢ Business management diploma	➢ 31 May 2015
9.	Training and competency matrixes to be updated after completing the training program.	➢ Human Resource Department	➢ Training need analysis ➢ Training program ➢ Career path ➢ Skills gap analysis	➢ Training and competency records kept up to date	➢ On-going
10.	Develop a program that enables the line, middle and senior managers to share their experience and convert it into training for employees.	➢ Human Resource Department ➢ Line, middle and senior management	➢ Training program ➢ Management involvement ➢ Skills audit ➢ Skills gap analysis	➢ Program to assist the line, middle and senior managers to enhance training for employees	➢ 31 May 2015
11.	Improve current support structures for entrepreneurial actions, including funding for feasible ideas generated.	➢ Human Resource Department ➢ Management	➢ Management involvement ➢ Suggestion boxes ➢ Operations meeting	➢ Obtain aligned commitment of all employees ➢ Quarterly audits ➢ Quarterly rewards	➢ Quarterly, on-going

No.	Activity	Responsible person	Methods and tools	Standard (KPI's)	Target Date
12.	Implement a rewards program for employee contributions towards the new ideas, initiatives and systems generation process.	➢ Human Resource Department ➢ Line, middle and senior management	➢ Management involvement ➢ Brainstorming sessions and questionnaires ➢ Suggestion boxes	➢ Obtain aligned commitment from all employees ➢ Monthly newsletter ➢ Quarterly feedback ➢ Quarterly rewards	➢ Quarterly, On-going
13.	Develop processes and procedures regarding tolerance for risks, mistakes and failures: ➢ The level of tolerance; ➢ Areas where mistakes and risks will be tolerated; ➢ Safety facets. ➢ Risk to production.	➢ Line, middle and senior management	➢ Management involvement ➢ Brainstorming sessions and questionnaires ➢ Monthly newsletter ➢ Good communication ➢ Intranet ➢ Mentoring sessions	➢ Obtain aligned commitment of all employees ➢ Monthly newsletter ➢ Quarterly feedback ➢ Quarterly rewards	➢ 31 May 2015 ➢ On-going
14.	Swift implementation of new processes, systems and services.	➢ Line, middle and senior management	➢ Management involvement ➢ Brainstorming sessions and questionnaires	➢ Accountability for area of responsibility ➢ Review against 2015 budget	➢ On-going

No.	Activity	Responsible person	Methods and tools	Standard (KPI's)	Target Date
15.	Align the following goals in line with the organisation's strategy and goal objectives: ➢ Work group goals; ➢ Departmental goals; and ➢ Divisional goals.	➢ Line, middle and senior management	➢ Management involvement ➢ Organisation strategy ➢ Organisation goals ➢ Performance Management Program (PMP)	➢ Obtain aligned commitments from all employees ➢ Monthly newsletter ➢ 6 monthly reviews ➢ Performance Management Program rules	➢ 6 Monthly ➢ On-going

