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Entrepreneurial orientation as a performance variable for performing and non-performing companies

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A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

29 January 2014

Abstract

Unlike other studies incorporating the traditional Hughes and Morgan (2007) entrepreneurial orientation (EO) scale, the current study accepted the challenge issued by Lyon, Lumpkin and Dess (2000) evaluating EO in a new approach. As incorporated by Short, Broberg, Cogliser and Brigham (2009), this study too made use of content analysis to evaluate the dimensions of EO in order to comprehend whether the dimensions of entrepreneurial orientation (EO) are more associated with top performing firms in comparison to less performing firms in the context of South Africa. The study reviewed 21 high-growth firms that initially listed on the Alternative Exchange (AltX) and subsequently promoted to the Johannesburg Stock Exchange (JSE) mainboard.

Keywords

Entrepreneurship, Entrepreneurial Orientation, Computer assisted text analysis, Firm performance

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Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

_____ _____

Danie Venter **Date**

Acknowledgements

First and foremost I would like to thank my parents for the support and love they provided during the MBA and making it possible for me to take on the studies full time.

I would also like to thank Celeste Wilken; without your support and love the MBA would have been near impossible. Thanks for the late evening encouragement to keep going.

To the ladies in the information centre, I would like to thank each and every one of you for your assistance in looking for books and clarifying the referencing techniques time and time again.

Jonathan Marks, my supervisor, thanks for your guidance throughout the process. If it weren't for your assistance, I would still be scrambling around for a topic today.

To Monica Sonqishe, thank you for the editing of this report it is much appreciated. Best wishes for the starting of your family.

Finally I would like to thank the Lord for giving me the strength to complete the MBA.

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Abbreviated Words

EO – Entrepreneurial Orientation

CATA – Computer Assisted Text Analysis

NDP – National Development Plan

CEO – Chief Executive Officer

CFO – Chief Financial Officer

ROE – Return On Equity

1 Introduction

Entrepreneurship can be defined as the "process of creating value by bringing together a unique package of resources to exploit an opportunity" (Morris, 1998, p. 17). A definition by Schumpeter (as cited in Vij & Bedi, 2012) states that, "an entrepreneur is an economic man who tries to maximise his profits by making innovations in any one of the following fields: new products; new production methods; new markets; or new forms of organisation" (p. 20).

Entrepreneurship has a wide base of definitions, as illustrated above, and the characteristics thereof have been disputed by many academics (Pretorius & Van Vuuren, 2003). This lack of consensus has created challenges for researchers when constructing and testing theories in the realm of entrepreneurship (Pretorius & Van Vuuren, 2003; Smart & Conant, 1994).

Irrespective of definition, entrepreneurship remains a crucial element in an economy, hence the ever-growing interest in its study (Gorman, Hanlon, & King, 1997). Likewise, entrepreneurs help intensify competition, increase productivity by adopting new technology, contribute to economic growth and the overall development of a country (Shrivastava & Shrivastava, 2013). As will be discussed below, it is here where South Africa is placing emphasis for the years to come.

Over the past decade there has been an ever-growing focus on the establishment of new firms in order to develop the economy (Brüderl & Preisendörfer, 2000) and create new opportunities for all. These opportunities include employment and as to date several researchers have proven that small firms establish more new positions than their large corporate counterparts over the years (Neumark, Wall, & Zhang, 2011; Spinelli & Adams, 2012). The argument continues that the establishment of new firms will not necessarily create excessive number of jobs in an economy; instead this issue will be resolved by rapidly growing firms (Brüderl & Preisendörfer, 2000). In the South

African context, 56% of the private sector employment is contributed to Small and Medium Enterprises (SMEs) (Olawale & Garwe, 2010). Furthermore, SME's contribute approximately 36% of the country's gross domestic product (Olawale & Garwe, 2010), forming an important component of the South African economy.

Entrepreneurs establishing growing businesses could therefore be regarded as important drivers for the development of new employment opportunities within an economy (Eggers, Kraus, Hughes, Laraway, & Snycerski, 2013), potentially having a 'knock-on' effect on economic growth.

1.1 South Africa and its Development Priorities

Since the end of Apartheid in 1994, South Africa continues to be challenged by high levels of poverty, inequality and unemployment

In 2010 President Jacob Zuma appointed 26 individuals to a National Planning Commission. Their goal was to establish a National Development Plan (NDP) by identifying the primary challenges facing South Africa and identifying means to address these challenges (National Planning Commission, 2010). Nine primary challenges identified in this report include:

- Too few individuals have jobs;
- Rural area's suffer from poor quality of education;
- Infrastructure is inadequate and poorly maintained;
- Spatial divides inhibit inclusive development;
- The South African economy is unacceptably resource intensive;
- The public health system is not meeting required demand;
- Public services are of poor quality;
- The level of corruption is excessively high.

In South Africa there has been extensive interest in the development of new jobs (Urban, Van Vuuren, & Barreira, 2008) and the NDP rightly suggests that

this issue be addressed by improving the overall quality of education and the South African entrepreneurial environment (ranging from infrastructure to deregulation) (Pretorius & Van Vuuren, 2003). The NDP argues that by improving the facets mentioned above, employment rates will increase spurring economic growth, and broadening opportunities for many individuals (National Planning Commission, 2010). As indicated by Pretorius and Van Vuuren (2003), policy-makers often rely on so-called success stories to demonstrate the utopia entrepreneurial activity could have on a countries economy, but the NDP's focus however returns to the crux of business, namely the development of skills and knowledge (Pretorius & Van Vuuren, 2003; Urban et al., 2008).

The challenges faced by South Africa could very likely be resolved by improving the level of entrepreneurship within the country. The urgency has never been greater; the Total Entrepreneurial Activity (TEA) rate reported by the Global Entrepreneurship Monitor (GEM), which indicates the level of early-stage entrepreneurial activity in various countries, illustrates the low levels of entrepreneurial activity in South Africa. South Africa's TEA rate reached an all-time low (7.3%) in 2012 and is well below the average (14.3%) when compared to similar efficiency-driven economies.

By encouraging entrepreneurial behaviour and improving existing skills and knowledge set, South Africa should be able to nurture existing businesses into more profitable growing firms thereby increasing employment opportunities for its people. Furthermore, Eggers, Kraus, Hughes, Laraway, and Snycerski (2013) concluded that in order to compete successfully in any market, thereby creating more employment opportunities, firms not only need to overcome existing limitations (i.e. liabilities, smallness or newness) but must also grow, at least to some extent, in order to remain a going concern. It is here, as mentioned in the NDP, that South Africa could add value by educating current entrepreneurs to understand the business realms.

1.2 Entrepreneurship Within Businesses

Entrepreneurship is not solely limited to the establishment of new ventures or fixated on small firms, it can also be identified within larger businesses. An example of this could be identified in the company, Nokia. Nokia started its business in the paper milling industry and after reviewing their business strategies decided to take a risk, to be innovative, and to enter the telecommunications industry (Nokia, 2013). This ability to be innovative and take risks did pay off, as today Nokia connects more than 1.3 billion people across the world and employs approximately 100'000 people (Nokia, 2013).

This form of entrepreneurship is referred to as corporate entrepreneurship (CE, often referred to as intrapreneurship) and is seen as the process of stimulating innovative processes and/or ideas to positively contribute to or improve an organisations performance (Kenney & Mujtaba, 2007). Thornberry (2001) identified four kinds of corporate entrepreneurship, which are:

- Corporate Venturing
  Corporate venturing refers to the process where a company establishes another internal business, emanating from core competency, to further develop the business into the future. Good examples of corporate venturing are banks. Banks core competency tends to be transaction processing. Some banks decide to establish internal business units that provide their transaction processing abilities to other external companies who require mass processing capabilities (Thornberry, 2001). An example outside the realms of financial services is that of Samsung. Samsung has made use of its existing huge research and development departments in order to enter the life care industry (The Economist, 2011).

- Intrapreneuring
  Intrapreneuring attempts to develop the mind-set of employees to imitate the behaviours and/or mentality of external entrepreneurs. Often

managers are targeted to incorporate corporate entrepreneurship in their daily activities in order to create an entrepreneurial business environment that could lead to the identification of innovative business ideas that could establish further growth opportunities for the firms.

- Organisational Transformation
  Organisational transformation focuses on improving operational efficiencies by delayering, cost cutting, re-engineering or incorporating effective technologies. Transformation often leads to new business opportunities, which further enhance the company's performance.

- Industry Rule-Bending
  Industry rule bending does not refer to altering the legal nature of business. It refers to the changing of the 'goal post' by revolutionising the manner in which business is conducted within an industry. An example of this is Toyota in the automobile industry. They were able to achieve economies of scale which resulted in a decrease in their purchasing prices, forcing other market participants to follow suite.

Although these CE dimensions are unique in their own way, the underlying dimensions are based on a theory called Entrepreneurial Orientation (EO) (Kenney & Mujtaba, 2007). "EO refers to the strategy-making processes that provide organizations with a basis for entrepreneurial decisions and actions" (Rauch, Wiklund, Lumpkin, & Frese, 2009, p. 762) and consists of five dimensions:

- Autonomy;
- Innovativeness;
- Proactiveness;
- Competitive Aggressiveness; and
- Risk-taking.

1.3 Firm Growth and Financing Mechanisms

As firms follow the S-curve of growth, the business has to experience various transitions in order to maintain their distinctive growth paths. These transitions range from increasing the number of employees (achieve adequate capacity) to changing the management style (personally completing tasks to delegating tasks to others) (Dess & Lumpkin, 2005).

As a firm grows and becomes more complex, it requires different forms of financing in order to advance growth and remain a going concern. In the South African context financing is also the most significant obstacle that growing firms face (Olawale & Garwe, 2010). Different financing mechanisms available for young growing businesses include financing provided by the founders' own wealth or financing provided by external mechanisms such as friends or family, financial institutions (banks, etc.), venture capitalists, private equity distribution alternatively, public equity distribution through listing on an exchange.

Public equity distributions have many benefits as these allow a firm to easily obtain financing from a broad base of individuals eager to invest in small firms. This encouraged the Johannesburg Stock Exchange (JSE) to establish the Alternative Exchange (AltX) in 2003, which allows listing possibilities for smaller firms who do not yet meet the stringent listing requirements for JSE mainboard listing (Johannesburg Stock Exchange, 2012).

1.4 Defining the Alternative Exchange

The Alternative Exchange (AltX) was developed for entrepreneurial small to medium, high growth firms (Johannesburg Stock Exchange, 2012). The platform acts as an incubator for these high growth firms looking to improve their performance by gaining access to share capital from public investors to expand operations. The AltX also assists listed companies to follow a growth path, encouraging these firms to promote to the Johannesburg Stock Exchange's (JSE) mainboard.

In the listing process, designated advisors are assigned to firms to ease the process of listing (Johannesburg Stock Exchange, 2012). Thereafter, all executive and non-executive directors are required to attend a director's induction program, which assists firms by teaching attendees the ropes of managing listed firms (Johannesburg Stock Exchange, 2012). These actions clearly indicate that the JSE encourages the development of the market and therefore the greater economy.

Although the AltX identifies their 'target customer' as small to medium sized firms, according to the Small Business Act of 1996 small to medium sized firms tend to have:

- 5 – 200 full time employees
- Annual turnover ranging between R150' thousand and R40' million
- Total gross assets between R100' thousand and R18' million

The firms analysed in the current study (see Chapter 4) are defined according to the Act, not using the broader term 'small medium enterprise'. However in the context of JSE listed firms, it can be argued that these firms can be regarded as small and/medium in size when compared to other listed firms (market capitalisation, employees, annual turnover and asset base).

1.5 Small Growing Firms

As mentioned earlier 56% of private sector employment is contributed by SMEs, who generate approximately 36% of the country's GDP (Olawale & Garwe, 2010), and hence the reason why this study focuses on smaller growing firms.

Furthermore, the organisational structure within smaller firms allows for management to exert more influence on the firm as a whole, allowing these smaller firms to align their strategies to a more entrepreneurial styled approach (Rauch et al., 2009). Smaller firms have the ability to be more flexible than those on the opposite side of the spectrum, possibly adopting entrepreneurial

behaviour to improve their firms' performance. Being smaller and more flexible and constantly looking to improve company performance, these smaller firms can be argued to habitually be more entrepreneurially orientated than large corporate institutions (Rauch et al., 2009).

As mentioned previously, AltX listed firms are encouraged to follow a growth path to ascend to the JSE mainboard to further grow businesses operations (Johannesburg Stock Exchange, 2012). The firms identified for the current study are uniquely positioned as they form part of a small group (21 companies) which has been able to ascend to the JSE mainboard.

1.6 Research Scope

Welman, Kruger and Mitchel (2005) suggest that the scope of research refers to "the importance, meaningfulness or relevance of the proposed research, in other words, the reasons why the topic justifies research in the first place" (p. 251). As outlined from the outset of the current study, South Africa is hindered by various challenges. One solution that could assist in solving these challenges, as identified by various studies, would be to improve entrepreneurial activity within South Africa's borders. With this in mind, the scope of this research is to investigate whether EO and the dimensions thereof can be analysed as a performance variable between performing and non-performing companies.

The size of the firms to be analysed are perceived to be small in the context of other JSE listed companies. Similar studies have applied the EO theory to various industries ranging from large to small organisations, each concluding different results. The current study however will analyse the theory as a whole in the South African context analysing young high growth firms that initially listed on the AltX and promoted to the JSE mainboard. Some have since failed in their operations and delisted whilst other were suspended from the board. These exclusive firms therefore face a unique set of challenges to that of either large corporates (listed on the JSE) or small firms (listed on the AltX).

1.7 Research Aim

It has been established by numerous studies that the effective adoption of EO as a strategy in a firm, improves firms performance (Kraus, Rigtering, Hughes, & Hosman, 2012; Lumpkin & Dess, 1996; Moreno & Casillas, 2008; Wiklund & Shepherd, 2005). The selected firms will be analysed to determine whether EO has been adopted within the corporate strategy in order to improve the firm's performance.

