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A descriptive analysis of the differences between two of the SMME categories
in relation to Entrepreneurial Orientation, Age and Levels of Education in South
Africa

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Abstract

One of the main challenges in driving business development in developing countries is the lack of information for policy decision-making. The aim of this report is provide an analysis of the differences between survivalist and micro/very small enterprises using the Entrepreneurial Orientation (EO) constructs, which are considered critical for business growth. The research also aims to validate findings of previous research into age and levels of education being a determining factor for business venture success.

A structured questionnaire was used to gather data from 45 SMMEs. Parametric and non-parametric statistics were used to test for significant differences between means of the two SMME groups.

The results revealed that competitive aggressiveness, which is positively associated with innovation and autonomy to be significantly different between the two SMME groups. The conclusion is that overall there is no significant difference in the level of EO between the two groups, but previous research has indicated that the interaction between the EO constructs are not yet fully understood. The research findings also did not support age being a factor in successful new venture formation, and but highlighted significant differences in levels of education between micro/ very small enterprises, in contrast with recent findings.

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Masters 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.

Bulelwa Noma

Date

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Glossary

AsgiSA	Accelerated and Shared Growth Initiative for South Africa
DST	Department of Science & Technology
DTi	Department of Trade and Industry
EO	Entrepreneurial Orientation
IDASA	Institute for Democracy in South Africa
OECD	Organisation for Economic Co-operation and Development
SEDA	Small Business Development Agency
SME	Small and Micro Enterprises
SMME	Small Medium and Micro Enterprises

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1 Chapter 1: Introduction to Research Problem

1.1 Introduction

The Accelerated and Shared Growth Initiative for South Africa (AsgiSA) was introduced in 2006 as a means to drive the government's core objectives, as set out in 2004, to halve poverty, create jobs and reduce unemployment by 2014 - to build a stronger economy. One of the key focus areas for AsgiSA is the development of Small, Medium and Micro Enterprises (SMMEs). (AsgiSA, accessed on 12/01/2008).

SMMEs are seen as the engine for economic growth (Jack, 2005; Howard 2006), with more tax revenue generated from small and medium enterprises in the developed countries than tax from big business (Prof. Biekpe, 2006). According to Munshi (2008), small business in South Africa accounts for about 50% of private sector employment and 80% of job growth in the formal sector.

There are four categories of SMMEs as defined in the Small Business Act. 102 (1996) (Micro, very small, small and medium - See appendix 1). In addition to these categories, is a category which falls under the category broadly referred to as the "second economy" (unregistered businesses), and this category is known as the survivalist type enterprises.

The Free Dictionary (accessed 10/07/2008) offers the following definition for a survivalist: "...someone who tries to ensure their personal survival or the survival of their group or nation".

The entrepreneur runs most of the enterprises defined as survivalists by themselves only and the primary objective is survival. This category, although not in the Small Business Act definition of the small business categories has nonetheless found its way into the everyday definition of small businesses in South Africa.

Due to the importance of small businesses in driving economic growth, a lot of focus is placed on providing support services for small businesses to ensure survival and encourage growth. In its Integrated Strategy on the promotion of Entrepreneurship and Small Enterprises (the DTi website, accessed 18/10/2008), the Department of Trade and Industry DTi has stated the following: “The key task is to increase the number of businesses that survive the first few years of establishment and progress to growth and expansion, thus contributing to higher levels of job creation and economic growth”

The support for Small and Micro Enterprises (SMEs) has been consolidated through the Small Enterprise Development Agency (SEDA) and Khula Enterprise Finance. (The AsgiSA Annual Report, 2007).

The problem with the approach to business support services such as those provided by SEDA is that they have tended to assume that small businesses are a homogenous group. The support approach employed is a “broad-brush stroke – treating all business as homogenous”. There is however now a realisation that it is critical to differentiate between the different sectors of small business (SMME Development Strategy, accessed 12/10/2008), and in the opinion of the researcher - the different SMME categories as well.

This was articulated in the *White Paper on National Strategy for the Development and Promotion of Small Business in South Africa* (1995), which highlights that although in the 1980s, South Africa moved away from complex support packages for business (on the basis of complexity of implementation); the global trend is to develop differentiated, targeted support packages for SMMEs.

1.2 The growth challenge

What is not clear from the government interventions, which seem to be primarily aimed at creating more SMMEs, is whether this is enough to create the economic growth required. The job creation potential of SMMEs, even among those that are considered more “formal” type of ventures is not clearly understood because they also tend to be primarily survivalist. (Turnaround Partners, 2007).

This is supported by other reports. The paper on the Economics of SMMEs in South Africa (Berry, von Blottnitz, Cassim, Kesper, Rajaratnam and Ernst van Seventer, 2002) and the Small Business Survey Highlights (Kubheka, 2006) found that although there is employment growth contribution made by SMMEs, the growth in employment comes from newer ventures rather than from expansion of existing businesses. Both research papers cited confined their studies to the Greater Johannesburg area and Berry *et al.* (2002), required that all respondents be paying VAT. The research therefore excluded the survivalist and micro-enterprises, which are normally not VAT registered. The research,

therefore, indicates that although there is growth in new venture formation, we are not seeing further growth and expansion of existing businesses. .

Table 1.1 below shows that the largest sectors are the survivalist and micro enterprises, which are made up of unregistered businesses that operate in the informal market. This means that most SMMEs are active in the informal sector

Table 1.1: SMME Category Sizes in South Africa (1997)

Survivalist	Micro enterprises	Very small enterprises	Small enterprises	Medium Enterprises
194 950	396 450	164 600	63 300	11 560
23.3%	47.4%	19.7%	7.6%	1.4%

(Source: Extract from von Broembsen, 2003)

. The two challenges that have been identified by government if they are to rely on SMMEs as a way to drive economic growth and employment creation are how to ensure that these businesses survive and how to ensure businesses grow. This research paper will only focus on the second challenge, which is that of growth. The research focuses on determining whether significant differences exist between the SMME categories when it comes to growth orientation or Entrepreneurial Orientation (EO), age of the entrepreneur and levels of education.

The challenge of promoting growth and business expansion is complex, as the growth of businesses depends, among other factors on:

- (1) the government providing an enabling environment (Accelerated and Shared Growth Initiative for South Africa (AsgiSA,, accessed on 12/01/2008),

(2) the business or economic environment (Lyon, Lumpkin and Dess, 2000; Baker and Sinkula, 2007), and

(3) the growth orientation of the business (Lyon *et al.*, 2000; Kemelgor, 2002; Baker and Sinkula, 2007)

1.3 Government programmes aimed at SMMEs

According to the AsgiSA Annual Report (2007), in the 2006/2007 financial year, 140 000 enterprises were assisted by SEDA. This number is expected to increase with the expected increase in the SEDA budget from R365m in 2007/08 to R625m by 2010/11. Khula Enterprises has through intermediaries such as business advice or consultancy services, disbursed R655 million to 3 550 enterprises – an average of almost R200 000 each. The 2008 Budget provides for R2, 6 billion to support industrial policy initiatives; mostly sector strategies, support for SMEs, and industrial development zones (East London, Coega and Richard's Bay). In addition, government proposes to provide R5 billion in the form of tax incentives for industrial development over the three years up to 2011.

Therefore, enough evidence exists to show that the government is committed to SMME development and growth.

The South African government has also made in-roads in removing a lot of the red tape when it comes to establishing SMMEs. This can be seen in the implementation of the National Small Business Act of 1996, “to provide for the establishment of the National Small Business Council; the creation of entities

like SEDA, Khula Enterprises and the Ntsika Enterprise Promotion Agency; and the provision of guidelines for organs of state in order to promote small business in the Republic”. (The DTi website accessed on 27/05/2008).

1.4 The Research Problem

One of the main challenges in driving business development in developing countries is the lack of information for policy decision-making. (Berry *et al.*, 2002). The aim of the research is to provide an analysis of the differences between SMME categories using the entrepreneurial orientation (EO) construct as developed by Dess and Lumpkin (1996), which are considered critical for business growth. The research also aims to validate findings of previous research into the age and levels of education being a determining factor for business venture success.

According to Turnaround Partners (2007), the assumption is that small businesses have a growth orientation and this could in fact be erroneous, as many of them may not because of their survivalist nature.

Reynolds *et al.* in Monchrie, Galloway and Donnelly (2006) make a distinction between “opportunity entrepreneurship” (start-up based on opportunity perception and realisation) and “necessity entrepreneurship” (start-up based on necessity in the absence of alternatives economic options) in explaining the motivation of entrepreneurs in starting up a venture. Monchrie *et al.* (2006) concludes that these motivational factors are also a factor in growth of a business and that an owner is more likely to have entrepreneurial orientation if

they are *opportunity entrepreneurs*. The conclusion is that that in terms of growth potential, the positive motivators (“opportunity entrepreneurship”) tended to be consistent with achieving growth in the business. In addition to this, Lee and Peterson (2000) also found that businesses which have an entrepreneurial orientation tended to be more successful.

EO refers to “the strategy-making processes and styles of firms that engage in entrepreneurial activities” (Lumpkin and Dess, 1996) or the processes, practices and decision-making activities employed by entrepreneurs (Lumpkin and Dess, 2001). Lumpkin and Dess (1996) conceptualise EO to include risk-taking, proactiveness, autonomy, innovativeness, and competitive aggressiveness. Literature review identified that the three most commonly researched components of EO are risk-taking, proactiveness and innovation (Miller, 1983 in Brown, Davidsson and Wiklund, 2001)); Covin and Slevin, 1991; Kropp, Lindsay and Shoham, 2008; Moreno and Casillas, 2008; Wang 2008). The previous research into EO has also not analysed the differences between SMME Categories.

This research aims to provide a descriptive analysis of South African SMMEs in relation to all five EO constructs as defined by Dess and Lumpkin (1996) (autonomy, proactiveness, innovativeness, risk-taking and competitive aggressiveness), The research will also include an analysis of age and levels of education of the entrepreneur between the SMME *categories*.

In line with the objectives of the research, a synthesis of the 2005 Development Report on Overcoming Underdevelopment in South Africa’s “second economy” argued that small enterprises are heterogeneous and suggested that

government initiatives be appropriately differentiated in order to reach each group effectively. (Aliber, 2005). In addition, according to the revised *Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises (2008)*, as far as possible, sector-specific programmes will be developed after thorough research examining the support needs of small business in those sectors.

In contrast with some of the development objectives stated in AsgiSA (second economy interventions), there seems to be a view that growth potential does not exist across all SMME categories. Northern Cape Government, (2004) states that DTi stops short of acknowledging that support for survivalists is poverty relief and should therefore become the responsibility of other departments such as Welfare, Education and Labour. The document highlights political pressure as the reason why this separation has not happened. They highlight the differences between the two categories as set out in Figure 1.1 below.

Figure 1.1: Figure: Formal Small Businesses vs. Informal Survivalists

Formal Small Businesses	Informal Survivalists
1. Marketing Approach	
Business established to address a specific and verified need in the market place	Searching to engage in an income generating opportunity
2. Skills Levels	
Highly educated, skilled, experienced and employable. Previously employed in the formal / corporate sector where most of their business experience has been gained and opportunities in the market place identified.	Generally low education levels. Poorly skilled with no business experience. Will immediately take on any employment opportunity when presented.
3. BDS (Business Development Services) required	
Access to markets, general business consulting services, banking, information on products and manufacturing, etc.	Access to finance, business opportunities, business planning, business - management and technical skills training, etc.
4. Most successful support strategy	
Market Development Approach.	Mentorship relationships and opportunities to acquire skills in a structured environment. Experiential learning and skills acquisition responsive to individual needs. Marketing networks and initiatives to secure stable product demand

(Source: SMME Development Strategy: Contemporary Thinking at the National Department of Trade and Industry on the National Framework Required for SMME Development (2008))

1.5 Rationale for the Research

This report aims to contribute to the field of Business Development by providing an analysis of the differences between the SMME categories using the EO constructs (which are considered critical for business growth), as developed by Dess and Lumpkin (1996),. The research also aims to validate findings of previous research by Kropp *et al.*(2008) which highlighted the age of the entrepreneur and levels of education being a determining factor for business venture success.

The paper by Berry *et al.* (2002) highlights that policy decision (by the government) concerning South African SMMEs requires accurate information about the SMME size and structure. It is also important to know the distribution across age categories and across industries. Kubheka (2006) indicates that there is a difference in performance (indicated by job creation and turnover growth) between survivalist enterprises and other businesses. Both reports were conducted on South African entrepreneurs, and the research by Kropp *et al.* (2008) excluded these types of entities. This research has been designed to include the survivalist type enterprises.

Section 1.4 mentions that previous research on South African SMMEs made certain inferences regarding the age and education levels of South African SMMEs. Also mentioned in this section is the growth challenge. There is mention of motivational factors, which are a factor in relation to growth of a business, with owners likely to have EO if there are positive motivational factors.

This research's point of departure is: notwithstanding the different motivations of SMME owners, could there be certain characteristics of the different *categories* that will allow for better decision-making on policies by government when it comes to driving growth for each of these SMME categories. Because the outcome of these motivational factors is EO, which has an effect on business growth, the research will investigate the EO constructs and look at whether significant differences exist between businesses that have shown growth (micro, very small, small and medium enterprises) and those that have not shown growth survivalist . The assumption that the researcher is making in this

report is that the more a business grows and expands (i.e. hires more employees), the more successful it is relative to one that does not increase the number of employees.

Therefore, concerning EO constructs, the questions raised are:

1. *Is there a significant difference among the different SMME categories in the level of autonomy?*
2. *Is there a significant difference among the different SMME categories in the level of risk-taking?*
3. *Is there a significant difference among the different SMME categories in the level of innovation?*
4. *Is there a significant difference among the different SMME categories in the level of proactiveness?*
5. *Is there a significant difference among the different SMME categories in the level of competitive aggressiveness?*

Concerning age and levels of education, the questions raised are:

6. *Is there a difference among the different SMME categories in terms of age of the entrepreneur?*
7. *Is there a significant difference in the level of education among the SMME categories?*

1.6 Scope of the Research

The research aims have been discussed in section 1.4 and clarified in section 1.5.

The examination of the level of entrepreneurial orientation of the individual SMME *categories* is excluded from this research and the focus is on whether a significant difference exists in the levels of entrepreneurial orientation between different SMME categories.

The research will focused on identifying whether significant differences exist between the SMME categories in terms of entrepreneurial orientation, age of the entrepreneur and the levels of education.

The expected outcome and contribution to the existing body of knowledge is to lay the foundation for further research as to how these insights can be used to enhance the business development models for governments seeking to fast-track economic development through developing SMMEs.

The previous research also focused on the Greater Johannesburg area. This research has endeavoured to have a representative sample of South African SMMEs making use of incubators, and SEDA information centres by including the six-metropole areas.

2 CHAPTER 2: THEORY AND LITERATURE REVIEW

2.1 Introduction

The theory of economic development through entrepreneurship is used to describe and address the gap that occurs between conceiving a new business concept and actually setting up the business and the sustainability of the business once it is operational.

This section is a selective review of relevant literature on Small Business Development in South Africa, Entrepreneurial Orientation, factors like age and levels of education as being significant factors that differentiate the different SMME categories from each other.

2.2 SMME Business Development in South Africa

2.2.1 SMMEs in South Africa

The small business sector in South Africa is highly diverse, with differences relating to the economic sectors. (South African Government Information website, accessed on 01/08/2008). Small business can also be divided into established formal SMMEs (mainly white and some Indian ownership) in predominantly urban settings and emerging SMME, economy (mainly African and Coloured) situated in townships, informal settlements and rural areas. (Education & Training unit website, accessed on 27/07/2008).

The exact definition of small business seems to vary according to the legislation making the definition with various stakeholders having their own definition of small businesses. (Personal Finance website, accessed on 26/07/2008).

The National Small Business Act, as amended in 2003, defines a business that has fewer than five employees and a turnover of less than R200 000 as a micro enterprise.

Very small enterprises are those with fewer than 10 paid employees and whose turnovers range from R500 000 (for enterprises in the agricultural sector) to R6 million for those in the wholesale trade sector. A small business has fewer than 100 employees. Annual turnover as a defining quality ranges from less than R3 million (agriculture) to less than R32 million (wholesale trade). An enterprise in the transport, storage and communications sector is classified a small business if its turnover is less than R13 million a year, while the maximums for some other sectors are R6 million for construction, R19 million for the retail and motor trade, and R13 million for manufacturing. (Personal Finance website, accessed on 26/07/2008).

Table 2.1 below shows the criteria for the different SMME as defined by the Institute for Democracy in South Africa (IDASA).

Table 2.1: Criteria for Different SMME Categories

Survivalist	Micro enterprises	Very Small enterprises	Small enterprises	Medium Enterprises
<ul style="list-style-type: none"> Income generated is less than minimum income standard or poverty line No paid employees Asset value is minimal Economic activity directed at providing minimal means to keep the unemployed and their families alive 	<ul style="list-style-type: none"> Turnover is less than VAT registration limit (R300,000/yr) Usually a lack of formality regarding registering for tax, labour registration, premises & accounting procedures 1-5 employees 	<ul style="list-style-type: none"> Less than 10 paid employees Operate on the formal market and have access to technology Lower limit is self-employed with no employees, such as artisans & professionals 	<ul style="list-style-type: none"> Less than 50 employees More established than very small enterprises Business practices more complex No longer directly supervised by entrepreneur & secondary co-ordinating mechanism has been developed Growth into medium-scale enterprise requires accumulation of resources & appropriate incentives for enterprise expansion 	<ul style="list-style-type: none"> Less than 100 employees Still owner/manager controlled, but more complex management structure Decentralisation of power to management & division of labour differentiate from small enterprises Separation of ownership is the barrier between medium & large enterprises

(Source: Extract from, von Broembsen, 2003)

2.2.2 SMMEs and contribution to economic growth

Government intervention, including the introduction of incubators, is meant to solve the first problem (because the survival rate of firms reared in an incubator environment was found to be significantly higher than the business success rate amongst the wider SME community). (Motlounge, accessed on 21/05/2008)

The effectiveness regarding incubation in Organisation for Economic Co-operation and Development (OECD) countries show that the survival rate of incubated firms ranges from approximately 80 to 85 percent and that there is strong evidence to suggest that incubator initiatives help promising entrepreneurs launch their business and succeed. Incubation can create the stimulation that is needed to foster economic growth in a developing country.” (Motlounge, accessed on 21/05/2008)

The question the current SMME development and support initiatives raise, as highlighted in section 1.1, is whether these interventions are appropriate for the different types of SMME categories.

A view has been established that Small Medium and Micro Enterprises (SMMEs) are the engines for economic growth (Lichtenstein and Lyons, 2001; Berger and Frame, 2007; Krasniqi, 2007) through technological innovation and other aspects of economic and social development (Lalkaka and Abetti, 1999; Krasniqi, 2007). They are seen as having a major role to play in the economy in terms of employment creation, income generation and advancing the country's agenda of economic growth. "They are often the vehicles by which the lowest-income people in our society can gain access to economic opportunities (UMgungundlovu SMME Development and Support Plan – 2007, p.8; Accelerated and Shared Growth Initiative for South Africa (AsgiSA) document, accessed on 12/01/2008)

"Throughout the world, one finds that Small, Medium and Micro Enterprises (SMMEs) are playing a critical role in absorbing labour, penetrating new markets and generally expanding economies in creative and innovative ways. Small businesses have a major role to play in the South African economy in terms of employment creation, income generation and output growth. SMMEs account for approximately 60% of all employment in the economy and 40% of output." (Ndlovu and Thwala, 2007, p.1).

According to the 2006 September Labour Force Survey, approximately 22% of the employed (excluding domestic workers and agricultural employment) were

engaged in informal sector activities as their main work to sustain themselves and their dependents. (Essop and Yu, 2008). According to the DTi white paper (1995), by far the largest sector is the survivalist type enterprises, which are mostly unregistered businesses. This means that most people are active in the informal sector where they have little or no institutional support.

In launching AsgiSA, the government identified a number of supply-side constraints, which have been referred to as binding constraints. Constraints identified for SMMEs include skills shortage, barriers to entry, limits to competition, limited new investment opportunities and the regulatory environment and the additional burden placed by regulations on them. The South African government's response to the binding constraints has fallen into six categories: Infrastructure programmes; sector investment (or industrial) strategies; skills and education initiatives; second economy interventions; macro-economic issues; and public administration issues (The National Treasury website, accessed on 12/08/2008).

2.2.3 Initiatives aimed at supporting SMME development

The following section is a summary of the AsgiSA initiatives specifically aimed at supporting SMME development. (Extracted from the AsgiSA document, accessed on 08/08/2008),

Sector investment (or industrial) strategies

AsgiSA identified particular sectors of the South African economy for accelerated growth, and the government committed itself to assist subsectors or target groups, with the funding coming from existing support programmes and additional direct financial support from government. However, it was highlighted that this placed additional demands on the implementation agencies, even though it is necessary to save public funds. (AsgiSA, accessed 08/08/2008)

Most of these initiatives have manifested themselves in the Industrial Development Zones (IDZs) and government incubators with specific sector focus.

Skills and education initiatives

Providing training in entrepreneurship, skills, and management. (AsgiSA, accessed 08/08/2008)

Second Economy interventions

Leveraging of the first economy to address the second economy has been highlighted as the main strategy in this area and the two key examples are:

1. Leveraging the increased levels of public expenditure, especially investment expenditure, to develop small businesses and broad-based empowerment (BEE) addressing issues such as access to finance.

2. Procurement in sectors that are labour intensive and a review of regulations impact on these sectors.

Access to credit has been also been identified as a significant challenge for small businesses to be addressed through AsgiSA, with a particular focus on promotion of innovation in areas like banking services, insurance, venture capital and various forms of micro-capital (The AsgiSA Annual Report, 2007).