4.3.2 Entrepreneurial strategy

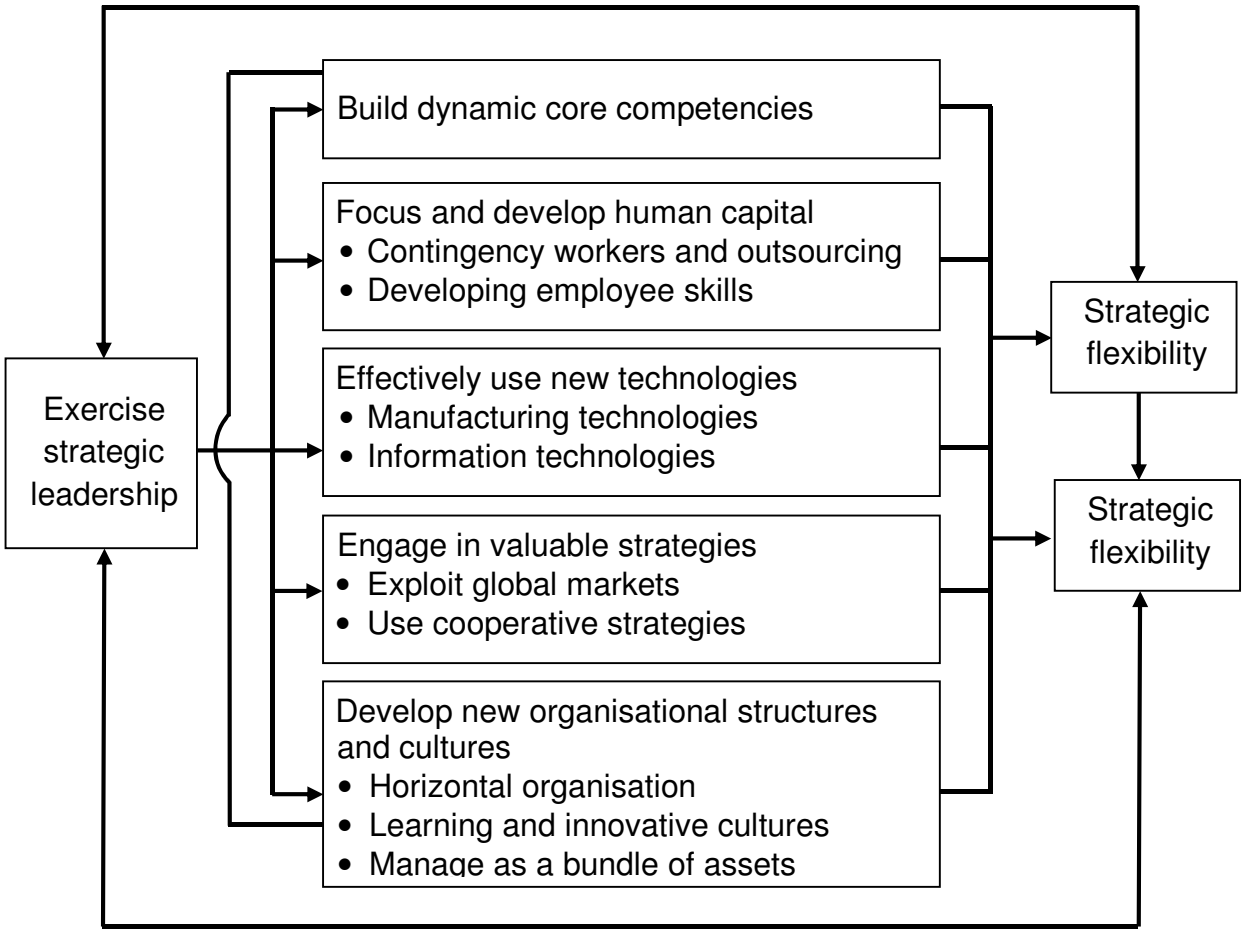
Kuratko *et al*. (2011:153), state that entrepreneurship serves as the dominant logic of a company, but it also plays an important role in the company's strategy. Lowe and Marriott (2006:419), highlights that large mature and powerful organizations become complacent and even arrogant, often unwilling to change a "winning formula" unless there is clear evidence of a decline in customer demand.

According to Kuratko *et al*. (2011:172), Hitt and colleagues (1998) have proposed a model for building strategic flexibility into organizations, once the leadership is visionary, entrepreneurial and transformational. The following five factors contribute to building strategic leadership:

i. A unique set of dynamic core competencies (competencies that are continually improved and enhanced).
ii. Creative approaches to human capital (e.g. outsourcing, contract labour, and employee sharing in non-core areas of the company).
iii. Effective incorporation of new and emerging technologies (technologies that enable the organisation to recognize changing markets or conditions quickly, customize products, and serve different markets in different ways).
iv. Strategic alliances and a global market presence (i.e. a diversified approach to markets and a cooperative approach to penetrate those markets).
v. Company structures that are flattened and cultures that stress learning and accountability for innovation (i.e. structures and cultures that enable the company to recognize patterns and trends; make quick adjustments; and continuously experiment in the market place.