Firms that wish to improve performance by adopting a higher EO are faced with two decisions, one involving risk taking and the other the allocation of limited resources (Rauch et al., 2009). A possibility does exist that a firm allocates these scarce resources to the implementation of the incorrect dimension, resulting in no gain in firm performance. It is therefore essential to determine which EO dimension is associated with top performing firms, as well as the magnitude that these dimensions add to the outperformance of its peers (Rauch et al., 2009).

1.8 Research Objectives

The objective of this research is to determine whether targeted South African firms in fact incorporate EO within their strategy. Furthermore, whether there exists a difference between the dimensions of the theory when comparing top-performing companies and less performing companies in fact adopt EO. The current study will review the EO theory, the companies' performance and finally the EO dimensions of the 21 companies identified. These dimensions of EO include:

- Autonomy;
- Competitive aggressiveness;
- Innovativeness;
- Proactiveness;
- Risk taking.

Analysing these five dimensions associated with EO will assist in determining the effectiveness of EO as a strategy in order to achieve firm performance.

1.9 Chapter Summary

This chapter initially introduced the concept of entrepreneurship and highlighted the fact that there is no consistent definition contributed to the term. This lack of consensus therefor impedes further development of entrepreneurial literature.

To add context to the theory, South Africa's development priorities were outlined; arguments were made favouring the NDP's intentions and other reports were used to justify the NDP's approach. This was followed by a brief look at the role that entrepreneurial firms play in achieving the set goals and defining what SME's are seen as. Finally the scope, aims and objectives for this research were identified.

Thereafter, entrepreneurship's influence on an economy was briefly outlined, followed by the role entrepreneurship plays in the corporate space. The concept of EO was identified as the underlying theory for the current study, and the five dimensions comprising EO were identified.

In the following chapter, Entrepreneurial Orientation will be discussed in more depth in order to add context for the chapters that follow.

2 Theory and Literature Review

2.1 A Brief Look at the Development of Entrepreneurial Orientation

Recent studies (Covin & Wales, 2012; George, 2011) suggested that Entrepreneurial Orientation (EO) has its roots embedded in work done by early theorists in the 1970's (see Table 1 in the next section). These studies identified that strategic decision making, in the context of actively searching for new business opportunities and/or making bold risky-decisions, lies with key individuals in the firm. Firms that adopted similar orientations improved their firm's performance over time (Covin & Wales, 2012).

In the early 1980's many theorists argued that the personality traits of a firm's leaders determined how aligned the firm's strategy was to achieve an overall entrepreneurial orientation within its operations (Edmond & Wiklund, 2010). Miller (1983) was the first to shift the emphasis away from the dominant personality to focus on intrapreneurship (refer to chapter one's discussion 'Entrepreneurship within business' for more clarity) in the context of entrepreneurial activity within an existing firm. Miller (2011) incorporated theories surrounding strategies to identify three-dimensions of entrepreneurial activity (innovation, risk taking and proactiveness) that formed the base from which EO has developed (Miller, 1983). These three dimensions identified by Miller (1983) were later extended to include autonomy and competitive aggressiveness (Covin & Slevin, 1989; Lumpkin & Dess, 1996), forming the theory as it is used in many different studies throughout the world (Rauch et al., 2009). Several studies (see next section) have attempted to enhance the theory by adding more dimensions, but have not gained any traction in the literature to date (Edmond & Wiklund, 2010).

Since the establishment of EO, the theory has received ever-growing attention over the past 30 years. Application and testing of the theory moving beyond the

realm of entrepreneurship, entering into other areas of study such as management and marketing (see Jones & Rowley, 2011; also Wales, Gupta, & Mousa, 2013).

2.2 Entrepreneurial Orientation

Since the development of EO theory, numerous quantitative research studies have been conducted focussed on EO (Bahula, 2012; Rauch et al., 2009). The theory has become a key concept in literature (Covin & Wales, 2012; George, 2011), often being described as the cornerstone for evaluating entrepreneurship at the firm level (Wales et al., 2013).

As with developing a unified definition of entrepreneurship, researchers have not reached broad agreement on a consistent definition for entrepreneurial orientated firms (see Table 1 below). This could be attributed to the fact that "the notion of an orientation toward entrepreneurial activity has been given a variety of labels in past research, including entrepreneurial orientation, intensity, style, posture, proclivity, propensity, and in some instances, corporate entrepreneurship" (Covin & Wales, 2012, p. 678).

Table 1: Past definitions pertaining to entrepreneurial orientation

Author	Definition of EO
Mintzberg (1973)	"In the entrepreneurial mode, strategy-making is dominated by the active search for new opportunities" as well as "dramatic leaps forward in the face of uncertainty" (p. 45).
Khandwalla (1976/1977)	"The entrepreneurial style is characterized by bold, risky, aggressive decision-making" (p. 25).
Miller and Friesen (1982)	"The entrepreneurial model applies to firms that innovate boldly and regularly while taking considerable risks in their product-market strategies" (p. 5).
Miller (1983)	"An entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch" (p. 771).

Morris and Paul (1987)	"An entrepreneurial firm is one with decision-making norms that emphasize proactive, innovative strategies that contain an element of risk" (p. 249).
Covin and Slevin (1998)	"Entrepreneurial firms are those in which the top managers have entrepreneurial management styles, as evidenced by the firms' strategic decisions and operating management philosophies. Non-entrepreneurial or conservative firms are those in which the top management style is decidedly risk-averse, non-innovative, and passive or reactive" (p. 218).
Merz and Sauber (1995)	". . . entrepreneurial orientation is defined as the firm's degree of *proactiveness* (aggressiveness) in its chosen product-market unit (PMU) and its willingness to *innovate* and create new offerings" (p. 554)
Lumpkin and Dess (1996)	"EO refers to the processes, practices, and decision-making activities that lead to new entry" as characterized by one, or more of the following dimensions: "a propensity to act autonomously, a willingness to innovate and take-risks, and a tendency to be aggressive toward competitors and proactive relative to marketplace opportunities" (pp. 136–137).
Zahra and Neubaum (1998)	EO is "the sum total of a firm's radical innovation, proactive strategic action, and risk taking activities that are manifested in support of projects with uncertain outcomes" (p. 124)
Voss, Voss, and Moorman (2005)	"… we define EO as a firm-level disposition to engage in behaviours [reflecting risk-taking, innovativeness, proactiveness, autonomy, and competitive aggressiveness] that lead to change in the organization or marketplace" (p. 1134, [ ] added).
Avlonitis and Salavou (2007)	"EO constitutes an organizational phenomenon that reflects a managerial capability by which firms embark on proactive and aggressive initiatives to alter the competitive scene to their advantage" (p. 567).
Cools and Van den Broeck (2007/2008)	"Entrepreneurial orientation (EO) refers to the top management's strategy in relation to innovativeness, proactiveness, and risk taking" (p. 27).
Pearce, Fritz, and Davis (2010)	"An EO is conceptualized as a set of distinct but related behaviours that have the qualities of innovativeness, proactiveness, competitive aggressiveness, risk taking, and autonomy" (p. 219).

Source: (Covin & Wales, 2012)

A further debate regarding the EO construct is whether the 'new dimensions', as identified by Lumpkin and Dess (1996) (autonomy and competitive aggressiveness), should be considered along with the original three dimensions (innovation, risk taking and proactiveness) (Edmond & Wiklund, 2010). Rauch

et al.'s (2009), assessment of over 100 past studies, identified that researchers often opted to select only a few of the dimensions to be tested, ignoring the other dimensions. Likewise, individual dimensions have also been challenged. Critics hold that autonomy is more applicable at the individual level than it is at the firm level and that autonomy is an antecedent for an EO (Edmond & Wiklund, 2010). Further criticism of the new dimension 'competitive aggressiveness' is that it falls outside the scope of the entrepreneurship domain.

Some have developed other dimensions of EO in an attempt to add to the existing theory but have not received any significant following amongst researchers throughout EO studies (Edmond & Wiklund, 2010). These dimensions include:

Table 2: New dimension developed other theorists

Researcher	Dimensions
(Morgan & Strong, 2003)	Analysis, futurity and defensiveness
(Smart & Conant, 1994)	Strategic planning activities; identification of customer needs and wants; ability to perseverance in making a vision into a reality
(Tan & Tan, 2005)	Risk affinity and analysis

Source: Adapted from (Edmond & Wiklund, 2010)

Another area of concern within EO theory is whether the dimensions thereof are dependent or independent in nature and whether they should be tested accordingly against firm performance (George, 2011; Vij & Bedi, 2012). Initial work done by Covin and Slevin (1989) treated the dimensions of EO as a uni-dimensional concept, and found that EO had a clear association with firm performance. Later research argued that the dimensions of EO should instead be treated as a multi-dimensional concept, each dimension to be tested individually in relation to firm performance (Kwak, Jaju, Puzakova, & Rocereto, 2013; Lumpkin & Dess, 2001; Rauch et al., 2009; Short et al., 2009).

Researchers who studied EO as a uni-dimensional, bi-dimensional and multi-

dimensional phenomenon found strong support favouring the multi-dimensional process of analysis (Runyan, Ge, Dong, & Swinney, 2012). "The basic premise underlying this argument is that each of these sub dimensions of EO may have a differential relationship with entrepreneurial outcomes" (Vij & Bedi, 2012, p. 15).

Lyon, Lumpkin, and Dess (2000) issued a challenge to researchers more than a decade ago, challenging researchers to develop new approaches to analyse EO and the dimensions thereof. But as stated by Rauch et al. (2009) there has yet to be a sound unified methodology incorporated to measure these dimensions of EO, which has led to various inconsistent findings

The majority of research done regarding EO took place in a North American setting and was only applied to other countries post 2000 (Bahula, 2012; Kraus et al., 2012; Wales et al., 2013). A list of these countries is provided in Table 3 below. According to Rauch et al. (2009) the concept of EO was originally hypothesised as culturally universal, but Dess and Lumpkin (2005) opposed this statement. In their suggestions for future research, they argued that future research should aim to study the relationship between EO and firm performance across different cultures, to determine if EO is truly universal.

Lastly, Miller (1983) whose article (cited in more than 2000 articles) initiated the enthusiasm surrounding EO, contributed to the body of knowledge again in 2011 to clarify his intent on the initial take of his seminal work. He mentioned that EO literature has experienced many compromises (e.g. changing dimensionality of EO, differing views of a sound measurement tool, and so forth) over the years and this has had the effect of having retarded the development of EO. He urged future studies to develop "knowledge that is academically or empirically cumulative, or practical and applicable" (Miller, 2011, p. 878) so that the theory and its use can be improved.

Table 3: Entrepreneurial orientation studies in various countries

Orientation	Nationality	Number of articles
Anglo	USA	48
	UK	6
	Canada	5
	Australia	4
	South Africa	3
	Ireland	2
	New Zealand	1
	Malta	1
Confucian Asia	China	22
	Taiwan	7
	South Korea	2
	Singapore	1
Eastern Europe	Greece	2
	Bulgaria	1
Germanic Europe	Germany	2
	Belgium	2
	Austria	1
	Netherlands	1
Latin America	Mexico	1
Latin Europe	Spain	9
Middle East	Turkey	5
	Jordan	1
Nordic Europe	Sweden	10
	Norway	2
	Finland	2
Southern Asia	Malaysia	2
	Thailand	1
Sub-Saharan Africa	Namibia	3
	Nigeria	1
Multicultural	Multinational	9
Not Mentioned	n/a	1

Source: Adopted from (Wales et al., 2013)

2.3 Dimensions of Entrepreneurial Orientation

2.3.1 Autonomy

Throughout history, entrepreneurial ventures began, due to individuals preferring to opt out of the 'corporate ladder' in order to become independent by starting their own ventures (Quinn & Spreitzer, 1997), thus displaying a certain degree of autonomy. The term autonomy is a well-known concept within the

field of management studies and has been described using a variety of frameworks (Lumpkin, Cogliser, & Schneider, 2009). Within the EO sphere, autonomy refers to a person's ability to make independent, unforced, decisions based on his/her own rationale. Applying the term to an organisational perspective, autonomy refers "to action taken free of stifling organisational constraints" (Lumpkin & Dess, 1996, p. 140). This defines a key aspect, 'employee empowerment', which needs to be present within an institution in order to allow for entrepreneurial orientated actions within the firm. Autonomy-oriented businesses, as stated by Krauss, Frese, Friedrich and Unger (2005), are also highly motivated to execute new ideas and visions

It has been argued that in order to drive entrepreneurial behaviour in a firm, autonomy should be infused in day-to-day business, as it influences the organisational climate for corporate entrepreneurship (Hough & Scheepers, 2008). Entrepreneurial behaviour is mostly driven by strategic leadership and is vital in any firm wanting to encourage and or develop their EO.

Top down delegation of instructions is a common organisational structure, which inhibits the establishment of an autonomous environment (Kuratko, Ireland, & Hornsby, 2001). As identified in Quinn and Spreitzer (1997) many senior managers and business owners have opposing views on which method (top-down or bottom-up) improves the possibility of instilling autonomy in a firm. Lumpkin and Dess (2009) suggested that companies that wish to improve their overall entrepreneurial activity should aim to use a top-down structure within the business. Birkinshaw (1997) however argued that one model is not superior to the other, but that both are complementary to one another. The premise of these statements is, as long as the firms understand the two methods that could be used, they can identify the correct actions required to implement autonomy within the firm.

2.3.2 Competitive Aggressiveness

According to Vij and Bedi (2012), "competitive aggressiveness refers to a firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position, that is, to outperform industry rivals in the marketplace" (p. 21). It should be noted that a company's competitive aggressiveness is not solely defined by its marketing division or its operational division, but by the organisational strategy designed to outperform its peers.

