DURBAN UNIVERSITY OF TECHNOLOGY

THE IMPACT OF ENTREPRENEURIAL COMPETENCIES ON THE PERFORMANCE OF SMEs IN THE eTHEKWINI MUNICIPAL REGION, KWAZULU-NATAL, SOUTH AFRICA

by

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ABSTRACT

Throughout the world, SMEs play an important role in reducing unemployment and poverty. However, despite their significant socio-economic contribution, the failure rate among SMEs in South Africa is high. A number of studies conducted in South Africa by, *inter alia*, Olawale and Garwe (2010:732), Sha (2006:67), and Smit and Watkins (2012:6326), have identified a lack of finance; poor managerial and marketing skills, and high labour costs, as the primary reasons for the high failure rate of SMEs South Africa. However, studies conducted in other countries also highlighted the important role of entrepreneurial competencies in the success of SMEs, and, in this regard, very little research has been conducted in South Africa on the impact of entrepreneurial competencies on the performance of SMEs. To address this shortcoming, this study examined the impact of entrepreneurial competencies on the performance of SMEs in the eThekwini municipal region in KwaZulu-Natal, South Africa.

As there were no records/databases of all the SMEs in the eThekwini region, a sampling frame, which consisted of the 700 SMEs in the eThekwini region who were members of the Durban Chamber of Commerce and Industry (DCCI) in 2015/2016, was used, and, at the 95% level of confidence, a sample size of 248 was statistically determined. The primary data was collected via a self-administered quantitative questionnaire, and was analysed using the Statistical Package for Social Sciences (SPSS), Version 21.

From the empirical research undertaken for this study, the main findings that emerged regarding the impact of entrepreneurial competencies on the performance of SMEs in the eThekwini region were: that there was no statistically significant association between the level of education of SME owners and the success of their businesses; that there was a significant positive relationship between both the personality traits of SME owners as well as their leadership styles with the success of their businesses, and that there was no significant relationship between the personal values and beliefs of SME owners and the performance of their enterprises.

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DEDICATION

I dedicate this work and give special thanks to my wife, Blessing Sungai, and my wonderful daughters, Samantha and Ashley, for their patience, understanding, and unwavering support and encouragement throughout my study.

I also wish to pay a special gratitude to my late father, Peter Mahohoma, whose words of encouragement led me to enrol for this study.

DECLARATION

I, Tinaye Mahohoma, hereby declare that the work presented in this dissertation is based on my own research and that I have not submitted it in part or in full to any other institution of higher learning to obtain an academic qualification.

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Tinaye Mahohoma   Date

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LIST OF ACRONYMS AND ABBREVIATIONS

ASGISA   Accelerated and Shared Growth Initiative for South Africa

DCCI   Durban Chamber of Commerce and Industry

DSBD   Department of Small Business Development

DTI   Department of Trade and Industry

EU   European Union

FNB   First National Bank

GDP   Gross Domestic Product

GEM   Global Entrepreneurship Monitor

IDC   Industrial Development Corporation

LED   Local Economic Development

NEF   National Empowerment Fund

OECD   Organisation for Economic Co-operation and Development

Seda   Small Enterprise Development Agency

SEFA   Small Enterprise Funding Agency

SME   Small and Medium Enterprise

SPSS   Statistical Package for the Social Sciences

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CHAPTER ONE

OVERVIEW OF THE STUDY

1.1   INTRODUCTION

This chapter presents an overview of the study, and, *inter alia*, the background to the study is discussed, the research problem is identified, and the aim and objectives of the study are stated. Thereafter, the research methodology and design adopted for this study, as well as the structure of the dissertation, are briefly outlined.

1.2   BACKGROUND TO THE STUDY

There is general agreement among policy makers, economists and business experts that small and medium enterprises (SMEs) are the main drivers of economic growth in both developed and developing countries. Previous research has also pointed out the significant role played by SMEs, especially in the reduction of unemployment, poverty and other social ills. In South Africa, it is estimated that SMEs are responsible for approximately 60% of private sector employment and contribute approximately 57% to the gross domestic product of the country (South African Reserve Bank 2016:19).

Given the important socio-economic role played by SMEs, it is crucial that they succeed. However, for a number of reasons, the success rate of SMEs in South Africa is low, and a number of studies conducted by, *inter alia*, Olawale and Garwe (2010:732), Sha (2006:67), and Smit and Watkins (2012:6328), have identified a lack of finance, poor managerial and marketing skills, and high labour costs, as the main reasons for the high failure rate among SMEs in South Africa. Studies conducted in other countries also highlighted the important role of entrepreneurial competencies for the success of SMEs, and very little research has been conducted in South Africa on the impact of entrepreneurial competencies on SMEs' success. In an attempt to partially address this gap, the present study examined the impact of entrepreneurial competencies on the performance of SMEs in the eThekwini municipal area, in KwaZulu-Natal, South Africa.

1.3   RESEARCH PROBLEM

South Africa faces tremendous socio-economic challenges, and many of these challenges are, to a large extent, linked to the high level of unemployment. According to the Quarterly Labour Force Survey (2017:1), the unemployment rate for the first quarter of 2017 was approximately 27.7%. Furthermore, South Africa experiences high levels of income inequality and poverty, with approximately 57% of South Africans living in absolute poverty (eThekwini Municipality 2013:55). Throughout the world, SMEs play an important role in reducing unemployment and poverty, and they are also regarded as being important vehicles to address the challenges of job creation, sustainable economic growth, equitable distribution of income and the overall stimulation of economic development in South Africa (Olawale and Garwe 2010:732).

According to Seda (2016:6), SMEs are also recognised worldwide as a key source of creativity, innovation and flexibility, and being more labour intensive than large organisations, play an important role in creating sustainable jobs. However, the failure rate of SMEs in South Africa is very high - approximately 75% (Fatoki and Odeyemi 2010:133), and very little research has been conducted on the impact of entrepreneurial competencies on the performance of SMEs in South Africa. In this regard, this study examined the impact of entrepreneurial competencies on the performance of SMEs in the eThekwini municipal region in KwaZulu-Natal, South Africa.

1.4   AIM AND OBJECTIVES OF THE STUDY

The aim of this study was to evaluate the impact of entrepreneurial competencies on the performance of small and medium enterprises (SMEs) in the eThekwini municipal region, in KwaZulu-Natal, South Africa. The objectives of the study were as follows:

- to identify the extent to which the level of education and training of SME owners/managers influences the performance of their enterprises;

- to determine the influence of SME owners' personal values and beliefs on the success of their enterprises;

- to ascertain whether there was a relationship between the personality traits of SME owners and business success, and

- to determine whether there was a link between the leadership style of an entrepreneur and the success of his enterprise.

1.5 RESEARCH QUESTIONS

Arising from the objectives of the study, the following research questions were posed:

- to what extent does the level of education and training of SME owners/managers influence the performance of their enterprises?;

- do the personal values and beliefs of SME owners influence the success of their enterprises?;

- is there a relationship between the personality traits of SME owners and the success of their enterprises?, and

- is there any link between the leadership style of an entrepreneur and the success of his/her enterprise?

1.6 SIGNIFICANCE OF THE STUDY

Given the high failure rate among SMEs in South Africa, and the important socio-economic role they play, it is important that their success rate in South Africa is increased. The findings from this study may contribute to an increased awareness of, and focus on the role of entrepreneurial competencies on the success of SMEs among key stakeholders, including agencies within the local, provincial and national governments, who are responsible for promoting the growth and development of SMEs, and those who provide training and development programmes for SME owners.

1.7 SCOPE OF THE STUDY

Due to time and cost considerations, the study was restricted to SMEs located within the eThekwini municipal region, which is located in KwaZulu-Natal, South Africa.

1.8   RESEARCH METHODOLOGY AND DESIGN

The study was quantitative in nature, and the primary data for the study was sourced by means of a self-administered questionnaire, which was e-mailed to a sample of 248 owners/managers of SMEs in the eThekwini region in KwaZulu-Natal. The questionnaire was pre-tested among ten organisations in order to identify and remove any ambiguity and/or superfluous questions, and to ensure that the questionnaire was aligned with the aim and objectives of the study.

The completed questionnaires were tabulated and coded to facilitate the process of data capturing. The data was edited and captured on an Excel spreadsheet for statistical analysis. Descriptive statistics was used to present the data and inferential statistics was used to measure the relationship between entrepreneurial competencies and performance of small and medium enterprises, with the aid of the Statistical Packages for Social Sciences software (SPSS), version 21, for Windows.

1.9   STRUCTURE OF THE DISSERTATION

The dissertation is divided into the following five chapters:

Chapter 1: Overview of the study

Chapter one provides an overview of the study in terms of the background to the study; the research problem; the aim and objectives of the study; the significance and scope of the study; the research methodology and design, and the structure of the dissertation.

Chapter 2: Literature review

The literature review provides an overview of previous research on entrepreneurial competencies; a discussion of the characteristics of SMEs; the major differences between SMEs and large organisations; the importance of SMEs in the economy; the challenges faced by SMEs; role of the state in the development and promotion of SMES; measures of performance of SMEs; entrepreneurial competencies, and the relationship between entrepreneurial competencies and the performance of SMEs.

Chapter 3: Research Methodology and Design

In this chapter the following aspects, *inter alia*, are discussed: the research methodology and design adopted; the sampling technique used; the questionnaire design, and the data analysis techniques used for the empirical study.

Chapter 4: Presentation, Analysis and Discussion of results

In this chapter, the results of the empirical study are presented, analysed and discussed. The results are presented using descriptive statistics in the form of graphs, tables and charts for the quantitative data collected via the responses from the questionnaire. A variety of appropriate statistical tests used to analyse and interpret the data collected from the completed questionnaires are outlined, with a view to identifying important patterns and relationships.

Chapter 5: Review, Conclusion and Recommendations

This chapter commences with a summary of the major findings from this study, and this is followed by a few concluding remarks, and recommendations for improving the entrepreneurial competencies of SMEs in the eThekwini region. Thereafter, the limitations of the study are outlined, and suggestions for future areas of research are presented.

1.10   CONCLUSION

This chapter presented an overview of the study. This chapter discussed the background to the study, research problem, and the aim and objectives of the study. In addition to the above, the significance and scope of the study, as well as the research methodology and design employed, were briefly outlined.

 In the next chapter, the literature pertaining to entrepreneurial competencies and performance of SMEs is analysed and discussed.

CHAPTER TWO

LITERATURE REVIEW

2.1   INTRODUCTION

In this chapter the relevant literature pertaining to small and medium enterprises (SMEs) and entrepreneurial competencies is discussed. The literature review covers, *inter alia*, the definition of SMEs and entrepreneurial competencies; a discussion of the importance of SMEs in the economy; the characteristics of SMEs, and the challenges faced by SMEs. The role of the state in the development and promotion of SMEs; the performance measures used by SMEs, as well as entrepreneurial competencies, and the relationship between entrepreneurial competencies and the performance of SMEs, is also discussed.

2.2   DEFINITION OF SMALL AND MEDIUM ENTERPRISES

There is no universal definition of SMEs, because the concept varies from country to country and from sector to sector. While the definition of what constitutes an SME varies, it is generally based on the number of employees and turnover (Nkonoki 2010:17). According to the Small Business Act No 102 of 1996, in South Africa, small enterprises are those enterprises employing more than 20 but no more than 50 people or with a total annual turnover of less than R50 million. Medium enterprises are classified as ventures employing between 50 to 200 people, or those with a total annual turnover of less than R100 million (Davis Tax Committee:6). The salient aspects discussed above are summarised in Table 2.1 below.

Table 2.1   Summary of classification thresholds for SMEs

Type of entity	Number of employees	Annual turnover
Small	21-50	Maximum R50 million
Medium	51-200	Maximum R100 million

Source: Seda (2016:3)

For the purposes of this study, only the number of employees, i.e., 21 – 200, and not the annual turnover, has been taken into consideration in determining whether an organisation can be classified as a SME.

2.3   CHARACTERISTICS OF SMEs

The defining characteristics of SMEs are discussed below, and they are contrasted with those of large organisations.

2.3.1 Labour intensive

The inability of SME owners to raise enough capital and their limited cash reserves contribute to the SME sector being more labour intensive than capital intensive. According to SBP (2014:2), SMEs, being more labour intensive, absorb a greater proportion of lowly skilled and unskilled people than larger organisations. Olawale and Garwe (2010:732) contend that due to SMEs' labour intensity, they promote a more equitable distribution of income than larger organisations.

2.3.2 Relationships

Most SMEs focus on a small number of products and services, and this limited focus allows them to establish strong relationships with their business partners, which in turn provides stability for the SMEs. SMEs have a more direct relationship with the local community, and they often reside in a single city or region and become a familiar presence in that area (Biekpe 2011:80). Since SMEs are based in a local community, employing local citizens and paying taxes in local markets, they often attract a number of loyal customers who prefer to support local companies, as opposed to national and international organisations. In this regard, Fong (2011:314) contends that SMEs seem to be one step ahead of large firms, in that large firms are experiencing the need to go back to local communities to meet their obligations.

2.3.3 Simplicity and Flexibility of SMEs

An SME could simply be an owner-operator or an owner-manager-employee setup. Other SMEs are a bit larger with a maximum of 200 employees working together. A small organisational structure can improve communication among employees at each level or in different stores in a chain.

According to Ogbokor (2012:6), SMEs are more flexible and can easily adapt to turbulent market conditions. SMEs' organisational structure are simple rather than complex, often requiring flexibility from employees to adapt their competences and skills to different tasks in their day-to-day work. In larger enterprises, employees have specific job descriptions, but in small businesses employees are more often expected to help with a variety of tasks, because there are fewer people to do everything. Owner-managers are likely to organise employee-training programmes, as well as allow them to manage their time through flexible work hours. In recognition of their flexible structure, SMEs are more likely to react to external threats timeously, but this does not necessarily discourage specialisation or lead to excessive economies of scale (Sánchez, Ramírez-Herrera and Di Pietro 2013:504).