In Figure 4.3, the model starts with strategic leadership at the top of the organisation, which demonstrates senior executives who are visionary, entrepreneurial and transformational.

Figure 4.3: Building strategic flexibility and competitive advantage



Source: Kuratko *et al*. (2011:172)

4.4 CRITICAL EVALUATION OF THE STUDY

The following segment intensively measured the success of this study against the research objectives formulated in Chapter 1.3.

4.4.1 Primary objective

The primary objective of the study was to determine the level of entrepreneurial orientation within the management of the organisation. In conclusion recommendations were made on how to foster and encourage an entrepreneurial climate in the organisation that will lead to success.

4.4.2 Secondary objectives

The following secondary objectives were formulated:

4.4.2.1. Gaining insight into the business environment of Select PPE;

4.4.2.2. Defining entrepreneurship and the importance in the economy by means of a literature review.

4.4.2.3. Discussing the characteristics of entrepreneurs.

4.4.2.4. Defining corporate entrepreneurship by means of a literature review.

4.4.2.5. Defining entrepreneurial orientation by means of a literature review.

4.4.2.6. Obtaining insight into the dynamics of corporate entrepreneurship, entrepreneurial climate and the role of top and middle management within these concepts.

4.4.2.7. Assessing the perceived entrepreneurial orientation at Select PPE by means of the questionnaire.

4.4.2.8. Determining if any relationship exists between entrepreneurial orientation and the perceived success of the business.

4.4.2.9. Drawing a conclusion from the quantitative data obtained and making practical recommendations to ensure that corporate entrepreneurship orientation and innovation is enhanced in the company.

4.4.2.10. Validating the reliability of the questionnaire by means of statistical analysis.

4.4.2.11. Providing recommendations and suggestions to Select PPE to foster entrepreneurial orientation and innovation within the organisation.

The *first secondary objective,* namely ***gaining insight into the business environment of Select PPE,*** was successfully discussed in Section 1.4.2 of Chapter 1, page 7.

Secondary objective 4.4.2.2, namely ***defining entrepreneurship*** was dealt with in Section 2.2 of Chapter 2, whereby entrepreneurship was defined from pages 19-23. The importance of entrepreneurship in the economy was discussed in detail, with references.

The *third secondary objective* namely, ***characteristics of entrepreneurs,*** were discussed and tabled in Section 2.2.2 of Chapter 2, page 24. Common traits and characteristics associated with the entrepreneur were tabled and discussed. In Section 2.3 of Chapter 2, pages 24-28, the *fourth secondary objective* namely, ***define corporate entrepreneurship,*** was successfully concluded. A corporate entrepreneurship model (Figure 2.2) illustrated the three segments of corporate entrepreneurship on page 30.

Secondary objective 4.4.2.5, ***entrepreneurial orientation*** was defined and comprehensively discussed in Section 2.4 of Chapter 2, page 32. In Figure 2.3 (page 33), the conceptual framework of entrepreneurial orientation was illustrated. During Section 2.3 of Chapter 2, pages 28–31, the sixth secondary objective namely, ***dynamics of corporate entrepreneurship*** was discussed in detail.

The *seventh secondary objective,* namely ***entrepreneurial climate,*** was discussed in Section 2.3 of Chapter 2, pages 44-47. The rules for fostering an innovative organisation was discussed and displayed in Table 2.8, and the most common idea stoppers were listed in Table 2.9 (page 47). In Chapter 3, in Section 3.8 and 3.9, the *eighth secondary objective,* namely, the ***relationship between entrepreneurial orientation*** and the ***perceived success*** of Select PPE, was assessed, discussed and analysed by the Cronbach's alpha coefficient and multiple regression (pages 73–77).

Secondary objective 4.4.2.9, namely ***conclusion from the quantitative data obtained,*** was discussed and analysed in Section 3.3 of Chapter 3, page 52, and practical recommendations were made in Chapter 4 to ensure that corporate entrepreneurship orientation and innovation is enhanced in the organisation.