Public administration issues

Creating an enabling small business sector regulatory framework for streamlining regulatory conditions, improving industrial relations and the labour environment, and introducing reforms are all in the tax administration of SMME's and other financial incentives. (AsgiSA, accessed 08/08/2008)

Entrepreneurship and small business research

According to AsgiSA (2006), research plays a critical role in informing government policy and strategy on SMME development initiatives. This is echoed by the revised *Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises* (2008). The document notes that although there is an increase in the number of university-based centres of entrepreneurship and small business and research output, additional measures are necessary to ensure that policy-relevant research is undertaken on an ongoing basis. (AsgiSA, accessed 08/08/2008)

Infrastructure programmes

These encompass the business incubators, which facilitate access to information, affordable physical infrastructure, advice and appropriate technology. It also includes the SEDA initiatives, like the establishment and accreditation of a network of local business service centres (LBSCs). LBSCs are accredited organisations that deliver non-financial business support and services to small and micro enterprises. These are discussed in more detail in the next two sections. (AsgiSA, accessed 08/08/2008)

2.2.4 Business Incubation

“Business incubators provide intensive, hands-on support and services to nurture young firms, helping them to survive and grow during the start-up period when they are most vulnerable. The services include - shared office services, access to equipment, flexible leases and expandable space, help with business planning, raising finance, professional services (accounting, IP etc.), marketing support, mentoring, access to networks” (Brainworks, accessed 13/02/2008).

Cooper (1985) has broader definition of an incubator and describes it as any organisation that a person works for prior to forming a new business. He comments that these incubator organisations provide the ideal setting within which founding teams can be formed. He cites previous research in which it was found that new firms, particularly growth-oriented firms, are often founded by teams of two or more founders. The rationale being that within a team, there is a broader set of skills.

2.2.5 Support/ advisory services

An increasingly popular component of entrepreneurial development is mentoring programmes. They have been around since the 1990's in the USA, in one form or another. The most popular is still the Small Business Development Centres (SBDC). Brisk (2002) highlighted the issue of lack of a lack of basis for determining the criteria for selection of mentors and mentees, or how to match them.

According to Christensen and Klyver (2006), two streams of research have emerged concerning small business consultancy or advisory services. The one stream advocates that small business consulting increases both performance and survival of the firm and that the support is valuable in a society perspective in respect to economic development. The second stream is concerned with the specific advisory context in which small business owners receive advice. The literature notes a significant difference in frequency of use of advisory services between small and large enterprises.

2.3 Conclusion

All of the above initiatives aim to generating sustainable and equitable growth and SMMEs represent an important vehicle to address the challenges of job creation, economic growth and equity in our country. The stimulation of SMMEs is therefore seen as part of an integrated strategy for economic growth as

indicated in AsgiSA. The key task is to increase the number of businesses that survive the first few years of establishment and progress to growth and expansion, thus contributing to higher levels of job creation and economic growth.

The indication is that there is the acknowledgement that more focused programmes are required but the constraint is the difficulty in implementation and a lack of appropriate research to inform policy decisions.

Small business support and advisory services like the SEDA small business information centres and incubators play a critical role in providing support for SMMEs in order to increase survival rates and encourage growth. The lack of differentiated services offered by these institutions, and often the reluctance of SMMEs to use their services, raises doubts as to their effectiveness in driving the required stimulation of growth and expansion of SMMEs.

Broembsen, (2003) indicated in their occasional paper that most NGOs providing support to SMMEs did not have the managerial or technical capacity to play an effective role in supporting SMMEs. This is true regardless of whether the policy is one of economic growth, economic empowerment or poverty alleviation. (Broembsen, 2003)

2.4 Growth and Entrepreneurial Orientation (EO)

The widely accepted definition of Entrepreneurial Orientation (EO) is that of Lumpkin and Dess (1996). Moreno and Casillas (2008), Wang (2008); Lyon, Lumpkin and Dess (2000); Matsuno, Mentzer and O'zsomer (2002) and Kropp, *et al.*, (2008) have all embraced the Lumpkin and Dess (1996) definition of EO which defines EO as consisting of processes, structures, and/or behaviours that can be described as autonomy seeking, risk-taking, innovation, proactiveness and competitive aggressiveness. Autonomy, risk-taking, innovation, proactiveness and competitive aggressiveness are the five constructs of EO.

Literature also refers to Corporate Entrepreneurship (CE) and this is described as being reflected in top management's *risk taking* with regard to: investment decisions and strategic actions in the face of uncertainty, the extensiveness and frequency of *product innovation* and the related tendency toward technological leadership, and the pioneering nature of the firm as evident in the propensity to *aggressively and proactively* compete with industry rivals (Zahra, 1991; Sexton and Bowman-Upton (1991) in Zahra and Covin, 1995).

This definition of CE very closely resembles the EO definition in terms of described behaviours. The difference seems to lie in the assertion by Zahra (1991) and Covin and Zahra (1995) that CE provides a potential means for revitalizing established companies, with EO describing how new entry is achieved (Dess and Lumpkin, 1996).

Several studies have found some correlation between all or some of the EO constructs or CE and performance (Zahra, 2001; Kropp *et al.*, 2008; Zahra and Covin, 1995; Chen, Tzeng, Ou and Chang, 2007). There has also been further research that shows that although there is a positive correlation between EO and business performance and growth, this is mitigated by certain other factors (Keskin, 2006; Wang, 2008) which Kollmann (2005) refers to as contingency variables (see Figure 3).

According to Kollmann (2005), the entrepreneur's subjective perception of the environment determines the individual entrepreneur's entrepreneurial orientation. There are therefore contingency variables (such as organizational structures and processes and characteristics of the business environment) linked to EO (Lumpkin and Dess, 1996; Lumpkin and Dess, 2001; Wang, 2008; Moreno and Casillas, 2008) and ultimately linked to the businesses' performance.

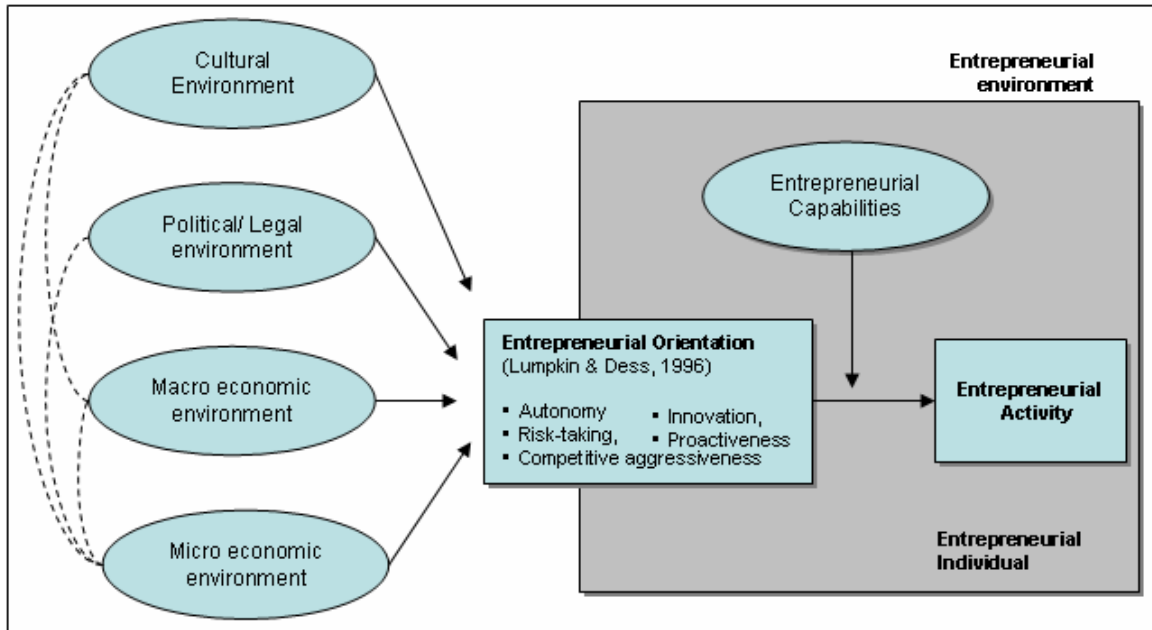
Figure 2.1 below highlights the contingency variables which as indicated by Kollmann (2005):

- The cultural environment: Culture is usually referred to as an “enduring set of values of a nation, a region or an organization.” (George & Zahra, 2002 in Kollman (2005)). It is measured using:
 1. Power distance – degree of tolerance for hierarchical relationships,

2. Uncertainty avoidance – degree of acceptance for uncertainty
 3. Individualism – degree of emphasis placed on an individual's accomplishment
 4. Masculinity – degree of stress placed on materialism
- Political/ Legal environment. “The Political / Legal / Regulatory Environment can be simply described as the laws and regulations that business has to follow in order to make sure the business owners do not get arrested, or fined for non-compliance of some regulation” (Witiger website, accessed on 09/11/2008).
 - Macro- and Micro-economic environment. The regional setting of any venture that may be interpreted as an “entrepreneurial system”. Components of such a system are preceding organizations of the firm (incubators), formal and informal networks, along with the physical infrastructure, and
 - ◆ Entrepreneurial capabilities. The human capital of the entrepreneur is the only resource most of the time. Entrepreneurs are resource dependent and need to look externally for resources, such as financial capital or employee human capital.

Figure 2.1: Entrepreneurial Orientation and Contingency variables

The entrepreneur's subjective perception of the environment determines an individual's entrepreneurial orientation



(Source: Kollmann (2005))

Mtigwe (2005) highlights characteristic differences between large and small firms. Table 2.2 below shows these differences. Risk Orientation and growth absorption capacity are similar and all other characteristics differ. The characteristics listed in Table 2.2 show an overlap with the EO constructs. They include planning orientation (autonomy), risk orientation, and competitive advantage.

If small businesses and large businesses have different characteristics or approaches to some of the EO constructs, then there may be a significant difference in characteristics within the different SMME categories as well. If this is the case, there may be some implications for the government in terms of designing programmes aimed at promoting business growth and expansion.

For example, if planning orientation, as in above table (table 2.1), has to be structured and strategic in order for a business to move from small to medium/large, then knowing the specific interventions required in a small firm to get it ready to enter the next phase becomes very important.

Table 2.2: Characteristic Differences between Large firms and Small Entrepreneurial firms

Characteristic	Small entrepreneur	Large Firm
Planning Orientation	Unstructured/operational	Structured/strategic
Flexibility	High	Structured/strategic
Growth absorption capacity	Low	Low
Risk orientation	High	High
Managerial process	Informal	Low
Learning and knowledge absorption capacity	Limited	High
Impact of negative foreign market effects	More profound	More manageable
Competitive advantage	Human capital-centred	Organizational capital-centred

(Source: Mtigwe, 2005, P. 361)

2.5 Entrepreneurial Orientation (EO) Constructs

Both Covin and Slevin (1991) and Miller (1983) in Brown et al. (2001), suggest innovation, risk taking, and proactiveness as key dimensions of entrepreneurial activity. Lumpkin and Dess (1996), in an effort to focus important component of entrepreneurship, identified the dimension of “entrepreneurial orientation” (EO) construct. Lyon *et al.* (2000) embraces the Lumpkin and Dess’s (1996) concept of an entrepreneurial orientation. According to these authors, an EO consists of

processes, structures, and/or behaviours that can be described as competitive aggressiveness, innovative, proactive, risk taking, or autonomy seeking. The researcher has decided to focus on all five constructs and not emulate the previous research that has left out competitive aggressiveness and autonomy.

The following sections describe the five constructs of Entrepreneurial Orientation.

2.5.1 Autonomy

“Autonomy refers to actions undertaken by individuals or teams intended to establish a new business concept, idea, or vision” (Lumpkin *et al.*, 2000). Activities associated with proactiveness include new opportunity identification and evaluation, identification and monitoring of market trends, revising the concept of the business and new venture team formation, (Kropp *et al.*, 2008; Zahra, 1991).

Comparatively, the concept of market orientation (MO) also consists of three similar behavioural components - customer orientation, competitor orientation, and inter-functional coordination. Customer orientation and competitor orientation include all of the activities involved in acquiring information about the buyers and competitors in the target market and disseminating it throughout the business. (Narver & Slater, 1990; Jaworski and Kohli, 1993). As such, MO has been used to explain the activities linked to the autonomy construct. (Matsuno,

2002; Hughes, Morgan and Kouropalatis, 2008). Market orientation has also been positively associated with performance (Jaworski and Kohli, 1993).

In contrast, Keskin (2006) found that MO has no direct influence on firm performance. “Especially, it was not found that there was a direct impact of collection and use of market information, development of market-oriented strategy, and implementation of market-oriented strategy on firm financial, market and business performance in small-sized-firms operating in Turkey”.

In contrast, Hughes *et al.*, (2008)’s study of European high technology SBUs, showed a positive relationship between market orientation and business performance.

Research by Chen *et al.* (2007) has shown that there are strong interactions between social interactions and autonomy; and that the ability to form satisfactory social interaction and the quality of those relationships and external networks has a positive influence on proactiveness, autonomy, risk assumption, and innovation. Consequently, poor social interactions of new ventures lead to low level of autonomy.

Day and Reynolds (2006), propose that SMEs should seek advice because information is asymmetric in its distribution, and seeking advice from business advisors helps to reduce costs. Thus, one of the behaviours/actions of an entrepreneur is to seek information. Extending this view, they argue that because entrepreneurs are actors in the market, and actively seek information

about customers, products, costs, etc., they are involved in the marketing function.

2.5.2 Risk-taking

“Risk taking consists of activities such as borrowing heavily, committing a high percentage of resources to projects with uncertain outcomes, and entering unknown markets” (Lumpkin *et al.*, 2000).

Findings by McCarthy (2000), suggest that risk taking is not just a function of personality but is contextual and depends on a number of factors including organisational history, crisis, presence of partners in the organisation, the dilution of ownership over time, changing business strategy and the business environment.

The results of a study on a “*Leaders’ Risk Propensity and Age as Determinants of Organizational Growth in the Not-for-Profit-Sector*” indicates that the leader’s risk propensity has a bigger impact on organisational growth than age. Nevertheless, there are indications that the interaction between a leader’s age and risk propensity has implications for growth. Overall, the results of this study are consistent with the suggestion that the dynamic relationships of fit between leader attributes may contribute to organisational effectiveness. The interaction of fit between a leader’s age and risk propensity led to the highest levels of

organisational growth for the not-for-profit organisation from which the sample was drawn for this study. The results suggested that younger ministers with high-risk propensity had organisations with higher membership. (Adeyemi-Bello, 2001).

Hughes *et al.*, (2008) have linked MO to risk by suggesting that a managed risk-taking action within the paradigm of organisation learning (OL) is required to capture the full benefit of market orientation. García-Morales, Llorens-Montes and Verdú-Jover (2006) have describes OL as related to “personal mastery, transformational leadership, shared vision, proactiveness and environment”.

The insights provided by Hughes *et al.*, (2008) support earlier findings by Kohli and Jaworski, (1990), which suggested that OL enhances the process of monitoring customers and competitors, the distribution and interpretation of information, leading to reactive market oriented action.

A3 consulting (2006) indicated in their report on South African SMMEs that risk is differentiated across sectors and according to local conditions. They found that “successful entrepreneurs use outside assistance and take calculated risks – not gambling with the future of their business.” In line with the findings by Monchrie *et al.* (2006) on motivational factors being a factor in the success of the business, they conclude that ...“businesses that are started as a result of

need (as opposed to opportunity) are started by individuals with very different risk profiles and different orientations to risk”.

2.5.3 Innovation orientation

Manu in Siguaw, Simpson and Enz (2006:p.558-559) explains innovation orientation as encompassing “the total innovation programs of companies and is strategic in nature because it provides direction in dealing with markets”. Adams *et al.* (2006:p.22) have adopted the UK Department of Trade and Industry’s broad definition of innovation, ‘the successful exploitation of new ideas’, because it accommodates the range of innovation types (product/service, process, administrative, technological, etc.) that one might reasonably expect to encounter in an organization. Innovativeness refers to attempts to embrace creativity, experimentation, novelty, technological leadership, and so forth, in both products and processes.” (Lumpkin *et al.*, 2000).

Hadjimanolis (2000), found performance to be positively correlated to innovation, but cautioned against taking the findings as proof of causality. The factors which were identified as influencing innovation were all related to organisational characteristics like; expenditure or focus on research and development, having external networking capabilities and having a written strategy. Keskin (2006) found that firm innovativeness in has a positive impact in performance in small-sized-firms operating in Turkey.

According to Aerts, Matthyssens and Vandenbempt (2007), incubators constitute a strong instrument to promote innovation and entrepreneurship, but in order to do this successfully, they should be geared to other elements in the business development system (like venture capital and the needs of the entrepreneurs themselves). The incubators also offer entrepreneurs networking opportunities that lower their costs of accessing and gathering information (MO activities).

According to Cooper (1984, 1994) in Salavou, Baltas and Lioukas (2004), firms that proactively acquire new production technologies may be more innovative, because they employ such technologies for developing new products. The argument raised by Salavou *et al.*, (2004) is that taken overall the statement implies that organisational innovation depends upon technology and this may not be true for all firms, irrespective of size. There is a strong view, on research based on manufacturing SMEs in Greece (SMEs in Greece make up more than 95% of firms), that SMEs are constrained in their ability to support highly qualified and competent personnel in production and to afford heavy investments in production technology. The findings are that “this constraint, however, may force SMEs to seek innovations along the value chain that require less capital investment and a lesser reliance on qualified staff. In some respects SMEs are closer to customers and can develop better understanding of their particular needs through interaction and involvement”.

Another study by Laforet and Tann (2006), on small manufacturing firms in the UK supported the arguments raised by Salavou *et al.*, (2004). The findings showed no support for new product innovations. This reflects in that at least, half of manufacturing SMEs surveyed did not develop new products themselves, and specification for new products was provided by their customers. Innovation in SMME was based more around developing new ways of working than new product innovations.

In the study by Salavou *et al.*, (2004), which considered the determinants of organisational innovation in SMEs “as expressed by the number of product innovation adoptions”, the empirical findings also suggest that MO and Learning Orientation (LO) SMEs facing strong competition tend to be more innovative.

Learning Orientation (LO) is seen as an internal strategic driver (Salavou *et al.*, 2004). Sinkula, Baker, and Noordewier (1997) in Zahra (2001), conceptualize LO as a firm’s values (i.e., commitment to learning, open-mindedness, and shared vision) that influence its propensity to create and use knowledge. Salavou *et al.*, 2004) and García-Morales *et al.* (2006).

García-Morales *et al.* (2006) have described organisational learning (OL) in terms of “personal mastery, transformational leadership, shared vision, *proactiveness* and environment”. According to Garvin (1993, p. 80) in Kropp *et al.*, (2008), a learning organization is one “skilled in creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights”

Based on the similarities and overlap in definitions of LO and OL, we can assume that they can be used interchangeably.

In line with Salavou *et al.*, (2004), Hughes *et al* (2008)'s findings with regards to the IO/MO interaction is that generating customer information and knowledge, and developing and then implementing a marketing plan, and having a willingness to challenge assumptions, values, and beliefs positively impacts firm innovativeness. It was found that learning-orientation translates marketing attitudes into effective behaviour to facilitate innovation.

2.5.4 Proactiveness

“Proactiveness relates to forward-looking, first mover advantage-seeking efforts to shape the environment by introducing new products or processes ahead of the competition”. (Lumpkin *et al.*, 2000). Because customer needs and expectations continually evolve over time, delivering consistently high quality products and services require ongoing tracking and responsiveness to changing marketplace needs, i.e., being market-oriented. (Jaworski and Kohli, 1993).

As indicated in section 2.5.3, LO is seen as the internal strategic driver of organisations. (Salavou *et al.*, 2004) and García-Morales, Llorens-Montes and Verdú-Jover (2006) have described OL in terms of “personal mastery, transformational leadership, shared vision, *proactiveness* and environment”.

Hughes *et al.*, (2008)'s findings were that LO proved to be positively associated with strategic proactiveness suggesting that firms exhibiting a propensity to strategize proactively and act before the competition need to constantly scan for, disseminate and apply acquired knowledge and intelligence to decision making processes. Proactiveness can therefore also be explained in terms of LO as it implies a strategic outlook of organisations.

Keskin (2006) found LO to be imperative for firm innovativeness and performance, although the indirect effect of MO should not be ignored. The results indicated that LO mediates the relationship between MO and IO as Market-oriented SMEs are inherently learning organizations.

This is in line with Slater and Narver (1995) in Hughes (2008)'s argument that proactiveness and market orientation synergies can ensure the entrepreneurial effectiveness of market orientation.

Further findings by Salavou *et al.*, (2004) provide evidence in support of MO and LO as important contributors to SMEs' product-related innovative performance. As far as competitive structure is concerned, industry concentration and barriers to entry appear to have a significant share in explaining SMEs' innovative activity. In particular, our empirical findings support that SMEs operating in highly competitive environments tend to have a higher performance in product innovations.

2.5.5 Competitive Aggressiveness

Previous research has equated proactiveness and competitive aggressiveness because they have the same effect on performance (Lumpkin and Dess, 2001), and as such this is one of the lesser researched constructs of EO. Research by Lumpkin and Dess (2001) revealed that these are distinct dimensions of EO.

“The competitive aggressiveness dimension of EO can be defined as the tendency of firms to assume a combative posture towards rivals and to employ a high level of competitive intensity in attempts to surpass rivals...” (Lumpkin *et al.*, 2000).

According to Narver and Stanley (1990), competitiveness can also be linked to Market Orientation (MO), which consists of three behavioural components - customer orientation, competitor orientation, and inter-functional coordination- and two-decision criteria- long-term focus and profitability.

García-Morales, *et al* (2006) consider IO and OL to jointly promote organizational entrepreneurship and to increase Competitive advantages and “...a significant number of researchers who work on the analysis of IO/OL link them to the organization’s capability to adapt to its environment (adaptive vision) and to promote its own transformation (proactive vision)”.