2.3.4 Revenue and Profitability

According to Edmiston (2013:80), while the revenue earned by SMEs is generally lower than that earned by large corporations, lower revenue does not necessarily translate into lower profitability. Established SMEs often own their facilities and equipment outright, which, in addition to other factors, helps to keep costs lower than more leveraged businesses. Many SMEs rely on the personal assets of owners and management to finance the company. According to Cant, Erdis and Sephapo (2014:570), to remain competitive, small businesses must normally minimize their fixed and variable costs of doing business and operate with extreme efficiency.

2.3.5 Small market share and intense competition

The area of operations of SMEs is generally local as they have less capital and less marketing resources at their disposal. Also, since there are a large number of SMEs that compete for business opportunities in the same market, competition usually results in product/service innovation and differentiation (Ismaila 2011:21). Successful small businesses have a specific focus on their customers and clients and are geared to supplying them with exactly what they want. This focus means adopting a market led approach, with the owners/managers consistently looking for ways to solve their customers' problems and improving their products to match their customers' requirements (Sánchez, Ramírez-Herrera and Di Pietro 2013:509).

The ability of SMEs to react very quickly to any changes in the demand and preferences of their customers is associated with their proximity to customers. Many

SMEs have unique products or services, such as their own designs, products, systems or some other aspect, which sets them apart. This uniqueness is an important source of competitive advantage, and one which many SMEs work hard to sustain, adapting and innovating their products or services as their competitors catch up with them (Neneh and Van Zyl 2014:173).

2.3.6 Limited number of suppliers

Pooe, Mafini and Loury-Okoumba (2015:3) contend that generally, SMEs do not have a massive network of suppliers as compared to large companies, and this promotes the ability to build trust and mutual goals with those limited key suppliers. According to Kleindienst and Ramsauer (2016:112), due to the lower volume of goods produced by SMEs, compared to larger organisations, SMEs have limited bargaining power when purchasing inputs from suppliers; hence, they receive lower volume discounts and trade discounts than larger organisations.

2.3.7 Management structure

According to Napp (2011:19), in contrast to larger enterprises, in SMEs, the owner is part of the management team, and is often responsible for many different tasks and important decisions. For example, unlike in large organisations, where the human resources management and financial management functions are handled by specialist in their respective fields, these functions may also be handled by the SME owner/manager, due to a lack of financial resources (Olfert 2012:45). Poor management is another characteristic of SMEs, which has led to owners/managers formulating decisions based on work experience.

2.3.8 Access to capital markets and equity

Another major difference between large companies and SMEs arises from the financing methods that they use. In contrast to larger companies, most SMEs do not have access to equity or capital markets, as they often do not fulfil certain legislative requirements. According to Smit and Watkins (2012:6326), the main reason for this is that they are not as transparent as larger enterprises, which publish their financial statements and annual reports. Furthermore, the amount of money that many SMEs need is too small for this type of financing. The limited possibilities for obtaining equity capital lead to relatively much lower equity ratios in SMEs than in larger companies.

According to Mahembe (2013:84), without sufficient information, banks often associate loans to smaller companies with high risk. This high-risk assumption is because SMEs, in contrast to larger corporations, do not diversify their risk by engaging in different business activities. A downturn in their field of business has a great effect on the enterprise, and, in general, they face higher volatility in earnings than larger companies.

2.3.9 Input costs

In contrast to larger enterprises, most SMEs offer a narrow and specialised product or service range. According to Ramawickrama (2011:20), due to specialised product /service range, SMEs demand only small amounts of input factors on procurement markets, and this results in higher per unit cost since there are no benefits or economies of scale. Furthermore, SMEs, due to their size, are not in a dominant position compared to their suppliers, and this results in SMEs having less bargaining power with their suppliers than larger companies.

In addition to the above, Frion and Yzquierdo-Hombrecher (2009:164) highlight the following differences between SMEs and large organisations:

- SMEs' management often lacks professionalism;

- managerial inefficiency is common in SMEs, and

- SME founders tend to be action-oriented and less analytical than professional managers.

In discussing the characteristics of SMEs above, some of the differences between SMEs and large organisations emerged, and Table 2.2 below shows the main differences between SMEs and large organisations.

Table 2.2   Differences between SMEs and large organisations

SMEs	Large organisations
Flat, with few layers of management	Hierarchical, with several layers of management
Flexible structure and information flows	Rigid structure and information flows
Top management is very visible	Top management visibility is limited
Top management is close to work stations	Top management is far from work stations
The degree of innovation is high	The degree of innovation is low
Rapid response to environmental changes	Slow response to environmental changes
Low degree of formalities	High degree of formalities
Limited access to human and financial resources	Good access to human and financial resources
Individual creativity is encouraged	Individual creativity is stifled

Source: Fong, M.W (2011:314)

The main differences that exist between SMEs and large organisations are in terms of their organisational structure; policy-making procedures, and resource utilisation. In the next section, the study examines the factors that are conducive to the development of SMEs.

2.4   FACTORS CONDUCIVE TO THE DEVELOPMENT OF SMEs

The South African government has identified the important role of the SME sector in reducing poverty and unemployment, and contributing to economic growth. However, several external factors influence the growth and development of SMEs, and in the discussion below, some of the more important factors are discussed.

2.4.1 Macro-economic stability

According to Chittithaworn, Islam, Keawchana and Yusuf (2011:182), successful economic development generally requires macro-economic stability, and this sustains SME development. An economy characterised by a high level of predictability, particularly with regard to price movements (inflation), interest rates and the availability

of credit facilities leads to better business planning, and superior risk management (OECD 2013:38). Start-up businesses and SMEs in the expansion phase both require a high degree of predictability of the cost and the revenue side of their operations. As stated by Cant, Erdis and Sephapo (2014:587), the single most critical factor determining the risk premium attached to a small firm is the predictability of its revenue and expenses.

2.4.2 Supportive legal framework

According to Gillwald, Moyo and Stork (2012:5), global surveys of SME development have repeatedly demonstrated that the following are the basic elements of a favourable legal framework for business promotion:

- well-entrenched property rights (legal tenure);

- efficient business registration procedures;

- simple and transparent rules for operations;

- supportive taxation policies;

- effective and cost-efficient contract enforcement, and

- streamlined systems of arbitration and dispute resolution.

All of the above-mentioned factors are critical for the viability and sustainability of SMEs. These factors affect the start-up expenses, as well as the transactional and operational costs of business enterprises. However, Tesfayohannes, Tessem and Tewolde (2015:5) observed that in many developing countries and emerging economies, very little attention is paid to the basic elements of a favourable legal framework. In addition to operational inefficiencies, other factors that may form a wedge between the formal and the actual legal system include corruption within the administration of justice; political interference in the legal system, and discrepancies between the formal and the traditional notions of legal tenure (property rights) (Luiz and Mariotii 2011:49).

2.4.3 Favourable human resource environment

Smit and Watkins (2012:6328) contend that the most important factors contributing to SMEs growth are the role of labour, labour markets and skills levels. In addition to entrepreneurship, high levels of business and economic literacy constitute the foundation of a robust and effective SME. In this regard, the human-resource development framework is a key element for success. According to Olawale and Garwe (2010:731), not only do formal and informal education and training systems matter, but society's approach towards leadership and achievement also plays a critical role in defining the environment within which latent human potentialities are realised.

A related aspect to the human-resource framework is the ease with which immigration legislation enhances the skills base of the South African business environment. The accessibility of relevant skills at a reasonable price is more often than not the critical factor in the success of small businesses, particularly in their expansion phase (United Nations Economic Commission for Africa 2011:22). Gillwald, Moyo and Stork (2012:9) state that SME development in a digital age needs a somewhat different education and training framework than in the agrarian or industrialisation eras. Contemporary human resources need to embody far more flexibility and adaptability towards business activities and skills acquisition.

2.4.4 Appropriate and efficient infrastructure

According to African Economic Outlook (2012:19), supportive infrastructure for the promotion of SMEs in South Africa may be divided into two categories. Firstly, there is the hard infrastructure, consisting of transportation, communication and business amenities. Secondly, there is the soft infrastructure, in the form of suitable business associations and the availability of relevant and reliable statistics. The existence of suitable infrastructure reduces transaction costs, improves trade reliability and encourages the networking and association of existing business in the industry (Azimzadeh, Pitts, Ehsani and Kordnaeij 2013:246).

2.4.5 Access to finance

Financing of SMEs plays a crucial role in the growth and development of SMEs (Stein, Ardic and Hommes 2013:11). According to Azimzadeh, Pitts, Ehsani and Kordnaeij (2013:246), SMEs worldwide initially rely on self-financing by entrepreneurs. Subsequently, they move on to debt finance and/or venture capital, as they do not have enough generated profits in order to expand their operations. According to Govori (2013:703), the private credit market is an important factor in the development of SMEs as they provide unsecured loans. Recognising the importance of SMEs to the economy, the South African government has promoted access to finance for SMEs through the provision of credit guarantees to commercial banks willing to lend to small businesses, and direct lending by specialised SME financing entities (FNB 2013:6).

From the discussion above, it is clear that macro-economic stability, a supportive legal framework, a favourable human resource environment, appropriate and efficient infrastructure, and access to finance are some of the factors that positively influence the growth and development of SMEs. In the next section the importance of the SME sector in the economy will be discussed.

2.5   THE IMPORTANCE OF SMEs IN THE ECONOMY

The importance of the SME sector in both developed and developing economies is widely acknowledged and promoted, and the contribution of this sector to employment creation, economic growth and innovation, is discussed below.

2.5.1   SMEs create employment opportunities

The importance of SMEs in any economy revolves around job creation, economic growth and addressing of social injustices. In developing countries, SMEs are recognised as a key to reducing unemployment levels, as SMEs are more labour intensive, compared to large organisations (Du Toit, Erasmus and Strydom 2009:45). According to the eThekwini Municipality (2013:56), the creation and growth of SMEs is a major step towards poverty alleviation; spreading employment to marginalised areas; emancipation and empowerment of women, and increasing domestic capital investment in the economy. Due to limited employment opportunities in South Africa, policy makers and stakeholders have shifted the focus to the development of the SME sector, which is labour intensive, and it makes a meaningful and substantial

contribution to employment generation. SMEs create about 80% of all new job opportunities and more than 70% of the South African workforce is employed in this sector (Seda 2016:6).

According to Quarterly Labour Force Survey (2017:1), the main social challenge in South Africa is the high unemployment rate of approximately 27.7%. In this regard, the SME sector is not only seen as an employment creator, but as an absorber of retrenched people from both the private and public sectors (Smit and Watkins 2012:6325).

According to Abor and Quartey (2010:223), in most developing economies, SMEs are more flexible and responsive to changes in the economic climate. They require relatively less capital and therefore, have the potential to generate significant levels of sustainable employment for skilled and semi-skilled labour. On a worldwide scale, SMEs provide approximately 60% of jobs within the European Union (EU) - a percentage that is growing as SMEs exploit the opportunities related to globalisation and e-commerce. Kongolo (2010:2289) also concurs that in the last decade, SMEs had been the principle creators of new jobs, whilst, on average, large companies downsized; retrenched personnel and reduced employment. However, Malefane (2013:671) contends that the role of SMEs is over estimated because SMEs' role in the generation of employment has, in most cases, been temporary, since most new businesses die out before their fifth year, further contributing to unemployment.

2.5.2 Contribution of the SME sector to creativity and innovation

According to the South African Reserve Bank (2016:19), the new global economy is defined as an economy of knowledge and ideas, where innovative ideas and technologies are fully integrated in services. Job creation is a resultant effect of innovation and the new discoveries that lead to entrepreneurship. The ability to invent in the new technology and to improve high technology information networks is brought about by the unique, active and critical role played by SMEs. The small companies establish regional networks more easily than big companies do. The creativity of small companies is the fuel of the entrepreneurial spirit and the economic growth. According to Robu and Savlovschi (2011:279), "the small number of components, the low dimensions of the tangible assets, the smaller complexity of the activities and supple

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structures make it easier to situate in the foreground the preoccupations, decisions and actions of the knowledge resource".

It may be noted that SMEs develop innovate products that suits the needs of local communities through the attraction, retention and training of new talent. Furthermore, the SME sector has a unique position to invest more time and care into implementing new solutions and improving upon existing ideas (Lesakova 2012:86). Fast decision-making is encouraged, their research programmes tend to be focused, and their compensation structures typically reward top performers. According to Stan (2014:169), SMEs are largely thought to be more innovative than larger firms for three reasons: a lack of entrenched bureaucracy, more competitive markets, and stronger incentives (such as personal rewards). SMEs are deemed to be technological leaders and they are crucial innovators in the globalised economy and are the technological leaders of many industries (Berg and Fuchs 2013:3). Masarira and Msweli (2014:41), contend that SMEs are the seedbed for entrepreneurship development, innovation and risk-taking behaviour and provide the foundation for long-term growth and the progression towards larger enterprises. According to Katua (2014:466), SMEs are valued for their role in providing competition to existing businesses, improving product quality, reducing prices, and introducing new goods and services through innovation and technology advancement.

2.5.3 Contribution of the SME sector to economic growth and development

According to Alkali (2012:916), economic growth may be achieved through the establishment of successful SMEs, as the employment opportunities created by SMEs will result in people earning an income, which, in turn, leads to the increase in the demand for goods and services. According to Fairoz, Hirobumi and Tanaka (2010:35), the SME sector in Africa plays a major role in uplifting the standard of living of rural people. Due to SMEs diversity in nature, character and business exploits, they have become a vehicle for economic growth and development. SMEs are viewed as a link between micro-enterprises and large enterprises, implying that their failure has a major impact on an economy that is characterised by sub-contracting and contracting. According to Ramawickram (2011:45), SMEs play a major role in the operations of large companies, since they create backward linkages to micro-enterprises and forward links to large businesses, making them an important driving force in the economy.