The *tenth secondary objective,* namely ***validate the reliability of the questionnaire by means of a statistical analysis***, was successfully validated by the Cronbach's alpha coefficient and multiple regression analysis in Sections 3.8 and 3.9 of Chapter 3 (pages 76–80).

In Chapter 4, the eleventh *secondary objective,* namely ***recommendations and suggestions,*** were provided to Select PPE ***to foster entrepreneurial orientation and innovation*** within the organisation. The shortcomings were recognised through the empirical research discussed in Chapter 3, which led to the drafting of the recommendations and suggestions presented in this Chapter.

All the secondary objectives were achieved and therefore it could be concluded that the primary objective, namely to determine the level of entrepreneurial orientation within the management of the organisation, was also achieved. In conclusion, recommendations were made on how to foster and encourage an entrepreneurial climate in the organisation that will lead to success.

4.5 SUGGESTIONS FOR FURTHER RESEARCH

The questionnaire (refer to Annexure A) was not distributed to all the employees of the Select PPE organisation. It was only distributed to the line, middle and senior management levels within Select PPE.

As the questionnaire was not distributed to all the employees of the organisation, and only from decision-making to senior management levels, it was accepted that it was not a true representation of the entire personal protective organisation. Precaution should be taken not to generalise the results to other personal protective equipment service providers in the industry, particularly concerning the recommendations and conclusions.

4.6 LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This study attempted to contribute to the core of knowledge on the relationship between entrepreneurial orientation and the perceived success of the personal protective equipment industry. When reviewing the literature, there is general consensus with regard to entrepreneurship, corporate entrepreneurship, entrepreneurial orientation and the dimensions measuring entrepreneurial orientation.

With regard to the dimensions of business success, there is very little consensus and literature thereof. It is therefore evident that a more comprehensive research into the dimensions of business success is required to justify the underlying dimensions of business success. More data should be collected to close the gap between perception and reality in the industry, actual data on business success such as turnover per region, market share per region, and margin comparisons per regions, are just a few examples that could assist with future research.

Risk taking ended up with the lowest mean ($\bar{x}$=3.17) of the entrepreneurial orientation dimensions. Therefore it is clear that future research is required to collect more data. With adapting the questionnaire on risk taking, more insight will be obtained to enable the organisation to take appropriate action to promote calculated risk in line with policies and procedures.

Autonomy was measured against an unacceptably low reliability of 0.56 when the Cronbach's alpha coefficients were calculated in Table 3.18. Further research is required to understand whether the participant and entrepreneurs understood or interpreted the statements in the questionnaire wrongly, and what recommendations could be applied to improve the autonomy levels in the organisation.

4.7 SUMMARY

According to Dollinger (1995:12), organisations have a form of structure and strategy, that enables them to penetrate or create a market (entry wedges) and protect their position (isolating mechanisms); they possess resources that they transforms into value for their customers. An organisation is made up of people who have skills and talents, values and beliefs, and it may be recognised that by working together, they can create something special.

In practice, however, many people are entrepreneurial and succeed in implementing new ideas. They can be found in virtually every type of organisation and in every aspect of life (Lowe & Marriott, 2006:xvii). Lowe and Marriott (2006:xvii), highlights that they aim to be self-reliant and keen to pursue their goals using the organisation

for which they work as a vehicle, they will seek to be innovative, wherever they work and if an organisation does not allow them to be entrepreneurial, they will move on.

The question is not whether an employee is generally motivated or not, but whether he or she is motivated towards specific behaviours. In our case, the concern is with entrepreneurial motivation (Kuratko *et al*., 2011:254).

According to Nieman and Nieuwenhuizen (2009:11), ***entrepreneurial orientation*** is critical for the survival and growth of firms, as well as the economic prosperity of nations. They continue by highlighting that ***entrepreneurial orientation is*** crucial for the process of entrepreneurial development at the societal level of countries and that ***entrepreneurial orientation*** is ***fostered*** by a unique **blend of factors**, such as:

- Culture.
- Family and role models.
- Education.
- Work experience and.
- Personal orientation.