2.6 Conclusion

An analysis of the findings EO constructs provides us with certain conclusions regarding the different interactions of the constructs. They are summarised in the table below:

Table 2.2: Summary of the EO constructs Interactions based on various conceptual models that have been developed

Construct	Statement	References
AUTONOMY (MARKET ORIENTATION (MO)	<ol style="list-style-type: none"> 1. Market orientation is positively associated with performance 2. In contrast, found that MO has no direct influence on firm performance. 3. Strong interactions between social interactions and autonomy 	<ul style="list-style-type: none"> ◆ Hughes, Morgan and Kouropalatis (2008); Jaworski and Kohli (1993). ◆ Hughes <i>et al.</i> (2008) ; Keskin (2006) ◆ Chen <i>et al.</i> (2007)
RISK-TAKING	<ol style="list-style-type: none"> 4. A managed risk-taking action within the paradigm of LO is required to capture the full benefit of market orientation 5. LO enhances the process of monitoring customers and competitors, the distribution and interpretation of information, leading to reactive market oriented action. 6. Successful entrepreneurs take calculated risks 7. Risk is contextual and depends on a number of factors including organisational history, crisis, presence of partners in the organisation, the dilution of ownership over time, changing business strategy and the business environment. 8. Young, high-risk individuals have a positive influence on growth of organisations. 	<ul style="list-style-type: none"> ◆ Hughes <i>et al.</i>, (2008) ◆ Kohli and Jaworski, (1990) ◆ A3 consulting (2006) ◆ McCarthy (2000), ◆ Adeyemi-Bello (2001).
INNOVATION	<ol style="list-style-type: none"> 9. Performance to be positively correlated to innovation, but there is no causality. 10. Firm innovativeness in has a positive impact on performance 11. Incubators also offer entrepreneurs networking opportunities, which lower their costs of accessing and gathering information (MO activities). 12. MO and Learning Orientation (LO) SMEs facing strong competition tend to be more innovative. 13. IO/MO relationship is mediated by LO 	<ul style="list-style-type: none"> ◆ Hadjimanolis (2000), ◆ Keskin (2006) ◆ Aerts, Matthyssens and Vandenbempt (2007), ◆ Salavou <i>et al.</i> (2004), ◆ Hughes <i>et al</i> (2008)
PROACTIVENESS	<ol style="list-style-type: none"> 14. LO mediates the relationship between MO and IO 15. MO and LO as important contributors to SMEs' product-related innovative performance. 	<ul style="list-style-type: none"> ◆ Keskin (2006) ; Slater and Narver (1995) in Hughes (2008)'s ◆ Salavou <i>et al.</i>, (2004)
COMPETITIVE AGGRESSIVENESS	<ol style="list-style-type: none"> 16. IO and OL to jointly promote organizational entrepreneurship and to increase Competitive advantages 	<ul style="list-style-type: none"> ◆ García-Morales <i>et al</i> (2006)

The one area that not been given enough attention is the importance of the social interactions and proactiveness of the entrepreneur in seeking advice. This has been highlighted by Chen *et al.*, (2007) and Day and Reynolds (2006).

McGrath, Pate, Gray and Vance (2006) found that the element of trust appears to be fundamental to the advice-sharing process because it reduces the perceived risk of receiving poor advice and the vulnerability of giving it to others. Their research also showed that entrepreneurs with less dense advice networks were deemed more innovative than those with high-density networks. This is because this tends to minimise the time investment necessary to establish an effective network.

Not ignoring the business opportunities provided by networks, Porter (1998) proposes that in the future, firm competitive advantage will not be determined chiefly by greater efficiencies in the sourcing of inputs, but rather by the ability of firms to exploit the resources available in the “cluster” or network of local individuals and companies, in which they operate. Greater competitive advantage can be gained based on the number of networked clusters or having high-density networks.

2.7 Factors affecting Successful Business Venture Formation

This section looks at two factors that studies conducted on South African entrepreneurs have suggested are a factor in starting successful ventures. These factors are related to research questions 6 and 7, which will attempt to determine if there is a significant difference among the SMME categories in terms of age and levels of education.

2.7.1 Age of Entrepreneur

Kropp *et al.* (2008) found in its study of South African entrepreneurs that older individuals are more likely to start related to the start-up of a successful international entrepreneurial business venture (IEBV) than younger individuals are. The implications of this are firstly that the government (and other interested parties) need to look at this segment as a promising target. Secondly, these individuals may have less experience in running a business and as such, entrepreneurial and management training programs should target older prospective entrepreneurs.

In contrast to the above, Smallbone, Leigh and North (1995) found that SMEs of any size, sector and age characteristics can achieve high growth. This was based on an empirical study of the evolution of firms with different levels of growth performance over ten years.

Another more recent study has found that for entrepreneurs between 30 and 49 years old, the odds of involvement by consultants in the business increases significantly with an even higher use of consultant for entrepreneurs are older than 50 years of age (Klyver, 2008).

2.7.2 Education level of Entrepreneur

“The majority of South Africans have grown up with little home experience of business innovation or entrepreneurship and hence do not view themselves to be entrepreneurial.” (Co and Mitchell, 2006).

Kropp *et al.* (2008) indicate that there is a tendency in developed economies for entrepreneurs to be well educated. The result of their study, which was conducted on South African entrepreneurs, indicates the opposite, i.e. there is an inverse correlation between education and start-up. Literature review of the relationship between education and entrepreneurial selection by Dickson, Solomon and Weaver (2008) revealed that this relationship in developed economies although positively correlated, is not linear and “individuals with at least some college education appear to be the more likely to select into entrepreneurship than more highly educated individuals”.

Bourantas and Papadakis (1996); Makridakis *et al.*, (1997) and Spanos *et al.*, (2001).in Salavou *et al.*, (2004), indicate that during 1980s and 1990s significant changes occurred in the Greek management practices and the ownership education structure with a new generation of well-educated owners and/or managers takes responsibility.

2.7.3 Conclusion

The most recent research on South African entrepreneurs found the age of the entrepreneur has been found to be a significant factor in forming successful business ventures. This has however been disputed by previous research, which indicates that age is not a factor in business success. Smallbone *et al* (1995).

The literature review says that older entrepreneurs are most likely to make use of external advice (Klyver, 2008). A3 consulting (2006) also concluded “successful entrepreneurs use outside assistance and take calculated risks. The success of the older entrepreneur may be mitigated by the use of external advisers.

The conclusions by the two studies indicated above have policy implications for government initiatives in terms of SMME developments if they are symptomatic of the entire SMME population in South Africa

During the 1980s and 1990s, significant changes occurred in the Greek management practices and the ownership education structure with a new generation of well-educated owners and/or managers taking responsibility. (Bourantas and Papadakis, 1996; Makridakis *et al.*, 1997 and Spanos *et al.*, 2001 in Salavou *et al.*, 2004). Although these observations were not part of the study or findings, they provide some indications for further research required into the role of effects of education on entrepreneurial orientation.

3 CHAPTER 3: RESEARCH QUESTIONS

3.1 Research Questions & Hypothesis

Literature has proposed (Berry *et al.*, 2002; Kubheka, 2006) and research has concluded (Kropp *et al.*, 2008) that a significant difference exists in entrepreneurial orientation, age and/or education levels between survivalist enterprises and other more formal business entities.

This line of thinking is starting to influencing policy formulation as indicated in the synthesis of Northern Cape government's document titled: "*SMME Development Strategy: Contemporary Thinking at the National Department of Trade and Industry on the National Framework Required for SMME Development (2008)*";

The shortcomings of the literature and research are that in most instances, due to the nature of the research and the lack of accessibility, the survivalists were not adequately represented in the sample

The research of this report is designed to include the survivalist type enterprises by including the SEDA Information Centres in the sample. The research aims to answer the questions raised by these studies and provide a descriptive analysis looking at whether the suggested differences exist.

The questions raised and indicated in section 1.5 of this report are:

Research Question 1: Autonomy

Is there a difference among the different SMME categories in the level of autonomy?

Research Question 2: Risk-taking

Is there a difference among the different SMME categories in the level of risk-taking?

Research Question 3: Innovation

Is there a difference among the different SMME categories in the level of innovation?

Research Question 4: Proactiveness

Is there a difference among the different SMME categories in the level of proactiveness?

Research Question 5: Competitive Aggressiveness

Is there a difference among the different SMME categories in the level of competitive aggressiveness?

Research Question 6: Age of Entrepreneur

Is there a difference among the different SMME categories in terms of age?

Research Question 7: Level of Education

Is there a difference among the different SMME categories in terms of levels of education of the entrepreneur?

3 CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

The research is descriptive and aims to define the EO characteristics of the different categories of SMMEs. According to Zikmund (2003, p. 56), “when descriptive research is conducted, it is to determine the extent of differences in the needs, perceptions, attitudes and characteristics of a sub-group” and does not provide evidence of a causal nature.

4.2 Research Design

Research design gives a blueprint for the procedures to be followed in selecting the population, sampling and sampling techniques to be used and specifying the methods of analysis of information collated during the research. The objectives as set out at the beginning of the study are included here to ensure that the information collected is appropriate in solving the research problem statement (Zikmund, 2003).

There are four basic research methods for descriptive and causal research viz. surveys, experiments, secondary data studies and observations (Zikmund, 2003). For the purposes of this research/study, data collection method was limited to use of a survey.

The survey design was based on two previous designs used in the measure of Entrepreneurial Orientation in South African entrepreneurs. The first one was designed to assess EO in business venture start-ups and the questionnaire covered several parameters, including demographics and Entrepreneurial Orientation measures. The second survey investigated EO, market, and learning orientations and international entrepreneurial business venture performance in South African firms (Kropp *et al.*, 2008).

The EO constructs used were identified in literature review (Wang, 2008; Moreno and Casillas, 2008; Kropp *et al.*, 2008; Lumpkin and Dess, 2001; Lyon *et al.*, 2000). The five constructs are based on the model by Lumpkin and Dess (1996).

4.2.1 Population of relevance

Zikmund (2003) defines a population as a complete group of entities sharing some common set of characteristics. A distinction is made between the population and the universe, with the latter, in this study, being an infinite group of all SMMEs in South Africa. The population, for the purposes of this research, is SMMEs that are part of the government intervention initiatives and in particular, those in incubators and seeking assistance through the government centres like the SEDA information centres.

The reason for choosing this population is that they are part of the government initiative programmes aimed at fast-tracking growth of SMMEs that is the target group for this study.

In an effort to have a more inclusive population, incubators and SEDA Information Centres in all 6 metropolises were contacted and provided with questionnaires to distribute to their members.

Zikmund refers to convenient sampling as “haphazard or accidental” in that the sampling is done on units or people who are most conveniently available.

4.2.2 Sampling Frame

Two sampling frames were used. For incubators, the questionnaires were distributed by the incubator managers to the existing tenants.

The second sampling frame was the SEDA information centres for entrepreneurs who use these services on an ad hoc basis. The centre managers were provided with questionnaires and these were distributed to entrepreneurs visiting the centres. Some of the centres who had records of entrepreneurs, who had used the services, sent the questionnaires out via e-mail.

The two sampling frames will mitigate the risk of a sampling frame error; that is the possibility that one or both samples may not have adequate representation of all different SMME categories.

4.2.3 Sampling Technique

A non-probability sampling technique where the units of the sample are selected on the basis of personal judgement (of the incubator and SEDA information centre managers) or convenience was used (Zikmund, 2003), as some of the incubators have indicated that not all the SMME categories may be adequately represented in the incubators.

Kropp *et al* (2008) also used judgemental sampling as lists were compiled by an accounting firm, which identified the firms in a database of firms with international focus, as being entrepreneurial, and either demonstrating or having the potential to demonstrate significant growth.

4.2.4 Sample size

Data was collected from 45 responses to the questionnaire. The responses were from:

- 1) 25 manually completed questionnaires,
- 2) 4 responses on an e-mail questionnaire and
- 3) 16 on-line responses.

The decision on sample size is complex (Struwig and Stead 2001; Albright, Winston and Zappe, 2006) and the desire to minimise sampling error will encourage researchers to choose a large sample (Albright *et al.*, 2006).

Zikmund (2003) proposes the use of statistical theory to determine the sample size but also suggests that if there is a need to analyse several sub-groups (as with the SMME categories), a minimum units of 100 in each category must be obtained.

No conclusive data was available on the population size of SMMEs in incubators or making use of SEDA services through the Information Centres. The most recent available data that can be referenced is contained in the AsgiSA Annual Report (2007), which reports that SEDA assisted 140 000 enterprises in 2006/7.

Albright *et al.* (2006) does also point out that the sample size will limited by budget, availability or accessibility of the respondents, and time available to conduct research.

The questionnaires were distributed by the incubator and Information Centre managers and as such, the researcher had no control over the number of questionnaires distributed. It is not known how many questionnaires were distributed, but 45 responses were received back.

4.2.5 Research instrument

A structured questionnaire was used as the main instrument or tool for this research and is attached as Appendix 1. It is divided, into three sections; section I though III, and contains a covering letter and instructions on how to complete the questionnaire.

Section I: Demographic Information

This section used close-ended or multiple-choice questions of which the respondent must make a choice (Struwig and Stead, 2001) to gather data on age, gender and education level.

A nominal scale was used in order to allow for categorisation of data. (Struwig and Stead, 2001).

Section II: Business Profiles

This section used a combination of close-ended and open-ended questions, which allowed the respondent to answer the questions in their own words (Zikmund, 2003).

The information collected in this section was used to categorise the SMMEs into one of the five categories namely: survivalist, micro, very small, small and medium enterprises.

A nominal scale was used, where possible, to enable categorisation of the data. For other data such as years in operation, an ordinal scale was used (Struwig and Stead, 2001).

Section III: Entrepreneurial Orientation constructs

This section focused on the constructs of EO, which are: autonomy, risk-taking, innovation, proactiveness and competitive aggressiveness.

A 5-point Likert scale was used which allows users to indicate their attitudes to the EO constructs. (Zikmund, 2003). The respondents were asked to indicate the extent to which they feel they can carry out the activities included in the questionnaire.

The questionnaire used by Kropp *et al.* (2008) was used and this covered three of the EO constructs (risk-taking, innovation and proactiveness).

Information from Lyon *et al.* (2000), Lumpkin and Dess (2001), Wang (2008) and Moreno and Casillas (2008); was used to construct questions to cover the other two constructs (autonomy, competitive aggressiveness).

4.2.6 Data collection process

Data was collected using a questionnaire. The questionnaire was pre-tested with the Incubator Managers who provided feedback on how to improve it and make it user-friendly.

The paper-based questionnaire is attached as Appendix 2. The online questionnaire can be accessed using this link:

<http://fs18.formsite.com/BulelwaNoma/form533099797/index.html>.

4.3 Data Analysis

Descriptive statistics is used to provide information in summary form. (Albright *et al.*, 2006). The data was coded to ensure accuracy in entering it into a Microsoft Excel spreadsheet.

The data is presented in tables and graphs and both parametric statistics (means, standard deviations, t-tests and Hotelling's T^2 tests), as well as non-parametric inferential statistics (frequencies and chi-square tests) (Struwig and Stead, 2001) were used to compare the different SMME categories.

Inferential statistics use samples of observations to infer observations probably found in a population and include parametric and non-parametric analysis. Parametric analysis measures relationships between variables, differences between randomly assigned groups, comparison between independent groups and predict group membership, among other functions.

The *t*-test for independent means is used when we want to know whether there is a difference between populations or characteristics of the groups. Information gathered from separate groups is required. The means are considered "independent" when there is no overlap between groups. (Wadsworth Cengage Learning website, accessed 18/08/08). In order to guard against inflating the Type I error rate when performing multiple pairwise comparisons. This test was used to assess the statistical significance of the mean differences of multiple variables between two groups of respondents (Hair *et al.*, 2006).

Non-parametric analysis measures the relationships between variables from small sample sizes, or on variables that may not necessarily be considered as metric data, i.e. merely nominal and ordinal data. In comparing data from different groups, analyses are based on the ranks of data, rather than directly on the actual data values. There are non-parametric equivalent tests to

parametric tests that compare two independent samples, groups from three or more independent samples and groups from two dependent samples. (Struwig and Stead, 2001).

In this study, the nonparametric chi-square test was used to examine relationships between categorical variables.

4.3.1 Statistical Analysis software

Statistica desktop solution software was used as it was recommended due to its comprehensive modules for both parametric and non-parametric statistics and a selection of both descriptive and inferential statistics. (Statsoft website, accessed 22/08/2008).

4.3.2 Statistical Analysis procedure and steps

This section sets out the steps taken to process the data and structure it for analysis.

- a) The data was coded as shown in Appendix 2 : Coded Questionnaire
- b) The data was captured on an Excel spreadsheet and then transferred to Statistica desktop solution StatSoft, Inc. for analysis.
- c) Descriptive statistics were run on the data using the firm size as the grouping variable. The turnover was used for validation. The information

used is based on Table 2: Criteria for Different SMME Categories and Appendix 1: SMME categories.

In order to answer the research questions and test for significant differences, the t test for independent groups was used to analyse the differences between means of variables in a group. The *t*-test assumes metric (i.e. equal interval or ratio scaled variables, which is what was assumed in the case of the 5-point Likert-type scales measuring the constructs in the present study (Stacey, 2005). It tests whether two independent samples differ from each other significantly in their average scores. In all cases, a test of the ratio of the variances of the two groups was considered when deciding whether the t-test for homogeneous or heterogeneous variances should be used. The two t-tests differ in their calculation of the standard error of

The formula is:

$$t = \frac{\text{observed difference between sample means}}{\text{standard error of difference between means}}$$

$$t = \frac{x_A - x_B}{\sqrt{(SE_A)^2 + (SE_B)^2}}$$

Where:

x = means of groups A and B, respectively, and

SE is a variant of = $\frac{SD}{\sqrt{N}}$ depending on which t-test is used

(Source: Rumsey, 2007)

d) The next step in the data processing was to combine the micro and very small Enterprises data. According Rumsey (2007), the decision to merge data should be based on the following guidelines:

1. Similar observed values
2. Not because the response patterns are similar
3. It makes sense to merge categories that are next to each other
4. Collapsing should be in order to increase statistical power, i.e. increase the chances of detecting deviations.

The decision to merge the micro and very Small Enterprises has been based on their similar characteristics relative to other groups by comparing means of selected of variable in their demographic and organisational profile data. This is discussed in detail in Chapter 5 under the section 5.2.2.4 on Merging of Data.

After the data was merged (by recoding it into a new category called micro/very small), the mean scores of the two groups (survivalist vs. micro/very small enterprises) were compared on each item of each of the entrepreneurial orientation constructs via univariate *t*-tests. In each case the decision to use the *t*-test for homogeneous or heterogeneous variances was based on the significance of the *F*-ratio test of the ratio of the sample variances. If the *F*-ratio was significant, the *t*-test for heterogeneous variances was used. As multiple univariate *t*-tests jointly inflate the probability of the Type I error rate, the Hotelling's T^2 test was computed for all items considered as a variate or linear combination, which produces the greatest group difference. Hotelling's T^2

e) thus controls this inflation of the Type I error rate by providing a single overall test of group differences across all dependent variables at a specified alpha level. (Hair et al., 2006). Type I error is committed when a null hypothesis (or in the case of this research, the significance of the differences between means), is rejected when it is true. (Zappe, 2006: 545).

The next step was to run chi-square non-parametric analyses to compare the two groups on each item considered as the ordinal categorical variables (age and level of education

f) “The chi-square statistic is the sum of the contributions from each of the individual cells. Every cell in a table contributes something to the overall chi-square statistic. If a given cell differs markedly from the expected frequency, then the contribution of that cell to the overall chi-square is large. If a cell is close to the expected frequency for that cell, then the contribution of that cell to the overall chi-square is low. A large chi-square statistic indicates that somewhere in the table, the observed frequencies differ markedly from the expected frequencies. It does not tell which cell (or cells) are causing the high chi-square...only that they are there. When a chi-square is high, you must visually examine the table to determine which cell(s) are responsible. “(Statpac Calculator. [accessed](#) on 04/11/08).

Data merging

As some of the expected frequencies in cells were less than 5 due to insufficient number of observations per cell, merging of data was required, for

example, the extreme response categories with small frequencies were combined with adjacent categories, . (Foster, 2001:156).

After merging the data, we were left with the following categories for age

- Age categories: 19-30 and 31+
- Levels of education categories: Matric or less and Post Matric/Diploma/Degree.

4.4 Limitations of the Methodology

1. The sample comes from incubators and people making use of support services. Incubators attract a certain profile person and the majority of the incubators have started specialising (e.g. manufacturing and technology hubs).
2. The data from the information centres may be invalid in that not only established entrepreneurs make use of the centres. People looking for information also approach the centres and the questionnaire was not specifically designed to exclude them from the sample.
3. The sample for micro/very small enterprises group data was originally from two groups and was merged. This may have introduced bias in the sample.

5 CHAPTER 5: PRESENTATION OF DATA

5.1 Introduction

In this chapter, the data that was collected from the 45 respondents is presented using tables and graphs.

For this research, results were found to be significant if at least 95% of the cases can be explained by the data. A confidence interval at the level of 95% is used, which gives an alpha (α) of 5% (0.05). α is the significance level for accepting or rejecting whether the variances observed between the two groups analyse are significant. Alpha Level (α)

An alpha level represents the number of times out of 100 you are willing to be incorrect if you reject the null hypothesis. If you choose an alpha level of 0.05, 5 times out of 100 you will be incorrect if you reject the null hypothesis.

Three factors determine the size of the confidence interval. These are: sample size, percentage and population size. The larger the sample, the more confident you can be that the answers truly reflect the population. The accuracy also depends on the percentage of the sample that picks a particular answer. If 99% of your sample said "Yes" and 1% said "No" the chances of error are remote, irrespective of sample size. However, if the percentages are 51% and 49% the chances of error are much greater. It is easier to be sure of extreme answers than of middle-of-the-road ones. The mathematics of probability proves the size of the population is irrelevant. Population size is only likely to be a factor when

you work with a relatively small and known group of people. (Siegel, accessed 09/11/08).

5.2 Description of Data

The analysis is broken down by firm size which is used to categorise the data into the SMME categories namely (survivalist, micro (1-5 employees), very small (6-9 employees), small (10-49 employees), medium (50-100 employee).

All the reported Survivalist ventures had a turnover less than R200, 000. One very small enterprise had a reported turnover of less than R200, 000. The venture was however a formally registered entity operating for more than 10 years. It was then decided to leave it in the small business category. One small business also had a reported turnover of less than R200, 000.