According to Ismaila (2011:30), among the potential benefits of the SME sector are the following:

- mobilising and stimulating the vast potential for entrepreneurship;

- facilitating a wide economic base and the creation of wealth;

- increasing the nation's wealth through fuller utilisation of all the country's human resource capabilities;

- developing an economic structure that is self-sustaining, with a high degree of sector linkages, and

- increasing indigenous ownership of investment in the economy (Ismaila 2011:31).

Sibanda (2013:647) contends that not only do successful SMEs absorb a significant part of the unemployed labour force, but they also reduce crime and government expenditure on protection and legal services. According to Wekwete (2014:10), the SME sector is amongst the most important drivers via which low-income households can reduce poverty. With limited skills and training to compete for formal sector jobs, these men and women find economic opportunities in the SME sector, as business owners and employees.

Small and medium enterprises (SMEs) are increasingly seen as playing an important role in the economies of many countries. Thus, governments throughout the world focus on the development of the SME sector. Despite their economic importance, SMEs are confronted by many challenges, and these shall be discussed below.

2.6   CHALLENGES FACED BY SMEs

Despite the important role and contribution of SMEs in the economy, there are constraints associated with the establishment, growth and development of SMEs. Abor and Quartey (2010:224) point out that SMEs growth and development might be hindered by, *inter alia*, the following factors: lack of financial resources; lack of managerial skills; inadequate equipment and technology; legal/regulatory issues, and poor/limited access to markets.

2.6.1 General challenges

According to Oualalou (2012:57), the following are obstacles to SME development in South Africa:

- collateral and compliance requirements;

- limited management capacity;

- limited access to finance, which becomes the greatest barrier to growth. In most cases, SMEs in South Africa fail to access loans since the amounts requested are too large for micro-finance agencies and too small for commercial banks;

- financial institutions, as the process of applying for business loans is lengthy;

- lack of formal/vocational education and entrepreneurial skills results in a limited number of SME owners equipped with the skills necessary to develop a sound business plan, and

- a lack of awareness by SME owners of the available business development services which could be utilised to build their capacity to establish their creditworthiness.

Some of the other challenges that negatively affect the growth and development of SMEs in South Africa are discussed below.

2.6.2 High levels of crime

South Africa is characterised by high levels of crime, and is ranked amongst the world's top five countries in terms of crime. Crime and theft are ranked as the third highest obstacle to growth for SMEs in South Africa (Dalberg 2011:18). This leads to SME owners incurring additional costs for security. According to the South African Police Service Crime Statistics (2014:7), increasing crime rates continue to impact on business and civil society in a manner that erodes investor confidence in the South African economy. Crimes related to business robbery have increased from 9.4% to 10.8% for 2014/2015, even though the South African government spends approximately 11% of its annual budget to fight crime (eThekwini Municipality 2015:45).

According to International Business Wiki (2011:1), the cost of crime to SMEs includes:

- direct losses and security costs that reduce profits and waste funds that could be invested in business infrastructure;

- the erosion of human capital by encouraging emigration of employees;

- keeping workers out of the labor market by discouraging them from working during night shifts;

- an increase in the health costs of employees, due to injuries or stress;

- the psychological effects on SME owners, reducing motivation and causing depression;

- decreased foreign direct investment and reduced tourism;

- failures of SMEs that cannot afford proper protection or insurance against losses;

- an increase in poverty in South Africa, due to a loss of jobs and investment, and

- unfair competition from stolen goods resold at lower prices.

2.6.3 Limited access to finance

Lack of access to finance is almost universally indicated as a key problem for SMEs. Many SMEs may use inappropriate technology because it is the only one they can afford. In some cases, even where credit is available, the entrepreneur may lack freedom of choice because the lending conditions may force the purchase of heavy, immovable equipment that can serve as collateral for the loan. Credit constraints operate in variety of ways in South Africa, where regulated and limited capital market forces entrepreneurs to rely on self-financing or borrowing from friends or relatives. Lack of access to long-term credit for small enterprises forces them to rely on high cost short-term finance (Dalberg 2011:54).

FNB (2013:7) argued that SME owners/managers do not understand the financial requirements and obligations of a business, including aspects such as tax obligations, financial costing, pricing strategies, financial control and VAT. According to Seda (2016:28), many entrepreneurs use the company account as a personal account and

fail to split the two so that the company account is managed as a 'separate entity'. This results in a misunderstanding of the 'true' expenses, income and profitability of the business; hence, banks decline their funding application.

2.6.4 Lack of managerial skills

SME owners are often managers of their enterprises and usually have no formal qualifications in management and leadership, and this influences their perceptions on how their enterprises should operate in the industry. According to Kongolo (2010:2293), a lack of managerial skills among SME owners acts as a constraint on the growth and development of the SME sector, and it also contributes to the high failure rate among SMEs. The OECD (2015:61) has acknowledged that the lack of managerial skills among SMEs is challenge, and has proved difficult to overcome. Despite this, Zarook, Rahman and Khanam (2013:106), contend that very seldom do SME owners undergo training to improve their managerial skills. According to Azimzadeh, Pitts, Ehsani and Kordnaeij (2013:244), many SME owners are also reluctant to hire qualified and skilled or independent managers, for fear of losing their hold on their enterprises, and this affects the survival and growth of SMEs.

2.6.5 Labour challenges

SARB (2016:21) postulates that the shortage of skilled labour negatively affects the development and survival of the SME sector, and that this shortage is more prevalent in the service sector than in the manufacturing sector. According to OECD (2015:59), rigid labour laws result in high failure rates among SMEs as it is difficult to retrench workers, even if the enterprise can no longer afford to keep them or if they prove to be unproductive. SMEs within the manufacturing sector, e.g. clothing and furniture production, are labour intensive, and South Africa's relatively high minimum wages, negatively impacts on SMEs, particularly during their start-up phase. With SMEs finding it costly even to hire unskilled and semi-skilled workers, these challenges hinder the growth of small businesses (GEM 2014:43).

2.6.6 Red tape

Since its inception in 2011, SBP's SME Growth Index (2014:20) has repeatedly identified the regulatory burden in South Africa as a critical challenge facing SMEs. According to SBP (2014:20), overlapping, and sometimes conflicting regulatory requirements across multiple departments and levels of government; poor communication and access to information, and administrative inefficiencies in government departments may lead to a high failure rate among SMEs. While South African economic policy places a high value on entrepreneurship, red tape regulations lead to a decline in private investment in the economy. The process of registering a business can take longer than expected, leading to substantial direct and indirect costs (Neneh and Smit 2013:3049).

2.6.7 Inadequate marketing skills

According to Van Scheers (2011:5050), inadequate marketing skills of owners create marketing problems in the small business sector, and potential customers are not aware of SMEs' products or services. According to Wube (2010:29), incorrect pricing strategies and low demand for products could go hand in hand, as the prices could either be too low, resulting in consumers thinking the quality of the product may not be up to standard, or too high, resulting in consumers seeking competitors' products. Alternatively, the low demand for products could be due to the fact that SMEs employ inappropriate marketing strategies, due to their inadequate or poor knowledge of their target market.

SMEs, due to their nature, may struggle to build a reputable brand name that consumers acknowledge and trust. Zarook, Rahman and Khanam (2013:108) contend that factors such as competition, low demand for products, difficulties in meeting customer needs, incorrect pricing strategies, lack of knowledge, poor location, product variety, and branding, all have a negative impact on SMEs. As a result, competitors with established well-known brands pose threats that SMEs need to overcome. Moreover, even competition from other SMEs need to be addressed, as they may have trouble building their brand that differentiates them from competitors (Michael and Johannes 2013:713).

2.6.8 Energy and electricity costs

According to Global Entrepreneurship Monitor (2016:34), the cost of electricity in South Africa has increased steeply over the last few years, and its impact on businesses, especially SMEs, has been severe. Limited availability of low priced primary energy sources, and increased construction costs for new power stations are all adding pressure on electricity prices. In a study undertaken by Mahembe (2013:70) among SMEs, the highest ranked obstacle to business growth by SMEs was the cost of electricity.

The challenges discussed above are the primary reasons why the failure rate among SMEs in South Africa is so high. In this regard, one needs to examine the role of the state in promoting the growth and development of SMEs in South Africa, and, in doing so, assisting them in overcoming the challenges confronting the SME sector.

2.7 ROLE OF THE STATE IN PROMOTING THE DEVELOPMENT OF SMEs IN SOUTH AFRICA

The focus on small business growth in South Africa has been on the national agenda since 1994, yet despite the country's ongoing efforts, small businesses continue to struggle. In 1996, the South African Parliament passed the National Small Business Act. The Act provided for the establishment of the National Small Business Council, with its stated purpose being to represent and promote the interests of small businesses, and to advise the national, provincial, and local spheres of government on social and economic policy that promotes the development of small businesses (Maye 2014:2).

The ensuing discussion examines the major policies and strategies that the state introduced to enhance the establishment and development of SMEs in South Africa.

2.7.1 Accelerated and Shared Growth Initiative for South Africa (ASGISA)

ASGISA was formally launched in February 2006, and its main purpose was to reduce unemployment by 50% by 2014. To achieve this, the South Africa government targeted an economic growth rate of 6% per annum from 2010, and implemented programmes to ensure that the growth of small businesses was encouraged. According to Tim (2011:20), ASGISA was aimed at contributing to economic growth that lead to job creation and thus reduced poverty. This commitment was supported

by an adequate allocation of funds towards small businesses, such as village co-operatives. The government expected ASGISA to attract new job opportunities through government's expenditure on large infrastructural projects. However, the goal of ASGISA to reduce unemployment by 50% by 2014 was not achieved.

2.7.2 Small Enterprise Development Agency (Seda)

Seda was established in December 2004, in terms of the National Small Business Development Act. It was set up as an agency of the Department of Trade and Industry (DTI). It is part of government's strategy of ensuring integrated small enterprise development. According to Mahembe (2013:77), the mandate of Seda is to design and implement a networking system that plays a role in supporting and promoting co-operatives, particularly those found in rural areas. The work of Seda is carried out in line with the Department of Trade and Industry's Integrated Small Enterprise Development Strategy, which aims to:

- strengthen support for SMEs' access to finance;

- create an enabling regulatory environment;

- expand market opportunities for specific categories of small enterprises;

- localise small business support through a grid of Seda-coordinated information and advice access points;

- initiate a national entrepreneurship drive and expand education and training for small businesses, and

- co-fund minimum business infrastructure facilities in local authority areas across the country.

According to Maye (2014:3), Seda's delivery network must reach all regions of the country and integrate government-funded small enterprise support across all tiers of government. Regarding business infrastructure facilities, the integrated strategy also requires linking up closely with Local Economic Development (LED) initiatives in all municipalities. Seda is still functional, although some of its aims are yet to be achieved. According to Seda (2014:31), many SMEs struggle to supply products or services of the requisite quality or in the required volumes to effectively penetrate markets.

2.7.3 Khula Enterprise Finance Limited (Khula)

Khula is an agency of the DTI that was established to facilitate access to credit by Small and Medium Enterprises (SMEs). This includes collaborating with sector departments to develop new sector specific financing programmes for small business, and studying different approaches to strengthen the realisation of government goals for small business finance. According to Mahembe (2012:5), Khula also provides mentorship to entrepreneurs in various aspects of managing a business. Economic interventions to promote competitiveness, by combating monopolistic conduct, and to ensure availability of finance from the private financial sector, are two legs of government's strategy. The third leg is to provide affordable public sector finance for SME and co-operative development (KPMG 2012:12).

According to Tim (2011:28), Khula Enterprise Finance, through providing such finance, is a key institution to promote economic development in the SME sector of the economy. However, Khula did not achieve its objectives; hence, it was merged with the SA Microfinance Apex Fund and the small business activities of IDC to form Small Enterprise Funding Agency (SEFA) in April 2012 (Mahembe 2013:78).

2.7.4 Small Enterprise Funding Agency (SEFA)

SEFA is a wholly owned entity of the Industrial Development Corporation (IDC). The entity was launched in April 2012 with a focus on small scale manufacturing; agro-processing; infrastructure development; mining services; the green economy, and tourism (SEFA 2013:36). SEFA's primary aim is to bridge the "funding gap" in the SME market not addressed by commercial financial institutions. According to Kwebo (2013:9), its lending comprises of four components, namely:

- funding for retail financial institutions;

- credit guarantee scheme;

- equity capital, and

- gearing capital for public and private sector funds targeting small enterprises in specific sectors .

Most of the objectives of SEFA are being achieved since they provide business training to small business after providing them with finance. A total of 19 853 jobs were created at the end of February 2014 by those small business that received financial support from SEFA (SEFA 2014:46).

2.7.5 National Empowerment Fund (NEF)

According to NEF (2014:46), the NEF was established by the National Empowerment Fund Act of 1998 to promote and facilitate income equality and transformation. The NEF is a funding agency whose objectives include fostering of and support for business ventures pioneered and run by black enterprises, and contributing to the creation of employment opportunities. Through its various business units, the Industrial Development Corporation (IDC) provides sector-focused financing products ranging from R1 million upwards, with designated finance products focused on small business development and black economic empowerment. An important development is the collaboration in product design among the development finance institutions to close the critical financing gaps for small businesses. The NEF's mandate and funding are in line with national growth and industrial objectives, which aim to increase South Africa's competitiveness and support for co-operatives and small businesses (NEF 2014:47).

2.7.6 Department of Small Business Development (DSBD)

According to the DSBD (2014:18) its aim is to provide extensive support to small businesses and cooperatives; increase support through public agencies; entrepreneurship development, and provide mentorship, incubation and support programmes. The department aims to create social accords to bring small businesses and cooperatives into the supply chain of large companies and the public sector. The DSBD contends that it aims to implement an aggressive entrepreneurship drive and create an enabling environment that will make it easy for South Africans, particularly the youth, women and people with disabilities, to start and sustain their businesses. The aim of this intervention is to try to unlock economic opportunities, and thus achieve inclusive economic growth and sustainable employment (DSBD 2014:38).