Often, competitive aggressiveness and pro-activeness are incorporated as one variable, but as identified by Lumpkin and Dess (1996) these two variables should be treated separately. Lumpkin and Dess (2001) provided further clarity regarding these two dimensions stating that competitive aggressiveness refers to how firms relate to competitors, that is, how firms respond to trends. Whereas proactiveness, as described below, refers to how a firm relates to market opportunities present in the market in order to generate further demand.

2.3.3 Innovation

Innovation refers "to the practical implementation of the idea concept to ensure that the set aims on a commercial, profitable basis are met, in line with a specific opportunity in the market environment" (Antonites & Van Vuuren, 2005, p. 257). By facilitating experimentation and managing risks, top management can encourage innovation through organisational systems and similar processes at the individual level as well as team levels (Lumpkin et al., 2009).

Innovation is a crucial element that should be adopted by a firm in order to enhance the firm's capabilities of achieving better performance over the long term. Some have even argued that innovation is the most important factor leading to growth (Brüderl & Preisendörfer, 2000). Although innovativeness often carries substantial costs (Hughes & Morgan, 2007) thereby decreasing the performance measurements over the short term, innovation still leads to an overall growth within a firm (Brüderl & Preisendörfer, 2000). Nonetheless, a firm

should engage and experiment with new ideas, as this will add to the innovative culture within the business.

2.3.4 Proactiveness

Rauch et al. (2009) suggested, "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" (p. 763). Although there is debate around which approach is more successful, namely the first to market or the fast follower approach, both methodologies have their respective benefit (Lumpkin & Dess, 1996). Pro-activeness thus focuses on the ability of a firm to continuously monitor the market space and is manifested in: "(1) aggressive behaviour directed at rival firms; and (2) the organizational pursuit of favourable business opportunities" (Vij & Bedi, 2012, p. 20). Put simply, pro-activeness refers to a firm's ability to initiate activities, to which other market players have to respond as was the case within Toyota as mentioned in Chapter 1.

Although proactiveness is made out to be a simple concept, Kreiser, Marino, Dickson and Weaver (2010) argued otherwise. They stated that a firm's ability to be proactive would be influenced by societies cultural traits found amongst employees. For example "uncertainty-accepting societies will be more willing to engage…" than firms in uncertainty-avoiding cultures (Kreiser et al., 2010). Other cultural influences include:

- Individualism - favoring self-reliance
- Masculinity - favoring qualities associated with men
- Power distance - a cultural trait where it is believed that subordinates should be deferential and obedient to those in positions of power.

2.3.5 Risk Taking

Risk can only be identified when "both the possible states of nature and their exact probabilities of occurrences are known. This is an extreme rarity in business decisions, since the exact probabilities are generally not known" (Weiers, 2008, p. 739). Applying this to entrepreneurial orientation, risk taking could be described as activities that involve taking bold actions, such as venturing into the unknown, acquiring significant levels of funding and/or allocating significant resources (financial or non-financial) to ventures in uncertain environments (Rauch et al., 2009; Vij & Bedi, 2012).

It must not be considered that firms taking risk do so blindly (Eggers et al., 2013). Risk management relates to the actions taken by firms in order to identify, analyse, mitigate and prevent issues that could negatively affect the business's status as a 'going-concern' (Vij & Bedi, 2012). Vij and Bedi (2012) also outlined the risk management process as a balancing act, balancing the cost of risk mitigation and the cost of exposure to the risks identified. Risk, in terms of EO, can therefore be seen as the actions taken by firms to control the level of the proverbial safety net provided by the firm's current position, in search of new opportunities and improved performance.

Keiser et al. (2010), who conducted an international study across borders, found that risk taking is influenced by culture, institutional environments, size of the economy (GDP), technological sophistication and the political environment to name but a few. As with proactiveness, it is evident that this dimension is also complex in nature and is influenced by many variables. Hence the results of past studies often contradict one another.

2.3.6 Performance

A crucial element to gain an understanding of is that of firm performance. Performance can be interpreted as a multidimensional concept that has a unique relationship concerning EO, based on the definition used for the term

'performance' (Lumpkin & Dess, 1996). Past research based their performance measurement on either financial or non-financial measures (Rauch et al., 2009; Wales et al., 2013).

From a financial perspective, an organisation can manipulate and continuously manage the financial levers of profit margin, asset turnover and/or financial leverage in order to improve the return on equity (ROE), ROE being only one measurement of performance (Higgins, 2012). Other financial measures identified include sales growth, return on assets, profitability, market share, leverage and investment efficiency (Sánchez, 2012; Wales et al., 2013). According to Rauch et al. (2009) non-financial measures are typically defined by the business owners or managers, and include employee satisfaction or the achievement of predetermined goals. The relationship between EO and performance focuses mainly on the financial aspects whereas it has been found that non-financial measures have a weak relationship between EO (Rauch et al., 2009).

Urban, Van Vuuren and Barreira (2008) advocated that sales growth figures of firms are good indicators of a firm's success. They justified this by indicating that growth is likely to be driven by the increased demand for goods and/or services, resulting in a growth in sales allowing for an increase in capacity. That being said, Vij and Bedi (2012) argued that research that considers firm performance as a narrow, unidimensional variable may produce results that could lead to misrepresented conclusions.

2.4 Chapter Summary

In this chapter a brief background was provided of the EO construct. Further evidence was provided on how the lack of consensus regarding the definition of EO has impeded the advancement of entrepreneurial literature.

Current debates ranging from the dimensions to be included in the EO construct to the location of past studies have been discussed. The current study incorporated attempted to build on the current body of knowledge by adopting the recommendations provide by previous published studies.

Thereafter the dimensions of EO were discussed to provide further clarity to the EO constructs. Different views regarding the dimensionality were also stressed throughout this discussion. The performance measurements were also discussed and various views regarding financial and non-financial performance measurements were also outlined.

In the following chapter several hypothesis have been developed to which the current study promises to answer throughout the chapters to come (Chapters 4-7).

3 Research Question

3.1 Introduction

As discussed in Chapter 2, the theory of Entrepreneurial Orientation (EO) consists of five dimensions developed by Covin and Slevin (1989); Lumpkin and Dess (1996) and Miller (1983).

Lumpkin and Dess (1996) further added that the dimension of the performance variable and the outcome of the research could possibly be affected by the definition used by the researcher (i.e. different combinations of financial and non-financial measures). After performing a meta-analysis on over 100 research papers, Rauch, et al. (2009) found that researchers used an array of performance indicators in their studies, resulting in inconsistent conclusions. The current study focuses on financial performance only; a performance measurement most regularly used in EO studies (Rauch et al., 2009).

3.2 Research Problem

As outlined in Chapter 1, the South African economy is still hindered several issues including high levels of unemployment. In determining what EO factors drive high performance, firms will be able to improve their performance which will lead to faster growth as outlined by Urban, Van Vuuren and Barreira (2008). In the long run, these growing firms will need to increase their capacity (machinery, employee's, etc.) leading to an enhanced economic position.

3.3 Control Variables

The firms identified in this study (see Chapter 4), do not fall under similar industries but rather form part of a unique group of companies (21 in total) which were able to ascend to the JSE mainboard from the AltX due to

exceptional performance. These firms were allocated into either the top performing or less performing cluster to be tested in the context of the dimensions of EO and firm performance. These firms however differ in size and therefore this variable was controlled for throughout using staff costs as a proxy.

3.4 Research Hypotheses

The key objective of this section is to hypothesise the possible influence these independent variables, the dimensions of EO, have on dependent variables, namely firm performance.

Firms that incorporate an EO strategy in order to "shape the firm's entrepreneurial capabilities to further improve firm performance" (Bahula, 2012, p. 26) would be anticipated to:

- Allow for certain actions to be taken free of stifling organisational constraints (autonomy);
- React and/or respond to competitive action (competitive aggressiveness);
- Innovate by engaging in and supporting fresh new ideas, novelties, experimentations and the creative process. (innovativeness);
- Proactively search for new opportunities, acting in anticipation of future demand (proactiveness);
- Take bold identified risks in order to outperform competition (risk taking).

The points stated above have set the foundation on which the hypotheses were developed. For the purpose of the current study the hypotheses review two aspects. Firstly the association of the dimensions of EO and firm performance between top performing and less performing companies will be analysed; and secondly whether the EO dimensions cumulatively (top performing and less performing firm placed in one portfolio) have a positive influence on firm performance.

3.5 Entrepreneurial Orientation as a Performance Variable for Top Performing and Less Performing Companies

3.5.1 Hypothesis 1

H_{0-} The dimension, **autonomy,** is more present in top performing companies than less performing companies.

3.5.2 Hypothesis 2

H_{0-} The dimension, **competitive aggressiveness**, is more present in top performing companies than less performing.

3.5.3 Hypothesis 3

H_{0-} The dimension, **innovativeness**, is more present in top performing companies than less performing companies.

3.5.4 Hypothesis 4

H_{0-} The dimension, **proactiveness**, is more present in top performing companies than less performing companies.

3.5.5 Hypothesis 5

H_{0-} The dimension, **risk taking**, is more present in top performing companies than less performing companies.

3.5.6 Hypothesis 6

H_{0-} Overall, total **entrepreneurial orientation**, is more present in top performing companies than less performing companies.

3.6 An Overview of Entrepreneurial Orientation and Firm Performance

3.6.1 Hypothesis 7

H_{0-} There is a direct positive relationship between the overall dimension **autonomy** and firm performance.

3.6.2 Hypothesis 8

H_{0-} There is a direct positive relationship between the overall dimension **competitive aggressiveness** and firm performance.

3.6.3 Hypothesis 9

H_{0-} There is a direct positive relationship between the overall dimension **innovativeness** and firm performance.

3.6.4 Hypothesis 10

H_{0-} There is a direct positive relationship between the overall dimension **proactiveness** and firm performance.

3.6.5 Hypothesis 11

H_{0-} There is a direct positive relationship between the overall dimension **risk taking** and firm performance.

3.7 Chapter Summary

In this chapter further clarity was provided with regards to the interpretation and justification of the method incorporated in this study. Thereafter the control variables were identified and the null hypotheses were outlined, which were tested and answered in Chapters 5 and 6 respectively.

In the following chapter, the research methodology incorporated in this study will be outlined in detail. Each concept will first be clarified, followed by a statement of what method was adopted for the purposes of the current study.

4 Research Methodology

4.1 Introduction

The purpose of this chapter is to describe the route that was followed in the current study. Under the headings that follow, the concept was initially clarified after which the method incorporated into the current study was established.

4.2 Objectives and Approach Incorporated Into the Current Study

Research objectives are the specific components of the research problem that will be investigated in order to answer the stated research questions indicated in the previous chapter (Polonsky & Waller, 2011).

As mentioned in Chapter 1, the objective of the current study was to determine whether there exists a relationship between Entrepreneurial Orientation (EO) and firm performance in the South African context, and also to determine whether these dimensions differ between top-performing companies and less performing companies. Entrepreneurial Orientation (EO) was centred around the business-unit level instead of focussing attention on individuals present at these firms (Lumpkin & Dess, 1996). The dimensions of EO was tested and considered to be a multi-dimensional concept. Past studies suggest this as the favoured methodology (Lumpkin & Dess, 1996; Rauch et al., 2009; Runyan et al., 2012; Short et al., 2009). As per Short, Broberg, Cogliser, and Brigham's study (2009) all five dimensions of EO (Innovativeness, Proactiveness, Risk-taking, Competitive aggressiveness, Autonomy) were tested independently against the performance, which is not a common occurrence (Rauch et al., 2009).

As mentioned previously, there are various views on how to determine firm performance. Vij and Bedi (2012) argued that research that considers firm

performance as a narrow, unidimensional variable, may produce results that could lead to misrepresented conclusions. Covin and Slevin (1989), whose article has been widely cited, measured various financial indicators including "sales level, sales growth rate, cash flow, return on shareholder equity, gross profit margin, net profit from operations, profit to sales ratio and return on investment" (p. 79). For the purpose of the current study, firm performance incorporated several financial and non-financial measures:

1. Average annual share price growth:
    - A share price reflects shareholders perceptions of the company and incorporates both past results and future expectations.
2. Free cash flow growth:
    - A calculation incorporating income statement and balance sheet entries.
3. Sales growth:
    - An income statement calculation.
4. Book value growth:
    - A balance sheet calculation.
5. Staff Cost:
    - The annual staff cost was used as a proxy for as the staff count's data was not available. This variable was also used as the control variable for firm size, in order to mitigate its effect on the study's findings.

For variables one, three and five (stated above) the year on year growth for these performance variables was calculated, after which the firms were ranked from best position (first) to worst position (last). The free cash flow measure was calculated accordingly, but was not converted to an annual percentage change as the results varied between extreme positive and negative values.

These performance variables were used in order to allocate the companies incorporated into either the top performing or less performing group. The top-performing group consisted of nine companies whereas the less performing

group consisted of the remaining eight companies. This decision was made as one company, Curro Holdings, had only operated as a listed company for a very short period and did not have any data prior to its initial listing.

4.2.1 Justification of the Share Price as Performance Measurement

Four out of the five performance variables incorporated into this study have been used by numerous past studies (see Rauch et al., 2009, for a comprehensive list). One, average annual share price growth, is not a usual performance measurement. However, a share price reflects a bias free interpretation of future firm performance as interpreted by investors.

Different models have been designed including the efficient market hypothesis, which indicates that "financial markets immediately incorporate all public information and that share prices reflect all relevant information. It further asserts that prices on trade assets, for example, equities, bonds or property, already reflect all known information and therefore are unbiased in the sense that they reflect the collective beliefs of all investors about future prospects" (Botha et al., 2011, p. 551).

Based on the theory, efficient market hypothesis, it can be concluded that the share price encapsulates the measures stated above and also the market's perception of the firm and its performance as a whole. This measurement therefore adds to the various sound performance measurements used in similar studies.

4.3 Research Strategy

Key differences exist between the methods used during the research process. It is therefore important to gain a better understanding of these strategies prior to commencing study. These differences are briefly discussed below, after which the method incorporated into this study was identified.