Appendix A: Example of Questionnaire

Code number:

ENTREPRENEURIAL ORIENTATION

CONFIDENTIAL

NWU POTCHEFSTROOM Business School

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

Note: All responses are confidential and neither the individual nor the organisation would be identified in any report or release.

ENTREPRENEURIAL ORIENTATION

An assessment of Corporate Entrepreneurship in the Personal Protective Equipment Industry

Peet Pieterse

Dissertation in partial fulfilment of the requirements for the degree

MASTER OF BUSINESS ADMINISTRATION

At the North-West University, Potchefstroom Campus

Dear Respondent

Entrepreneurial orientation contributes to performance with an outlook on a company's growth as well as financial performance. The field of study is corporate entrepreneurship with reference to the impact of entrepreneurial orientation on managers and entrepreneurs, managing and creating South African businesses or businesses operating in South Africa.

To understand the supportive nature of entrepreneurship and innovation; and to which extent South African Personal Protective Equipment companies foster corporate entrepreneurship and drive innovation within the company.

Your contribution is highly appreciated.

Peet Pieterse

Please complete every question / statement to ensure the validity and reliability of the study.

GENERAL INSTRUCTIONS

Virtually all questions should be answered by ticking (X) or highlighting the relevant block.

Use the following key to indicate your preference:

SCALE	TERM USED
1	Strongly disagree
2	Disagree
3	Neither agree nor disagree (Neutral)
4	Agree
5	Strongly agree

Please select the number which best describes your opinion about a specific question or statement. In the example beneath, the respondent agreed to the statement listed.

I believe that Small, micro and medium sized enterprises in South Africa can be successful	1	2	3	X 4	5

SECTION A

The following statements concern your attitude towards the entrepreneurial orientation of the business.

Please rate the extent to which you agree or disagree with the following statements by making an "X" over the appropriate number on the 1 to 5 point scale next to the statement.

1 =Strongly disagree	*2 =Disagree*	*3 =Neutral*	*4 =Agree*	*5 =Strongly agree*

	STATEMENT	SCALE				
A1	I have enough autonomy in my job without continual supervision to do my work.	1	2	3	4	5
A2	Our business allows me to be creative and try different methods to do my job.	1	2	3	4	5
A3	Employees in our business are allowed to make decisions without going through elaborate justification and approval procedures.	1	2	3	4	5
A4	Employees in our business are encouraged to manage their own work and have flexibility to resolve problems.	1	2	3	4	5
A5	I seldom have to follow the same work methods or steps while performing my major tasks from day to day.	1	2	3	4	5
A6	Our business regularly introduces new services/products/processes.	1	2	3	4	5
A7	Our business places a strong emphasis on new and innovative products/ services/processes.	1	2	3	4	5
A8	Our business has increased the number of services/products offered during the past two years.	1	2	3	4	5
A9	Our business is continually pursuing new opportunities.	1	2	3	4	5
A10	Over the past few years, changes in our processes, services and product lines have been quite dramatic.	1	2	3	4	5
A11	In our business there is a strong relationship between the number of new ideas generated and the number of new ideas successfully implemented.	1	2	3	4	5
A12	Our business places a strong emphasis on continuous improvement in products/service delivery/processes.	1	2	3	4	5
A13	Our business has a widely held belief that innovation is an absolute necessity for the business' future.	1	2	3	4	5
A14	Our leaders seek to maximise value from opportunities without constraint to existing models, structures or resources.	1	2	3	4	5
A15	When confronted with uncertain decisions, our business typically adopts a bold posture in order to maximise the probability of exploiting opportunities.	1	2	3	4	5
A16	In general, our business has a strong inclination towards high-risk projects.	1	2	3	4	5

Please rate the extent to which you agree or disagree with the following statements by making an "X" over the appropriate number on the 1 to 5 point scale next to the statement.