The DSBD strives to accomplish the above by:

- offering procurement initiatives for youth enterprises to ensure that young entrepreneurs have opportunities to grow and develop their enterprises;

- reducing obstacles to doing business wherever possible, and by expanding access to economic opportunities for historically excluded and vulnerable groups;

- providing extensive support to small business and cooperatives, increasing support through consolidated public agencies, enterprise coaching, mentorship, incubation and intensive support programmes, and

- creating an enabling regulatory and taxation environment for SMMEs that allows these business to pay their tax due to government through analysis of cash receipts (DSBD 2014:28).

From the discussion above, it can be concluded that the state recognises the importance of the SME sector by the creation of various structures and agencies to promote the growth and development of SMEs in South Africa. However, inefficiencies, incompetence and corrupt practices within some of the agencies reduces their ability to carry out their mandate. In the next section, the methods used by SMEs to measure their performance are outlined.

2.8   MEASURING THE PERFORMANCE OF SMEs

There are two broad measures used in evaluating the performance or success of an enterprise, namely financial and non-financial measures. According to Singh, Garg and Deshmukh (2008:195), the performance of an enterprise is defined as a ratio of output to input. The output includes the products of the firm and the input includes factors of production, like labour, capital and technology. Since the majority of SMEs are controlled and managed by owners, they are against providing detailed accounting data on the firms' performance because this information is regarded as confidential, and/or, at times, there are no proper records of such information (Fatoki 2014:142). According to Islam, Khan, Obaidullah and Alam (2011:290), firm performance refers to the firm's success in the market, whereas Park and Rhee (2012:1365) defined performance as the SME's ability to achieve a set of acceptable outcomes and actions.

According to Fatoki (2014:142), measuring performance in SME may require the use of return on assets, return on sales, return on employees, growth rate of assets, and

growth in the number of employees. Sarwoko, Surachman and Hadiwidjojo (2013:37) state that a firm's performance may be viewed from the level of sales, profit level, rate of return on capital, turnover, and percentage market share. Yazdanfar, Abbasian and Hellgren (2014:171) contend that qualitative techniques, when used in evaluating performance, make use of ranked or scaled variables (based on individual perceptions), such as knowledge and business experience, the ability to offer quality products and services, the capacity to develop new products and processes, the ability to manage and work in groups, labour productivity, and corporate responsibility to the environment.

According to Williams and Naumann (2011:21), a combination of financial and non-financial indicators for performance measurement should be used since the availability of financial data is limited or is treated as confidential information. In addition, entrepreneurs avoid reporting accurate financial data so as to minimise their tax obligations. Laguna, Wiechetek and Talik (2012:7) contend that entrepreneur's personal motivation, goals and aspirations are non-financial measures used in determining the success of SMEs. According to Parida, Westerburg and Frishammar (2012:289), SMEs prefer non-financial measures because financial measures fail to respond to developments in the technological and competitive environment, with the result that internal accounting information is frequently inaccurate and misleading.

From the discussion above, one can conclude that SMEs use both financial and non-financial measures to evaluate their performance. The competencies possessed by an entrepreneur have a tremendous impact on the performance of his enterprise, and in the next section, the salient aspects pertaining to entrepreneurial competencies and their impact on the performance of SMEs are discussed.

2.9   ENTREPRENEURIAL COMPETENCIES

Boyatzis (2009:750) defines competency as an underlying characteristic of a person, which results in the effective or superior performance/action of a task. The term "competence", which was developed in the United Kingdom, is viewed as something which a person who works in a given occupational area should be able to achieve; it is a description of an action, behaviour or outcome which a person should be able to demonstrate (Mitchelmore and Rowley 2010:97). Sarwoko, Surachman and

Hadiwidjojo (2013:32) contend that a competency approach is used to identify long-lasting individual characteristics of SME owners/managers that lead to success.

Bird (1995:60) proposes that highly effective entrepreneurs are those that do not fail at start-up stage, but ensure that their businesses enter survival and growth stages. The characteristics possessed by these entrepreneurs that results in competence can be a motive, trait, an aspect of their personal self-image or social role, skill, or experiences. These skills are used in the functional areas of management, planning, budgeting and marketing in small and medium enterprises. Man, Lau and Chan (2002), cited by Xiang (2009:8), describe entrepreneurial competencies as higher level characteristics encompassing personality traits, skills and knowledge which have a positive impact on the ability of an entrepreneur to perform a job successfully.

Man, Lau and Snape (2008:271) contend that entrepreneurial competencies can be classified into the following six areas: opportunity; organizing; strategic; relationship; commitment, and conceptual competencies. These six competency areas are discussed hereunder.

- *opportunity competencies* - this group of competencies is considered to be central to the process of entrepreneurship. It comprises two main elements - to spot and develop opportunities. The recognition of high quality opportunities prompts entrepreneurs to create organisations and embrace considerable risks to turn these opportunities into positive outcome. It was revealed by Man, Lau and Snape (2008:261), that an important competency requirement for growing companies is the readiness to seize relevant opportunities;

- *organising competencies* - this group of competencies calls for the ability to lead, control, monitor and organize various resources in the organisation. Man *et al.* (2008:259) suggest that monitoring is essential in keeping the firm operating efficiently, stating that business owners should be able to monitor their business activities closely to ensure that they are carried out efficiently and effectively;

- *strategic competencies* - this area of competencies require the entrepreneur to set vision and goals and to formulate strategies for the whole company. A vision allows entrepreneurs to focus their actions and decisions more strategically, and when achieved, will give their firms significant advantages over their competitors. Also, by having a set of clear goals and an overall picture of where and how the firm is

going to compete, entrepreneurs are able to formulate appropriate strategies and implement them to achieve the preset goals;

- *social competencies* - to successfully use contacts and connections, the entrepreneur needs to possess social competencies in communication, persuasive and relationship building abilities, either internally within the firm, or externally with others;

- *commitment competencies* - these competencies demonstrate strong motivation to compete; a drive to see a venture through to fruition;, the capacity to make an impact; drive and dedication, and

- *conceptual competencies* – are competencies that entail using cognitive and analytical thinking, learning, decision making and problem solving, innovating, and coping with uncertainty and risk.

Individuals, who start and transform firms and who add value through resources organisation, and opportunities recognition, are believed to be in possession of entrepreneurial competencies. According to Mitchelmore and Rowley (2010:98), entrepreneurial competencies are underlying characteristics such as specific knowledge, motives, traits, self-images, social roles and skills that contribute to the creation, growth and survival of SMEs, whereas Neneh and Van Zyl (2012:174) define competencies as commitment, determination, leadership, opportunity and tolerance of risk.

Pushpakumari (2009:11) contends that entrepreneurial competencies are viewed as the ability of the entrepreneur to achieve superior performance in any given task. Based on the resource-based theory of the firm, the value creation of SMEs is strictly associated with the ability of owner/managers to acquire and develop resources. Individuals, who begin and transform their SMEs, have entrepreneurial competencies. According to Mitchelmore and Rowley (2013:128), entrepreneurial competencies enable owner/managers to play a critical role in SMEs by identifying business opportunities, building relationship with both suppliers and customers, and making sure that the firm operates efficiently. The responsibilities of owners/managers require them to be opportunity sensitive, to be good at relationship building, and efficient organisers.

Alkali and Baba (2012:369) contends that the skills necessary for successful SMEs may include, for example, oral presentation skills, interpersonal skills, and the ability to prepare and present a business plan. Research undertaken by Ahmad, Halim and Zainal (2010:67) identified the four most important competency areas for owners/managers for SMEs in the Asian countries as management, planning, budgeting, and marketing. According to Chandler and Jansen (1992), cited by Xiang (2009:7), to function effectively in an entrepreneurial role, two competencies are required: one is the ability to recognise and envision taking advantage of opportunity; the other is the drive to see firm creation through to fruition, which requires the willingness and capacity to generate intense effort for long, hard hours. Xiang (2009:7) postulated that entrepreneurial competencies are differentiated into specific competencies and general competencies. Specific competencies consists of industry skills and technical skills, while general competencies include organization skills and opportunity recognition skills.

Entrepreneurial competencies are assumed to have a strong link not only in the performance and in the competitiveness of a firm, but also in its growth and success. It has been noted that owner-managers with business education, or experience with accounting or finance, have a vast knowledge of funding options as compared to their counterparts who lack such competencies (Masoud 2013:58). According to Mitchelmore and Rowley (2010:104), entrepreneurial competency development may be classified into four groups, namely, formal, informal, internal and external. Formal competency development refers to all planned learning activities that take place during working hours, and are mainly financed by the employer. Informal competency development, on the other hand, is unplanned learning which is conducted through employees' participation in various work activities (Yazdanfar, Abbasian and Hellgren 2014:164). Bauer (2011:4) contends that entrepreneurship training courses have a positive impact on an owner's individual development and to the success of the business.

Paladan (2015:3) states that entrepreneurial competencies include those groups of related knowledge, attitudes, and skills that entrepreneurs should acquire through managerial learning programmes, and is associated with outstanding performance and maximum profits, while managing a business venture or an enterprise. Entrepreneurial competencies at functional-level can be sources of competitive

advantage through efficiency, quality, innovation, and customer responsiveness (Masoud 2013:60). Nurach, Thawesaengskulthai and Chandrachai (2012:240) postulate that entrepreneurs should develop core competencies, as they are the roots of competitiveness that produce unique products or services. According to this view, SMEs who aim to generate more sales revenue should apply competencies that will make a positive contribution to future customer value. According to Camuffo, Gerli and Gubitta (2012:51), building core competencies is essential for long-term competitive advantage.

According to Man, Lau and Snape (2008:262), failure among SMEs may be because of a lack of management and organisational competencies. Boris and Kongo (2015:8) postulate that the acquisition, management, and organisation of both tangible and intangible resources in an entrepreneurial firm requires a common understanding of the operations in the different departments within the organisation. Given the constraints of attracting skilled labour by SMEs, good networks provide owner/managers with access to expertise and various forms of support. Managerial competencies may influence owner/managers to energise a team, which is deemed to be an essential skill required by managers. Within SMEs, entrepreneurial competencies, managerial competencies and technical-functional competencies determine the success of SMEs (Camuffo, Gerli and Gubitta 2012:50). These three set of competencies influence the decisions and actions of owners/managers, thereby influencing the overall strategy, namely, the ability to innovate new products, services or processes, and the ability to maintain high quality in products or services, which leads to a good image and reputation.

According to Fatoki and Odeyemi (2010:130), a lack of managerial experience, skills and personal qualities, as well as other factors, such as poor economic conditions, poor business plans and resource scarcity, are the main reasons why new firms fail. The distinguishing feature of high growth and low growth small firms is the education, training and experience of managers (Fatoki 2014:142). Spinelli and Adams (2012:292) suggest that managerial competencies are measured not only on the basis of educational qualifications, but also on the natural administrative skill and practical experience possessed by a SME owner/manager in a given business area.

Entrepreneurial competencies include those groups of related knowledge, attitudes, and skills that entrepreneurs should acquire through managerial learning

programmes, and is associated with outstanding performance and maximum profits, while managing a business venture or an enterprise. Al Mamun, Subramaniam, Nawi and Zainol (2016:275) contend that within SMEs, entrepreneurial competencies, managerial competencies and technical-functional competencies determine the success of SMEs. These three set of competencies influence the decisions and actions of owners/managers, thereby influencing the overall strategy, namely, the ability to innovate new products, services or processes and the ability to maintain high quality in products or services, which leads to a good image and reputation (Ng and Kee 2013:2459).

From the discussion above it is clear that there is a strong relationship between the possession of core entrepreneurial competencies by SME owners and the success of their enterprises. In the next section, the results of a few studies undertaken to examine the link between these two variables are outlined.

2.10 RELATIONSHIP BETWEEN ENTREPRENEURIAL COMPETENCIES AND THE PERFORMANCE OF SMEs

Research undertaken by Man, Lau and Snape (2008:275) on the link between entrepreneurial characteristics and firm performance concluded that competencies contribute both directly and indirectly to the performance of SMEs. Yazdanfar, Abbasian and Hellgreen (2014) conducted a study in Sweden, which investigated the relationship between performance and competence development among micro firms, with the latter being measured by the number of hours per person a company allocated annually to competence development. Their study concluded that competence development programmes were positively related to four performance variables of micro firms, namely, job satisfaction; organizational improvements; increase in the number of employees, and exports (Yazdanfar, Abbasian and Hellgreen 2014:174).

Research conducted by Oo (2013:61), entitled "Determinants of SMEs' performance: The case of Kyaing Tong, Eastern Shan State, Myanmar", concluded that organizing competencies, strategic competencies, commitment competencies, external factors, nature of firm, firm knowledge, location, customer orientation, competitor orientation, and inter-functional orientation all have a positive impact on the performance of SMEs. However, the study found no association between opportunity competencies;

relationship competencies; conceptual competencies, and SMEs' performances (Oo 2013:60).

A study undertaken by Gerli, Gubitta and Tognazzo (2011:28) on the role of the individual competencies among owners of small and medium sized Italian firms found that there was a positive relationship between entrepreneurial competencies and the performance of SMEs. Competencies like efficiency orientation, planning, persuasiveness, self-confidence, organizational awareness, directing others, teamwork, leadership and benchmarking were linked to higher performance of SMEs (Gerli *et al.* 2011:29). However, the findings of a study conducted by Fatoki (2014:143), which investigated the impact of managerial competency determinants, more specifically, level of education, related experience, and prior work experience, on the performance of immigrant-owned enterprises in South Africa, differed from the findings of Gerli *et al.* (2011:29). The results indicated that an insignificant relationship existed between the level of education and performance; however, the study concluded that owner-managers with prior work experience performed significantly better than those without prior work experience (Fatoki 2014:143).