4.3.1 Research Methodology

The three approaches that can be incorporated in a study are exploratory, descriptive and causal research. Exploratory research is conducted to gain an in-depth understanding and potentially clarify a certain problem (Zikmund, 2000), whereas descriptive research aims to produce an "accurate representation of persons, events and/or situations" (Saunders, Lewis, & Thornhill, 2009, p. 140). Lastly a causal approach to research "seeks to identify cause and effect relationship" between the identified variables (Zikmund, Babin, Carr, & Griffin, 2012, p. 54).

The current study incorporated all three research methodologies, throughout the research process. Initially an in depth understanding of the theory was developed during the literature review phase, adopting certain identified elements and measurements (e.g. Table 5 below). After a better understanding of the concept was developed, a descriptive methodology was adopted in order to identify whether there exists a causal relationship between the dimensions of EO and firm performance. This causal relationship was then analysed in more depth to identify whether the dimensions of EO was more present in top performing firms and whether there existed a relationship between EO and firm performance in the South African context.

4.3.2 Primary Versus Secondary Data Collection

Two forms of data exist, namely primary and secondary data. Primary data is generated for the sole purpose of the research being undertaken. Secondary data, however, is data that has already been collected and used to answer other research questions (Saunders, Lewis, & Thornhill, 2003).

The data used in this study did not yet exist and was developed for the sole purpose of solving the proposed hypotheses using a computer aided text analysis (CATA) program. Two sets of data were developed for the purposes of this study. Firstly, the study incorporated all the identified companies' annual

reports (including the CEO letters) in order to evaluate the dimensions of EO. The dimensions were evaluated using the word list generated by Short et al. (2009), in order to generate a word count for all dimensions per year per company. Secondary data was also obtained from the annual reports such as annual revenue per year. Other secondary data, obtained from McGregor BFA, included companies share prices as well as other ratios indicated earlier.

4.3.3 Quantitative Versus Qualitative Research

Qualitative and quantitative methodologies can be described in terms of the data collected (text, numeric, etc.), the approach (deductive or inductive), the philosophy (positivism, realism, etc.), the strategy (survey, case study, etc.) and so forth (Saunders & Lewis, 2012). Bazeley (2002) established that there are many inconsistencies in the definitions attributed to qualitative and quantitative research. An example she provided was “If one uses numbers, interpretation is still involved. If one’s data are texts, counting may still be appropriate” (p. 2). Hence, what was originally perceived to be a quantitative data set (i.e. numeric data) could in fact be analysed qualitatively and visa versa. The current study incorporated both text data and quantitative data, therefore creating a mixed method research style.

As mentioned previously annual reports including CEO letters were analysed using a CATA program (Atlas.ti) in order to generate a count representing the various dimensions of EO. The adopted process imitated the typical path Creswell (2013) describes in his book that forms a mixed methodology:

> “The analysis of the qualitative data (words, text or images) typically follows the path of aggregating the words or images into categories of information and presenting the diversity of ideas gathered during data collection” (p. 6).

The word list generated by Short et al. (2009) was developed using various tools (such as DICTION), dictionaries and specialist opinions. These dimensions were then critically analysed during the development phase in order

to ensure that all words accurately defined and represented the EO dimension to which it was allocated.

For the purposes of the current study, the word list was analysed in order to ensure that all words in fact accurately defined the EO dimensions by reviewing the definitions provided by online dictionaries (e.g. Google). Thereafter the word list was coded into the CATA program in order to count the number of occurrence each dimension of EO was mentioned in the transcript. This process is known as 'connecting the datasets', as one dataset (word list) builds the other (word count) (Creswell, 2013).

4.4 Participants and Location of the Study

4.4.1 Population and Sampling Frame

The population represents the complete set of units (individuals, members, groups, etc.) from which a study wishes to make a conclusion (Welman & Kruger, 2001), whilst the sampling frame represents the selected units which forms part of the study.

The population of the current study included all South African companies that ascended from the AltX to the JSE's Main Board. Firms that were delisted or suspended from the JSE were removed from the identified population (see Table 4 below). Considering the population consists of only 21 companies, the entire population was incorporated into the current study and hence, no sampling method was adopted in selecting the companies identified.

Table 4: Companies that ascended from the AltX board to the JSE' mainboard (including delisted companies)

Number	Company Name
1	1Time Holdings *
2	Buildwoks (Renamed Consolidated Infrastructure Group)
3	Calgro M3
4	CIC Holdings *
5	Curro Holdings
6	Ellies Holdings
7	Enaleni (Renamed Cipla Medpro) *
8	Esorfranki
9	Infrasors Holdings
10	Insimbi
11	Mazor Group
12	Morvest
13	Myriad Medical Holdings (Renamed Litha Healthcare)
14	New Europe Property Investment
15	Pan African Resources
16	Rolfes Technology
17	Santova Logistics
18	Sanyati Holdings *
19	Taste Holdings
20	Wescoal Holdings
21	Yomhlaba (Renamed South African Coal Mining Ltd)

* Firms in red have been delisted or suspended and was excluded from the population

4.4.2 Unit of Analysis

"The unit of analysis for a study indicates who or what should provide the data and at what level of aggregation" (Zikmund et al., 2012p. 118). The unit of analysis adopted for the purposes of this study was individual words, which was used to define the dimensions of EO. This unit of analysis is supported in several recent studies (Short, Payne, Brigham, Lumpkin, & Broberg, 2009; Short et al., 2009).

Content analysis is a prominent methodology used in the evaluation of content and style within the psychology sphere (Pennebaker, Mehl, & Niederhoffer,

2003). The assumptions on which these strategies are based revolve around the fact that the words used by people to convey information reflect not only the literal meaning of the words selected, but also the thought process behind it (Pennebaker et al., 2003; Short et al., 2009).

4.4.3 Obtaining the Data

Annual reports (including CEO letters) were collected from the identified companies' websites. In instances where these documents were not available or easily accessible from the respective companies' websites, McGregor BFA was used to acquire the documents. Upon obtaining content, the text was valuated using a CATA program (Atlas.ti).

Annual reports and CEO letters are prominent documents used in content analysis studies (Duriau, Reger, & Pfarrer, 2007; Noel & Erskine, 2013; Short et al., 2009). Duriau, Reger and Pfarrer (2007) provided further support, justifying their use. These supporting statements include:

- "Annual reports are prime materials to study the interaction of firms with their environment" (p. 17).
- Annual reports do not suffer from retroactive sense making.
- "Senior executives spend considerable time outlining the content of the report, sketching out much of it, and proofreading and changing most of it to their taste" (p. 17).

4.4.4 Limitations of the Data

Rauch et al. (2009) reviewed over 100 research papers that incorporated EO and firm performance. In their paper it is clear that the sample size rarely dips below 50, with one study having a sample size as low as 8 firms. A limitation of the current study was that the sample size was relatively small in comparison to other studies done in this sphere, incorporating a total of 21 companies. The small sample size also influenced the statistics incorporated into the study, as

the limited data collected indicated a non-normal distribution. That said, the sample size represents the entire population of firms that initially listed on the AltX board and subsequently were promoted to the JSE mainboard, excluding delisted and suspended firms.

Although annual reports are a sound transcript they are not always bias free as they often over attribute the outcomes achieved by the firm to the decisions and actions taken (Duriau et al., 2007). Several companies only listed their firms in recent years forcing the study to review EO over a shorter time frame (five years). This time frame (2008 – 2012) was marred by the impact of the global recession as companies often adjust their strategies in order to 'see through the troubled times'.

4.5 Construction of the Instrument for Data Collection

For the purposes of this study, a world list developed by Short et al. (2009) was used to further add to the existing body of knowledge around EO and CATA studies. This is consistent with the advice provided by Krippendorf (2012). The word list was analysed by theory experts, each defining word referring only to the EO dimension that it describes. The final entry in the table, namely additionally inductively derived words, cannot be attributed to one dimension solely, but displays characteristics of multiple dimensions. For example, "commercialisation is the process of converting knowledge into marketable products or services" (Short et al., 2009, p. 334), and could therefore not be allocated to describe one dimension as the concept portrays a scope of risk taking, proactiveness or innovativeness. For the purposes of the current study, no further words were added to the list.

Table 5: Word list for entrepreneurial orientation

Entrepreneurial orientation dimension	Content analysis words with expert validation
Autonomy	At-liberty, authority, authorisation, autonomic, autonomous, autonomy, decontrol, deregulation, distinct, do-it-yourself, emancipation, free, freedom, freethinking, independence, independent, liberty, license, on-one's-own, prerogative, self-directed, self-directing, self-direction, self-rule, self-ruling, separate, sovereign, sovereignty, unaffiliated, unattached, unconfined, unconnected, unfettered, unforced, ungoverned, unregulated
Innovativeness	Ad-lib, adroit, adroitness, bright-idea, change, clever, cleverness, conceive, concoct, concoction, concoctive, conjure-up, create, creation, creative, creativity, creator, discover, discoverer, discovery, dream, dream-up, envisage, envision, expert, form, formulation, frame, framer, freethinker, genesis, genius, gifted, hit-upon, imagination, imaginative, imagine, improvise, ingenious, ingenuity, initiative, initiator, innovate, innovation, inspiration, inspired, invent, invented, invention, inventive, inventiveness, inventor, make-up, mastermind, master-stroke, metamorphose, metamorphosis, neoteric, neoterism, neoterise, new, new-wrinkle, innovation, novel, novelty, original, originality, originate, origination, originative, originator, patent, radical, recast, recasting, resourceful, resourcefulness, restyle, restyling, revolutionise, see- things, think-up, trademark, vision, visionary, visualise
Proactiveness	Anticipate, envision, expect, exploration, exploratory, explore, forecast, fore- glimpse, foreknow, foresee, foretell, forward-looking, inquire, inquiry, investigate, investigation, look-into, opportunity-seeking, proactive, probe, prospect, research, scrutinisation, scrutiny, search, study, survey
Competitive aggressiveness	Achievement, aggressive, ambitious, antagonist, antagonistic, aspirant, battle, battler, capitalise, challenge, challenger, combat, combative, compete, competed, competing, competition, competitive, competitor, competitory, conflicting, contend, contender, contentious, contest, contestant, cutthroat, defend, dog-eat-dog, enemy, engage, entrant, exploit, fierce, fight, fighter, foe, intense, intensified, intensive, jockey-for-position, joust, jouster, lock-horns, opponent, oppose, opposing, opposition, play-against, ready-to-fight, rival, spar, strive, striving, struggle, tussle, vying, wrestle
Risk taking	Adventuresome, adventurous, audacious, bet, bold, bold-spirited, brash, brave, chance, chancy, courageous, danger, dangerous, dare, daredevil, daring, dauntless, dicey, enterprising, fearless, gamble, gutsy, headlong, incautious,

	intrepid, plunge, precarious, rash, reckless, risk, risky, stake, temerity, uncertain, venture, venturesome, wager
Additional inductively derived words	Advanced, advantage, commercialisation, customer-centric, customised, develop, developed, developing, development, developments, emerging, enterprise, enterprises, entrepreneurial, exposure, exposures, feature, features, founding, high-value, initiated, initiatives, innovations, innovative, introductions, launch, launched, leading, opportunities, opportunity, originated, outdoing, outthinking, patents, proprietary, prospects, prototyping, pursuing, risks, unique, ventures

Source: (Short et al., 2009)

4.6 Construct Validity

Saunders, Lewis and Thornhill (2003) stated that validity refers to the extent to which the adopted data collection method, as well as the data incorporated, accurately measures its focal or intended purpose. In the organisational sciences field, the validity of studies continues to pose a great challenge (Short et al., 2009).

In order to improve validity, researchers have often relied on content analysis tools to capture and analyse difficult-to-measure constructs (Short et al., 2009). Content analysis, one of the fastest growing techniques in research, can be outlined as the systematic, objective, qualitative or quantitative analysis of message characteristics (Neuendorf, 2002). The analysis tool allows researchers to examine a wide variety of data ranging from human interactions to physical documents, in order to derive an accurate meaning. As all decisions and measurement tools are constructed prior to commencing with a study, content analysis as a tool allows for researchers to achieve greater objectivity (Neuendorf, 2002).

In order to review the constructs, entrepreneurial orientation, the current study made use of a content analysis tool (Atlas.ti) following the guidelines provided by Short et al. (2009). These guidelines call for the evaluation of content-, external-, discriminant-, and predictive-validity.

4.6.1 Content Validity

Content validity refers to the degree to which a measure captures the full domain of the area of interest (Zikmund et al., 2012). Short et al. (2009) indicated that in order to improve content validity the world list be developed using a deductive approach. Thereafter it should be analysed by content experts in order to assist in the development of the constructs by ensuring the word list accurately resembles the dimensions being measured. See Short et al. (2009) for more insight into this process.

4.6.2 External Validity

External validity refers to the extent to which the study's findings are generalisable to multiple settings (Saunders et al., 2009). In order to maximise external validity using content analysis Short et al. (2009) indicated that considerable attention be given to two key elements. The first elements relates to the text (or documents) used for CATA and whether these documents can answer the stated hypotheses. As mentioned previously, CEO's letter to shareholders in annual reports are most commonly used within CATA studies (Duriau et al., 2007). The second elements revolve around identifying an adequate sample from the population. This study incorporates all existing companies that initially listed on the AltX and subsequently promoted to the JSE's mainboard.

4.6.3 Discriminant Validity

Discriminant validity signifies whether or not the dimensions being examined are distinct from the other dimensions used in the study (Short et al., 2009). A measure has discriminant validity when it has a low correlation to the other dimensions in the concept (Zikmund, 2000).

Duriau et al.(2007) advised that if the study investigates a multi-dimensional concept, the dimensions thereof should be treated and defined individually. As

with several other studies reviewing the EO concept, the current study also treated EO as a multi-dimensional concept (Kwak et al., 2013; Lumpkin & Dess, 2001; Rauch et al., 2009; Short et al., 2009). The word list generated by Short et al. (2009) resulted in low correlation between the EO dimensions and hence was adopted for the current study. Correlation was also tested in the current study in order to merge dimensions that displayed high levels of correlation.