1 =Strongly disagree	*2 =Disagree*	*3 =Neutral*	*4 =Agree*	*5 =Strongly agree*

A18	Employees are often encouraged to take calculated risks concerning new ideas.	**1**	**2**	**3**	**4**	**5**
A19	The term 'risk-taker' is considered a positive attribute for employees in our business.	**1**	**2**	**3**	**4**	**5**
A20	Our business is very often the first to introduce new products/services/ processes.	**1**	**2**	**3**	**4**	**5**
A21	Our business typically initiates actions that competitors respond to.	**1**	**2**	**3**	**4**	**5**
A22	Our business continuously seeks out new products/processes/services.	**1**	**2**	**3**	**4**	**5**
A23	Our business continuously monitors market trends and identifies the future needs of its customers.	**1**	**2**	**3**	**4**	**5**
A24	In dealing with competitors our business typically adopts a very competitive undo-the-competitor posture.	**1**	**2**	**3**	**4**	**5**
A25	Our business is very aggressive and intensely competitive.	**1**	**2**	**3**	**4**	**5**
A26	Our business effectively assumes an aggressive posture to combat trends that may threaten our survival or competitive position.	**1**	**2**	**3**	**4**	**5**
A27	Our business knows when it is in danger of acting overly aggressive (this could lead to the erosion of our business's reputation or to retaliation by our competitors).	**1**	**2**	**3**	**4**	**5**

SECTION B

The following statements concern your attitude towards the success of the business.

Please rate the extent to which you agree or disagree with the following statements by making an "X" over the appropriate number on the 1 to 5 point scale next to the statement.

1 =Strongly disagree	*2 =Disagree*	*3 =Neutral*	*4 =Agree*	*5 =Strongly agree*

	STATEMENT	SCALE				
B1	Our business has experienced growth in turnover over the past few years.	**1**	**2**	**3**	**4**	**5**
B2	Our business has experienced growth in profit over the past few years.	**1**	**2**	**3**	**4**	**5**
B3	Our business has experienced growth in market share over the past few years.	**1**	**2**	**3**	**4**	**5**
B4	The competitive position of our business has improved over the past few years.	**1**	**2**	**3**	**4**	**5**
B5	The effectiveness (doing the right things) of our business has improved over the past few years.	**1**	**2**	**3**	**4**	**5**
B6	The efficiency (doing things right) of our business has improved over the past few years.	**1**	**2**	**3**	**4**	**5**
B7	In our business, employees are viewed as the most valuable asset of the business.	**1**	**2**	**3**	**4**	**5**
B8	Our employees are highly committed to our business.	**1**	**2**	**3**	**4**	**5**
B9	The morale (job satisfaction) of our employees has improved over the past few years.	**1**	**2**	**3**	**4**	**5**
B10	The image (stature) of our business, relative to our competitors, has grown over the past few years.	**1**	**2**	**3**	**4**	**5**
B11	During difficult economic periods, investments in Research and Development/innovative projects continue and no significant financial cuts are made.	**1**	**2**	**3**	**4**	**5**

SECTION C: BIOGRAPHICAL INFORMATION

The following information is needed to help us with the statistical analysis of the data for comparisons among different interest groups. We appreciate your help in providing this important information.

Mark the applicable block with a cross (X). Complete the applicable information.

C1	**Indicate your age group**	≤ 29	30 - 39	40 - 49	50 - 59	60+

C2	**Indicate your gender?**	Male	Female

C3	**Indicate your race group classification**	Black	White	Coloured	Indian

C4	**Indicate your highest academic qualification**	
	Lower than matric	
	Matric	
	Certificate	
	Diploma (Technical College or Technicon)	
	University degree	
	Post graduate degree	

C5	**Indicate your management level**	**Top/Senior Management**	**Middle Management**	**Junior Management & Field workers**	**Technical**
	Other: (specify):				

C6	**Indicate your functional department**			
	Finance	Administration (Admin)	Human Resources (HR)	Information Technology (IT)
	Purchasing & Logistics	Operations	New Business Development	
	Other: (specify):			

THANK YOU VERY MUCH FOR YOUR VALUABLE TIME AND INPUT

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