Research undertaken by Pushpakumari (2009:110) in Japan, to examine the relationship between the personal values of SME owner-managers and the performance of their enterprises. The data for the research were obtained from a survey of 326 SMEs in manufacturing industry, and the results revealed that there was a significant relationship between the personal values of owners/managers and the performance of their enterprises. Islam, Khan, Obaidullah and Alam (2011:296) investigated the effect of entrepreneur and firm characteristics on the success of small and medium enterprises in Bangladesh. Their results indicated that the characteristics of the entrepreneur are a significant factor for success among SMEs in Bangladesh. However, the firm characteristics were found not to be a significant factor for the success of SMEs (Islam *et al.* 2011:296).

A study was conducted by Ahmad, Ramayah, Wilson and Kummerow (2010:197) to evaluate the effect of entrepreneurial competencies and the moderating effect of the business environment on business success among small and medium sized enterprises (SMEs) in Malaysia. A sample of 212 SME owner-founders participated in the study, and the measures of business success that were used were profitability, sales turnover, sales growth, and return on investment. Their findings revealed that

the association between entrepreneurial competencies and business success was more strongly evident in hostile and dynamic environments than in stable environments (Ahmad *et al.* 2010:197).

Alkali (2012:922) undertook research on the impact of entrepreneurs' educational levels and the performance of small enterprises in Nigeria. A sample size of 302 small business manufacturing enterprises were chosen in Bauchi state. The study revealed that a positive relationship existed between academic qualifications and performance (Alkali 2012:922). These results are similar to the findings of Inyang and Enuoh (2009:70), which concluded that an entrepreneur needs to acquire competencies in such areas as managing time effectively, communication, human resources management, business ethics and social responsibilities, leadership qualities, decision-making skills, marketing and financial management, in order to achieve superior performance. In another study undertaken by Fatoki and Odeyemi (2010) among SMEs in South Africa, the authors concluded that a lack of education and training reduced the management capacity of SMEs in South Africa, and increased the failure rate among SMEs (Fatoki and Odeyemi 2010:133).

Rogerson (2003:692) undertook a study to establish the key factors that influenced the success of SME development in post-apartheid South Africa, and the main conclusion was that education and training positively influenced the success of SMEs in South Africa. The finding above corresponds with the finding from a similar study undertaken by Nkonoki (2012:49), on the factors that limit the growth/and or success of small businesses in Tanzania, which found that inadequate education and training of entrepreneurs had an adverse impact on the performance of small businesses in Tanzania.

Research undertaken by Fairoz, Hirobumi and Tanaka (2010:40), investigated the degree of entrepreneurial orientation among SMEs in Hambantota District, Sri Lanka and their influence on business performance. The study concluded that there was a positive correlation between entrepreneurial orientation and firm performance (Fairoz *et al.* 2010:40). These results are similar to the results of a study undertaken by Wiklund and Shephered (2003:1312), on the relationship between knowledge-based resources, entrepreneurial orientation and the performance of SMEs in Sweden. The study revealed the importance of technical skills built up by entrepreneurs, and on-the-job training. These findings were similar to the findings of a study conducted by

Mehralizadeh and Sajady (2006:113) in Iran, which found that human relation skills, technical skills and conceptual skills greatly influenced the success of SMEs.

2.11   CONCLUSION

From the relevant literature reviewed, it is evident that SMEs contribute significantly in terms of job creation, innovation and economic growth, and that there are major differences between SMEs and large organisations. It is also became evident that entrepreneurial competencies influence the performance of SMEs, and the findings from several studies cited confirm this. The literature reviewed also revealed that most SMEs used both financial and non-financial measures to measure their performance.

In the next chapter, the research methodology and design employed for the study is discussed.

CHAPTER 3

RESEARCH METHODOLOGY AND DESIGN

3.1   INTRODUCTION

This chapter begins by restating the research aim and objectives of the study, as well as the research questions that were posed; thereafter, the following aspects, *inter alia*, are discussed: the research design; the sampling technique; the questionnaire design, and the data collection and analysis techniques used in the study.

3.2   AIM AND OBJECTIVES OF THE STUDY

The aim of this study was to evaluate the impact of entrepreneurial competencies on the performance of small and medium enterprises (SMEs) in the eThekwini municipal region, in KwaZulu-Natal, South Africa, and the objectives were as follows:

- to identify the extent to which the level of education and training of SME owners/managers influenced the performance of their enterprises;

- to determine the influence of SME owners' personal values and beliefs on the success of their enterprises;

- to ascertain whether there was a relationship between the personality traits of SME owners and business success, and

- to determine whether there was a link between the leadership style of an entrepreneur and the success of his enterprise.

3.3   RESEARCH QUESTIONS

Arising from the objectives of the study, the following research questions were posed:

- to what extent does the level of education and training of SME owners/managers influence the performance of their enterprises?;

- do the personal values and beliefs of SME owners influence the success of their enterprises?;

- is there a relationship between the personality traits of SME owners and the success of their enterprises?

- is there any link between the leadership style of an entrepreneur and the success of his/her enterprise?

3.4   RESEARCH DESIGN

According to Kumar (2011:40), a research design is defined as "a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems". Research design refers to the plans that promote the systematic management of data collection. It may be also defined as a procedural plan that is adopted by the researcher to answer questions validly, objectively, accurately and economically. According to Creswell (2014:250), the main function of a research design is to enable the researcher to plan an appropriate research process that should maximize the validity of eventual results. Johnson and Christensen (2014:357), state that there are three basic types of research designs, namely, qualitative design, quantitative design and mixed method design. He further contends that the choice of the research design to be used in a study depends on the nature of the research and the possible limitations of the research project. In this study a quantitative research design was employed.

3.4.1 QUANTITATIVE RESEARCH

Quantitative research generally involves the generation of statistical data from large-scale surveys using methods such as structured interviews and questionnaires in order to generalise the results to a wider setting (Fox and Bayat 2007:77). According to Cooper and Schindler (2014:140), the objective of the quantitative research approach is to develop and employ mathematical models, theories and/or hypotheses pertaining to a phenomenon. The research findings are then subjected to statistical analysis to produce broadly representative data that can be extensively applied to the total population. Wild and Diggines (2010:86) identified the following requirements for a quantitative research approach: the generation of models, theories and hypotheses; the development of instruments and methods for measurement; collection of empirical data; modelling and analysis of data, and evaluation of results.

According to Johnson and Christensen (2014:35), quantitative research:

- looks at cause and effect and makes predictions of variables. In this study the independent variable is entrepreneurial competencies and the dependent variable is the performance of SMEs;

- is based on the precision of measurements by using structured and validated data-collection instruments;

- makes use of a larger and randomly selected sample;

- allows the researcher to test the theory with the empirical data, and

- describes, explains, and predict variables.

The researcher used the quantitative research design in gathering data from SMEs in the eThekwini Municipal region in KwaZulu-Natal. Hence, the researcher would be detached from influencing the outcome with his/her own personal values, feelings, and experiences, and it was both cost and time effective. Furthermore, as entrepreneurial competencies are composed of attitudes, skills and expertise that are measured on the basis of one's opinion (Subramanian and Moslehi 2013:50), a quantitative research design was deemed most appropriate for this study.

3.5   TARGET POPULATION

Target population is defined as the total number of the subjects that meet the research criteria and usually has varying characteristics (Creswell 2013:158). Wegner (2016:5) suggests that the target population is the aggregate of all elements from which a sample is selected. In this study, the target population consisted of SMEs within the eThekwini municipal region of KwaZulu-Natal; i.e., enterprises with no fewer than 20 and no more than 200 employees. However, as there were no records/databases of all the SMEs in the eThekwini region, a sampling frame, which consisted of SMEs in the eThekwini region who were members of the Durban Chamber of Commerce and Industry (DCCI), was used. From the DCCI's directory for the 2015/2016 year, 700 SMEs, located within the study area, were identified.

3.6   SAMPLE SIZE

According to the sample size table developed by Sekaran and Bougie (2014:294), for a population consisting of 700 units/elements, a sample size of 248 must be used. According to Creswell (2012:142), probability sampling techniques are normally applied when the study uses a sampling frame. In this study simple random sampling was applied because it is a fair way to select a sample without any bias.

3.7   THE RESEARCH INSTRUMENT AND DATA COLLECTION

For this study, data was collected via a self-administered structured questionnaire (Annexure D). A questionnaire is a written instrument used to obtain information from the sample respondents, and according to Cooper and Schindler (2010:140), a researcher uses questionnaires for the following reasons:

- questionnaires ensure that information from different respondents is comparable;

- questionnaires increase the speed and accuracy of recording responses;

- questionnaires facilitate data processing;

- questionnaires are economical in terms of time and money;

- questionnaires enable the respondents to remain anonymous;

- self-administered questionnaires, by ensuring anonymity and privacy of the respondents, encourage more honest responses, and

- self-administered questionnaires are less expensive than other data gathering methods.

The questionnaire used in this study was adapted from the questionnaires used in the studies undertaken by Man, Lau and Snape (2008:271); Xiang (2009:47), and Ahmad (2007:288). The questionnaire was divided into three sections: demographic information; entrepreneurial competencies, and performance of SMEs, and consisted of sixteen closed-ended questions with sub-questions in some parts of the questions (refer to Annexure D). The researcher used closed-ended questions because it was easier to code and analyse the responses. Every response was assigned a number or value so that it facilitated data capturing. According to Murthy and Bhojanna

(2010:50), closed-ended questions are more specific and force respondents to reply according to the dimensions that are of interest to the researcher.

The layout of the questionnaire was kept very simple to encourage meaningful participation by the respondents, and the questionnaire consisted of seventeen closed-ended questions, which included a mix of dichotomous questions; multiple-choice questions, and rating questions. According to Cant (2013:113), a dichotomous question is a question which offers two alternative answers to choose from, whilst a multiple-choice question is a question with more than two alternative answers. Copper and Schindler (2011:247) define the Likert scale as a summated rating scale which consists of statements that express either a desirable or undesirable opinion or attitude of a subject. Given that the study was quantitative in nature, four questions made use of a 5 point Likert scale, whilst three were dichotomous questions and the remaining ten questions were multiple choice questions. The questionnaires were addressed to the owners/managers of the SMEs. The contact details of these owners/managers were obtained from the Durban Chamber of Commerce and Industry's directory for the 2015/2016 year. The self-administered questionnaires were e-mailed to 248 owners/managers of SMEs located in the eThekwini region of KwaZulu-Natal.

3.8   SELECTION OF THE SAMPLE

According to Saunders, Lewis and Thornhill (2012:147), with probability sampling, the likelihood of any one member (or element) of the population being selected, is known. Probability sampling is based on random selection of respondent and exists within a quantitative paradigm. Cooper and Schindler (2014:450) state that non-probability sampling is non-random but arbitrary and subjective. In non-probability sampling, the exact number of observations in the population is unknown, with the result that the likelihood of selecting any one member/element of the population is not known. Bryman and Bell (2015:179) contend that researchers use simple random sampling because each observation remaining in the population has the same probability of being selected for the sample.

In this study simple random sampling was used since it was easy to select the participants in the study and was the cheapest method to conduct the study. Subjects in the population were randomly sampled using a random number table. The target population, consisting of 700 SMEs, were numbered in sequential order from one to

seven hundred, and the random number table consisted of ten columns of five-digit non-repeatable numbers, which were listed in random order, and the researcher used the last three digits to select the sample observations.

3.9   RELIABILITY AND VALIDITY

Reliability generally refers to the extent to which a variable or set of variables is consistent in what it is intended to measure. It also refers to the extent to which the measurement process is free from random errors, and the extent to which obtained scores may be generalised to different measuring situations (Laura and Bernaur 2014:122). Reliability would normally be tested by applying the same instrument at different times in order to assess whether or not the same results are achieved. However, this is not practical; hence, Cronbach's alpha was used to test the reliability of the instrument. In order for the measuring instrument to be deemed reliable, an alpha score in excess of 0.70 must be achieved (Bryman and Bell 2015:169). For this questionnaire, the coefficients of Cronbach's α of the constructs were all higher than 0.70, thereby indicating an acceptable internal consistency of the measurements (Annexure E: Table 55).

Validity refers to the extent to which the measurement process is free of both systemic and random errors. It refers to how well the data measure what they are supposed to measure (Creswell 2012:162). Validity refers to the results of the test, and not the test itself. In quantitative research, the ultimate question is whether valid conclusions may be drawn from a study, given the research design and controls employed (Ihantola and Kihn 2011:5). According to Murthy and Bhojanna (2010:57), a valid questionnaire should comply with the following aspects:

- relevant: does the questionnaire obtain the information it was designed to seek?

- complete: is all desired relevant information obtained?

- accurate: can reliance be placed upon the responses to the questions?

The face validity of the questionnaire was tested using experts (in the areas of SMEs and entrepreneurial competencies), who analysed and interrogated the questionnaire to establish whether it covered the study objectives. Their feedback was used to improve the questionnaire. Moreover, to improve the validity of the questionnaire, a

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pilot study, was conducted among ten randomly selected SMEs within the eThekwini municipal region in KwaZulu-Natal. The 10 respondents, which were used in the pilot study, were not included in the sample of 248.

3.10   PILOT STUDY

A pilot study is a mini-version of a full-scale study, or a trial run in preparation of the complete study (Farquhar 2012:43). It can also be a specific pre-testing of research instruments, including questionnaires or interview schedules. The pilot study followed after the researcher had set out the research topic and objectives, the techniques and methods which were applied in terms of data collection, and what the research schedule will look like. The pilot study was conducted among ten randomly selected respondents within the study area to assist in determining if any of the questions were ambiguous; the average time taken to complete the questionnaire, and to establish if the research instrument was aligned to the research objectives. The results of the pilot study revealed that two questions were ambiguous, and these were rephrased. The results also revealed that the average time to complete the questionnaire was 15 minutes, and that the research instrument was aligned to the research objectives. Those SMEs among whom the pilot study was conducted, were not included in the sample of 248 SMEs chosen.