4.6.4 Predictive Validity

Predictive validity refers to a measure's ability to predict other similar constructs that are theoretically linked (Short et al., 2009). This validity measure is not often reviewed in content analysis studies, but does form a crucial element of validity (Duriau et al., 2007). In order to improve predictive validity it is vital to review dependent variables, such as firm performance in the current study (Short et al., 2009).

4.7 Reliability

Reliability signifies the extent that the data collection method as well as the analysis procedure will achieve consistent findings across different studies (Saunders & Lewis, 2012). Reliability is a paramount concept within content analysis studies (Neuendorf, 2002). By adopting a CATA program instead of using human coders in order to reduce the degree of error, reliability was improved as it increases the 'test-retest' ability. Furthermore, the word list provided by Short et al. (2009), has, since its development, also been used in another similar study comparing family owned and non-family owned companies (Short et al., 2009).

4.8 Data Screening and Cleaning

The sample of the current study consisted of 17 companies, reviewing their respective annual reports and financials over a five-year term. Thus, in total, 81 data points were generated per EO dimension and variables used to assess the EO and performance relationship. With such a relatively small sample size, the decision was made not to remove and/or replace outliers. Instead different statistical measures were used to diminish their effect. The data screening and cleaning process was required for both the EO dimension as well as the performance variables being analysed.

4.8.1 Word Count Screening

Initially, the word counts used to analyse EO were left in their 'raw' form. After screening the data however, it was evident that the total number of words used per company per year was vastly different, skewing the possibility of comparing the EO dimensions. In order to accommodate for these dispersions, the word lists were standardised by dividing the total number of words counted per EO dimension by the total word count per annual report.

4.8.2 Performance Variable Screening

The performance variables also required data cleaning as the effect of outliers within these individual measurements, were affecting the rank contributed to each performance measurement. One such occurrence was identified after scrutinising the revenue growth performance variable. The company, South African Coal, was positioned in first place after calculating the average performance over a five-year term. In order to correct for the outlier effect, the median was used to position the companies. This changed the ranking of South African Coal from first to last place position in the revenue growth performance variable.

4.9 Pre-Testing

A pre-test is a process where the study is imitated on a small-scale, and is intended to identify fundamental problems prior to completing the entire study (Zikmund et al., 2012).

The current study also underwent a pre-test where a limited number of annual reports and CEO letters were analysed using the word list provided by (Short et al., 2009). Several documents were not readable by the CATA program (Atlas.ti), thus these documents were converted to a .pdf format using conversion software. Upon re-loading these documents the CATA program was able to analyse the imported documents. Furthermore, several words in the world list were not identified in the imported text. Upon further investigation, it was identified that the language format used (spelling) was that of US English. These words were then converted to UK English using the function provided by Microsoft Office 2011.

4.10 Chapter Summary

In this chapter, the guidelines to be followed in the chapters that follow (chapters five and six) were described, indicating what was incorporated into the current study and provided further clarity where possible. A mixed method type study was adopted in order to determine whether or not EO is more 'present' in the top performing companies than the less performing companies. Thereafter the theory was tested on the overall sample (top performing and less performing companies)

5 Results of the Study

5.1 Introduction

The purpose of this chapter is to present the findings of the study in accordance with the hypotheses stated in Chapter 3, in graphic and table form. These findings will be briefly discussed in order to develop a better understanding. To reiterate, the aim of this study is to identify which dimensions of Entrepreneurial Orientation (EO), are more relevant with top performing companies in comparison to less performing companies that ascended from the AltX to the JSE mainboard. Furthermore, to determine whether EO and all of its dimensions has a direct positive relationship to firm performance. A description of how the firms were allocated to the two profiles (top performing and less performing); the distribution of the word counts (EO dimensions) and finally the inferential statistics applied will be outlined and briefly discussed below.

5.2 Sample Description

The sample consists of the companies that have transferred from the AltX board to the JSE mainboard, since the establishment of the AltX in 2003. In total 21 companies have made the transition of which several companies have delisted whilst others were suspended from the board (see Table 4 in Chapter 4) leaving a total of 17 companies. The data gathered for the purposes of the study include the CEO-, CFO-letters, annual reports and their financial statements over a five-year term. This term was selected as several companies only listed AltX over this period (2008-2013); the current year (2013) was not taken into consideration as the majority of the firms' annual reports had not been published. Furthermore, reviewing the variables over a five-year term mitigates the potential lag effect entrepreneurial behaviour will have on the performance of a particular firm (e.g. Company XYZ decided to target a new market [risks taking] leading to higher revenue).

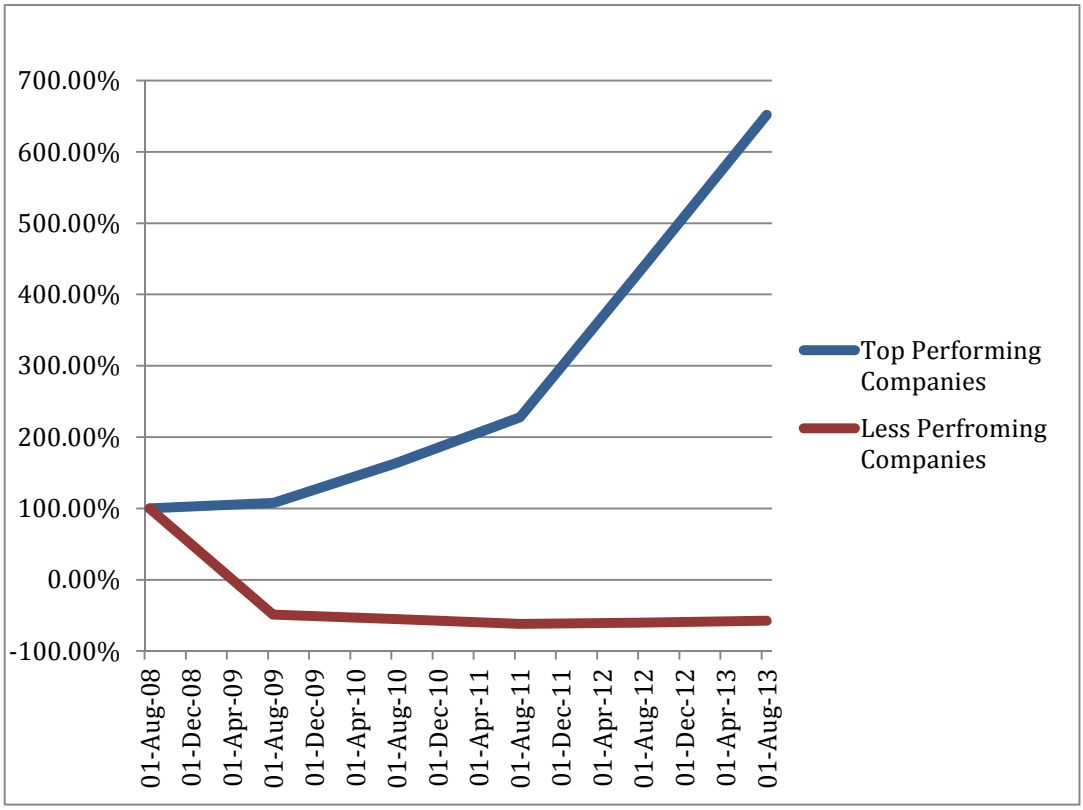
5.3 Results of Performance Review

In order to compare top performing and less performing companies within the sample the performance variables, as indicated in Chapter 4, reviewed include:

1. Average annual share price growth
2. Median free cash flow
3. Revenue growth
4. Book value growth
5. Growth in Staff

The different performance measurements are provided below in the form of figures, graphs and tables. In Table 9, the final grouping (top performing or less performing companies) is provided on which the EO dimensions where evaluated.

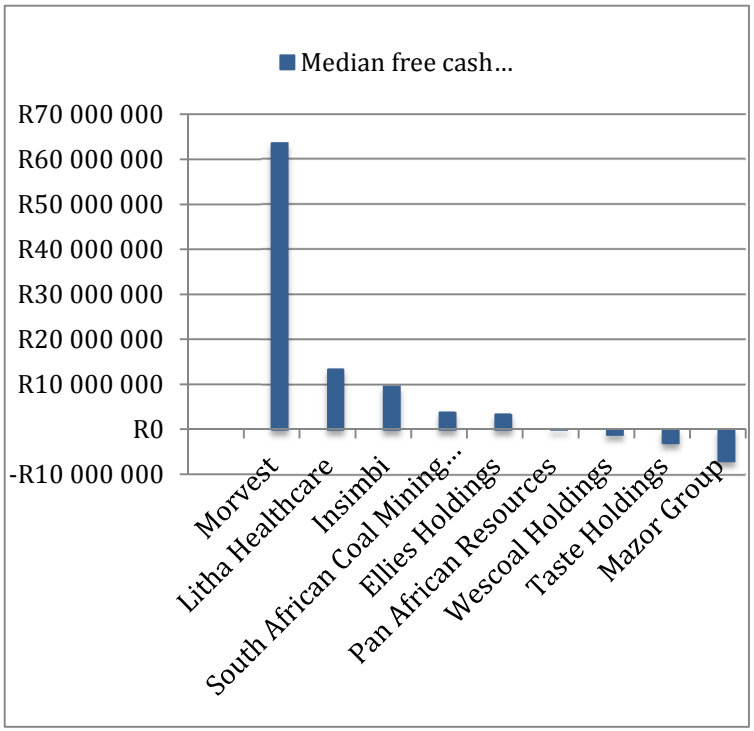
Figure 1: Average annual share price growth

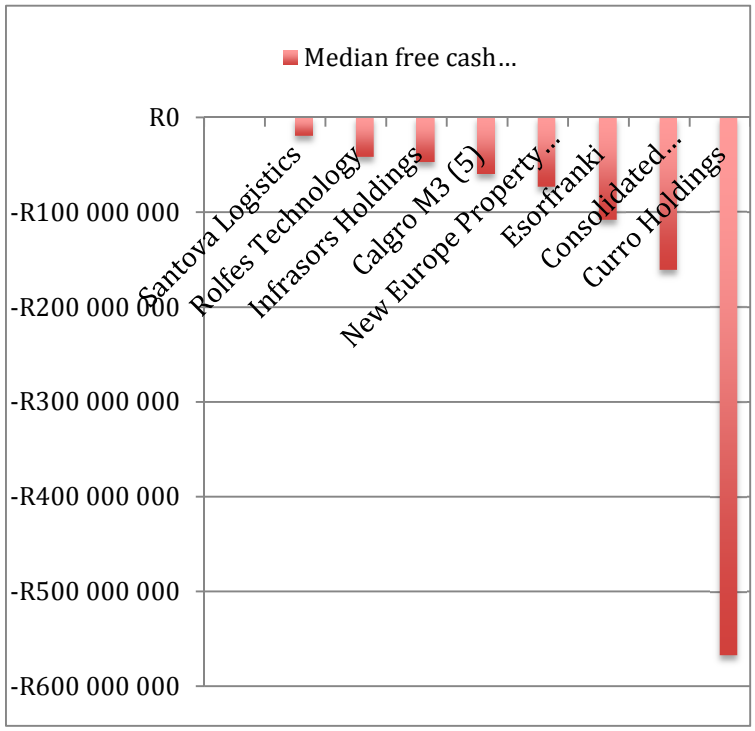


The results of Figure 1, indexed over a five-year term, clearly indicate that there is a disparity between top performing and less performing companies. The term

(five-years) was selected, as several companies' data was not available prior to this. Top performing companies cumulatively grew in value by 652%, whereas less performing companies approximately halved in value. This interpretation is based on the average annual share price growth and hence, the market's interpretation of the company's performance based on current and future-expectations.

Figure 2: Median free cash flow





The free cash flow was calculated using the formula earnings before interest and tax add back depreciation, less capital expenditure, less change in working capital. In order to avoid the effects of outliers in the data set, the median cash flow was calculated over a five-year period and ranked from highest to lowest accordingly. The majority of firms have negative cash, with only six firms providing positive cash flows. Growing firms tend to have a negative cash flow as they establish themselves

as a business. This being the case, the age of the firms didn't play a major role as the older companies (Esorfranki and Infrasors Holdings) still had negative cash flows.

Table 6: Percentage revenue growth arranged by median

Company	2008	2009	2010	2011	2012	Median
Curro Holding				*	114	114
Consolidated Infrastructure	*	270	65	18	7	41,5
New Europe Property Investment	*	31	115	46	22	38,5
Taste Holdings	*	303	46	26	18	36
Litha	*	25	341	40	-17	32,5
Esorfranki	*	39	31	-26	30	30,5
WesCoal	*	52	-32	50	9	29,5
Pan Africa	*	35	29	16	28	28,5
Ellies	*	62	18	14	30	24
Rolfes Group	*	19	-2	25	38	22
Calgro	*	-26	-19	49	83	15
Morvest	*	26	-8	16	8	12
Insimbi	*	8	-37	20	15	11,5
Santova Logistics	*	-4	-21	37	27	11,5
Mazor	*	66	-8	-32	26	9
Infrassor	*	1	-10	11	14	6
South African Coal	*	-79	-51	1747	-35	-43

* - Base year

The annual year-on-year growth (%) was calculated over a five-year term and arranged (top performing and less performing) according to the median over this period to avoid the effect of outliers, as is evident with South African Coal that generated revenue growth of 1747% in 2011. The two tables that follow were also generated in this method.