The results are shown in Table 5.1.

5.2.1 Missing Values

According to Allen and Rao (2000), the effect of missing variables is more pronounced when multivariate techniques are involved. This is because the respondents with the missing values may be totally excluded from the analysis. This could also lead to loss of some other valuable and usable data that may be

present in the excluded responses. Once the data is excluded for it is not available to run for other subsequent analysis.

There were 45 responses and four of the data sets had one variable missing data.

Statsoft makes allowance for missing data by taking into account that the data is missing and not including it in the analysis as a zero value. (Statsoft website, accessed 04/11/08).

This is acceptable for the purposes of analysis in this research as we are interested in sample means. The proportion of missing values is small and as such would have to be extreme to affect the conclusions.

5.2.2 Demographics

The following section gives an overview of the demographic information of the sample before they were re-coded and merged.

Below are summaries of the data. The full table showing all the responses is attached as an appendix

5.2.3 Sample Distribution: SMME Categories

There were 45 respondents, with 44 falling within the SMME category. 47% of respondents were from the entrepreneur only category, with 24% falling

under the micro enterprises and 13% from very small and small enterprises respectively. 1 (2%) respondent indicated that they run a large business i.e. have more than 100 employees. No respondents from the medium enterprise category formed part of this study.

In Table 5.1, a comparison is made between the research sample and the Idasa Website (accessed on 12/08/2008) information, in terms of relative size of the SMME categories. There is a difference in the sample relative to the SMME population and as such, the sample may not be representative of the SMMEs in South Africa. This is to be expected as a judgemental or convenience sampling was used (Zikmund, 2003). The sample may be representative of the populations in Incubators and making use of SEDA Information Centres.

Table 5.1: SMME categories: Sample vs. SMME population

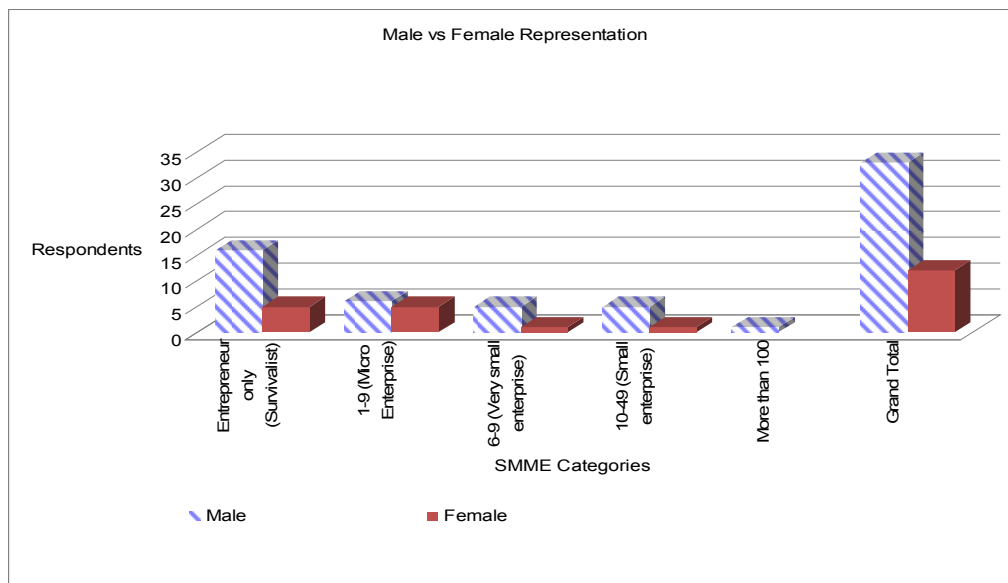
<i>Firm Size</i>	<i>Grand Total</i>		<i>* Reported relative % representation for all SMMEs</i>
	<i>Number</i>	<i>%</i>	<i>%</i>
Survivalist	21	47%	23.3%
1-5 (Micro Enterprise)	11	24%	47.4%
6-9 (Very small enterprise)	6	13%	19.7%
10-49 (Small enterprise)	6	13%	7.6%
Medium (50-100)	0	0%	1.4%
More than 100	1	2%	
Grand Total	45	100%	

(Source *von Broembsen, 2003)

5.2.4 Gender Representation

Thirty-three (73%) of the respondents were male and twelve (27% were female). Figure 5.1 below shows the gender representation across the different SMME categories. In the survivalist category, there is more pronounced gender difference and an equitable representation can be seen in the micro enterprise category.

Figure 5.1 Gender Representation in the sample

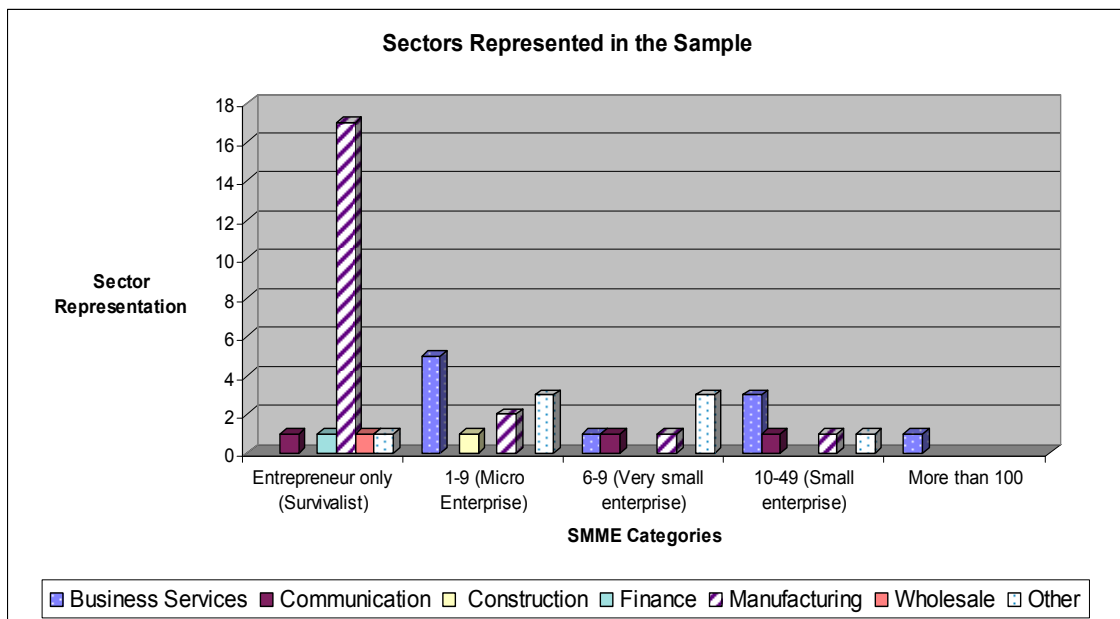


5.2.5 Sectorial representation in Sample

Figure 5.2 below provides a breakdown of the sectors represented in the sample per SMME category. The composition of the research sample is such that almost half the sample is entrepreneurs in manufacturing sector and almost 80% of them are within the survivalist category. A breakdown of the sample

representation shows that sector representation is: 22% of the sample represents Business Services, 7% (Construction), 2% (Finance), 47% (Manufacturing), 2% (Wholesale) and 18% (Other).

Figure 5.2: Sectors represented in the sample



5.2.6 Merging of Data

As described in section 5.2.2., the sample size obtained is 45, of which only 44 fell within the SMME categories (up to 100 employees). There is a huge difference between the different sample sizes in the various categories. In order to run non-parametric statistics the samples have to roughly be the same size. If the samples are not the same size, then you are likely to generate errors because the small sample could generate a larger standard error than it should. (Rumsey, 2007).

It was decided to merge some of the categories using Rumsey (2007)'s guidelines:

The decision was based on the demographics of the sample looking at samples that had the greatest similarities.

- Categories that were merged are the ones that are next to each other (micro and very small enterprises)
- Not because the response patterns are similar
- The response patterns to entrepreneurial orientation were not used as the basis for the merging of data.

Tables 5.2 – 5.4 below show the demographic (and organisational profile) characteristics that were taken into account at deciding on the merger. The survivalist category was deemed large enough not to require merging with other groups.

The highlighted items show the similarities between the categories based on the descriptive statistics of the categories.

The categories of education level and annual turnover show the greatest similarities between micro and very small enterprises.

Table 5.2: Descriptive Statistics – Micro Enterprises

2: 1-9 (Micro Enterprise)

Age		Education		Annual Turnover		VAT	
Mean	3.455	Mean	3.000	Mean	2.181818182	Mean	1.454545455
Standard Error	0.281671516	Standard Error	0.381385036	Standard Error	0.352089395	Standard Error	0.157459164
Median	4	Median	3	Median	2	Median	1
Mode	4	Mode	2	Mode	2	Mode	1
Standard Deviation	0.934198733	Standard Deviation	1.264911064	Standard Deviation	1.167748416	Standard Deviation	0.522232968
Sample Variance	0.872727273	Sample Variance	1.6	Sample Variance	1.363636364	Sample Variance	0.272727273
Kurtosis	-0.50130208	Kurtosis	-1.302083333	Kurtosis	2.718222222	Kurtosis	-2.444444444
Skewness	-0.28990976	Skewness	4.07082E-17	Skewness	1.419636075	Skewness	0.21276158
Range	3	Range	4	Range	4	Range	1
Minimum	2	Minimum	1	Minimum	1	Minimum	1
Maximum	5	Maximum	5	Maximum	5	Maximum	2
Sum	38	Sum	33	Sum	24	Sum	16
Count	11	Count	11	Count	11	Count	11
Confidence Level(95.0%)	0.627603246	Confidence Level(95.0%)	0.849778812	Confidence Level(95.0%)	0.784504057	Confidence Level(95.0%)	0.35084088

Table 5.3: Descriptive Statistics - Very Small Enterprises

3: 6-9 (Very small enterprise)

Age		Education		Annual Turnover		VAT	
Mean	4.500	Mean	3.333	Mean	2.666666667	Mean	1.333333333
Standard Error	0.223606798	Standard Error	0.614636297	Standard Error	0.421637021	Standard Error	0.210818511
Median	4.5	Median	3	Median	3	Median	1
Mode	5	Mode	2	Mode	3	Mode	1
Standard Deviation	0.547722558	Standard Deviation	1.505545305	Standard Deviation	1.032795559	Standard Deviation	0.516397779
Sample Variance	0.3	Sample Variance	2.266666667	Sample Variance	1.066666667	Sample Variance	0.266666667
Kurtosis	-3.333333333	Kurtosis	-2.828719723	Kurtosis	0.5859375	Kurtosis	-1.875
Skewness	0	Skewness	0.214891847	Skewness	-0.66566901	Skewness	0.968245837
Range	1	Range	3	Range	3	Range	1
Minimum	4	Minimum	2	Minimum	1	Minimum	1
Maximum	5	Maximum	5	Maximum	4	Maximum	2
Sum	27	Sum	20	Sum	16	Sum	8
Count	6	Count	6	Count	6	Count	6
Confidence Level(95.0%)	0.574799572	Confidence Level(95.0%)	1.5799729	Confidence Level(95.0%)	1.083852468	Confidence Level(95.0%)	0.541926234

Table 5.4: Descriptive Statistics - Small Enterprises

4: 10-49 (Small enterprise)

Age		Education		Annual Turnover		VAT	
Mean	3.500	Mean	2.167	Mean	3.500	Mean	1.333333333
Standard Error	0.5	Standard Error	0.477260702	Standard Error	0.763762616	Standard Error	0.210818511
Median	3	Median	2	Median	3.5	Median	1
Mode	3	Mode	2	Mode	#N/A	Mode	1
Standard Deviation	1.224744871	Standard Deviation	1.169045194	Standard Deviation	1.870828693	Standard Deviation	0.516397779
Sample Variance	1.5	Sample Variance	1.366666667	Sample Variance	3.5	Sample Variance	0.266666667
Kurtosis	-1.466666667	Kurtosis	-0.446162998	Kurtosis	-1.2	Kurtosis	-1.875
Skewness	0.489897949	Skewness	0.667628428	Skewness	0	Skewness	0.968245837
Range	3	Range	3	Range	5	Range	1
Minimum	2	Minimum	1	Minimum	1	Minimum	1
Maximum	5	Maximum	4	Maximum	6	Maximum	2
Sum	21	Sum	13	Sum	21	Sum	8
Count	6	Count	6	Count	6	Count	6
Confidence Level(95.0%)	1.285290917	Confidence Level(95.0%)	1.226837691	Confidence Level(95.0%)	1.963314306	Confidence Level(95.0%)	0.541926234

5.3 Research Questions: Graphical analysis

5.3.1 Introduction

In this section, the responses to the variables of each EO construct are graphically compared.

Rating System

In completing this section of the questionnaire, respondents were requested to choose between the following scores to indicate the extent they feel comfortable and/ or capable of performing the following actions indicated by the applicable statement relating to the variables of the EO constructs.

1. Not at all confident = need a lot of assistance,
2. Somewhat confident = need some assistance,
3. Unsure
4. Confident = Able to complete without assistance,
5. Very Confident = completely capable

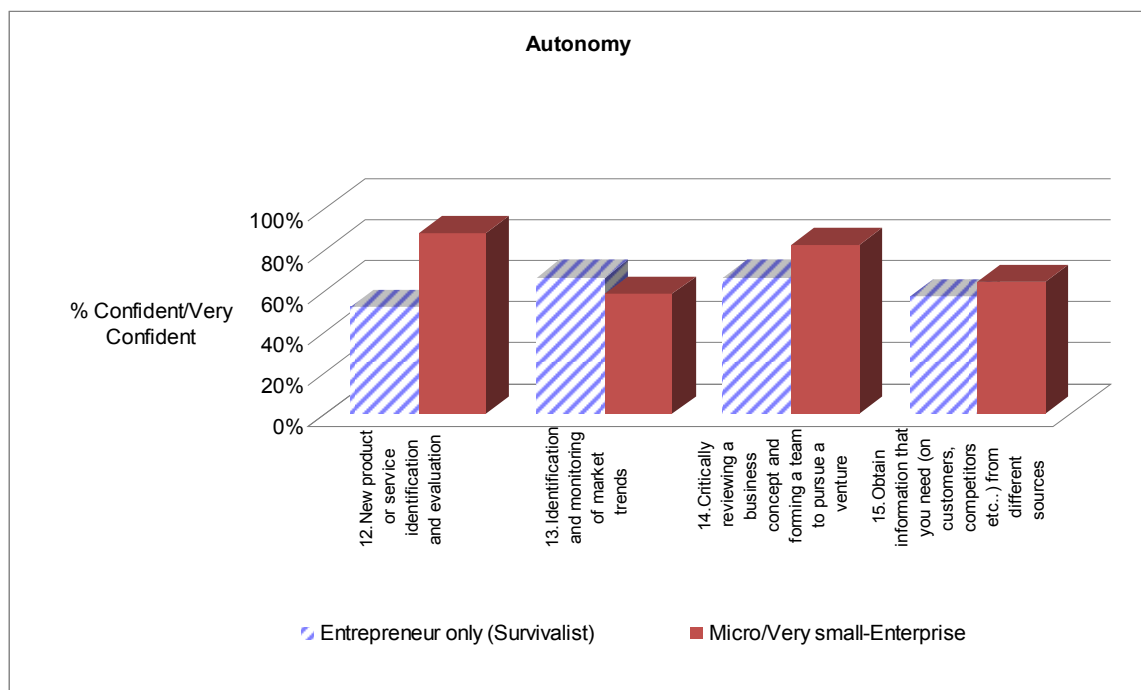
The percentage responses in which the respondent indicated they were confident and very confident were calculated as an overall percentage of the total score and are represented in the following figures. A score above 50% will be taken to represent a positive level of confidence.

All scores below 50% are considered to mean that the respondents did not feel confident that they are capable of performing the actions indicated in the statements.

5.3.2 Research Question 1: Autonomy

Is there a significant difference among the different SMME categories in the level of autonomy?

Figure 5.3: Autonomy : reported level of confidence



Average overall score:

Survivalist : 61%

Micro/very small enterprise: 74%

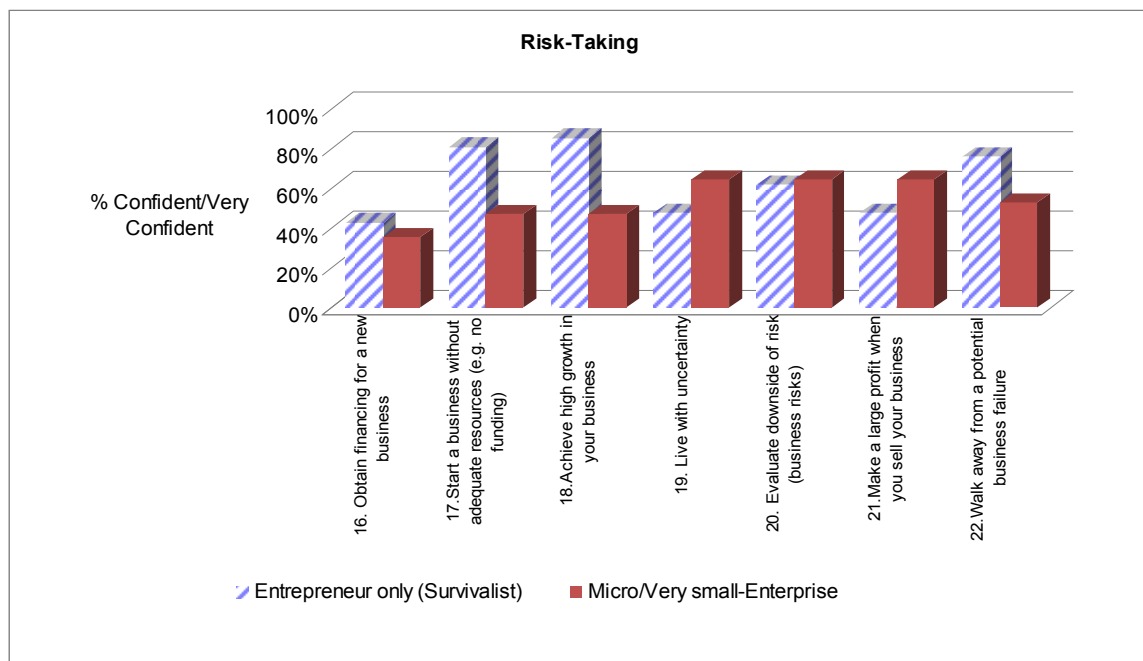
Figure 5.3 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for Autonomy.

Both the Survivalist (survivalists) and the micro/very small enterprises expressed a positive level of confidence in terms of performing actions listed under the autonomy construct.

5.3.3 Research Question 2: Risk-taking

Is there a significant difference among the different SMME categories in the level of Risk-taking?

Figure 5.4: Risk-taking: reported level of confidence



Average overall score:

Survivalist: 63%

Micro/very small enterprise: 54%

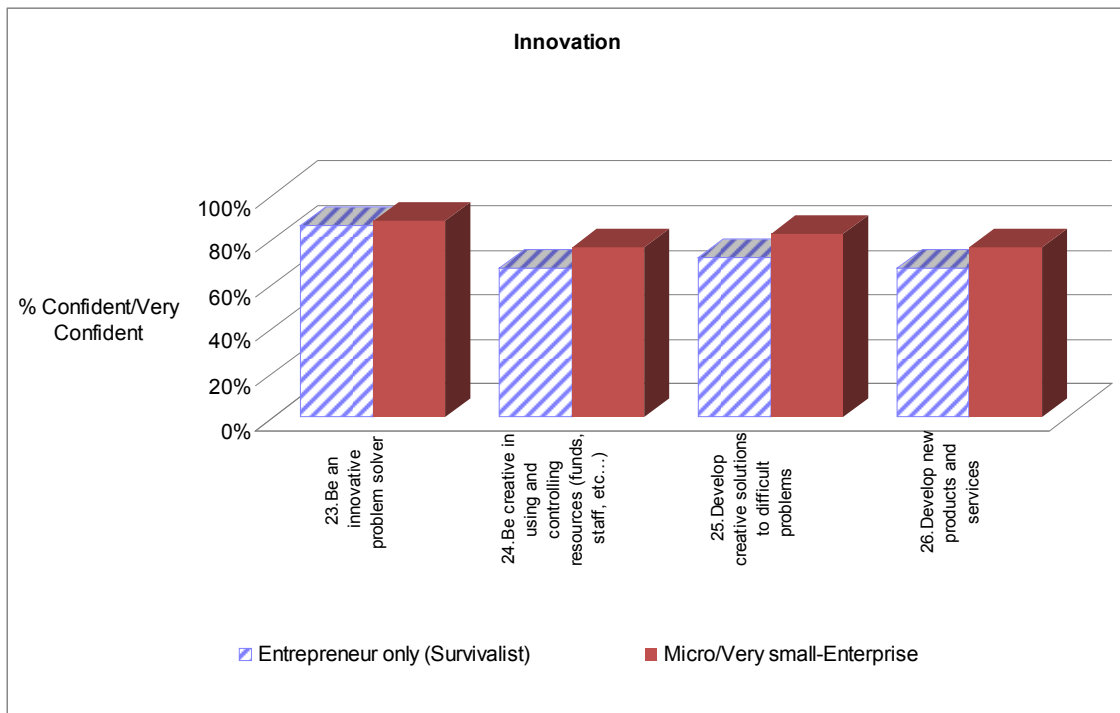
Figure 5.4 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for Risk-taking.

The micro/very small enterprises expressed less confidence in terms of performing 3 of the 7 actions listed under the risk-taking construct compared to 2 for the survivalist (survivalists).

5.3.4 Research Question 3: Innovation

Is there a significant difference among the different SMME categories in the level of innovation?