3.11   ANALYSIS OF DATA

Saunders, Lewis and Thornhill (2012:151) point out that data analysis is used to describe facts, determine patterns, develop explanations, and hypotheses testing. In data analysis, the raw data (unprocessed information) is ordered and organised to enable the extraction of useful information from it. In this study the data from the 122 fully completed questionnaires was captured and coded on Microsoft Excel spreadsheets, and was processed using the Statistical Package for the Social Sciences (SPSS), version 21, software, and the results are presented in the form of graphs and tables.

Data analysis for this study was composed of descriptive statistics and inferential statistics. Polit and Hungler (2013:63) define descriptive statistics as form of data analysis which is used to convert raw data into useful and meaningful information, which is easy to understand, interpret, and re-arrange. Descriptive statistics can also be used to summarise information about a population or a sample. In this study the

descriptive statistical tools that were used were frequency distribution tables, histograms and pie-charts.

Inferential statistics is simply defined as those statistical methods that are used to draw conclusions and probe characteristics about a population based on the sample data collected (Cooper and Schindler 2014:454). According to Israel (2013:5), inferential statistics are produced by more complex mathematical calculations, and allows one to infer trends about a larger population, based on a study of a sample taken from it. Inferential statistics is used to examine the relationships between variables within a sample, and then make generalisations or predictions about how those variables will relate within a larger population. Inferential statistics enable the testing of assumption, question or theory with data collected and to provide empirical conclusion based on a certain level of significance, which is usually 5%.

In this study, the technique that was used as part of inferential statistics in the examination of the relationships between entrepreneurial competencies and performance of SMEs was Pearson chi-squared test. According to Cooper and Schindler (2010:511), the chi-square test measures the "differences between observed distribution of data amongst categories and the expected distribution based on the null hypothesis (Ho)". This null hypothesis (Ho) assumes that two variables are independent of each other while the alternative hypothesis assumes the existence of a relationship between two variables. The results of Pearson correlation were established but not discussed since the nature of the study was to determine the degree of strength of the association between the components of entrepreneurial competencies and the performance of SMEs.

3.12   LETTER OF INFORMATION AND CONSENT

A letter of information and consent (refer to Annexure A) accompanied the questionnaire, and outlined the purpose of the study. The letter gave the potential respondents an opportunity to ask questions about the study and make a decision on whether or not to participate in the study.

3.13   ETHICAL CONSIDERATIONS

According to Wild and Diggines (2010:21), ethics refer to commonly accepted standards of right and wrong behaviour. The respondents were given an assurance by the researcher that high levels of confidentiality will be maintained; that they were not required to disclose their personal particulars, and that participation in the study was voluntarily. The researcher also informed the respondents on how the information collected will be used and disposed after data analysis.

3.14   CONCLUSION

This chapter discussed the following salient aspects, *inter alia*, research aim and objectives; research design; the sampling technique; the questionnaire design, and the data collection and analysis technique. Additionally, the chapter examined the data gathering technique used for the research study, especially the rationale for choosing the self-administered questionnaire, and the need for a covering letter.

In the next chapter the results of the study are presented, analysed and discussed.

CHAPTER 4

PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.1   INTRODUCTION

In this chapter the results of the empirical study are presented, analysed and discussed. The results are presented using descriptive statistics in the form of graphs, tables and charts for the quantitative data collected via the responses from the questionnaire. A variety of appropriate statistical tests were used to analyse and interpret the data collected from the completed questionnaires, with a view to identifying important patterns and relationships.

4.2   THE RESPONSE RATE

The researcher distributed 248 questionnaires to small and medium enterprises (SMEs) in the study area, and 122 fully completed questionnaires were returned, representing a response rate of 49.2%. The response rate compares well with those of previous studies conducted among SMEs. Fatoki (2014:143), in a study of the impact of managerial competencies on the performance of immigrant-owned SMEs in South Africa, achieved an effective response rate of 38.6%, and Bigliardi, Colacino and Dormio (2011:83), in a study of innovative characteristics of SMEs in the Italian manufacturing sector, achieved a response rate of 45%. The response rate for both the studies cited above were considered adequate to draw meaningful conclusions. Hence, the response rate for this study is regarded as acceptable to proceed with the analysis and interpretation of the data.

The findings from the empirical research are presented, analysed and discussed below, in the sequence of the questions in the research instrument.

4.3   BUSINESS SECTOR TO WHICH SMEs IN THE eTHEKWINI REGION BELONGED

Table 4.1 below reflects the most common categories to which respondents in the study area belonged. The largest number of respondents (17%) from the study area were from the catering and accommodation sector, followed by "other" (15%). Two business categories polled the same response rate of 13%, namely, finance and business services, and retailing, motor trade and repair services.

Table 4.1: Business sector to which SMEs in the eThekwini region belonged

Category of business	Frequency	Percent
Agriculture	07	06%
Manufacturing	15	12%
Construction	12	10%
Retailing and Motor trade and Repairs service	16	13%
Wholesale commercial agents and allied services	05	04%
Catering and Accommodation	21	17%
Transport storage and communication	06	05%
Finance and business services	16	13%
Community and Personal services	06	05%
Other	18	15%
Total	**122**	**100%**

The "Other" category consisted primarily of recruitment, cleaning and administration enterprises. The fewest number of respondents (5%) from the study area were from the transportation, storage and communication sector.

4.4   BIOGRAPHICAL INFORMATION OF RESPONDENTS

The biographical information collected from respondents were as follows: number of (full-time) employees; the period of existence of the business, and educational qualifications of the owners.

4.4.1 Number of (full-time) employees

The number of full-time employees employed by SMEs in the study area is reflected in Figure 4.1 below.

Figure 4.1: Number of (full-time) employees
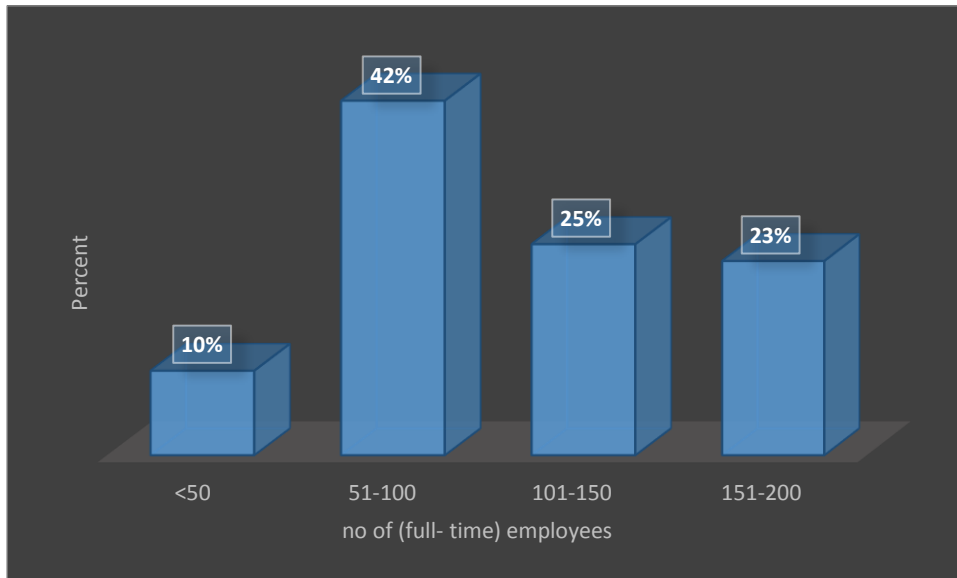
Figure 4.1 shows that 10% of the respondents employed less than 50 full time employees; 42% of the SMEs employed between 51-100 full time employees; 25% of the respondents employed between 101-150 full time employees, and 23% of the respondents employed between 151-200 full time employees. These results indicate that only 10% of the respondents were small enterprises, with the majority (90%) of the respondents being medium sized enterprises.

4.4.2 Length of ownership of existing businesses

Table 4.2 displays the frequency and dispersion of responses in respect of the number of years the SME owners had owned their existing businesses.

Table 4.2: Period of ownership of existing businesses

Duration in business	Count	Percent
<5yrs	18	15%
5-10yrs	45	37%
11-15yrs	35	29%
16-20yrs	14	11%
>20yrs	10	08%
Total	**122**	**100%**

As highlighted in Table 4.2 above, 15% of the respondents have been in operation for less 5 years; 37% have been in operation for 5-10 years; 29% of the respondents have been in operation for 11-15 years; 11% have been in operation for 16-20 years, and the remaining 8% of the respondents have been in operation for more than 20 years. From the analysis above it is evident that almost half of the respondents (48%) were very well established, having been in business for more than 10 years.

4.4.3 Educational qualifications of SME owners

Table 4.3 below reflects the frequency and dispersion of the responses with respect to the educational qualifications of the owners/managers of SMEs.

Table 4.3: Education qualifications of SME owners

Qualification	Count	Percent
Grade 12/ standard 10	22	18%
Diploma/Degree	65	53%
Post Graduate	34	28%
Other	01	1%
Total	**122**	**100%**

Table 4.3 reflects the highest educational qualification levels of the owners of the SMEs in the eThekwini region who were surveyed. Only 19% of the respondents had no tertiary educational qualifications, with the majority of the respondents (53%) possessing either a diploma or a degree, and 28% of the owners/managers of the SMEs surveyed possessing a post-graduate qualification.

While the above section presented and analysed the biographical information of respondents, in the next section the extent to which respondents agreed or disagreed to five statements linked to managerial competencies are presented, analysed, and discussed.

4.5   MANAGERIAL COMPETENCIES

A series of statements regarding managerial competencies were posed to respondents, and they were required to rate them on a five point Likert scale, ranging from "Strongly disagree" to "Strongly agree". Their responses are reflected in Table 4.4 below.

Table 4.4: Managerial competencies

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	TOTAL
To succeed in business one needs to be highly ethical	53%	36%	3%	0%	8%	100%
The leadership style of the owner plays a major role in the success of the enterprise	56%	32%	4%	0%	8%	100%
The personal values and beliefs of the owner impact on the success of his/her enterprise	55%	31%	4%	2%	8%	100%
I involve employees in decision making	61%	33%	3%	3%	0%	100%
I demonstrate patience, maturity and poise and respond well in high pressure situations	53%	44%	3%	0%	0%	100%

An analysis of the responses to the first statement revealed that 89% of the respondents either strongly agreed (53%) or agreed (36%) that for their businesses to succeed, SME owners should be highly ethical, while 8% strongly disagreed, and 3% neither agreed or disagreed with the statement that to succeed in business one needs to be highly ethical. This finding supports the literature that points out that business owners who behave ethically are often more successful than those businesses owners that do not behave ethically. According to Ahmad (2009:119), this may be due to the impact of the ethical behaviour of the owner on the image and reputation of his/her organisation.

A further analysis of the responses in Table 4.4 revealed that a total of 88% of the respondents either strongly agreed (56%), or agreed (32%) that the leadership style

of the owner plays a major role in the success of the enterprise, while 8% of the respondents strongly disagreed, and the remaining 4% were neutral in this regard.

As illustrated in Table 4.4 above, the majority of respondents (86%) either strongly agreed (55%) or agreed (31%) that their personal values and beliefs influenced the success of their enterprises, while a total of 10% of the respondents either strongly disagreed (8%) or disagreed (2%), and 4% neither disagreed nor agreed that their personal values and beliefs influenced the success of their enterprises. These results are consistent with the findings of a study conducted by Pushpakumari (2009:102) in Japan, that concluded that owner-managers who possessed personal values and beliefs like achievement, autonomy, ambition, creativity, energy, loyalty, trust, honesty and responsibility, were more successful than those who did not possess these values and beliefs.

Table 4.4 also reveals that a total of 94% of the respondents either strongly agreed (61%) or agreed (31%) with the statement that they involve employees in decision making, while a small proportion of respondents (3%) either disagreed with this statement or remained neutral. In general, research has shown that involving employees in decision-making has a positive effect on their motivation and their productivity.

Table 4.4 indicates that almost 97% of the respondents strongly agreed (53%) or agreed (44%) that they demonstrate patience, maturity and poise and respond well in high pressure situations, while only 3% of the respondents neither agreed nor disagreed with the statement. The ability to demonstrate patience, maturity and poise and respond well in high pressure situations in order to achieve higher performance than originally planned is normally associated with transformational leadership, which is important for the success of SMEs. This implies that SME owner-managers with a positive attitude towards business threats will improve the performance of their businesses through their transformational leadership style.

4.6   FREQUENCY OF STAFF DEVELOPMENT AND TRAINING WORKSHOPS

Respondents were asked to indicate the frequency of staff development and training workshops conducted by their organisations, and their responses are reflected in Figure 4.2 below.