Table 7: Percentage book value growth

Company	2008	2009	2010	2011	2012	Median
Curro Holding				*	128,28	128,28
New Europe Property Investment	*	71,44	114,95	9,01	30,30	50,87
Taste Holdings	*	815,47	80,35	-20,10	-3,33	38,51
Consolidated Infrastructure	*	66,24	57,90	-28,90	1,21	29,56
Ellies	*	18,06	5,34	131,66	31,07	24,56
Insimbi	*	-29,06	201,13	44,78	2,88	23,83
WesCoal	*	-30,29	241,20	50,20	-12,89	18,65
Esorfranki	*	124,00	-5,94	2,21	30,90	16,55
Morvest	*	48,69	2,47	-10,26	30,30	16,38
Rolfes Group	*	226,86	-2,97	-1,29	25,25	11,98
Litha	*	6,36	2164,21	11,05	-74,29	8,70
Mazor	*	421,05	1,18	11,54	4,04	7,79
Santova Logistics	*	519,05	2,66	-4,50	-2,05	0,31
Pan Africa	*	9,87	3,61	-98,78	-8,06	-2,22
Calgro	*	54,27	-30,59	-12,04	5,49	-3,27
Infrassor	*	-47,51	147,88	10,82	-26,19	-7,68
South African Coal	*	-47,74	40,25	3,24	-20,95	-8,85

*- Base year

Table 8: Percentage staff growth

Company	2008	2009	2010	2011	2012	Median
Curro Holding	*			*	93,4	93,4
New Europe Property Investment	*	86,6	243,1	98,5	-4,3	92,5
WesCoal	**	*	-88,5	65,5	844,6	65,5
South African Coal	*	110,7	7,2	-70,7	815,4	59,0
Consolidated Infrastructure	*	103,2	89,3	21,3	13,3	55,3
Taste Holdings	*	160,5	65,1	17,8	15,3	41,5
Litha	*	96,4	23,7	-3,3	46,7	35,2
Rolfes Group	*	25,7	-90,7	995,4	28,7	27,2
Ellies	*	6,8	57,6	20,9	27,0	23,9
Mazor	*	53,9	19,8	-17,0	21,3	20,6
Esorfranki	*	40,4	33,2	4,7	4,7	19,0
Insimbi	*	24,0	9,3	23,7	4,4	16,5
Pan Africa	*	11,4	46,9	15,2	8,8	13,3
Infrassor	*	925,9	9,1	16,6	4,6	12,8
Santova Logistics	*	18,5	-15,9	-86,6	1003,3	1,3
Morvest	*	48,6	-18,0	5,8	-88,7	-6,1
Calgro	*	-20,7	-16,8	0,8	317,6	-8,0

*- Base year
**-Data not available

Table 9: Overall grouping: Top performing and less performing companies

Company	Revenue growth ranking	Book value growth ranking	Share price growth ranking	Free cash flow growth ranking	Total average ranking	Final ranking	Grouping
Curro Holdings	1	1	1	17	5	1	1
Litha Healthcare	5	11	2	2	5	2	1
Calgro M3	2	4	5	13	6	3	1
New Europe Property Investment	3	2	7	14	6,5	4	1
Taste Holdings	4	3	12	8	6,75	5	1
Ellies Holdings	9	5	9	5	7	6	1
Rolfes Technology	10	10	4	11	8,75	7	1
Wescoal Holdings	7	7	14	7	8,75	8	1
Pan African Resources	8	14	8	6	9	9	1
Insimbi	14	6	15	3	9,5	10	2
Mazor Group	15	12	3	9	9,75	11	2
Morvest	12	9	17	1	9,75	12	2
Esorfranki	6	8	16	15	11,25	13	2
Santova Logistics	13	13	11	10	11,75	14	2
Consolidated Infrastructure Group	11	15	6	16	12	15	2
South African Coal Mining Ltd	17	17	10	4	12	16	2
Infrasors Holdings	16	16	13	12	14,25	17	2

The overall ranking from each measurement instrument was collated in order to determine the overall placement of the companies. The top nine performing companies (on average) were assigned to group one (top performing companies) and the remainder were assigned to group two (less performing companies). The decision was made to split the group as mentioned above, as one company (Curro) had performed exceptionally over its relatively short history and would not drastically impact the grouping. Top performing companies were consistently placed in the top nine positions in the performance variables being analysed, only seldom being placed outside the top nine position (10 of the total 36 measurement placements).

5.4 Frequency and Descriptive Statistics

Table 10: Descriptive statistics

	N		Mean	Median	Standard deviation
	Valid	Missing			
Additional inductively derived words	82	3	0,000160448	0,000150254	0,0000975689
Autonomy	82	3	0,000096479	0,000088628	0,0000866364
Competitive aggressiveness	82	3	0,000050814	0,000028510	0,0000771969
Innovativeness	82	3	0,000116459	0,000102493	0,0001159797
Proactiveness	82	3	0,000030104	0,000000000	0,0000453129
Risk taking	82	3	0,000111311	0,000087546	0,0001157388
Total entrepreneurial orientation	82	3	0,000405167	0,000343808	0,0002391562
Total word count per document	82	3	28689,06	27549,00	9890,625
Annual staff cost	82	3	71515,77	39171,00	97527,619
Percentage revenue growth	82	3	54,55	19,50	201,847
Percentage book value growth	82	3	66,96340	2,33776	265,826407
Percentage share price growth	78	7	19,30127	4,65116	59,189972
Free cash flow	82	3	-41864,84683	-7640,74000	171000,30005

Table 5 above, provides an overall indication of the data analysed, both the EO dimensions as well as the performance measurements analysed. The sample for all variables accounted for 82 valid data points, barring the share price variable, which only accounted for 78 valid recordings. The constant three missing data points were caused by a company (Curro) that was only

established in 2011 and subsequently listed that same year. Four firms (New Europe Property Investment, Santova Logistics, South African Coal Mining Ltd. and Taste Holding) only listing in 2009, which added to the missing data under the performance measurement - share price growth.

The performance measurement variables have also been provided in order to gain further insight into the data collected. To control for the difference in company size the decision was made to control for staff cost (used as a proxy for number of employees), as is the case in Short et al (2009). Therefore this measurement was not analysed as a percentage growth. Furthermore, the majority of the companies' free cash flow's varied between positive and negative cash flows, which made it illogical to convert to an annual growth rate.

To ensure that all word counts were comparable, the counts were standardised by dividing each EO concept by the total number of words in the annual report. These word counts will be referred to and treated as the dimensions of the dimensions they measured, namely the dimensions of EO.

5.5 Distribution

Table 11: Distribution - Test for normality

		Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Inductively derived words	Top Performing	0,116	42	0,181	0,955	42	0,094
	Less Performing	0,116	40	0,193	0,922	40	0,009
Autonomy	Top Performing	0,163	42	0,006	0,883	42	< 0,001
	Less Performing	0,145	40	0,035	0,866	40	< 0,001
Competitive aggressiveness	Top Performing	0,199	42	< 0,001	0,815	42	< 0,001
	Less Performing	0,315	40	< 0,001	0,469	40	< 0,001
Innovation	Top Performing	0,105	42	0.200	0,943	42	0,037
	Less Performing	0,243	40	0,000	0,704	40	< 0,001
Proactiveness	Top Performing	0,258	42	< 0,001	0,653	42	< 0,001
	Less Performing	0,302	40	< 0,001	0,728	40	< 0,001
Risk taking	Top Performing	0,136	42	0,048	0,899	42	0,001
	Less Performing	0,239	40	< 0,001	0,828	40	< 0,001

Tested at a 95% level of significance

In order to ensure the data collected is normally distributed it is advised to run the Kolmogorov-Smirnov and Shapiro-Wilk test (Pallant, 2007). The

Kolmogorov-Smirnov and Shapiro-Wilk tests are both used to determine the distribution of the data collected. When a sample tends to be small (less than 50), as is the case with the current study, it is advised to use the Shapiro-Wilk test (Pallant, 2007). If the p-value (sig. value) is greater than 0.05, the data is proven to have a normal distribution across the dimension being analysed. The results of this statistical test thus indicate that the majority of EO dimensions appear to be not normally distributed in nature and therefor favor non-parametric testing.

5.6 Comparison

Table 12: One sample t-test

		N	Mean	Std. Deviation	t test	Sig.
Top Preforming Companies	Additionally Derived Words	42	0,0001401	0,0000858	10,579	0,000
	Autonomy	42	0,0000670	0,0000644	6,742	0,000
	Competitive Aggressiveness	42	0,0000631	0,0000746	5,481	0,000
	Innovativeness	42	0,0001191	0,0000877	8,801	0,000
	Proactivesness	42	0,0000316	0,0000488	4,205	0,000
	Risk Taking	42	0,0000770	0,0000702	7,104	0,000
Less Performing Companies	Additionally Derived Words	40	0,0001818	0,0001054	10,908	0,000
	Autonomy	40	0,0001275	0,0000965	8,355	0,000
	Competitive Aggressiveness	40	0,0000379	0,0000787	3,048	0,004
	Innovativeness	40	0,0001137	0,0001408	5,105	0,000
	Proactivesness	40	0,0000285	0,0000419	4,296	0,000
	Risk Taking	40	0,0001474	0,0001415	6,586	0,000

Compared to a test statistic of zero

Although the data is non-parametric, the one sample t-test can still be used as the sample size is greater the 30, allowing for the assumption of normal distribution (Weiers, 2011). The one sample t-test has also been known to be a robust, sound test (Pallant, 2007).

The one sample t-test was used in Table 12 to evaluate whether the language used in the annual reports is consistent with the dimensions of EO, when

compared to a test statistic of zero. From the results in the table above it is evident that the p-value is less than 0.05 for all EO dimension, indicating that the tested dimensions' means are in fact different from zero. This infers that one can reject the claim that the means are equal to zero signifying that the language used in the annual reports are in fact consistent with the dimensions of EO; therefore the dimensions were identified within the annual reports.

5.7 Independent Sample Test

In order to determine whether or not the dimensions of EO were similar between the two groupings (i.e. top performing and less performing), an independent sample test was conducted, as the testing occurs for two independent groups. An independent sample test was preferred to an ANOVA test as an ANOVA test is more associated with testing between three or more groups (Pallant, 2007). Furthermore, the companies considered for the purpose of the current study, operate independently with no relation to one another. The companies were evaluated according to their own published information; the results of one company (i.e. annual report and financial statements) had no influence on the results of another company, nor do the results affect the allocation to either top performing and less performing groups.

For the purposes of the current study the independent sample test used was the Mann-Whitney U test. This decision was made as the distribution of the data collected was proven to not have a normal distribution (see section 5.4 above). In order to avoid the effect of outliers, the Mann-Whitney U test evaluates the medians. These evaluations are then assigned a score and ranked accordingly per dimension being evaluated (see Table 13 for score allocation).

A p-value (sig. value) less than 0.05 indicates a significant difference between the dimensions of EO. From Table 14 below we can conclude that there are significant differences between several dimensions of EO when comparing the top performing and less performing group.

Table 13: Mann-Whitney U test ranking

		N	Mean Rank	Sum of Ranks
Inductively derived words	Top performing companies	42	37,10	1558,00
	Less performing companies	40	46,13	1845,00
Autonomy	Top performing companies	42	33,00	1386,00
	Less Performing Companies	40	50,43	2017,00
Competitive aggressiveness	Top performing companies	42	46,57	1956,00
	Less Performing Companies	40	36,18	1447,00
Innovation	Top performing companies	42	44,30	1860,50
	Less Performing Companies	40	38,56	1542,50
Proactiveness	Top performing companies	42	42,52	1786,00
	Less Performing Companies	40	40,43	1617,00
Risk taking	Top performing companies	42	35,01	1470,50
	Less Performing Companies	40	48,31	1932,50
Total entrepreneurial orientation	Top performing companies	42	38,52	1618,00
	Less performing companies	40	44,63	1785,00

Table 14: Mann-Whitney U test

	Mann-Whitney U	Z	Sig. (2-tailed)
Inductively derived words	655,000	-1,716	0,086
Autonomy	483,000	-3,322	0,001
Competitive aggressiveness	627,000	-2,058	0,040
Innovativeness	722,500	-1,094	0,274
Proactivesness	797,000	-0,429	0,668
Risk taking	567,500	-2,537	0,011
Total entrepreneurial orientation	715,000	-1,160	0,246

5.8 Correlation between EO Dimensions between Top Performing and Less Performing Companies

Table 15: EO dimensions correlation (Spearman's rho) – Top performing companies

			Inductively derive words	Autonomy	Competitive aggressiveness	Innovativeness	Proactiveness	Risk taking	Total entrepreneurial orientation	Total position
Top performing companies	Inductively derive words	Correlation Coefficient	1,000							
		Sig. (2-tailed)								
	Autonomy	Correlation Coefficient	0,137	1,000						
		Sig. (2-tailed)	0,387							
	Competitive aggressiveness	Correlation Coefficient	0,174	-0,117	1,000					
		Sig. (2-tailed)	0,271	0,462						
	Innovation	Correlation Coefficient	0.379*	0,172	0.558**	1,000				
		Sig. (2-tailed)	0,013	0,276	0,000					
	Proactiveness	Correlation Coefficient	0,285	0,201	0,174	0,296	1,000			
		Sig. (2-tailed)	0,068	0,202	0,270	0,057				
	Risk taking	Correlation Coefficient	0,178	-0,198	0,195	0,119	-0,232	1,000		
		Sig. (2-tailed)	0,259	0,209	0,216	0,451	0,138			
	Total entrepreneurial orientation	Correlation Coefficient	0.408**	0,283	0.694**	0.852**	0.373*	0.328*	1,000	
		Sig. (2-tailed)	0,007	0,069	0,000	0,000	0,015	0,034		
	Total position	Correlation Coefficient	0.321*	-0,145	0,169	-0.310*	0,168	0,010	-0,105	1,000
		Sig. (2-tailed)	0,038	0,358	0,284	0,045	0,289	0,951	0,508	