Figure 5.5: Innovation : reported level of confidence



Average overall score:

Survivalist: 73%

Micro/very small e enterprise: 72%

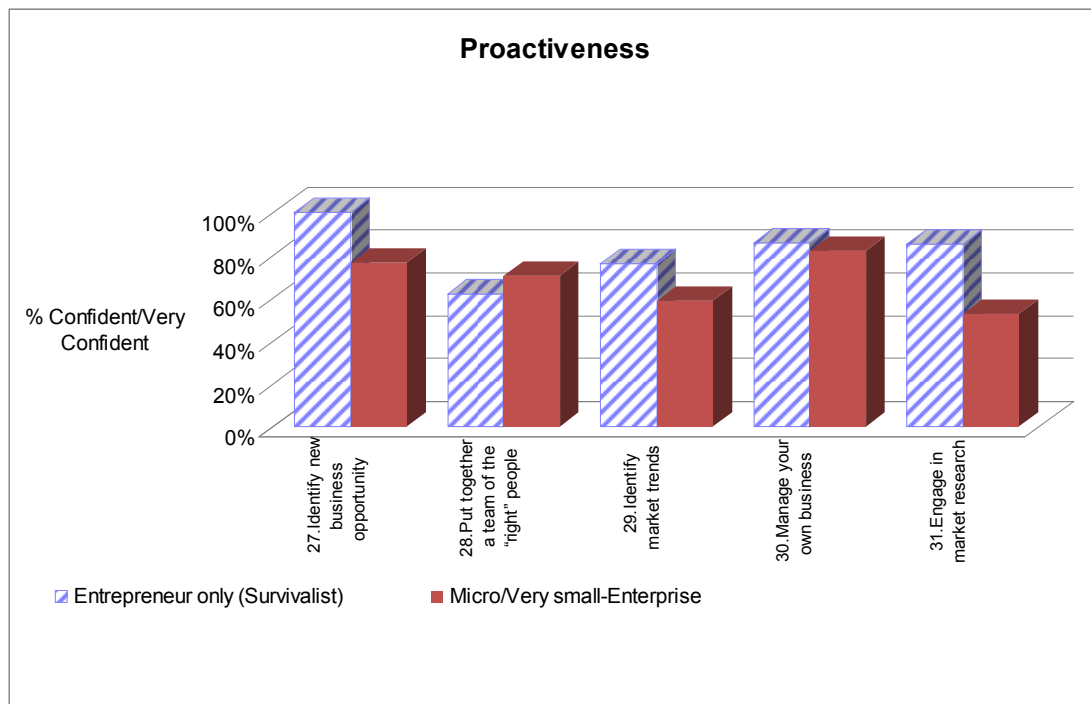
Figure 5.5 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for Innovation.

Both the Survivalist (survivalists) and the micro/very small enterprises expressed a positive level of confidence in terms of performing actions listed under the innovation construct.

5.3.5 Research Question 4: Proactiveness

Is there a significant difference among the different SMME categories in the level of proactiveness?

Figure 5.6: Proactiveness: reported level of confidence



Average overall score:

Survivalist : 82%

Micro/very small enterprise: 68%

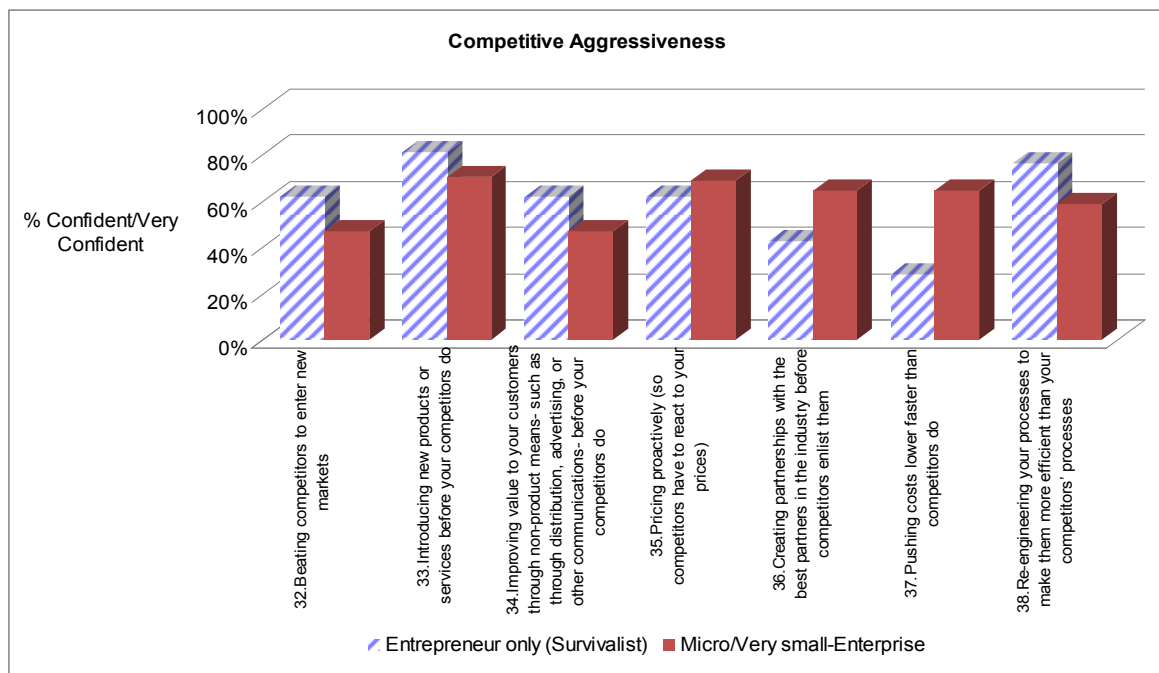
Figure 5.6 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for Proactiveness.

Both the entrepreneurs only (survivalists) and the micro/very small enterprises expressed a positive level of confidence in terms of performing actions listed under the proactiveness construct.

5.3.6 Research Question 5: Competitive Aggressiveness

Is there a difference significant among the different SMME categories in the level of competitive aggressiveness?

Figure 5.7: Competitive Aggressiveness: reported level of confidence



Average overall score:

Survivalist: 59%

Micro/very small :62%

Figure 5.7 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for Competitive Aggressiveness.

Both the micro/very small enterprises expressed less confidence in terms of performing 2 of the 7 actions listed under the competitive aggressiveness construct.

5.4 Research Questions (1-5): t-test Analysis of each of the variables of EO for difference in means

Table 5.5 below shows the results of an analysis of the differences between means of the survivalist and the micro/very small enterprises groups for each of the EO variables (represented by statements, which the respondents had to respond to by indicating the extent they feel they are capable of performing the indicated actions).

A *t*-test was used to analyse the differences between means of variables in a group. It tests whether two independent samples differ from each other significantly in their mean scores. The methodology and procedure used for analysis is set out in section 4.3.

The question being asked for each statement is: *Are the means of the two samples significantly different from each other?*

The column labelled homogenous groups is the *t*-test results for the test for equal (homogenous) variances in means. The highlighted items in this column indicate the variances in the means of the two groups are unequal,

The results show the F-ratio. The F-ratio equals the larger variance divided by the smaller variance. So F is always greater than (or possibly equal to) 1.0. The *P* value then asks: If the two populations really had identical variances, *what is the chance of obtaining an F ratio this big or bigger?* “The F-ratio is used to determine whether the variances in two independent samples are equal. If the F-ratio is not statistically significant, you may assume there is homogeneity of variance and employ the standard *t*-test for the difference of means. If the F-ratio is statistically significant (the *p*-value is large (>0.05), use an alternative *t*-test computation”. (Acastat website, accessed 09/11/2008

The F-ration for the five of the questions relating to the EO constructs was found to be significant (p -value <0.05). The alternative *t*-test was then used. The *t*-test also controls for the Type I (false positive) error.

Table 5.5 below shows the *p*-values (“the probability of seeing a sample with at least as much evidence in favour of the alternative hypothesis as the sample actually observed. The smaller the *p*-value, the more evidence there is in favour of the alternative hypothesis”). (Zappe, 2006). Two *p*-values are shown in Table 5.5. The column labelled heterogeneous means shows the results with the

highlighted items showing the variables where there is a significant difference at a confidence interval of 95%, which gives an alpha (α) of 5% (0.05).

Table 5.5: t-test on EO constructs

Analysis of difference of means on the Entrepreneurial Orientation Construct variables and aggregated construct means

Please indicate the extent you feel that you comfortable and/ or capable of performing the following actions	Mean	Mean	t-value	df	p-value	Valid N		Std.Dev.		F-ratio	p-value
						Entrepreneur only	Micro/Very Small	1	2		
Entrepreneurial Orientation Statements											
12. New product or service identification and evaluation	3.48	4.06	-2.08274	30.4	0.045772	21	17	1.12	0.56	4.086168	0.006181
13. Identification and monitoring of market trends	3.67	3.47	0.57815	36.0	0.566765	21	17	0.91	1.18	1.667647	0.277807
14. Critically reviewing a business concept and forming a team to pursue a venture	3.81	4.00	-0.62675	36.0	0.534780	21	17	0.93	0.94	1.015193	0.960869
15. Obtain information that you need (on customers, competitors etc..) from different sources	3.52	3.53	-0.01600	36.0	0.987324	21	17	0.87	1.28	2.152114	0.106411
16. Obtain financing for a new business	3.14	3.00	0.43443	36.0	0.666566	21	17	0.96	1.06	1.211538	0.676128
17. Start a business without adequate resources (e.g. no funding)	3.90	3.35	1.50132	36.0	0.141995	21	17	1.09	1.17	1.148824	0.759024
18. Achieve high growth in your business	4.00	3.24	2.19475	36.0	0.034716	21	17	1.00	1.15	1.316176	0.554603
19. Live with uncertainty	3.14	3.59	-1.43259	36.0	0.160603	21	17	1.06	0.80	1.784718	0.243562
20. Evaluate downside of risk (business risks)	3.62	3.53	0.27789	36.0	0.782683	21	17	1.07	0.87	1.500733	0.413766
21. Make a large profit when you sell your business	3.43	3.47	-0.14256	36.0	0.887431	21	17	0.93	0.87	1.120879	0.826671
22. Walk away from a potential business failure	3.62	3.53	0.27789	36.0	0.782683	21	17	1.07	0.87	1.500733	0.413766
23. Be an innovative problem solver	3.90	4.18	-0.88691	23.7	0.384032	21	17	0.62	1.13	3.276542	0.013543
24. Be creative in using and controlling resources (funds, staff, etc...)	3.57	3.94	-1.20048	36.0	0.237793	21	17	0.93	0.97	1.089461	0.844538
25. Develop creative solutions to difficult problems	3.76	4.12	-1.40851	36.0	0.167557	21	17	0.70	0.86	1.499143	0.388174
26. Develop new products and services	3.71	3.88	-0.48840	36.0	0.628231	21	17	1.06	1.05	1.003595	1.000000
27. Identify new business opportunity	4.14	3.88	0.92809	18.7	0.365186	21	17	0.36	1.11	9.607843	0.000007
28. Put together a team of the "right" people	3.62	3.94	-1.01757	36.0	0.315672	21	17	0.80	1.14	2.020978	0.137648
29. Identify market trends	3.81	3.53	0.81992	36.0	0.417656	21	17	0.87	1.23	1.988051	0.146894
30. Manage your own business	4.19	4.18	0.03988	36.0	0.968407	21	17	1.03	1.13	1.204827	0.694633
31. Engage in market research	3.90	3.35	1.51960	35.0	0.137593	20	17	0.97	1.22	1.593275	0.330660
32. Beating competitors to enter new markets	3.52	3.18	0.85583	36.0	0.397755	21	17	1.08	1.42	1.746625	0.237339
33. Introducing new products or services before your competitors do	3.95	3.59	1.07500	25.1	0.292616	21	17	0.74	1.23	2.752558	0.034152
34. Improving value to your customers through non-product means- such as through distribution, advertising, or other communications- before your competitors do	3.67	3.24	1.06581	24.4	0.296940	21	17	0.86	1.48	2.987968	0.022360
35. Pricing proactively (so competitors have to react to your prices)	3.76	3.69	0.18530	35.0	0.854065	21	16	1.18	1.25	1.123716	0.793479
36. Creating partnerships with the best partners in the industry before competitors enlist them	3.05	3.53	-1.23843	36.0	0.223572	21	17	1.07	1.33	1.537711	0.359673
37. Pushing costs lower faster than competitors do	2.67	3.65	-2.58764	36.0	0.013847	21	17	1.15	1.17	1.025735	0.943752
38. Re-engineering your processes to make them more efficient than your competitors' processes	3.71	3.59	0.34788	36.0	0.729956	21	17	1.06	1.18	1.240573	0.640333
Autonomy total	3.65	3.79	-0.68795	36.0	0.495893	21	17	0.54	0.72	1.757730	0.232143
Risk-taking total	3.54	3.39	0.67841	36.0	0.501852	21	17	0.77	0.59	1.684294	0.293634
Innovation total	3.77	4.05	-1.22953	36.0	0.226849	21	17	0.61	0.80	1.726481	0.247065
Proactivity total	3.93	3.78	0.60271	22.3	0.552776	21	17	0.49	0.98	4.042465	0.003923
Competitive Aggressiveness total	3.47	3.49	-0.09232	24.1	0.927204	21	17	0.62	1.09	3.107054	0.018328

5.5 Research Questions (1-5): Hotelling (T^2) test

Table 5.6 shows the results of the Hotelling (T^2 test). The table shows that there is a significant difference between the means of survivalist and micro/very small enterprises for competitive aggressiveness. This is calculated at a confidence interval of 95% ($\alpha = 0.05$).

The benefit of the T^2 test, compared to the t -test is that in the T^2 test the items of each construct are optimally weighted to maximise the differences between the groups. The t -test computes the means of the constructs and thereby assigns equal weights to all the constructs. . (Hair *et al.*, 2006). i.e. autonomy has four measured variables compared to risk, which has seven variables.

The difference in results can be seen in comparing the T^2 results to the t -test p-values and the p-values in Table 5.6.

Tale 5.6: Hotelling (T^2) survivalist vs. micro/ very small enterprises

<i>EO Constructs</i>	<i>Hotelling T^2</i>	<i>P</i>
<i>Overall Scale</i>	270.909	0.10343
<i>Autonomy</i>	4.48537	0.40743
<i>Risk-Taking</i>	18.2603	0.06568
<i>Innovation</i>	3.11604	0.58827
<i>Proactiveness</i>	9.6265	0.16281
<i>Competitive Aggressiveness</i>	62.9895	0.00004

5.5.1 Box and Whisker plots

The box and Whisker plots (Annexure 4) are a pictorial view of the differences between means to see if the standard of mean difference is big enough relative to the standard error to be significant. They were used for the descriptive analysis of data to scan which constructs had indications of significantly different means. None of the constructs showed any indication of significant differences.

5.5.2 Research Question 6: Age of Entrepreneur

Is there a significant difference among the different SMME categories in age of the entrepreneur?

Table 5.7: Age of Micro/Very Small Enterprises

Age	Firm size	Firm size	Row
Count	1: Survivalist	2: 1-9 (Micro/Very small-Enterprise)	Totals
19-30	10	5	15
31+	11	12	23
All Groups	21	17	38

Age	Firm size	Firm size	Row
Percentage	1: Survivalist	2: 1-9 (Micro/Very small-Enterprise)	Totals
19-30	47.6%	29.4%	39.5%
31+	52.4%	70.6%	60.5%
All Groups	55.3%	44.7%	100.0%

Results - Pearson Chi-square: 1.30354, DF=1, p=.253571

Pearson Chi-square is used to test whether there is association in columns and rows of data; in this case Age and .the SMME category. A chi-square p-value of 0.05 or less is used to accept or reject the significance of variance as being related or unrelated (that is, only randomly related) to the column variable.

Here the Pearson Chi-square shows no significant variance at a confidence interval of 95% ($\alpha = 0.05$). For Age, there is no significance in variances between Ages of survivalist and micro/very small e enterprise entrepreneurs.

5.5.3 Research Question 7: Level of Education

Is there a significant difference among the different SMME categories in the level of education?

Table 5.8: Education Level of Entrepreneur

Education	Firm size	Firm size	Row
Count	1: Survivalist	2: 1-9 (Micro/Very small-Enterprise)	Totals
Matric or less	15	1	16
Post Matric/Diploma/Degree	6	13	19
All Groups	21	14	35

Education	Firm size	Firm size	Row
%	Survivalist	(Micro/Very small-Enterprise)	Totals
Matric or less	71.4%	7.1%	45.7%
Post Matric/Diploma/Degree	28.6%	92.9%	54.3%
All Groups	60.0%	40.0%	100.0%

Results - Pearson Chi-square: 13.9885, DF=1, p=.000184

Pearson Chi-square is again used to test for significance of variance between the levels of education of survivalist and micro/very small enterprises entrepreneurs.

Here the Pearson Chi-square shows a significant variance at a confidence interval of 95% ($\alpha = 0.05$).

6 CHAPTER 6: DISCUSSION OF RESULTS

6.1 Introduction

This chapter provides an analysis of the results presented in Chapter 5.

The aim of the research is to provide descriptive analysis of the differences among SMME (Small Micro and Medium Enterprise) categories in terms of Entrepreneurial Orientation, Age and Levels of Education.

There is no research analysing the differences among SMME categories in terms of EO, age or level of education that could be found and the most relevant research that could be found is that by Berry *et al.* (2002), Kubheka (2006), Kropp *et al.* (2008) and Lindsay *et al.* (2007) in Kropp *et al.* (2008).

Their research findings together with the literature reviewed will be used to analyse and interpret the data.

In this chapter, the data is analysed to answer the seven research questions.

6.2 The sample

There were 45 respondents, with 44 falling within the SMME category. Due to the small sample sizes for in some of the different SMME categories and based on the similar characteristics of the micro and very small enterprises based on their demographic information, a decision to was taken to merge the micro and very small enterprises and create a new grouping called micro/very small enterprises.

Collapsing the data allowed for the use of non-parametric statistical analysis where groups of roughly the same size can be analysed. (Rumsey, 2007).

No other groups were merged. Table 5.1 in Chapter 5 shows the sizes of the different SMME categories in the sample. After the merging of data, two samples were obtained:

Table 6.1: Samples analysed

Sample	Group	Sample Size
Group 1	Survivalist	21
Group 2	Micro/Very Small Enterprises	17

Only the survivalist and the micro/very small enterprises will be analysed in this report.

Figure 5.1 in Chapter 5 shows the gender representation in the sample. Thirty-three (73%) of the respondents were male and 12 (27% were female).

Figure 5.2 provides a breakdown of the sectors represented per SMME category. 22% of the sample represents Business Services, 7% (Construction), 2% (Finance), 47% (Manufacturing), 2% (Wholesale) and 18% (Other).

The sample came from Incubators and SEDA information centres as indicated in Section 4.2.1.

6.3 Discussion of Entrepreneurial Orientation Constructs

The literature review shows there are several EO construct interactions and all of them are directly or indirectly linked to growth or performance. The expectation is that of the two groups that were analysed in this study, namely the entrepreneur and micro/very small enterprises, the latter would have higher reported scores in terms of the EO constructs. This is based on the assumption that the researcher has made and highlighted in the rationale for the research – and that is, the more a business grows and expands (i.e. hire more employees), the more successful it is relative to one that does not increase the number of employees.

6.3.1 Research Question 1: Autonomy

Research Question 1: Is there a difference among the different SMME categories in the level of autonomy?

The questions and results related to Autonomy

Figure 5.3 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for Autonomy.

Survivalist scored higher for the following question:

13. Identification and monitoring of market trends

On autonomy, micro/very small enterprises scored higher for the following questions:

12. New product or service identification and evaluation

14. Critically reviewing a business concept and forming a team to pursue a venture

15. Obtain information that you need (on customers, competitors etc...) from different sources

Average overall score:

Survivalist : 61%

Micro/very small enterprise: 74%

Discussion of Results and Literature Findings and conclusion

In terms of the overall score for the level of confidence for autonomy, the micro/very small enterprises scored higher (74%) than the survivalists (61%). The individual questions scores are shown in Figure 5.3.

The results in Table 5.5 on the *t*-test, for heterogeneous means, show one variable where there was a significant difference between the means of the variable for survivalist and micro/very small enterprises: ***12. New product or service identification and evaluation*** only, with a significance of $p=0.04577$. The

results seem to indicate a difference between micro/very small enterprises and the survivalists. The indication from the average overall scores above is also that micro/very small enterprises are more market orientated (MO) and therefore expresses more autonomy than the survivalists express. This supports the literature findings that MO is associated with performance. (Jarworski and Kohli, 1993; Hughes *et al.*, 2008). However, the difference between the two is not significant.

Table 5.6 shows the aggregate level of the construct variables and indicates that overall; there is no significant difference for the autonomy construct for the two samples for survivalist and the micro/very small enterprises. The p -value for the difference in means for survivalist and the micro/very small enterprises is 0.40743 ($p > 0.05$) and therefore shows no significance at a confidence interval level of 95% ($\alpha = 0.05$).

Table 6.2: Autonomy Hotelling (T^2)-test results

<i>EO Constructs</i>	<i>Hotelling T2</i>	<i>P</i>
Autonomy	4.48537	0.40743

Conclusion: No significant difference exists between survivalists and micro/very small enterprises in terms of the Autonomy construct of EO.

6.3.2 Research Question 2: Risk-taking

Research Question 2: Is there a difference among the different SMME categories in the level of risk-taking?

The questions and results related to Risk-taking

Figure shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for Risk-taking. The micro/very small enterprises expressed less confidence in terms of performing 3 of the 7 actions listed under the risk-taking construct compared to 2 for the survivalist (survivalists).

Areas where the scores were less than 50% are:

16. Obtain financing for a new business

- ◆ Both groups scored below 50%.

17. Start a business without adequate resources (e.g. no funding)

- ◆ micro/very small enterprises scored below 50%

18. Achieve high growth in your business

- ◆ micro/very small enterprises scored below 50%

21. Make a large profit when you sell your business

- ◆ survivalist scored below 50%

Survivalist scored higher for the following question:

19. Live with uncertainty

22. Walk away from a potential business failure

On risk-taking, micro/very small enterprises scored higher for the following questions:

20. Evaluate downside of risk (business risks)

Average overall score:

Survivalist : 63%

Micro/very small enterprise: 54%

Discussion of Results and Literature Findings and Conclusion

In terms of the overall score for the level of confidence for risk-taking, the survivalists scored higher (63%) than the micro/very small enterprises (54%)

The individual questions scores are shown in Figure 5.4.