Figure 4.2: Frequency of staff development and training workshops
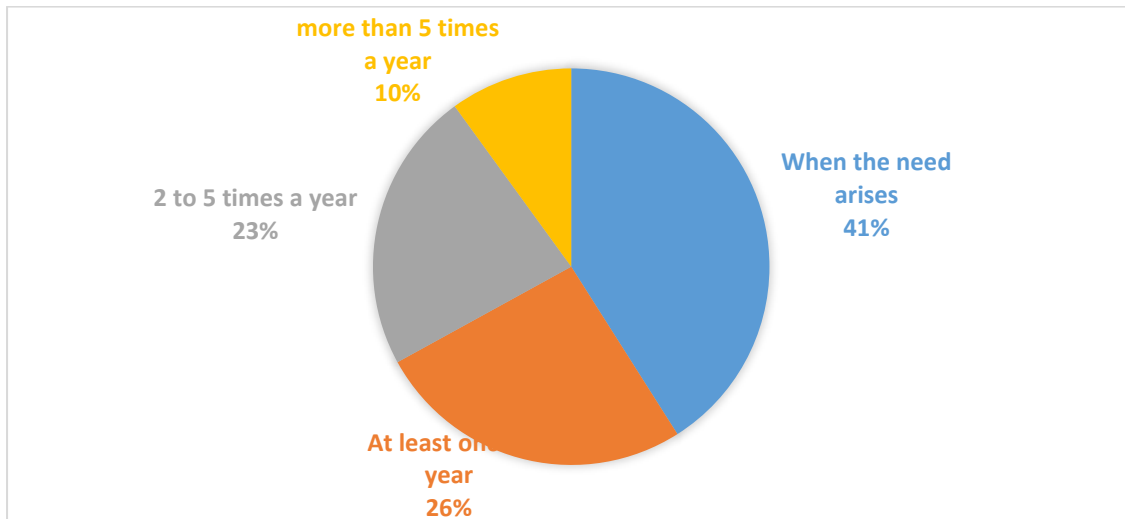
As depicted in Figure 4.2 above, the largest number of respondents (41%) indicated that formal staff development and training workshops are conducted as and when the need arises; 26% of the respondents conduct these workshops at least once in year; 23% between 2 to 5 times a year, and 10% of the respondents indicated these workshops were conducted more than 5 times a year. From these results, it may be suggested that a substantial number of owners/managers prefer to conduct training when the need arises because they deem it costly to conduct training regularly. In analysing the findings of the study, it may be also concluded that 59% of the owners/managers in the SME sector within the eThekwini region had a formal staff development and training policy. This may be due to the fact that the majority of respondents (90%) for this study were medium-sized enterprises. According to Zindiye (2008:245), the factors that influence the frequency of staff development and training workshops include leadership and ownership roles; the number of staff and their responsibilities, and previous experiences of training.

4.7   CONCEPTUAL COMPETENCIES

Conceptual competencies are competencies that entail using cognitive and analytical thinking; learning; decision-making; problem solving; innovating, and coping with uncertainty and risk. In this study a five point Likert scale, ranging from strongly agree (1) to strongly disagree (5), was used to ascertain the extent to which SME owner/managers agreed/disagreed with the statements that described how they applied conceptual competencies, and the results are reflected in Table 4.5 below.

Table 4.5: Conceptual competencies of SME owners/managers

Statement	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree	TOTAL
When faced with difficult problems, I spend a lot of time trying to find a solution	36%	53%	9%	1%	1%	100%
When starting a new task or project, I gather a great deal of information	62%	32%	4%	0%	2%	100%
I think about the advantages and disadvantages of different ways of accomplishing things	53%	41%	5%	1%	0%	100%
If one approach to a problem does not work, I think of another approach	60%	35%	4%	0%	1%	100%
I think of many new ideas	60%	35%	4%	1%	0%	100%

As shown in Table 4.5 above, regarding the statement "When faced with difficult problems, I spend a lot of time trying to find a solution", the majority of respondents (89%) either strongly agreed (36%) or agreed (53%) with the statement; 2% of the respondents either disagreed (1%) or strongly disagreed (1%) that if they were faced

with difficult problems, they spent a lot of time trying to find a solution, and 9% of the respondents neither agreed nor disagreed with the statement.

An analysis of the responses (Table 4.5) revealed that 94 % of the respondents agreed or strongly agreed with the statement that when they start a new task or project, they gather a great deal of information, while 2% strongly disagreed, and 4% of the respondents neither agreed nor disagreed with the statement. This implies that the majority owners/managers have the ability to think out of the box, which is often reflected in the ability to stimulate new thinking patterns and develop new ideas and concepts.

Table 4.5 reveals that a total of 94% of the respondents either strongly agreed (53%) or agreed (41%) with the statement that they think about the advantages and disadvantages of different ways of accomplishing things. However, five percent of the respondents neither agreed nor disagreed with the statement, while only 1% of the respondents disagreed with this statement. This implies that the majority of owners/managers conduct a cost-benefit analysis on the methods of accomplishing tasks so as to get the maximum returns that will improve organisational success. According to Man and Lau (2000:253), entrepreneurs, especially those operating in the SME context, face numerous situations that require them to evaluate various methods to accomplish a task, with a view to improving the sustainability of their businesses.

Sixty percent of the respondents strongly agreed with the statement that if one approach to a problem does not work, they think of another approach; 35% of the respondents agreed; 1% of the respondents strongly disagreed, and 4% of the respondents neither agreed nor disagreed with this statement.

Analysing the response to the statement whether owners/managers think of new ideas or not, a total of 95% of the respondents either agreed (35%) or strongly agreed (60%) that they think of many new ideas, while 1% of the respondents disagreed and 4% of the respondents neither agreed nor disagreed with the statement that they think of new ideas. The results indicate that owners/managers in the eThekwini region always thought of new ideas, which, in turn, resulted in new products/services being offered, or in improvements being made to existing products/services.

On the basis of the results above, it can be concluded that the majority of the SME owners/managers surveyed had the necessary conceptual abilities to make a success of their business. However, whether this translated to business success will be examined later.

4.8   COMMITMENT COMPETENCIES

A five-point Likert scale, ranging from strongly agree (1) to strongly disagree (5) was used to ascertain the extent to which respondents agreed/disagreed with the statements that owners/managers are bothered when things are not done very well; that they give much effort to their work, and that owners/managers work long hours and make personal sacrifices to complete jobs on time. The cumulative responses of the respondents to each of these statements are reflected in Figure 4.3 below.

Figure 4.3: Commitment competencies
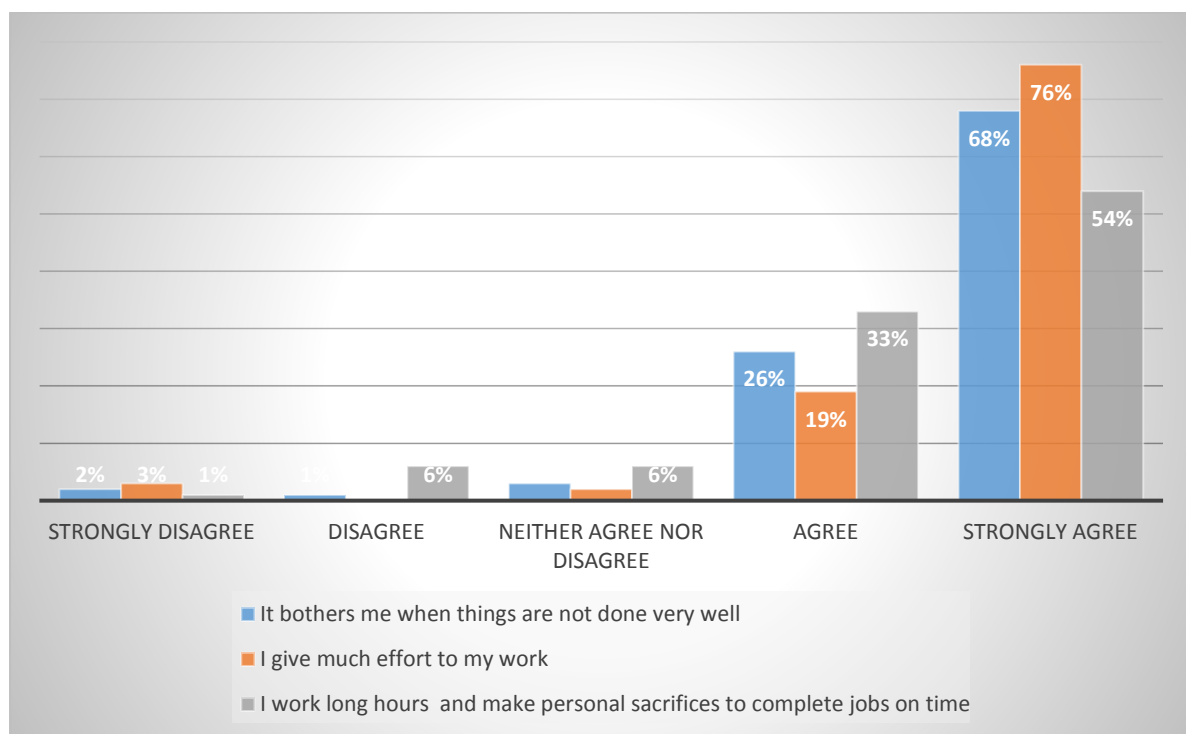
An analysis of the responses in Figure 4.3 revealed that 94 % of the respondents either agreed (26%) or strongly agreed (68%) that it bothers them when things are not done very well, while a total of 3% of the respondents either disagreed (1%) or strongly disagreed (2%) with this statement, and 3% of the respondents were neutral regarding the statement that it bothers them when things are not done very well.

Figure 4.3 indicates that the majority of respondents (95%) either strongly agreed (76%) or agreed (19%) that they give much effort to their work, while 3% strongly disagreed and 2% were neutral regarding this sentiment. In analysing the responses to the statement that owners/managers work long hours and make personal sacrifices to complete jobs on time, a total of 87% of the respondents indicated that they either strongly agreed (54%) or agreed (33%) with this statement; 7% of the respondents either strongly disagreed (6%) or disagreed (1%) with this statement, and the remaining 6% of the respondents neither agreed nor disagreed with the statement. The responses of the SME owners/managers is encouraging, as Pushpakumari (2009:101) contended that those SME owners/managers who showed total commitment, determination and dedication, as well as being proactive towards their responsibilities and duties, were more successful than those SME owners/managers who lacked these attributes.

4.9   ORGANISING COMPETENCIES

The frequency and dispersion of the responses pertaining to three statements that described organising competencies are reflected in Table 4.6 below. An analysis of the responses revealed that almost all the respondents (96%) either agreed (40%) or strongly agreed (56%) that they find ways to doing things faster, while 4% of the respondents neither agreed or disagreed with this statement. Doing things faster helps SMEs to be more (customer) responsive.

Table 4.6: Organising competencies

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	TOTAL
I find ways to do things faster	56%	40%	4%	0%	0%	100%
I manage a large project by breaking it down into smaller tasks	57%	36%	7%	0%	0%	100%
I strive to get the most I can out of the money I have to accomplish a project or task	42%	47%	11%	0%	0%	100%

In analysing the responses to the statement regarding whether owners/managers manage large projects by breaking them down into smaller tasks or not, a total of 93% of the respondents either strongly agreed (57%) or agreed (36%) with the statement, while 7% of the respondents remained neutral in this regard. The results indicate that the majority of owners/managers of SMEs in the eThekwini municipal region attached great importance to breaking down large projects into more manageable segments.

Table 4.5 also reveals that the majority of respondents (89%) either agreed (47%) or strongly agreed (42%) that they strive to get the most they can out of the money they have to accomplish a project or task, while 11% of the respondents neither disagreed nor agreed with this statement.

4.10   OPPORTUNITIES COMPETENCIES

The frequency and dispersion of the responses to the statement pertaining to opportunities competencies are reflected in Figure 4.4 below.

Figure 4.4: Opportunity competencies
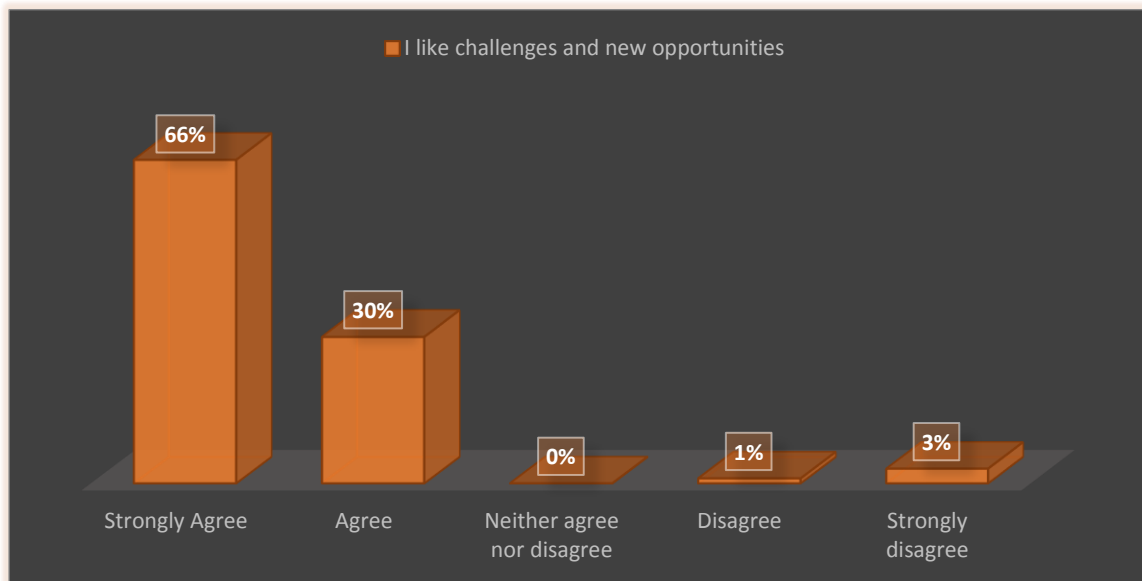
As illustrated in Figure 4.4 above, regarding challenges and new opportunities, the largest percentage of respondents either strongly agreed (66%) or agreed (30%) that they liked challenges and new opportunities, whereas 1% of the respondents disagreed, and 3% strongly disagreed with this statement. The results are in contrast with the findings of a study conducted among SMEs in India that was conducted by Lopa and Blose (2014:89), which revealed that 89% of the respondents disliked challenges and new opportunities.

4.11 STRATEGIC COMPETENCIES

Strategic competencies refer to an entrepreneur's ability to create a vision, develop goals, and formulate strategies for the organisation. Regarding strategic competencies, respondents were questioned about their business plans, planning period, and their competitive strategies.

4.11.1 Development of business plans

As illustrated in Figure 4.5, the majority of the respondents (85%) indicated that they developed business plans, whereas 15% of the respondents indicated they did not develop business plans. This finding is encouraging, as Timmons and Spinelli (2009:111) argue that a business plan provides the language and code for communicating. However, in another study conducted by Barclays (2016:1) in the United Kingdom, it was found that only 47% of SMEs developed business plans. The

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disparity in results may be due to the fact that the majority of respondents for this study were medium sized enterprises, as opposed to small enterprises.