*. Correlation is significant at the 0.05 level

**. Correlation is significant at the 0.01 level

Table 16: EO dimension correlation (Spearman's rho) – Less performing companies

			Inductively derive words	Autonomy	Competitive aggressiveness	Innovativeness	Proactiveness	Risk taking	Total entrepreneurial orientation	Total position
Less performing companies	Inductively derive words	Correlation Coefficient	1,000							
		Sig. (2-tailed)								
	Autonomy	Correlation Coefficient	0,295	1,000						
		Sig. (2-tailed)	0,064							
	Competitive aggressiveness	Correlation Coefficient	0,285	0,265	1,000					
		Sig. (2-tailed)	0,075	0,098						
	Innovation	Correlation Coefficient	0,107	0,054	0,164	1,000				
		Sig. (2-tailed)	0,510	0,740	0,313					
	Proactiveness	Correlation Coefficient	0.349*	0,107	-0,020	0,279	1,000			
		Sig. (2-tailed)	0,027	0,509	0,901	0,081				
	Risk taking	Correlation Coefficient	-0,220	0,006	0,083	0,159	-0,087	1,000		
		Sig. (2-tailed)	0,173	0,972	0,610	0,326	0,592			
	Total entrepreneurial orientation	Correlation Coefficient	0,178	0.472**	0.439**	.614**	0.368*	0.559**	1,000	
		Sig. (2-tailed)	0,272	0,002	0,005	0,000	0,020	0,000		
	Total position	Correlation Coefficient	0,130	0.377*	0,066	0,127	0.323*	0,152	0.457**	1,000
		Sig. (2-tailed)	0,425	0,016	0,687	0,436	0,042	0,351	0,003	

*. Correlation is significant at the 0.05 level

**. Correlation is significant at the 0.01 level

In order to ensure that EO could in fact be evaluated as a multi-dimensional concept, a correlation test was conducted. The correlation is used to indicate both the strength and direction of the relationship between the various dimensions. For the EO concept to be treated as a multidimensional concept, each dimension should be distinct from but relate to the other dimensions of the concept being analysed (Edwards, 2001). The Spearman's rho test (a non-parametric test) for correlation was conducted, as the data was not normally distributed. For the purposes of the current evaluation, the following was used (Pallant, 2007):

- Weak correlation (r): $0.10 < (r) < 0.29$ **or** $-0.10 < (r) < -0.29$
- Medium correlation (r): $0.30 < (r) < 0.49$ **or** $-0.30 < (r) < -0.49$
- Strong correlation (r): $0.50 < (r) < 1.00$ **or** $-0.50 < (r) < -1.00$

As indicated by Table 15 and Table 16 above, it is clear that there are both positive and negative relationships ranging from small to medium correlations between the various dimensions. This being the case, there are very few significant findings (i.e. p-value < 0.05). This is consistent with the above statement (Edwards, 2001), allowing this study to test the dimensions of EO as a multidimensional concept.

5.9 Firm Performance and EO

Table 17: Overall (combined) correlation

		Total position	Log of staff costs	Autonomy	Competitive aggressiveness	Innovativeness	Proactiveness	Risk taking
Pearson correlation	Total position	1,000						
	Log of staff costs	0,076	1,000					
	Autonomy	0,310	0,276	1,000				
	Competitive aggressiveness	-0,005	-0,270	-0,033	1,000			
	Innovativeness	-0,080	0,180	0,083	0,153	1,000		
	Proactiveness	0,193	-0,356	0,005	0,310	0,162	1,000	
	Risk taking	0,282	0,300	0,104	0,034	0,155	-0,044	1,000

For the overall combined sample (i.e. N=81), the distribution was found to be normally distributed allowing for regression analysis. In preparation to complete the regression analysis, a correlation test was conducted in order to identify whether the data is multi-collinear. Multi-collinearity is a situation where two or more independent variables are highly correlated to one another (Weiers, 2011). In these situations, the regression test becomes statistically unreliable. Each variable (total position, log of staff cost and the dimensions of EO) should relate to some extent to the other variables. A correlation between two variables exceeding a value of 0.70 (or -0.70) should be removed form the regression analysis (Pallant, 2007). In the table

above, it is evident that none of the variables exceed this upper limit, allowing for the regression analysis to continue as planned.

Table 18: Regression model [c]: Relationship between firm performance and EO

Model	R	R square	Std. error of the estimate	Change statistics				
				R square change	F change	df1	df2	Sig. F change
1	0.076[a]	0,006	2,583	0,006	0,460	1	79	0,499
2	0.486[b]	0,237	2,338	0,231	4,474	5	74	0,001

a. Predictors: (Constant), Log of staff cost

b. Predictors: (Constant), Log of staff cost, Innovativeness, Autonomy, Risk taking, Competitive aggressiveness, Proactiveness

c. Dependent Variable: Total position

In order to assess the relationship between EO and firm performance a hierarchical regression model was constructed. A hierarchical regression enters the variables in steps, with each independent variable being controlled for each variable entered per step and assessing what it add to the prediction of the dependent variable. In order to ensure that the model accommodated for the difference in firm size, as suggested by (Short et al., 2009), the regression model was adjusted to control for this using the logarithm of staff costs (staff cost being used a proxy for the number of employees as the data was not available).

In Model 1 it is evident that staff cost (the log of) only predicted 0.6% of the dependent variable, total performance. Upon incorporating the other dimensions of EO into the regression model (model 2) the dimensions further added to the model (model 2) to predict 23,7% of the total performance, a significant finding (as the p-value < 0.05).

Table 19: ANOVA [a] test: Overall regression model

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	3,071	1	3,071	0,460	0.499[b]
	Residual	527,013	79	6,671		
	Total	530,085	80			
2	Regression	125,415	6	20,903	3,822	0.002[c]
	Residual	404,669	74	5,469		
	Total	530,085	80			

a. Predictors: (Constant), Log of staff cost
b. Predictors: (Constant), Log of staff cost, Innovativeness, Autonomy, Risk taking, Competitive aggressiveness, Proactiveness
c. Dependent Variable: Total position

In order to evaluate the model as a whole, an ANOVA test is completed. For the model as a whole to be perceived as a significant result the p-value should be less than 0.05, as is the case in the regression model (model 2) which includes all dimensions of EO.

Table 20: Coefficients [a]

Model		Standardised coefficients Beta	t	Sig.
1	(Constant)		7,040	0,000
	Log of staff cost	0,076	0,679	0,499
2	Constant		5,828	0,000
	Log of staff costs	0,023	0,184	0,854
	Autonomy	0,286	2,689	0,009
	Competitive aggressiveness	-0,051	-0,459	0,647
	Innovativeness	-0,187	-1,723	0,089
	Proactiveness	0,258	2,246	0,028
	Risk taking	0,287	2,666	0,009

a. Dependent Variable: Total Position

To determine which of the variables contribute to the prediction of firm performance (dependent variable) the betas produced during the regression

analysis are reviewed. The dimension of EO that made a significant (p-value < 0.05) contribution in predicting the regression was that of risk taking (0,287), proactiveness (0,258) and autonomy (0,286).

5.10 Chapter Summary

In this chapter, the various results of the study were presented. Initially the firm allocations were presented in order to gain a better understanding of how the groupings were established. Thereafter, the various statistics incorporated into the study were clarified, presenting the purpose of each statistical test as well as the results thereof. For example, the one sample t-test was used to determine whether the language used in the wordlist was consistent with the words used in the annual reports. In order to determine whether there was in fact a relationship between EO and firm performance, a regression analysis was conducted on the entire population, as the sample size for the two individual groups was not sufficient to produce accurate results independently.

6 Discussion of Results

6.1 Introduction

The purpose of this chapter is to discuss the results found in the previous chapter, adding further context to the findings, where possible, by incorporating the facts outlined in the literature review (Chapter 2). When conducting research incorporating content analysis as the research method, it is vitally important to ensure that the content analysis is consistent with the constructs being analysed (Short et al., 2009).

As identified in Chapter 4, Short et al. (2009) proposed guidelines to ensure construct validity is achieved when using content analysis within a study. Measures and results found in Short et al. (2009), falling outside the ambit of this study are briefly discussed below, followed by a thorough discussion of the stated hypotheses found in Chapter 3.

6.2 Statistics Falling Outside the Ambit of the Current Study

Content validity refers to the degree to which a measure captures the full domain of the area of interest (Zikmund et al., 2012). Although not specifically tested in the current study, the wordlist obtained from Short et al. (2009) analysed content validity in order to ensure validated findings.

Short et al. (2009) derived the wordlist using deductive and inductive methods, using two raters (field experts) to determine whether the wordlist did in fact represent the multiple constructs associated with entrepreneurial orientation (EO). The raters either agreed or disagreed with the words signifying the various dimensions of EO. The statistical test used to determine reliability was the Holsti's test, which returned a reliability measure between 0.75 and 0.88 indicating consistency between the two raters. The wordlist adopted for the

purposes of the current study was not re-evaluated and was used as provided by Short et al. (2009), after adjusting for the difference in language.

6.3 EO Dimensionality

As mentioned in Chapter 2, researchers frequently disagree on the dimensionality of EO. Restating what has been said in Chapter 2 that researchers who studied EO as a uni-dimensional, bi-dimensional and multi-dimensional phenomenon have found strong support favouring the study of EO as a multi-dimensional concept (Runyan et al., 2012).

This being the case, it is still important to determine whether the EO theory can be tested as a multidimensional concept when using CATA programs as the analysis tool. The test for normality (Table 11 above) indicated that data in the sample was not normally distributed; therefor the correlation test incorporated into the current study was the Spearman's rho.

When evaluating the results of the correlation matrix for top performing companies (see Table 15) it is evident that the dimensions of EO mainly have a weak correlation to one another with the exception of innovation and competitive aggressiveness. This being the case, the correlation is not excessively strong that would justify a merger of these two dimensions to form one concept as proposed by Short et al. (2009). The majority of the findings also indicated that the relationship between the dimensions are positively correlated to one another with the exception of competitive aggressiveness and autonomy as well as risk taking and autonomy and proactiveness. None the less these negative correlations were weak in nature. As mentioned in Chapter 4 the inductively derived words could not be allocated to one individual dimension of EO as these words could be assigned to more than one EO dimension. Hence the correlation between inductively derived words and the EO dimensions are positive and have a weak to medium relationship to the other dimensions.

Less performing companies returned similar results to that of top performing companies. Correlations between the dimensions ranged from weak to medium in relationship. Similarly, only two relationships indicated a negative correlation to other dimensions. These include proactiveness and competitive aggressiveness as well as risk taking and proactiveness. As mentioned earlier, the inductively derived words dimension represented more than one EO dimension and is therefore overlooked for the purposes of this discussion.

The majority of the dimensions correlated less than 0.5, which is consistent with Edwards's (2001) statement as the majority dimensions are distinct from but relate to other dimensions. Similar to Short et al. (2009) findings, the results indicated that the weakest correlations occurred between the dimension risk taking and the other dimensions of EO. It can therefore be concluded that although the majority dimensions have a weak to medium, positive relationship, the dimensions of EO can in fact be treated as a multidimensional concept, supporting the statement made by Runyan, Ge, Dong and Swinney (2012) and Lumkpin and Dess (1996).

6.4 Entrepreneurial Orientation as a Performance Variable for Top Performing and Less Performing Companies

As stated in Chapter 2, researchers often analyse whether there exists a relationship between the dimensions of entrepreneurial orientation and firm performance. For example, a recent study (Bahula, 2012) attempted to determine whether the dimensions of EO are in fact associated with firm performance in the context of the South African metals and engineering industry. Many studies, see Rauch et al (2009), conduct similar studies changing the location of the study (country), the industry, the size of the firms or the environment in which the study is being conducted (for example Covin & Slevin, 1989).

The current study however incorporated the theory of EO applying it to a different context in order to determine which dimensions of EO are more

associated with top performing companies than that of their peers. The hypotheses that follow (one to six) analyse the individual dimensions of EO in a comparison between the top performing and less performing firms. For the purposes of these hypotheses, the Mann-Whitney U test was used, as it is a non-parametric test.

6.4.1 Hypothesis 1

H_{0}- The dimension, ***autonomy,*** *is more present in top performing companies than less performing companies.*

As the p-value is less than 0,05, (autonomy: 0,001) the EO dimension, autonomy, is found to have a a significant difference between the two groupings (i.e. more associated to one grouping than the other). Referring back to the rankings provided by Table 13, it is evident that less performing companies were more autonomous in their daily operations than that of top performing companies. In order to confirm this finding it is important to review the findings of the medians instead of relying solely on the mean rank.

Table 21: Autonomy - Median

Autonomy	Top performing Companies	Median	0,0000430
	Less performing companies	Median	0,0001145

As indicated by the medians provided above, it is evident that less performing companies significantly displayed more autonomous behaviours than that of top performing companies. Therefore we can reject the null hypothesis in favour of the alternative. H_1: The dimension, **autonomy,** is more present in less performing companies than top performing companies.

6.4.2 Hypothesis 2

H_{0}- The dimension, ***competitive aggressiveness****, is more present in top performing companies than less performing.*

Another significant finding is that of competitive aggressiveness, as the p-value (provided by Table 14 above) is less than 0,05. Reviewing the mean rank it is evident that top performing companies displayed more characteristics of competitive aggressiveness than that of less performing companies. Once again, it is important to review the means of this dimension when commenting on the findings (Pallant, 2007).

Table 22: Competitive aggressiveness - Median

Competitive Aggressiveness	Top performing companies	Median	**0,0000422**
	Less performing companies	Median	0,0000105

As indicated by Table 22 above, it is evident that top performing companies portrayed more characteristics of behaving 'competitively aggressive' than that of less preforming companies. Therefore the null hypothesis is accepted as stated. The dimension, **competitive aggressiveness**, is more present in top performing companies than less performing.

6.4.3 Hypothesis 3

*H_{0}- The dimension, **innovativeness**, is more present in top performing companies than less performing companies.*

The results of the Mann-Whitney U test provided in Table 14 above, indicates a non-significant finding between the dimension innovativeness amongst top performing and less performing companies. Although the mean rank and the median (see Table 23 below) indicate that the top performing companies behave more innovatively, the finding remains not significant.