The results in Table 5.5 on the *t*-test, for heterogeneous means, showed one variable where there was a significant difference between the means of the variable for survivalist and micro/very small enterprises: **18. Achieve high growth in your business** only, with a significance of $p=0.0347$. The results seem to indicate a difference between micro/very small enterprises and the survivalists. The indication from the average overall scores above is also that survivalists have more risk appetite than the micro/very small enterprises. The

results contradict literature that indicates that there is a positive relationship in risk-taking businesses performance. These findings on the positive relationship between risk taking and performance come from research conducted by Adeyemi-Bello (2001), where the sample was taken from not-for-profit organisations. McCarthy (2003) and A3 Consulting (2006) have indicated that risk-taking is contextual and will vary according to the personality of the individual right up to the industry the organisation operates in. The results are however not significant.

Table 5.6 shows the aggregation of the variables shows that overall; there is no significant difference for the risk-taking construct for the two groups (survivalist and the micro/very small enterprises). The p - value for the difference in means for survivalist and the micro/very small enterprises is 0.06568, ($p > 0.05$ and therefore shows no significance at a confidence interval level of 95% ($\alpha = 0.05$).

Table 6.3: Risk-Taking *Hotelling* (T^2) test results

<i>EO Constructs</i>	<i>Hotelling T^2</i>	<i>P</i>
<i>Risk-Taking</i>	18.2603	0.06568

Conclusion: No significant difference exists between survivalists and micro/very small enterprises in terms of the Risk-taking construct of EO.

6.3.2 Research Question 3: Innovation

Research Question 3: Is there a difference among the different SMME categories in the level of innovation?

The questions and results related to Innovation

Figure 5.5 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for innovation. Both the survivalist and micro/very small enterprises expressed confidence in terms of performing all of the actions listed under the innovation construct.

Survivalist did not score higher on any of the questions.

On innovation, micro/very small enterprises scored higher for the following questions:

23. Be an innovative problem solver
24. Be creative in using and controlling resources (funds, staff, etc...)
25. Develop creative solutions to difficult problems
26. Develop new products and services

Average overall score:

Survivalist : 73%

Micro/very small enterprise: 72%

Discussion of Results and Literature Findings and Conclusion

In terms of the overall score for the level of confidence for innovation, there is a little difference in the survivalists (73%) and the micro/very small enterprises (54%) The individual questions scores are shown in Figure 5.5.

The results in Table 5.5 on the *t*-test for heterogeneous means, shows that there was a significant difference between the means of the variable for survivalist and micro/very small enterprises on any of the variables for innovation. The results seem to indicate a difference between micro/very small enterprises in terms of expressed innovation orientation. This contradicts literature that found growth performance. These findings on the positive relationship between risk taking and performance.

Table 5.6 shows the aggregate level of the construct variables and indicates that overall there is no significant difference for the innovation construct for the two groups (survivalist and the micro/very small enterprises. The *p*- value for the difference in means for survivalist and the micro/very small enterprises is 0.58827 ($p > 0.05$ and therefore shows no significance at a confidence interval level of 95% ($\alpha = 0.05$).

Table 6.4: Innovation *Hotelling (T²)* test results

<i>EO Constructs</i>	<i>Hotelling T²</i>	<i>P</i>
<i>Innovation</i>	3.11604	0.58827

Conclusion: No significant difference exists between survivalists and micro/very small enterprises in terms of the Innovation construct of EO

6.3.3 Research Question 3: Proactiveness

Research Question 4: Is there a difference among the different SMME categories in the level of innovation?

The questions and results related to Proactiveness

Figure 5.6 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for innovation. Both the survivalist and micro/very small enterprises expressed confidence in terms of performing all of the actions listed under the innovation construct.

Survivalist scored higher for the following question:

In proactiveness, micro/very small enterprises scored higher for the following questions:

28. Put together a team of the “right” people

Average overall score:

Survivalist : 82%

Micro/v every small enterprise: 68%

Discussion of Results and Literature Findings and Conclusion

In terms of the overall score for the level of confidence for proactiveness, the scores of the micro/very small enterprises (68%) The individual questions scores are shown in Figure 5.6.

The results in Table 5.5 on the t-test, for heterogeneous means, shows that there was no significant difference between the means of the variables for s survivalist and micro/very small enterprises on any of the variables for innovation. The results seem to indicate that s survivalists have more learning orientation. This contradicts literature that found growth performance (Keskin, 2006) who found that firm innovativeness has a positive impact in performance.

Table 5.6 shows the aggregate level of the construct variables and indicates that overall there is no significant difference for the autonomy construct for the two samples for s survivalist and the micro/very small enterprises. The p - value for the difference in means for s survivalist and the micro/very small enterprises is 0.16281 ($p > 0.05$), and therefore shows no significance at a confidence interval level of 95% ($\alpha = 0.05$).

Table 6.5: Innovation t-test results

<i>EO Constructs</i>	<i>Hotelling T²</i>	<i>P-value</i>
<i>Innovation</i>	3.11604	0.58827

Conclusion: No significant difference exists between survivalists and micro/very small enterprises in terms of the Innovation construct of EO.

6.3.4 Research Question 4: Proactiveness

Research Question 4: Is there a difference among the different SMME categories in the level of proactiveness?

The questions and results related to Proactiveness

Figure 5.6 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for proactiveness. Both the survivalist and micro/very small enterprises expressed confidence in terms of performing all of the actions listed under the proactiveness construct.

Entrepreneurs only (survivalist) scored higher for the following question:

- 27. Identify new business opportunity
- 29. Identify market trends
- 30. Manage your own business
- 31. Engage in market research

In proactiveness, micro/very small enterprises scored higher for the following questions:

28. Put together a team of the “right” people

Average overall score:

Entrepreneur only (survivalist): 82%

Micro/very small enterprise: 68%

Discussion of Results and Literature Findings and Conclusion

In terms of the overall score for the level of confidence for proactiveness, the survivalists scored higher (82%) than the micro/very small enterprises (68%)

The individual questions scores are shown in Figure 5.6.

The results in Table 5.5 on the ANOVA (*t*-test), for heterogeneous means, shows that there was no significant difference between the means of the variables for survivalist and micro/very small enterprises on any of the variables for proactiveness. The results seem to indicate that survivalists have more learning orientation (LO) or strategic orientation and therefore express more confidence in terms of proactiveness than the micro/very small enterprises. This neither supports nor contradicts existing literature as even though LO is essential for business growth performance (Keskin, 2006) it mediates the relationship between market orientation (MO) and innovation IO. (Narver, 1995 in Hughes, 2008).

Table 5.6 shows the aggregate level of the construct variables and indicates that overall; there is no significant difference for the autonomy construct for the two samples for survivalist and the micro/very small enterprises. The p -value for the difference in means for survivalist and the micro/very small enterprises is 0.16281 ($p > 0.05$) is 0.06568, ($p > 0.05$) and therefore shows no significance at a confidence interval level of 95% ($\alpha = 0.05$).

Table 6.6: Proactiveness Hotelling (T^2) test results

<i>EO Constructs</i>	<i>Hotelling T^2</i>	<i>P</i>
<i>Proactiveness</i>	9.6265	0.16281

Conclusion: No significant difference exists between survivalists and micro/very small enterprises in terms of the Proactiveness construct of EO

6.3.5 Research Question 5: Competitive Aggressiveness

Research Question 5: Is there a difference among the different SMME categories in the level of competitive aggressiveness?

The questions and results related to Competitive Aggressiveness

Figure 5.7 shows the percentage of respondents that indicated that they are confident/ very confident when responding to the statements representing variables for competitive aggressiveness.

Both the micro/very small enterprises expressed less confidence in terms of performing 2 of the 7 actions listed under the competitive aggressiveness construct.

Areas where the scores were less than 50% are:

32. Beating competitors to enter new markets

- ◆ Micro/very small enterprises scored below 50%

34. Improving value to your customers through non-product means- such as through distribution, advertising, or other communications- before your competitors do

- ◆ Micro/very small enterprises scored below 50%

37. Pushing costs lower faster than competitors do

- ◆ Survivalist scored below 50%

38. Re-engineering your processes to make them more efficient than your competitors' processes

- ◆ Survivalist scored below 50%

In competitive aggressiveness, micro/very small enterprises scored higher for the following questions:

35. Pricing proactively (so competitors have to react to your prices)

36. Creating partnerships with the best partners in the industry before competitors enlist them

Average overall score:

Survivalist : 59%

Micro/very small enterprise: 62%

Discussion of Results and Literature Findings and Conclusion

In terms of the overall score for the level of confidence for autonomy, the micro/very small enterprises scored higher (62%) than the survivalists (59%). The individual questions scores are shown in Figure 5.7.

The results in Table 5.5 on the *t*-test, for heterogeneous means, show one variable where there was a significant difference between the means of the variable for survivalist and micro/very small enterprises: **37. Pushing costs lower faster than competitors do** only, with a significance of $p=0.0138$. The indication from the average overall scores above is also that micro/very small expresses more competitive aggressiveness than survivalists do. This neither supports nor contradicts existing literature as none of the literature reviewed showed a direct link of competitive aggressiveness and growth performance.

Narver and Stanley (1990) and García-Morales *et al* (2006) linked competitive aggressiveness to the other constructs of EO, where they are shown to mediate the relationship between competitive aggressiveness and growth performance.

Table 5.6 shows the aggregate level of the construct variables and indicates that overall; there is no significant difference for the autonomy construct for the two samples for survivalist and the micro/very small enterprises. The p - value for the difference in means for survivalist and the micro/very small enterprises is 0.00004 ($p < 0.05$) and therefore shows significance at a confidence interval level of 95% ($\alpha = 0.05$).

Table 6.7: Competitive Aggressiveness *Hotelling (T^2)* test results

<i>EO Constructs</i>	<i>Hotelling T^2</i>	<i>P</i>
<i>Competitive Aggressiveness</i>	62.9895	0.00004

Conclusion: No significant difference exists between survivalists and micro/very small enterprises in terms of the Proactiveness construct of EO.

6.4 Discussion of significance of variances in Age and Levels of Education

6.4.1 Research Question 6: Age of Entrepreneur

Research Question 6: Is there a difference among the different SMME categories in terms of age?

Research Results

The results of the Pearson Chi-square are 1.30354, DF=1, $p=.253571$

The chi-square p -value looking at the variances between ages of entrepreneurs for the two groups showed no significant variance at a confidence interval level of 95% ($\alpha = 0.05$) with a p -value = 0.253571 ($p>0.05$).

Discussion of Results and Literature Findings and Conclusion

In light of the research by Kropp *et al.* (2008), which found in its study of South African entrepreneurs that found that for international entrepreneurial business venture (IEBV), older entrepreneur were more successful, the results are inconclusive. A larger more representative sample will have to be collected to run parametric statistics. The results do however support the study by

Smallbone *et al* (1995) which found that the age characteristic was not a factor in venture success.

In light of the research by (Kropp *et al.*, 2008; Lindsay *et al*, 2008 in Kropp *et al*, 2008) which suggests an inverse relationship to venture formation the results are inconclusive. Research will have to be conducted with a larger sample to determine if the relationship exists.

Conclusion: No significant difference exists between survivalists and micro/very small enterprises in terms of the age of the entrepreneur.

6.4.2 Research Question 7: Level of Education

Research Question 7: Is there a difference among the different SMME categories in terms of levels of education of the entrepreneur?

Research Results

The results of the Pearson Chi-square are 13.9885, DF=1, $p=0.000184$

The chi-square p -value looking at the variances between the levels of education for the entrepreneurs for the two groups showed that a significant variance at a confidence interval level of 95% ($\alpha = 0.05$) exists with p -value = 0.000184 ($p < 0.05$).

Discussion of Results and Literature Findings and Conclusion

The results show that there is a significant difference between the survivalist and micro/very small entrepreneurs in terms of age.

Table 5.8 in chapter 5 shows that the majority of survivalists have a Matriculation certificate or less (71.4%) and in contrast, the micro/very small enterprises have a Post-Matric qualification or higher education (92.9%).

The results support the thinking expressed in the Northern Cape Government's document titled SMME Development Strategy Contemporary Thinking at the National Department of Trade and Industry on the National Framework Required for SMME Development (accessed on 04/11/2008); See Figure 6.1 below. Informal businesses generally have low education levels.

6.1 The difference in skills levels: Formal Small Businesses vs. Informal Survivalists

Formal Small Businesses	Informal Survivalists
<i>2. Skills Levels</i>	
Highly educated, skilled, experienced and employable. Previously employed in the formal / corporate sector where most of their business experience has been gained and opportunities in the market place identified.	Generally low education levels. Poorly skilled with no business experience. Will immediately take on any employment opportunity when presented.

(Source: Extract from -SMME Development Strategy: Contemporary Thinking at the National Department of Trade and Industry on the National Framework Required for SMME Development (2008))

The results indicate that comparing the survivalist and the micro/very small enterprises, one is more likely to find people with higher levels of education and skill. The explanation given in Figure 6.1 regarding skills acquired in the formal or corporate sector could explain the higher level of autonomy seen in the Figure 5.3. There is no conclusive proof to support this as it was not investigated as part of the study. The higher levels of autonomy will be linked to their ability to network and obtain information as they are able to “bridge the divide “ between the formal and the informal economy.

Conclusion: A significant difference exists between survivalists and micro/very small enterprises in terms of the level of education of the entrepreneur.

6.5 Discussion of Results: Explanation of differences using EO constructs

Using the Literature Review summary statement to explain the difference seen in data between survivalists and the micro/very small enterprises. The literature review table has been enriched with the results and is shown below (Table 6.7).

Table 6.2: Summary of the EO constructs interaction with scores for level of confident (Confident & Very Confident)

Construct	Statement	Survivalist	Micro/Very Small
AUTONOMY (MARKET ORIENTATION (MO))	<p>Market orientation is positively associated with performance</p> <p>MO does not have a direct influence on firm performance.</p> <p>Strong interactions between social interactions and autonomy</p>	61%	74%
RISK-TAKING	<p>A managed risk-taking action within the paradigm of LO is required to capture the full benefit of market orientation</p> <p>LO enhances the process of monitoring customers and competitors, the distribution and interpretation of information, leading to reactive market oriented action.</p> <p>Successful entrepreneurs take calculated risks</p> <p>Risk is contextual and depends on a number of factors including organisational history, crisis, presence of partners in the organisation, the dilution of ownership over time, changing business strategy and the business environment.</p> <p>Young, high-risk individuals have a positive influence on growth of organisations.</p> <p>Performance to be positively correlated to innovation, but there is no causality.</p> <p>Firm innovativeness in has a positive impact on performance</p> <p>Incubators also offer entrepreneurs networking opportunities, which lower their costs of accessing and gathering information (MO activities).</p> <p>MO and Learning Orientation (LO) SMEs facing strong competition tend to be more innovative.</p> <p>IO/MO relationship is mediated by LO</p>	63%	54%
INNOVATION ORIENTATION	<p>LO mediates the relationship between MO and IO</p> <p>MO and LO as important contributors to SMEs' product-related innovative performance.</p>	73%	72%
PROACTIVENESS/LEARNING ORIENTATION	<p>IO and OL to jointly promote organizational entrepreneurship and to increase Competitive advantages</p>	82%	68%
COMPETITIVE AGGRESSIVENESS		59%	62%

6.5.1 Introduction

Table 6..8 is a summary of the findings in the literature review used to explain the data set by examining the EO construct interactions using the conceptual models from existing research and literature to obtain insights on the differences in EO between survivalists and micro/very small enterprises.

6.5.2 Discussion

If we take autonomy as a starting point and analyse the data using the interactions between the EO constructs we find that survivalist entrepreneurs scored lower on autonomy. From the statements associated with MO, we know that performance is positively associated with autonomy (Table 6.2), and autonomy does not influence performance directly. We now have to look at the drivers of autonomy and the mediators of autonomy.

According to Chen *et al*, (2007) there are strong interactions between social interactions and autonomy, and *also has a positive influence on proactiveness, autonomy, risk assumption, and innovation*. Day and Reynolds (2006), propose that SMEs should seek advice because information is asymmetric in its distribution. So in order to grow autonomy, you need to increase the “right” kind of social, interactions and encourage the survivalist to seek advice from external stakeholders. What is not known is the path that the social interactions take to influence proactiveness, autonomy, risk assumption and innovation. The assumption will be that the statements in table 6.2 would still hold true with social interactions having a direct impact on autonomy. It is also hypothesised

that the social interactions would also have an impact on proactiveness or learning orientation.

Seeking advice from external stakeholders has been linked to better assessment of risk (A3 consulting, 2006) although both the survivalist and the micro/very small enterprises scored low for most of the risk variables, survivalists scored lower than the micro/very small enterprise on assessing the downside of risk. This could be an indication of a skills gap that exists for the survivalist. This has some implications on proactiveness and decision-making and strategy formulation (most survivalists are not seen as having a planning orientation (Mtigwe, 2005). According to Hughes *et al* (2008), a managed risk-taking action within the context of proactiveness (planning and strategy), is required in order to capture the full benefit of market orientation / autonomy.

On proactiveness, the survivalists scored low on putting together a team of the “right” people. They scored much higher than micro/very small enterprise on the other strategic variables of proactiveness. The variable LO has been described by García-Morales, *et al* (2006) in terms of “personal mastery, transformational leadership, shared vision, proactiveness and environment” and Hughes *et al.*, (2008)’s finding were that LO proved to be positively associated with strategic proactiveness suggesting that firms exhibiting a propensity to strategize proactively and act before the competition.

For competitiveness, the micro/very small enterprises scored higher on:

35. *Pricing proactively (so competitors have to react to your prices)*

36. *Creating partnerships with the best partners in the industry before competitors enlist them*

Competitiveness is the one construct of EO where significant difference between the two groups was found.

Survivalists score higher on proactiveness. The proactiveness scores could be interpreted in one of two ways. The first one being that these survivalist entities are scoring higher because they are primed for growth and ready for the next phase or this particular group (that makes use of the SEDA Information Centres and/or incubators), compared to peers who do not make use of support services, will outperform their peer group.

Although survivalists scored higher on proactiveness/LO, the high scores are mainly based on what I will refer to as the long-term outlook autonomy (product evaluation vs. product development, gathering data vs. market research etc...). The literature revealed that autonomy/ MO has a positive impact on innovation or innovation orientation (IO), through generating customer information and knowledge, and developing and then implementing a marketing plan etc... but this relationship is mediated by LO (willingness to challenge assumptions, values, and beliefs) (Salavou *et al.*, 2004; Hughes *et al.*, 2008). Willingness to challenge assumptions, values, and beliefs implies continuously reviewing what you are doing and how you are doing it. Jaworski and Kohli (1993) refers to expectations of customers continually evolving over time and delivering consistently high quality products and services requiring ongoing tracking and responsiveness to changing marketplace needs.

Keskin (2006), asserts that market orientated organisations are inherently learning organizations. Keskin (2006) also found innovation to have a positive impact on performance. On innovation, both survivalist and micro/very small enterprises scored almost the same (with survivalists scoring slightly higher). Yet the micro/very small enterprise show growth (no. of employees) and the survivalist does not.

Although innovation is high, we are not seeing the shows a positive impact on performance (Keskin, 2006), we are not seeing that on survivalists. This indicates that other factors exist that influences the IO performance relationship. One of the reasons could be the differences in innovation. Findings are that SMEs, due to financial constraints, do not innovate on products but rather along the value chain (Salavou *et al.*, 2004). This could explain the difference that shows up in the competitiveness construct.

Reasons stated for starting business

Forty-eight percent of the survivalists started the business because they identified an opportunity compared to 65% of the micro/very small enterprises. Small business is 67%. The survivalists are four times more likely to start a business because they could not find employment elsewhere.

Table 6.8: Reasons for starting business

Firm Size	Reason for starting own business				
	Business Opportunity identified	Couldn't find opportunities for employment	Own boss	Other	Grand Total
Survivalist	48%	24%	19%	10%	21
Micro/ Very Small	65%	6%	18%	12%	17
Small	67%	0%	17%	17%	6
Large	0%	100%	0%	0%	1
Grand Total	25	7	8	5	45
%	56%	16%	18%	11%	100%

Reynolds *et al.* in Monchrie, Galloway and Donnelly (2006) According to existing research “opportunity entrepreneurship” (start-up based on opportunity perception and realisation) are more likely to achieve business growth compared to “necessity entrepreneurship” (start-up based on necessity in the absence of alternatives economic options).

7 CHAPTER 7: CONCLUSION

7.1 Introduction

In this chapter, a summary of the findings is provided and conclusions are drawn regarding the main findings of this study. Stakeholder recommendations re provided as well as direction for future research. .

The insights discussed in this report are from the data analysis and the understanding gained from literature regarding the interactions of the EO constructs. The point raised in the literature is that the interactions of the EO constructs are not yet fully understood and they may differ depending on the sector and competitiveness of the environment in which the business operates.

7.2 Findings

7.2.1 Autonomy

Micro/very small enterprises show a higher level of autonomy than survivalists do. Although this is not at a significant level, the reported results of the categories show that in particular, survivalists show less confidence in ability to actively gathering the relevant market-related information that can assist them in better decision-making process. According to existing literature, social interactions positively influence proactiveness, autonomy, innovation and risk-assumption. This is thought to be because of the location of their businesses,

which are mostly far from the formal market, this does not afford them many opportunities to engage with the market and other sector stakeholders.

7.2.2 Risk

Access to funding is a major problem for both the survivalist and the micro/very small entrepreneur.

Micro/very small enterprises indicated less confidence in starting a business without adequate funding, whereas survivalists indicated that they are able to do so. The survivalists have indicated that they are confident to start a business without adequate resources and accessing funding is difficult. There is an indication, therefore, that the micro/very small entrepreneurs is less likely to have started out as a survivalist and has now grown the business to a micro/very small enterprise.

The survivalists score high on risk because they are unable to assess the downside of risk due to them not having access to the information required to assess risk. They also score high on being able to live with uncertainty because have accepted that they can never have the right information to make decisions. Risky behaviour has sometimes been associated with young entrepreneurial firms on a growth path. However, this has mostly been associated with firms operating in the formal sector.