Table 23: Innovativeness - Median

Innovativeness	Top performing companies	Median	0,0001101
	Less performing companies	Median	0,0000863

As a result, with a p-value of 0,274, which is greater than 0,05, there is not enough evidence to either reject or accept the null hypothesis in favour of the alternative.

6.4.4 Hypothesis 4

*H_{0-} The dimension, **proactiveness**, is more present in top performing companies than less performing companies.*

Similar to hypothesis three above, the findings with regards to the stated hypothesis also display a result that is not significant as the p-value (0,688) is greater than 0,05.

Therefore it can be concluded that the null hypothesis can neither be rejected in favour of the alternative, nor can the null be accepted.

6.4.5 Hypothesis 5

*H_{0-} The dimension, **risk taking**, is more present in top performing companies than less performing companies.*

With a p-value of 0,011, which is greater than the hurdle rate of 0,05, it is evident that there is a significant finding with regards to the dimension risk taking. The mean rank (Table 13) indicates that less performing companies take more risks than that of top performing companies. This is confirmed when evaluating the median's provided in the table below.

Table 24: Risk taking - Median

Risk Taking	Top performing companies	Median	0,0000608
	Less performing companies	Median	0,0001192

Therefore we can reject the null hypothesis in favour of the alternative. H_1: The dimension, **risk taking,** is more present in less performing companies than top performing companies.

6.4.6 Hypothesis 6

*H_{0}- **Total entrepreneurial orientation** (the sum of all dimensions) is more present in top performing companies than less performing companies.*

With a p-value greater than 0,05 the finding is not significant. Therefore the null hypothesis cannot be accepted or rejected in favour of the alternative. Although both the top performing and less performing companies displayed various aspects of having an orientation favouring entrepreneurial behaviour, little evidence was found that one group significantly adopted the behaviour or strategy into their business in comparison to the other group.

6.5 Summary of Hypotheses One to Six

In summary the statistical tests have in some cases supported the stated hypothesis, rejected the null hypothesis in favour of the alternative and lastly, provided no significant finding forcing the current study to neither accept nor reject the null hypothesis. The above findings are summarised in Table 25 below.

Table 25: Summary of the findings for hypotheses 1 - 5

Dimension	Top performing	Less performing	No significant finding
Autonomy		✖	
Competitive aggressiveness	✖		
Innovativeness			✖
Proactiveness			✖
Risk taking		✖	

6.6 An Overview of Entrepreneurial Orientation and Firm Performance

The relationship between entrepreneurial orientation (EO) and firm performance remains a complex construct (Hughes & Morgan, 2007) and therefore to add to the existing body of knowledge, the remaining hypotheses (seven to eleven) test the relationship between EO and firm performance in greater depth. In the current study, the EO theory is analysed in the South African context and does not focus on any specific industry. Instead, the theory is tested in the context of young growing firms that have successfully made the transition to the JSE main board over the years (combining top performing and less performing companies into one portfolio).

The purpose of this section is to evaluate which of the dimensions of EO has a direct positive relationship with firm performance when evaluating the entire sample. Several studies (Rauch et al., 2009) have proven that EO has a positive impact on the firm's performance, but as mentioned by Vij & Bedi (2012) the sub dimensions of EO may have a differential relationship with a firm's performance. Hence, these dimensions should be reviewed in order to determine which have a direct positive relationship on firm performance.

Similar to other studies (Hughes & Morgan, 2007; Kraus et al., 2012; Short et al., 2009) the current study also made use of a regression analysis to determine the relationship between EO and firm performance. As identified by the correlation table (Table 17 above) the EO dimensions correlate to some extent, but do not correlate excessively. The findings of the regression model are in line with the findings of other similar studies as the overall regression model, yielded a significant finding (p-value less than 0.05, see Table 19). To avoid any influence of firm size, the staff cost variable (used as a proxy) was controlled for in the regression analysis. Thereafter all five dimensions of EO incorporated into the analysis, resulting in an R^2 value of 0.237 (Table 18, model 2). Although the R^2 is still relatively low, this finding is none the less stronger than that of Short et al (2009) who claims that their "results represent some of the strongest

relationships of entrepreneurial orientation to firm performance to date (R^2=0.14)" (p. 340).

6.6.1 Hypothesis 7

H_{0-} There is a direct positive relationship between the overall dimension **autonomy** and firm performance.

As identified in Chapter two, autonomy revolves around the concept of empowerment. By incorporating autonomy effectively into the firm, managers demonstrate their faith in their employees, who in return participate in the desired entrepreneurial orientated manner leading to improved firm performance (Hughes & Morgan, 2007).

The results of the current study found that autonomy had a significant influence on the overall regression model as the p-value (displayed in Table 20) was less than the hurdle rate of 0.05 with a total coefficient (β) of 0,286. In comparing these results to another recent study that included all five dimensions of EO (a rare occurrence) (Hughes & Morgan, 2007), it is evident that similar results were found.

Therefore, the statistics generated in Chapter 5, support the null hypothesis stated above. There exists a direct positive relationship between autonomy and firm performance.

6.6.2 Hypothesis 8

H_{0-} There is a direct positive relationship between the overall dimension **competitive aggressiveness** and firm performance.

A competitive aggressiveness orientation is one of the basic characteristics of successful firms that favour entrepreneurial activity (Krauss et al., 2005). This being the case, competitive aggressiveness did not return a significant finding (p-value < 0,05). The dimension had an overall negative impact (coefficient =

-0,051) on the regression model. This finding is in line with that of Short et al. (2009) who also found a -0,09 coefficient in their model.

The finding achieved in the current study neither support nor reject the null hypothesis in favour of the alternative, as the result was proven to be not significant.

6.6.3 Hypothesis 9

H_{0-} There is a direct positive relationship between the overall dimension **innovativeness** and firm performance.

Innovation is a crucial element that should be adopted by a firm in order to enhance the firm's capabilities of achieving better performance over the long term. Although innovation is depicted as a dimension of EO that promotes growth, various conclusions have been found in past studies. Calantone, ÇavuÎgil, and Zhao (2002) concluded that innovation, and the facilitation thereof, in fact had a direct positive impact on firm's performance, Hughes & Morgan (2007), settled a similar result. But the impact innovation had on firm performance was not significant as was the case in the study completed by Calantone, ÇavuÎgil, and Zhao (2002). Kraus, Rigtering, Hughes, and Hosman (2012) however found there was a negative relationship between innovativeness and firm performance in their regression model.

The current analysis found there to be a negative relationship between innovativeness and firm performance (a coefficient of -0,187, see Table 20). Although this finding is consistent with Kraus, Rigtering, Hughes, & Hosman (2012), it is not a significant finding as the p-value is greater than 0,05. This being the case, the null hypothesis can neither be accepted nor can it be rejected in favor of the alternative.

6.6.4 Hypothesis 10

H_{0-} There is a direct positive relationship between the overall dimension **proactiveness** and firm performance.

Pro-activeness focuses on a firm's ability to continuously monitor the market space and adapt accordingly. Put simply, pro-activeness refers to a firm's initiative to initiate activities, to which other market players have to respond.

In a similar study by Short et al (2009), the findings were significant, indicating that a positive relationship between proactiveness and firm performance did exist. The coefficient (β) for this dimension within their model equated to 0.18. The current study verified these findings. A significant positive relationship exists between proactiveness and firm performance with a coefficient equating to 0,258. This significant positive relationship supports the null hypothesis stated above.

6.6.5 Hypothesis 11

H_{0-} There is a direct positive relationship between the overall dimension **risk taking** and firm performance.

The dimension risk taking refers to a firm's ability to identify and execute on new opportunity. Taking bold steps in order to improve the firm's performance in the long run. This dimension of EO has proven to be a very complex variable influenced by numerous variables within a country (Kreiser et al., 2010).

The results of the regression model found risk taking to be a significant influencing dimension on the overall firm performance (p-value > 0,05). The regression model found this dimension to have a coefficient of 0,287. This significant finding supports the null hypothesis that risk taking has a direct positive relationship to firm performance.

6.7 Summary of Hypothesis Seven to Eleven

EO has been proven to positively influence firm performance. The current study however found that not all dimensions of EO concluded direct positive relationship to firm performance. This finding supports the statement made by Vij & Bedi (2012), sub dimensions of EO have a differential relationship with firm performance. A possible reason for these findings was found in Lumpkin and Dess (1996). The authors posited that, during the different stages of a firm's development, the dimensions of EO may not necessarily be equally valuable or suitable in order to improve the firm's performance (Hughes & Morgan, 2007; Lumpkin & Dess, 1996). "During start-up, an EO may be the only thing a young firm has going for it until issues of survival can be satisfied" (Lumpkin & Dess, 1996, p. 163).

7 Conclusion

7.1 Introduction

The purpose of this chapter is to highlight the main findings of the current study, pulling the result together into a cohesive set of findings. These findings will then be applied in order to make recommendations to various businesses wishing to improve their firm's performance, by identifying managerial implications. Lastly recommendations for future research are also provided for academic purposes.

7.2 Summary of Findings

The current study aimed to ascertain whether firms that have displayed signs of being entrepreneurially orientated, could implement certain dimensions of entrepreneurial orientation (EO) in order to improve firm performance in the context of South Africa. Short et al. (2009) provided guidelines for the current study as various aspects were incorporated, including the word list and methodology. By incorporating Short et al's. (2009) study into the current study, key aspects of research, namely the validity and reliability, were improved. This implies that the study accurately measured its intended purpose and that the data collection method as well as the procedures followed will achieve consistent findings across various studies (Saunders & Lewis, 2012)

The focus was placed on young rapid-growing firms, as these firms have the potential to resolve South Africa's employment difficulties (Brüderl & Preisendörfer, 2000). Thus ensuring that South Africa becomes a global competitor; as entrepreneurship as a whole is argued to intensify competition, increase productivity and introduce new technology (Shrivastava & Shrivastava, 2013).

The study tested all five dimensions of EO against several performance variables, as adopting a narrow definition of performance could potentially lead to misrepresented results (Vij & Bedi, 2012). Several significant findings were concluded in the current study.

With regards to EO as a performance variable between top performing and less performing firms, it was identified that top performing firms adopted an aggressive competitive behaviour within their organisation. Less performing firms however were proven to have taken more risk and allowed more autonomous behaviour within their institutions. No significant difference was found between the remaining two dimensions (innovation and proactiveness). It should however be noted that top performing and less performing firms nevertheless displayed significant traits of all EO dimensions.

When evaluating EO theory on the combined portfolio (top performing and less performing) in order to ascertain whether in fact EO has a direct positive relationship to firm performance, significant findings were also concluded. A positive R^2 value equating to 0,237, infers that the dimension of EO can explain 23.7% of the performance measurement, therefore a direct positive relationship exists. Although R^2 value seems to be relatively low in the context of statistical analysis, the value is none the less greater than that of Short et al. (2009) who claimed to have found the strongest relationship to date. This being the case, only autonomy, proactiveness and the dimension risk taking, had a significant positive relationship to the overall model.

7.3 Recommendations

7.3.1 Recommendation to Stakeholders

The outcome of this research supports the argument found by numerous other studies that entrepreneurial behaviour improves a firm's performance. From a governmental stance, rules and regulations regarding business should be aligned in order to encourage and promote entrepreneurial behaviour. EO

behaviour improves a firm's performance, and hence increases a firm's growth prospects, resulting in an increase in the number of jobs created in the economy (Brüderl & Preisendörfer, 2000).

Applying the results to the business world, once again it is evident that in order to improve firm performance, a firm should aim to align its strategies in order to achieve an entrepreneurially orientated culture. Once the culture has been instilled, managers can opt to aggressively compete with competing firms in order to outperform their peers. Although less performing firms displayed greater signs of autonomy and risk taking behaviour, these results could in fact have been impacted by the current economic environment (recession), which potentially calls for rigid management and conservative operations. This conclusion is based on the first set of hypothesis questions.

As simple as the recommendation may appear, numerous variables influence the strategy that should be adopted by management. First and foremost, the costs involved (both financial and non-financial) are exorbitant and 'getting the culture wrong' could negatively impact the business. Managers should carefully evaluate the firm's current position making incremental changes as the firm grows. Constant review and analysis of the incremental changes should be deliberated as, suggested by Lumpkin and Dess (1996) and supported by Hughes and Morgan (2007), different stages of a firm's development calls for focus on different dimensions of EO.

7.4 Limitations of the Study

The study should however be viewed in the light of its limitations. Although computer assisted text analysis (CATA) studies are one of the fastest growing techniques used in research (Neuendorf, 2002) it too has its limitations, as often, only one source is analysed. As suggested by Short et al. (2009) the EO construct should be evaluated using a traditional survey method as well as the CATA method in order to compare the correlation of the studies to one another.

Further limitations include:

- The sample size is relatively small when comparing the size of the current sample to similar studies. This limited sample size influences the result of the distribution analysis and hence forced the current study to adopt non-parametric testing.
- Although annual reports are a sound transcript they are not always bias free as they often over attribute the outcomes achieved by the firm to the decisions and actions taken (Duriau et al., 2007).
- The period over which the study was conducted (2008 – 2012) was marred by the impact the global recession could have had on the annual reports. Furthermore, several companies had not listed on neither the AltX nor the JSE's mainboard over this term, which limited the possible time frame the study could be conducted over.

7.5 Future Research

In light of the limitations to the study, future research can apply the theory to well-established firms evaluating not only the annual reports using CATA but also testing EO using traditional questionnaires. Additionally, a similar study can be conducted on well-established firms in order to determine the effect of EO and firm performance over a longer period of time. Similarly, future research can identify existing well-established firms that existed prior to the global recession to determine whether different dimensions of EO in fact differ in different economic environments. Finally, a similar study can be done in order to determine whether EO is industry specific or whether certain industries portray different dimensions of EO when compared to alternative industries (i.e. compare financial services industry to the retail industry).

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