Micro/very small enterprises also indicated less confidence in growing their business. This could be because of existing barriers or by choice. Sixty-five percent of them indicated that they identified a business opportunity, with only 6%, compared to 24% for survivalists, who could not find other opportunities. The expectation would be that the micro/very small would score higher on growing the business and making a profit.

7.2.3 Proactiveness

The micro/very small enterprises seem to have a good handle on delegation powers, being able to put the right team of people together. This is probably because they already have employees working for them. The survivalist, being a “one-man show” has scored higher on operational variables. Perhaps this is what frees up time for the micro/very small entrepreneur to focus on more strategic issues. Survivalists are operationally focused and they have to be because they are the only person in the business.

7.2.4 Competitive Advantage

Micro/very small enterprises are not actively competing in the market. Although overall, they scored higher than the survivalist group. They scored below 50% on things like trying to enter new market and improving value for their customers. They have a strategic outlook in that they feel confident about forming partnerships, and price proactively so competitors can react to their prices. This is probably because they have access to information, which they can selectively use in a strategic manner. The degree of confidence they have

about forming partnerships is also probably because they have the opportunity or access to a wider network of business people than the survivalists.

7.2.5 Level of Education as a factor

Education was shown to be significantly different between the survivalist and micro/very small enterprises. The differences between the groups are quite significant with 92.9% of micro/ very small having a post-matric qualification compared to 7.1% of the survivalists. Education could explain the difference in competitive aggressiveness but for another reason other than just skills. The link between education and the higher level of autonomy is an area that should be investigated further with regards to SMMEs. It has not directly been investigated in the larger businesses in which most of the EO and CE research has been concentrated. In large businesses, people normally have a higher education level and the focus of the research has been on networks.

7.3 Recommendations

The recommendations listed below have been grouped according to the two main stakeholder groups identified: Incubator /Business Support services and the policy makers.

1) Incubator / Business Support Services

- The services provided to SMMEs need to go beyond merely giving advice and providing infrastructure (in the case of incubators). The SMME need access to relevant reliable market information.
- Fostering networks as part of the service offered by the incubators and information services will go a long way towards ensuring that the survivalist group can also have access to the formal market. This will grow their autonomy and allow them to compete more effectively in the market. B-BBEE(Broad-Based Black Economic Empowerment), provides the best opportunity for this as many businesses may not know how to link up with survivalist enterprises as part of their Enterprise Development initiatives and incubators and support services can play a critical role in linking up these parties.

2) Policy makers

- It is important to understand the growth potential of SMMEs and the needs of each group to enable them to grow to the next stage. The research seems to indicate that micro/ very small business category may not represent the “former survivalist” and as such they may require interventions that are different from the ones being offered by support services like SEDA. More research has to be conducted to better understand this group and look at the sub-categories.

- A focus on ensuring that SMMEs can access relevant market-related information by providing cost-effective services to them. The cost of seeking information is too high for the survivalist. It is time, margins (due to cost of undertaking the research) and lost revenue. Assistance can be provided by understanding how these businesses access information and then appropriate programmes can be designed around that.

7.4 Directions for future research

- This report only address two of the five SMME categories, it is recommended that further research could be undertaken on a larger scale to include all SMME categories.
- The research could also investigate the difference between entrepreneurs who make use of support services and those who do not use the services.
- Understanding how SMMEs access information in South Africa .
- On the risk component, survivalists scored much higher. It is hypothesised that this is the cost they pay for not having access to information. It is recommended that an investigation be undertaken to quantify this cost.
- Could product innovation explain the differences in the difference in competitiveness between survivalists and micro/very small enterprises?

- In the research conducted by Keskin (2006), market orientation/ proactiveness were found to have no direct impact on performance. The sample that was used was skewed toward manufacturing firms who need to innovate on products, sometimes with long lead times. The research by Hughes *et al.*, (2008) was based on high-technology firm SBUs. Could the differences in results be explained by sector differences and the pace of innovation?
- Which of EO constructs is more important for SMEs in a particular sector or phase in the growth cycle.
- In addition to the above, an investigation as to whether
- Answers to such questions would have important implications, e.g. on the type of capabilities that SMEs should seek to develop or on supportive policies.

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8 Appendices

APPENDIX 1: SMME categories

Sector or subsectors in accordance with the Standard Classification	Industrial	Size class	Total full-time equivalent of paid employees	Total annual turnover	Total gross asset value (fixed property excluded)
			Less than	Less than	Less than
Agriculture	Medium	120	R 4.00 m	R 4.00 m	
	Small	50	R 2.00 m	R 2.00 m	
	Very small	10	R 0.40 m	R 0.40 m	
	Micro	5	R 0.15 m	R 0.10 m	
Mining and Quarrying	Medium	200	R30.00 m	R18.00 m	
	Small	50	R 7.50 m	R 4.50 m	
	Very small	20	R 3.00 m	R 1.80 m	
	Micro	5	R 0.15 m	R 0.10 m	
Manufacturing	Medium	200	R40.00 m	R15.00 m	
	Small	50	R10.00 m	R 3.75 m	
	Very small	20	R 4.00 m	R 1.50 m	
	Micro	5	R 0.15 m	R 0.10 m	
Electricity, Gas and Water	Medium	200	R40.00 m	R15.00 m	
	Small	50	R10.00 m	R 3.75 m	
	Very small	20	R 4.00 m	R 1.50 m	
	Micro	5	R 0.15 m	R 0.10 m	
Construction	Medium	200	R20.00 m	R 4.00 m	
	Small	50	R 5.00 m	R 1.00 m	
	Very small	20	R 2.00 m	R 0.40 m	
	Micro	5	R 0.15 m	R 0.10 m	
Retail and Motor Trade and Repair Services	Medium	120	R30.00 m	R 5.00 m	
	Small	50	R15.00 m	R 2.50 m	
	Very small	10	R 3.00 m	R 0.50 m	
	Micro	5	R 0.15 m	R 0.10 m	
Wholesale Trade	Medium	120	R50.00 m	R 8.00 m	
	Small	50	R25.00 m	R 4.00 m	
	Very small	10	R 5.00 m	R 0.50 m	
	Micro	5	R 0.15 m	R 0.10 m	
Commercial Agents and Allied Services	Medium	120	R50.00 m	R 8.00 m	
	Small	50	R25.00 m	R 4.00 m	
	Very small	10	R 5.00 m	R 0.50 m	
	Micro	5	R 0.15 m	R 0.10 m	
Catering	Medium	120	R10.00 m	R 2.00 m	
	Small	50	R 5.00 m	R 1.00 m	
	Very small	10	R 1.00 m	R 0.20 m	
	Micro	5	R 0.15 m	R 0.10 m	
Transport	Medium	120	R20.00 m	R 5.00 m	
	Small	50	R10.00 m	R 2.50 m	
	Very small	10	R 2.00 m	R 0.50 m	
	Micro	5	R 0.15 m	R 0.10 m	
Storage	Medium	120	R20.00 m	R 5.00 m	
	Small	50	R10.00 m	R 2.50 m	



	Very small Micro	10 5	R 2.00 m R 0.15 m	R 0.50 m R 0.10 m
Communications	Medium Small Very small Micro	120 50 10 5	R20.00 m R10.00 m R 2.00 m R 0.15 m	R 5.00 m R 2.50 m R 0.50 m R 0.10 m
Finance	Medium Small Very small Micro	120 50 10 5	R20.00 m R10.00 m R 2.00 m R 0.15 m	R 4.00 m R 2.00 m R 0.40 m R 0.10 m
Business Services	Medium Small Very small Micro	120 50 10 5	R20.00 m R10.00 m R 2.00 m R 0.15 m	R 4.00 m R 2.00 m R 0.40 m R 0.10 m
Community	Medium Small Very small Micro	120 50 10 5	R10.00 m R 5.00 m R 1.00 m R 0.15 m	R 5.00 m R 2.50 m R 0.50 m R 0.10 m
Social and Personal Services	Medium Small Very small Micro	120 50 10 5	R10.00 m R 5.00 m R 1.00 m R 0.15 m	R 5.00 m R 2.50 m R 0.50 m R 0.10 m

APPENDIX 2: Coded Questionnaire

Dear Respondent,

Thank you for taking the time to complete this questionnaire. It will take you approximately 10 - 15 minutes to answer all the questions listed below.

Research: **ENTREPRENEURIAL ORIENTATION IN SMMEs**

The Accelerated and Shared Growth Initiative for South Africa (AsgiSA) has set out targets to halve poverty, create jobs and reduce unemployment by 2014 and SMMEs have been identified as one of the critical components in achieving the stated objectives.

The research will contribute in identifying the developmental needs in each of the different categories of SMMEs in order to drive growth.

Your participation in completing this questionnaire is required to gain an understanding in this area and will contribute to the field of entrepreneurship and business development.

All information provided will be kept treated in the strictest confidence and will only be used for the research purposes.

Please tick box below to indicate that you give consent for the information provided in this document to be used for research purposes. No personal data will be used in the research report and the information provided will not be used for any purposes other than the academic purpose it has been collected for.

Please tick here for consent

Instructions for completing questionnaire

The document will either be distributed via e-mail or as a hard copy.

E-mail instructions:

Open document and save under your "My documents" folder

Complete the questionnaire by clicking on the boxes using your mouse.

Remember to save changes. *To de-select boxes – double click on selection.*

Once questionnaire has been completed. Send the document as an attachment to:

bulelwanoma@perago.com

Hard Copy instruction:

Complete document manually

Fax to: [011 802 6606](tel:0118026606) or alternatively scan and e-mail to bulelwanoma@perago.com

Thank you for participating in the research.

If you encounter any difficulties with the questionnaire, please contact:

Bulelwa Noma - 012 470 4864 or 0828411488

NB: *Select one option per question. (Please mark with a tick or an "x". If you make a mistake, un-tick if completing electronically or (black out the box if completing manually).*

Section I: Biographical information

What is your age? (Please tick applicable category)

- 1 Under 19 2 19-25 3 26-30 4 31-40 5 40+

What is your gender (Please tick one)

- 1 Male 2 Female

What is your highest formal education? (Please tick one)

- 1 Matric or less 2 Post-Matric or Diploma 3 Degree
4 Masters/ Doctorial Degree 5 Other

Section II: Organisational Profile

What is your role in the business?

- 1 Owner
2 Manager
3 Owner and Manager
4 Other (Please specify)

How long has the business been operating?

- 1 0-2 years
2 3-5 years
3 5-10 years
4 10+ years

Reason for starting Business (Please tick one)

- 1 Business Opportunity identified
2 Could not find other opportunities for employment
3 Inherited Family Business
4 Own boss
 Flexible working hours
 Other Reasons (Write Reason Below)

Which economic sector would you classify your business under?



- 1 Agriculture
- 2 Business Services
- 3 Communication
- 4 Construction
- 5 Customer Services
- 6 Education
- 7 Finance
- 8 Health Care
- 9 Manufacturing
- 10 Mining
- 11 Motor Vehicle Sales and Repairs
- 12 Social Services
- 13 Transport,
- 14 Wholesale
- 15 Other

If other, please specify

Size of firm (employees) - (Please tick one)

- 1 Entrepreneur Only (Survivalist)
- 2 1-5 (Micro- Enterprise)
- 3 6-9 (Very Small Enterprise)
- 4 10 - 49 (Small Enterprise)
- 5 More than 50 but less than 100 (Medium Enterprise)
- 6 More than 100

What is the annual turnover? (please select applicable range)

- 1 Less than R200,000
- 2 R200, 000 - R499,999
- 3 R500,000 - less than R3 million
- 4 R3 million - less than 6 million
- 5 R6 million - less than R13 million
- 6 Over 13 million

Is the business VAT registered?

1 Yes

2 No

Is the business formally registered?

1 Yes

2 No

Section III: Entrepreneurial Orientation Constructs

Please indicate the extent you feel that you comfortable and/ or capable of performing the following actions (please select one option).

Guide: Not at all confident = need a lot of assistance, somewhat confident = need some assistance, Confident = Able to complete without assistance, Very Confident = completely capable

		1	2	3	4	5
		<i>Not at all confident</i>	<i>Somewh at confident</i>	<i>Unsure</i>	<i>Confident</i>	<i>Very Confident</i>
1.	New product or service identification and evaluation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Identification and monitoring of market trends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Critically reviewing a business concept and forming a team to pursue a venture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Obtain information that you need (on customers, competitors etc..) from different sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Obtain financing for a new business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Start a business without adequate resources (e.g. no funding)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Achieve high growth in your business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Live with uncertainty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Evaluate downside of risk (business risks)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Make a large profit when you sell your business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Walk away from a potential business failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Be an innovative problem solver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Be creative in using and controlling resources (funds, staff, etc...)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Develop creative solutions to difficult problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	Develop new products and services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	Identify new business opportunity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		<i>Not at all confident</i>	<i>Somewh at confident</i>	<i>Unsure</i>	<i>Confident</i>	<i>Very Confident</i>
17.	Put together a team of the “right” people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	Identify market trends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	Manage your own business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	Engage in market research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.	Beating competitors to enter new markets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	Introducing new products or services before your competitors do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	Improving value to your customers through non-product means- such as through distribution, advertising, or other communications- before your competitors do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.	Pricing proactively (so competitors have to react to your prices)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.	Creating partnerships with the best partners in the industry before competitors enlist them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.	Pushing costs lower faster than competitors do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27.	Re-engineering your processes to make them more efficient than your competitors’ processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for taking the time to complete this questionnaire.

If you have any further questions or concerns, regarding the questionnaire, you can contact the researcher using the details on top of the questionnaire or you are also welcome to contact my research supervisor:

Supervisor: Aldrin Beyer

E-mail: beyera@gibs.co.za

Phone: 011 771 4205



APPENDIX 3: DATA

Table 9.1: Section I: Biographical information

Respondent	Age	Gender	Education Level
1	5	1	2
2	3	1	2
3	5	1	4
4	5	2	2
5	2	1	1
6	2	1	3
7	2	1	3
8	2	1	1
9	4	2	1
10	5	1	1
11	3	1	1
12	3	2	1
13	3	1	1
14	4	1	2
15	2	1	1
16	2	2	1
17	3	1	2
18	4	1	1
19	2	1	1
20	5	1	2
21	4	1	3
22	5	1	5
23	5	1	1
24	4	1	2
25	3	1	4
26	4	2	4
27	5	1	1
28	4	2	4
29	4	1	2
30	4	2	1
31	4	1	4
32	4	2	4
33	5	1	1
34	5	2	1
35	4	1	2
36	5	1	5
37	3	1	5
38	5	1	2
39	2	1	3
40	2	2	2
41	5	2	2
42	4	1	5
43	3	1	1
44	3	1	3
45	2	2	1

Table 9.2: Section II: Organisational Profile

Respondent	Role in Bus.	Yrs Operating	Reason for starting Bus.	Sector	Firm size	Annual Turnover	VAT Registration	Formal Registration of Business
1	2	4	6	2	4	2	2	1
2	1	3	4	4	2	1	1	1
3	3	3	1	2	4	5	1	1
4	1	.	2	9	1	1	1	1
5	1	1	4	9	1	1	2	1
6	3	1	1	9	1	1	1	1
7	1	1	1	9	1	1	2	1
8	1	1	1	9	1	1	2	1
9	1	1	1	9	1	1	2	1
10	1	1	1	9	1	1	2	1
11	1	1	1	9	1	1	2	1
12	1	1	1	9	1	1	2	1
13	1	1	4	9	1	1	2	1
14	3	1	4	9	1	1	2	1
15	1	1	6	9	1	1	2	1
16	1	1	1	9	1	1	2	1
17	3	1	1	9	4	3	1	1
18	1	1	1	9	1	1	2	1
19	1	1	2	9	1	1	2	1
20	3	1	1	9	2	2	2	1
21	1	2	1	15	1	1	2	1
22	3	4	6	15	2	1	1	1
23	1	1	2	9	1	1	1	1
24	1	2	4	15	2	5	1	1
25	1	1	1	15	2	3	2	1
26	3	1	1	2	2	2	2	1
27	1	1	2	14	1	1	2	2
28	1	1	1	2	2	2	1	1
29	3	2	6	3	1	1	1	1
30	3	2	1	2	2	2	1	1
31	3	1	6	15	2	3	1	2
32	1	1	1	2	2	2	1	1
33	1	1	2	9	1	1	1	1
34	1	1	4	7	1	1	2	1
35	1	2	4	15	2	4	1	1
36	1	3	2	2	6	3	1	1
37	3	1	1	15	2	2	2	1
38	1	4	2	2	2	3	1	1
39	3	1	1	9	2	1	2	1
40	1	1	1	9	2	1	2	1
41	3	4	1	2	2	3	1	1
42	3	2	1	3	2	3	2	1
43	2	2	1	3	4	4	2	1
44	1	3	4	2	4	6	1	1
45	3	1	1	15	4	1	1	1

Table 9.3: Section III: Entrepreneurial Orientation Constructs – Autonomy

Respondent	Autonomy			
	12. New product or service identification and evaluation	13. Identification and monitoring of market trends	14. Critically reviewing a business concept and forming a team to pursue a venture	15. Obtain information that you need (on customers, competitors etc..) from different sources
1	4	4	4	5
2	4	2	4	4
3	4	5	4	5
4	5	2	5	5
5	4	4	4	4
6	4	4	4	5
7	3	5	4	4
8	3	4	4	4
9	3	4	3	3
10	1	4	5	4
11	4	2	3	2
12	3	3	3	3
13	4	3	3	3
14	4	3	4	3
15	5	4	4	3
16	5	5	5	4
17	5	4	3	4
18	3	5	4	4
19	4	4	4	4
20	4	4	4	4
21	4	4	2	4
22	5	5	5	5
23	2	4	5	4
24	5	3	5	4
25	4	4	4	4
26	4	1	4	1
27	3	4	2	2
28	3	5	5	4
29	2	3	3	3
30	4	3	4	2
31	4	3	3	3
32	3	5	5	4
33	2	4	5	4
34	5	2	4	2
35	5	4	5	5
36	4	4	3	2
37	4	4	2	2
38	4	4	4	4
39	4	4	4	5
40	4	2	4	5
41	4	2	2	2
42	4	4	4	2
43	5	5	5	5
44	5	3	5	4
45	4	4	1	4

Table 9.4: Section III: Entrepreneurial Orientation Constructs - Risk-taking

Respondent	Risk-taking						
	16. Obtain financing for a new business	17. Start a business without adequate resources (e.g. no funding)	18. Achieve high growth in your business	19. Live with uncertainty	20. Evaluate downside of risk (business risks)	21. Make a large profit when you sell your business	22. Walk away from a potential business failure
1	2	2	4	2	4	4	1
2	4	4	4	4	3	4	4
3	4	5	4	4	4	5	4
4	2	5	4	2	5	4	4
5	3	4	4	4	4	3	4
6	4	5	5	4	4	4	4
7	4	4	4	2	3	3	4
8	3	5	5	4	5	4	4
9	3	4	4	4	4	4	3
10	3	4	4	4	4	3	4
11	4	5	4	4	4	5	4
12	3	5	4	4	3	3	4
13	4	4	4	3	3	3	4
14	4	5	4	3	4	3	4
15	4	4	5	5	4	3	5
16	4	4	5	3	5	5	3
17	3	2	5	4	3	4	3
18	4	4	3	4	5	4	5
19	3	4	4	4	4	3	4
20	4	4	4	2	4	4	2
21	1	4	2	2	2	2	2
22	5	2	3	3	4	4	4
23	3	2	4	2	3	4	4
24	4	4	4	4	4	4	4
25	3	3	4	4	4	3	3
26	2	3	2	3	4	4	4
27	2	1	1	1	2	1	1
28	3	3	3	4	4	4	4
29	1	3	5	3	1	3	1
30	2	5	4	5	3	4	3
31	3	2	3	2	2	1	2
32	3	3	3	4	4	4	4
33	3	2	5	2	3	4	4
34	4	4	4	2	4	4	4
35	4	4	4	4	4	4	4
36	1	3	1	2	4	1	2
37	2	2	2	4	2	2	3
38	3	3	2	4	2	3	3
39	4	5	5	4	5	3	5
40	2	5	2	3	4	4	5
41	1	1	5	3	4	4	3
42	2	4	1	4	3	3	3
43	4	4	5	1	3	5	1
44	2	4	5	5	4	5	5
45	1	4	5	3	5	4	2

Table 9.5: Section III: Entrepreneurial Orientation Constructs – Innovation

Respondent	Innovation			
	<i>23. Be an innovative problem solver</i>	<i>24. Be creative in using and controlling resources (funds, staff, etc...)</i>	<i>25. Develop creative solutions to difficult problems</i>	<i>26. Develop new products and services</i>
1	4	4	4	4
2	1	3	3	3
3	5	5	5	.
4	4	4	4	4
5	4	4	3	4
6	4	5	4	5
7	3	3	5	4
8	4	4	4	3
9	4	4	4	3
10	4	3	4	4
11	3	4	4	4
12	4	4	3	4
13	4	4	3	3
14	4	4	3	4
15	4	4	4	5
16	5	5	5	5
17	5	5	5	5
18	4	4	4	4
19	4	4	4	4
20	4	4	4	4
21	4	2	4	5
22	5	5	5	5
23	4	2	4	2
24	5	5	5	5
25	4	4	3	4
26	4	4	4	2
27	4	3	2	2
28	4	4	4	4
29	2	2	3	2
30	5	5	5	5
31	4	4	4	2
32	4	4	4	4
33	4	2	4	2
34	5	4	4	5
35	4	4	4	4
36	5	4	4	3
37	2	2	4	4
38	5	3	5	4
39	5	5	4	5
40	5	2	2	2
41	5	4	5	5
42	5	5	5	4
43	5	5	5	5
44	5	4	5	5
45	5	5	4	5

Table.9.6: Section III: Entrepreneurial Orientation Constructs – Proactiveness

Respondent	Proactiveness				
	<i>27. Identify new business opportunity</i>	<i>28. Put together a team of the "right" people</i>	<i>29. Identify market trends</i>	<i>30. Manage your own business</i>	<i>31. Engage in market research</i>
1	4	5	5	5	5
2	4	5	2	5	2
3	4	5	5	5	5
4	4	4	4	5	5
5	4	4	4	4	4
6	4	3	4	5	5
7	4	4	3	4	3
8	4	4	5	5	4
9	4	4	4	5	4
10	4	4	4	4	5
11	4	3	3	5	4
12	4	3	4	4	4
13	4	3	4	4	4
14	4	3	4	5	.
15	5	5	5	5	4
16	5	4	4	4	4
17	5	5	5	5	5
18	4	4	3	5	4
19	4	5	5	5	4
20	4	5	5	5	5
21	4	2	4	2	2
22	5	5	5	5	5
23	4	4	4	2	4
24	5	5	4	5	4
25	4	4	3	4	4
26	4	4	3	4	3
27	4	3	4	4	1
28	3	2	2	2	2
29	5	2	1	4	4
30	4	5	4	5	4
31	1	2	1	4	1
32	3	2	2	2	2
33	4	4	4	2	4
34	4	4	3	5	5
35	5	5	4	5	4
36	4	3	4	4	4
37	4	4	4	2	4
38	4	3	3	4	2
39	5	5	5	5	5
40	4	3	5	5	3
41	5	4	4	4	4
42	2	4	4	5	3
43	5	5	4	5	4
44	5	5	3	5	3
45	4	5	5	5	5

Table 9.7: Section III: Entrepreneurial Orientation Constructs - Competitive Aggressiveness

Respondent	Competitive Aggressiveness						
	32. Beating competitors to enter new markets	33. Introducing new products or services before your competitors do	34. Improving value to your customers through non-product means- such as through distribution, advertising, or other communications- before your competitors do	35. Pricing proactively (so competitors have to react to your prices)	36. Creating partnerships with the best partners in the industry before competitors enlist them	37. Pushing costs lower than competitors do	38. Re-engineering your processes to make them more efficient than your competitors' processes
1	5	5	5	3	5	3	5
2	5	5	5	.	5	4	4
3	5	5	4	5	5	5	5
4	5	4	5	5	2	5	5
5	3	4	4	5	4	4	5
6	4	5	4	4	4	2	4
7	1	5	5	5	1	2	1
8	3	3	3	3	3	3	4
9	3	4	4	5	3	3	4
10	4	4	4	5	4	4	4
11	4	4	2	4	2	2	3
12	4	4	3	5	3	2	3
13	4	4	3	4	3	3	4
14	4	4	3	2	4	1	4
15	5	4	4	5	4	3	5
16	4	4	4	3	3	4	4
17	4	4	5	4	4	4	5
18	4	5	5	1	4	1	4
19	4	4	4	4	4	4	4
20	5	5	5	5	5	5	5
21	3	4	2	4	1	2	4
22	5	5	5	5	5	5	5
23	2	3	4	3	4	2	4
24	4	4	4	4	4	4	4
25	3	3	2	4	4	3	3
26	2	2	2	4	4	4	4
27	2	2	3	2	1	1	1
28	2	4	4	4	4	4	4
29	5	5	3	3	3	2	3
30	4	4	2	5	3	4	3
31	1	1	1	2	1	1	1
32	2	4	4	4	4	4	4
33	2	3	4	3	4	2	4
34	4	4	4	4	3	4	4
35	4	4	5	5	5	5	5
36	3	3	4	3	5	3	3
37	2	4	3	2	4	2	2
38	2	4	2	2	1	4	4
39	5	4	5	4	4	5	5
40	3	3	3	2	2	2	2
41	4	4	2	2	2	3	3
42	1	1	1	5	3	3	3
43	4	5	4	4	4	4	4
44	4	4	3	3	4	4	4
45	4	4	5	3	4	4	4



Table 9.8: Descriptive Statistics: Entrepreneur Only (Survivalist)

Age	Gender	Education	Role	Yrs Operating	Reason	Sector	Firm size	Annual Turnover	VAT	Registration	
Mean	3.4762	1.2381	1.4286	1.2857	1.1000	2.2857	8.9524	1.0000	1.0000	1.7619	1.0476
Standard Error	0.2727	0.0952	0.1629	0.1565	0.0688	0.3661	0.3933	0.0000	0.0000	0.0952	0.0476
Median	4	1	1	1	1	2	9	1	1	2	1
Mode	2	1	1	1	1	1	9	1	1	2	1
Standard Deviation	1.2498	0.4364	0.7464	0.7171	0.3078	1.6776	1.8021	0.0000	0.0000	0.4364	0.2
Sample Variance	1.5619	0.1905	0.5571	0.5143	0.0947	2.8143	3.2476	0.0000	0.0000	0.1905	0.0
Kurtosis	1.6781	0.2763	0.6516	3.1384	7.0370	0.2654	6.8950	#DIV/0!	#DIV/0!	0.2763	21.1
Skewness	0.0253	1.3265	1.4645	2.2017	2.8879	1.1853	1.1682	#DIV/0!	#DIV/0!	1.3265	4.51
Range	3	1	2	2	1	5	10	0	0	1	1
Minimum	2	1	1	1	1	1	3	1	1	1	1
Maximum	5	2	3	3	2	6	13	1	1	2	2
Sum	73	26	30	27	22	48	188	21	21	37	22
Count	21	21	21	21	20	21	21	21	21	21	21
Confidence Level (95.0%)	0.5689	0.1987	0.3398	0.3264	0.1441	0.7636	0.8203	0.0000	0.0000	0.1987	0.0993
		Confidence Level (95.0%)	Confidence Level (95.0%)	Confidence Level (95.0%)	Confidence Level (95.0%)	Confidence Level (95.0%)	Confidence Level (95.0%)	Confidence Level (95.0%)	Confidence Level (95.0%)	Confidence Level (95.0%)	Confidence Level (95.0%)

Table 9.9: Descriptive Statistics: Micro/Very Small Enterprises

Age	Gender	Educa tion	Role	Yrs Opera ting	Reaso n	Sector	Firm size	Annua l Turno ver	VAT	Regist ration			
Mean	3.8235	Mean	3.1176	Mean	2.0588	Mean	7.5294	Mean	2.3529	Mean	1.4118	Mean	1.0588
Standard Error	0.2307	Standard Error	0.3195	Standard Error	0.2496	Standard Error	1.2923	Standard Error	0.2704	Standard Error	0.1230	Standard Error	0.0588
Median	4	Median	3	Median	3	Median	9	Median	2	Median	1	Median	1
Mode	4	Mode	2	Mode	3	Mode	2	Mode	2	Mode	1	Mode	1
Standard Deviation	0.9510	Standard Deviation	1.3173	Standard Deviation	1.0290	Standard Deviation	5.3282	Standard Deviation	1.1147	Standard Deviation	0.5073	Standard Deviation	0.1230
Sample Variance	0.9044	Sample Variance	1.7353	Sample Variance	1.0588	Sample Variance	28.3897	Sample Variance	1.2426	Sample Variance	0.2574	Sample Variance	0.0156
Kurtosis	-0.1872	Kurtosis	-1.4878	Kurtosis	-2.2667	Kurtosis	-1.8480	Kurtosis	0.5201	Kurtosis	-2.1094	Kurtosis	17
Skewness	-0.5967	Skewness	0.1293	Skewness	-0.1296	Skewness	0.1625	Skewness	0.7261	Skewness	0.3942	Skewness	4
Range	3	Range	4	Range	2	Range	13	Range	4	Range	1	Range	1
Minimum	2	Minimum	1	Minimum	1	Minimum	2	Minimum	1	Minimum	1	Minimum	1
Maximum	5	Maximum	5	Maximum	3	Maximum	15	Maximum	5	Maximum	2	Maximum	2
Sum	65	Sum	53	Sum	35	Sum	128	Sum	40	Sum	24	Sum	18
Count	17	Count	17	Count	17	Count	17	Count	17	Count	17	Count	17
Confidence Level (95.0%)	0.4890	Confidence Level (95.0%)	0.6773	Confidence Level (95.0%)	0.5291	Confidence Level (95.0%)	2.7385	Confidence Level (95.0%)	0.5731	Confidence Level (95.0%)	0.2608	Confidence Level (95.0%)	0.1247



Table 9.10: Descriptive Statistics: Small Enterprises

Age	Gender	Educati on	Role	Y/s Operati ng	Reason	Sector	Firm size	Annual Turnov er	VAT	Registr ation				
Mean	3.5000	1.1667	Mean	2.1667	Mean	2.3333	Mean	5.5000	Mean	3.5000	Mean	1.3333	Mean	1.0000
Standar d Error	0.5000	0.1667	Standar d Error	0.4773	Standar d Error	0.8819	Standar d Error	2.2023	Standar d Error	0.7638	Standar d Error	0.2108	Standar d Error	0.0000
Median	3	1	Median	2	Median	1	Median	2.5	Median	3.5	Median	1	Median	1
Mode	3	1	Mode	2	Mode	1	Mode	2	Mode	#N/A	Mode	1	Mode	1
Standar d Deviat ion	1.2247	0.4082	Standar d Deviat ion	1.1690	Standar d Deviat ion	2.1602	Standar d Deviat ion	5.3944	Standar d Deviat ion	1.8708	Standar d Deviat ion	0.5164	Standar d Deviat ion	0.0000
Sample Varianc e	1.5000	0.1667	Sample Varianc e	1.3667	Sample Varianc e	4.6667	Sample Varianc e	29.1000	Sample Varianc e	3.5000	Sample Varianc e	0.2667	Sample Varianc e	0.0000
Kurtosi s	-1.4667	6.0000	Kurtosi s	-0.4462	Kurtosi s	0.2143	Kurtosi s	1.0114	Kurtosi s	-1.2000	Kurtosi s	-1.8750	Kurtosi s	#DIV/0!
Skewn ess	0.4899	2.4495	Skewn ess	0.6676	Skewn ess	1.3226	Skewn ess	1.4448	Skewn ess	0.0000	Skewn ess	0.9682	Skewn ess	#DIV/0!
Range	3	1	Range	3	Range	5	Range	13	Range	5	Range	1	Range	0
Minimu m	2	1	Minimu m	1	Minimu m	1	Minimu m	2	Minimu m	1	Minimu m	1	Minimu m	1
Maximu m	5	2	Maximu m	4	Maximu m	6	Maximu m	15	Maximu m	6	Maximu m	2	Maximu m	1
Sum	21	7	Sum	13	Sum	14	Sum	33	Sum	21	Sum	8	Sum	6
Count	6	6	Count	6	Count	6	Count	6	Count	6	Count	6	Count	6
Confide nce Level (95.0%)	1.2853	0.4284	Confide nce Level (95.0%)	1.2268	Confide nce Level (95.0%)	2.2670	Confide nce Level (95.0%)	5.6611	Confide nce Level (95.0%)	1.9633	Confide nce Level (95.0%)	0.5419	Confide nce Level (95.0%)	0.0000

Table 9.11: Sectorial Representation in Data

Firm Size	Sectors															
	Business Services		Communication		Construction		Finance		Manufacturing		Wholesale		Other		Grand Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Entrepreneur only (Survivalist)			1	2%			1	2%	17	38%	1	2%	1	2%	21	47%
1-9 (Micro/Very small-Enterprise)	5	11%			1	2%		2	4%				3	7%	11	24%
6-9 (Very small enterprise)	1	2%						1	2%				3	7%	6	13%
10-49 (Small enterprise)	3	7%						1	2%				1	2%	6	13%
More than 100	1	2%													1	2%
Grand Total	10	22%	3	7%	1	2%	1	2%	21	47%	1	2%	8	18%	45	100%

Table 9.12: Descriptive Statistics: Biographical Information and Organisational Profile and Codes
Descriptive Statistics: Biographical Information & Organisational Profile

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Age	45	2	5	164	3.64	1.131
Gender	45	1	2	57	1.27	.447
Education	45	1	5	101	2.24	1.351
Role	45	1	3	77	1.71	.944
Years Operating	44	1	4	71	1.61	.993
Reason	45	1	6	101	2.24	1.747
Sector	45	2	15	363	8.07	4.525
Firm Size	45	1	6	91	2.02	1.234
Annual Turnover	45	1	6	85	1.89	1.301
VAT Registration	45	1	2	70	1.56	.503
Formal Business Registration	45	1	2	47	1.04	.208
Valid N (list wise)	44					

Codes:

Biographical information & Organisational Profile

Age	Gender	Education	Role	Years Operating	Reason	Sector	Firm Size	Annual Turnover	VAT Registered	Formal Business Registration
1: under 19 2: 19-25 3: 26-30 4: 31-40 5: 40+	1: M 2: F	1: Matric or less 2: Post matric or DI 3: Degree 4: Masters/ Doctorate 5: Other	1: Owner 2: Manager 3: Owner and Manager 4: Other	1: 0-2 years 2: 3-5 years 3: 5-10 years 4: 10+ years	1: Business 2: Couldn't find opportunities for 3: Inherited family business 4: Own boss 5: Flexible working hours 6: Other	1: Agriculture 2: Business Services 3: Communication 4: Construction 5: Customer Services 6: Education 7: Finance 8: Health care 9: Manufacturing 10: Mining 11: Motor vehicle sales 12: Social services 13: Transport 14: Wholesale 15: other	1: Entrepreneur only (Survivalist) 2: 1-9 (Micro/Very small-Enterprise) 3: 6-9 (Very small enterprise) 4: 10-49 (Small enterprise) 5: 50-100 (Medium enterprise) 6: More than 100	1: <R200,000 2: R200-R499,999 3: R500,000-RR2,99million 4: R3million-R5,99million 5: R6million-R12,99million 6: R13million+	1: Yes 2: No	1: Yes 2: No

Table 9.13: Reason for starting own business

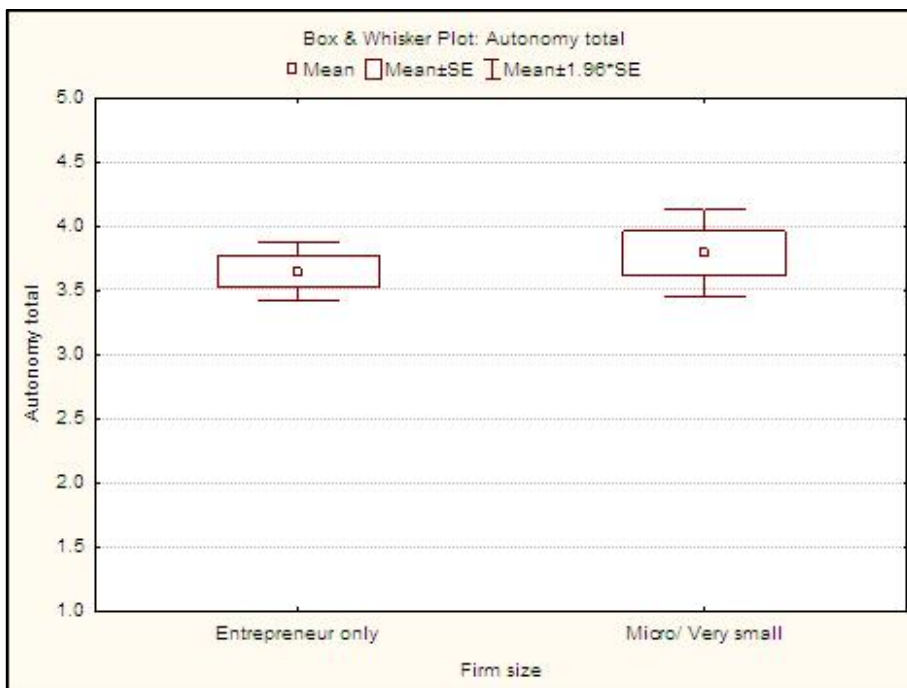
Firm size	Reason for starting own business				Grand Total
	Business Opportunity identified	Couldn't find opportunities for employment	Own boss	Other	
Survivalist	10	5	4	2	21
Micro/ Very Small	11	1	3	2	17
Small	4		1	1	6
Large		1			1
Grand Total	25	7	8	5	45
%	56%	16%	18%	11%	100%

APPENDIX 4: Box and Whisker Plots

Annexures 4.1-4.5 are the box and whisker plots for the five EO constructs. They are a pictorial view of the differences between means to see if the standard error of the difference is big enough relative to standard error to be significant.

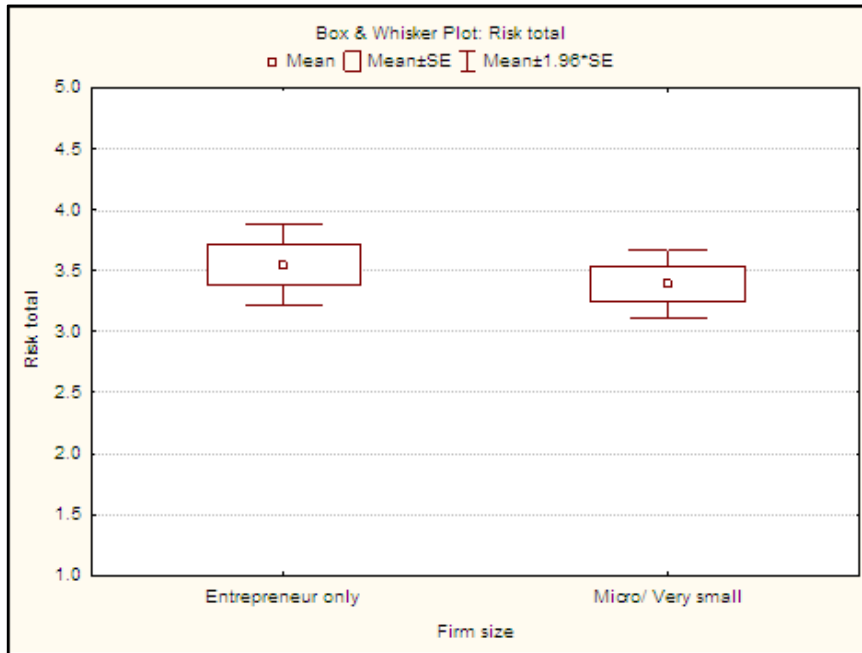
According to Zappe (2006), the interquartile range (IQR), which measures the range between the largest and smallest of the middle half of the. The data can be wrong for small data sets. The IQR is the height of the box, with the box representing the 50% of the reported scores.

Annexure 4.1 : Box and Whisker Plot for Autonomy

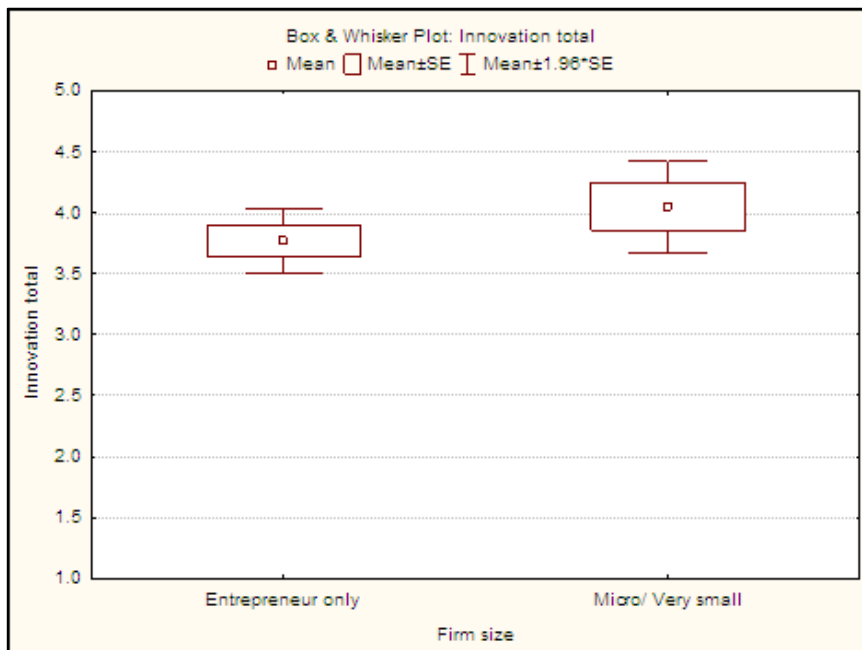




Annexure 4.2 : Box and Whisker Plot for Risk-taking

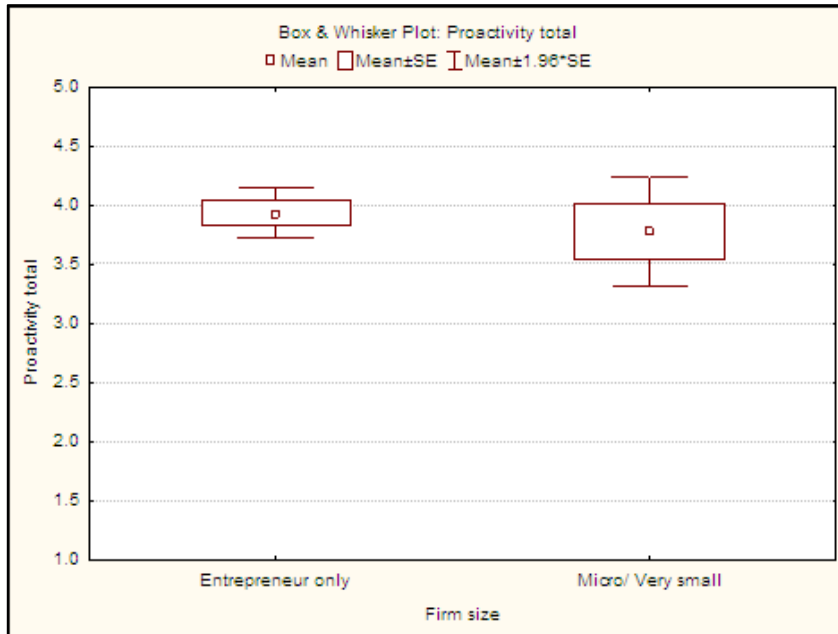


Annexure 4.13: Box and Whisker Plot for Innovation





Annexure 4.4 : Box and Whisker Plot for Proactiveness



Annexure 4.5 : Box and Whisker Plot for Competitive Advantage