Figure 4.5: Development of business plans
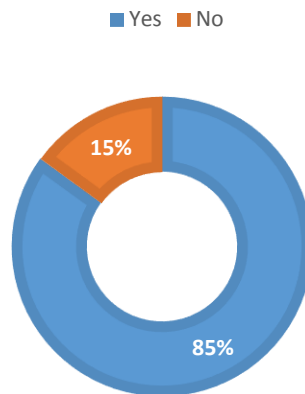
4.11.2 Planning Period

To gauge the planning period of SME owners/managers, six planning periods were identified, namely, less than 1 year; 1-2 years; 1-3 years; 1-4 years; 1-5 years, and more than 5 years, and the results are shown in Figure 4.6 below.

Figure 4.6: Planning period
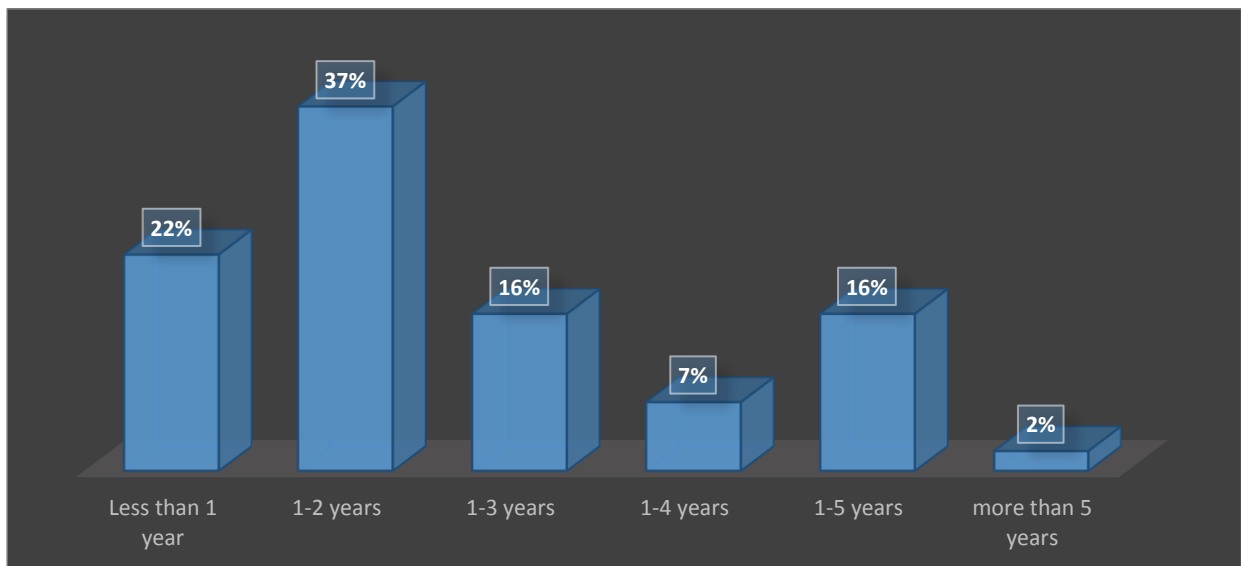
The results in Figure 4.6 indicate that the highest percentage of respondents (37%) had business plans that covered 1-2 years, while the lowest percentage of respondents (2%) indicated that their business plans covered a period longer than 5

years; 22% of respondents indicated that their planning covered less than 1 year; an equal proportion of respondents (16%) indicated that the business plans were prepared for a period of between 1-5 years, and 1-3 years, and 7% of the respondents indicated that their business plans covered between 1-4 years. An analysis of the Pearson Chi-Square test result (p = 0.007) revealed that statistically, there was a significant positive relationship between the planning period and the success of SMEs.

4.11.3 Competitive strategies

Figure 4.7 below displays the cumulative responses of the SME owners/managers surveyed regarding the competitive strategies they employed.

Figure 4.7: Competitive strategies
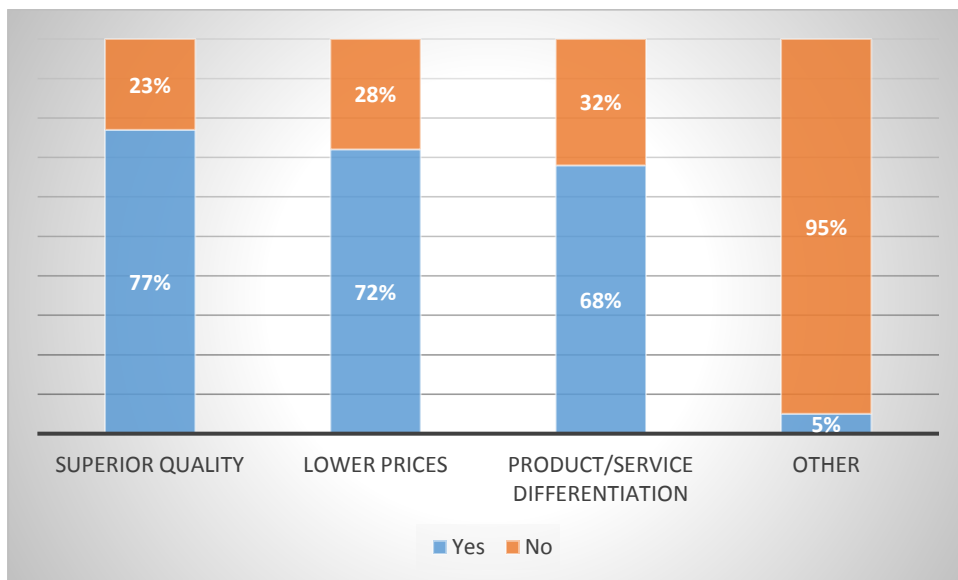
Figure 4.7 indicates that three competitive strategies are mainly employed by owners/managers. Seventy seven percent of the respondents indicated that they used superior quality as a competitive strategy, compared to 23% of the respondents who did not use this strategy to compete. Seventy two percent of the respondents indicated that they made use of lower prices as a competitive strategy and the remaining 28% of respondents did not use this as a strategy. With regard to using product/service differentiation as a competitive strategy, 68% of the respondents indicated that they used this strategy to compete, while 32% of the respondents stated that they did not use this strategy.

The results above indicate that the majority of SMEs (95%) used a combination of the above-mentioned strategies to compete, and only 5% of the respondents indicated they used other competitive strategies, apart from these.

4.12   SOCIAL COMPETENCIES

Regarding social competencies, respondents were questioned about how they share information; their networking, and the importance of networking.

4.12.1 Information sharing

A five- point Likert scale, ranging from strongly agree (1) to strongly disagree (5), was used to ascertain the extent to which respondents agreed/disagreed with the statements that owners/managers sought the advice of people who knew a lot about the problems or tasks that they were working on, and owners/managers built communication processes that made it safe for employees to say what is on their minds.

Table 4.7: Information sharing

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	TOTAL
I seek the advice of people who know a lot about the problems or tasks I am working on	62%	36%	2%	0%	0%	100%
I build communication processes that make it safe for employees to say what is on their minds	69%	28%	3%	0%	0%	100%

In analysing the responses to the statement (Table 4.7) that owners/managers seek the advice of people who know a lot about the problems or tasks they are working on, almost all the respondents (98%) either strongly agreed (62%) or agreed (36%) with this statement, while only 2% of the respondents remaining neutral in this regard.

Table 4.7 reflects that a total of 97% of the respondents either strongly agreed (69%) or agreed (28%) that they build communication processes that make it safe for their employees to say what is on their minds, while the remaining 3% of the respondents were neutral regarding this statement. These results are encouraging, as Ferlig, Prasniker and Jordan (2004:67) concluded that proper communication in the workplace contributes to the competitive advantage of enterprises.

4.12.2 Networking

Figure 4.8 below reflects the cumulative responses of owners/managers within the study area regarding their networking via club memberships; the use of external consultants; relationships with government agencies, and attendance of trade fairs and business seminars.

Figure 4.8: Networking
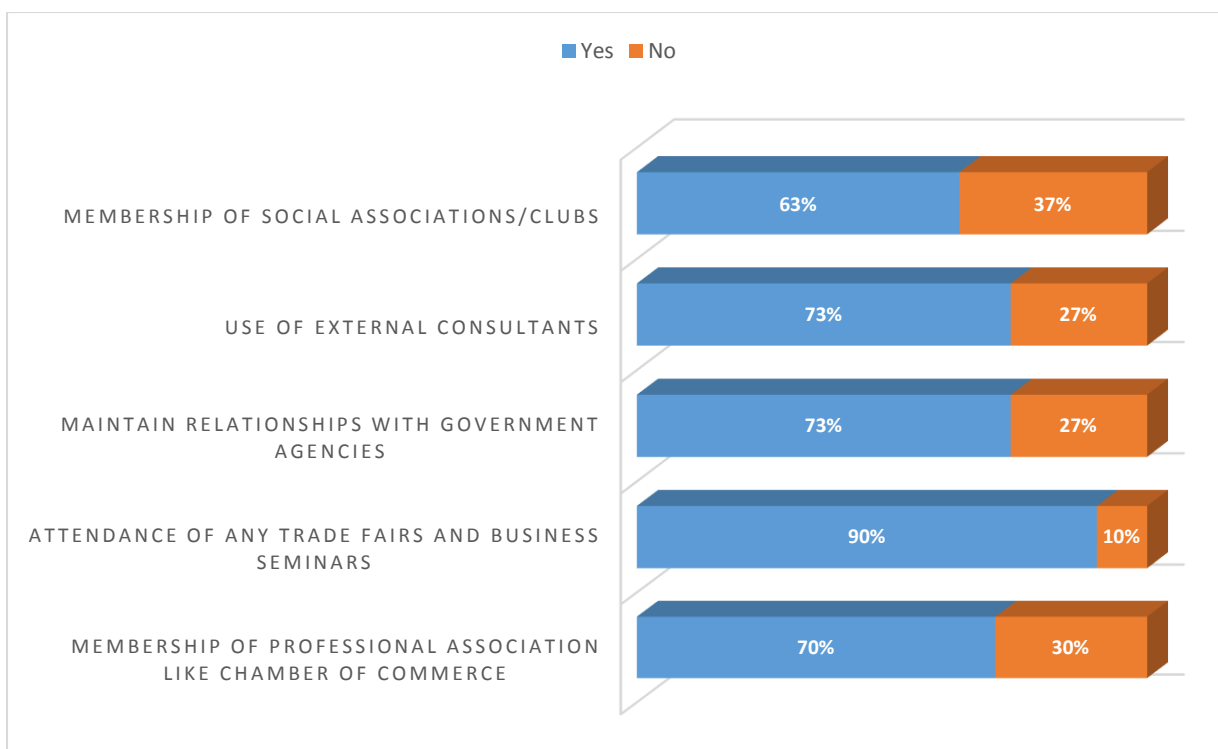
An analysis of the results in Figure 4.8 reveals that the majority of respondents (90%) attended trade fairs and business seminars; in addition, 63% of the respondents indicated that they networked by becoming members of social clubs/associations. An equal proportion of respondents (73%) also indicated that they made use of external consultants, and maintained relationships with government agencies. A significant proportion of respondents (70%) also indicated that they were members of

professional associations, like the Chamber of Commerce. These results are encouraging, as research has shown that for SME owners, networking is very important for business success.

4.12.3 Importance of networking

A five- point Likert scale, ranging from very important (1) to very unimportant (5), was used to ascertain the extent to which respondents agreed/disagreed with the statements regarding the importance of networking, and the results are shown in Table 4.8 below.

Table 4.8: Importance of networking

Statement	Very important	Important	Neutral	Unimportant	Very unimportant	TOTAL
Membership of professional associations	41%	45%	12%	2%	0%	100%
Attendance of trade fairs and business seminars	49%	47%	4%	0%	0%	100%
Liaising with government agencies	37%	45%	16%	2%	0%	100%
Use of external consultants	48%	34%	16%	2%	0%	100%
Membership of clubs/associations	30%	45%	18%	5%	2%	100%

As shown in Table 4.8 above, regarding the importance of SME owners/managers being members of professional associations, a total of 86% of the respondents indicated that it was either very important (41%) or important (45%); 2% of the respondents indicated that it was unimportant, and 12% of the respondents indicated that it was neither important nor unimportant to join professional associations. Since the majority of SMEs surveyed were medium enterprises, the owners/managers are aware of the importance of networking; hence, their membership of professional associations. The networking of owners/managers goes beyond the exchange of business cards, as they attend periodic meetings, become active committee members, or take a prominent leadership role.

Table 4.8 reveals that in terms of attending trade fairs and business seminars, almost all the respondents (96%) indicated either it is very important (49%) or important (47%) to attend the trade fairs and business seminars, while the remaining 4% of the respondents indicated that it was neither important nor unimportant to attend the trade fairs and business seminars. The above finding shows that the majority of respondents are aware of the importance of attending trade fairs and business seminars, in terms of person-to-person or individual-to-group based interactions, like building a context of cooperation and trust, using contacts and connections, persuasive ability, communication and interpersonal skill.

Regarding the importance of owners/managers liaising with government agencies, an analysis of the responses indicated that a total of 82% of the respondents revealed that it is very important (37%) or important (45%) for them to liaise with government agencies, while 2% of the respondents indicated that it was very unimportant, and 16% of the respondents indicated that it was neither important nor unimportant to liaise with government agencies (Table 4.8). The results indicate that most of the respondents are aware of the importance of good networking between government agencies and themselves for the success of their businesses.

Regarding how important owners/managers perceived the use of external consultants, the results in Table 4.8 indicate that 48% of the respondents viewed the use of external consultants as being very important; 34% of the respondents viewed them as being important; 2% of the respondents viewed them as unimportant, and the remaining 16% were neutral regarding the use of external consultants. According to Thrikawala (2011:111), external consultants have the advantage of comparing the business continuity plans of an entity with that of industry best practices, since they deal with several entities, and as such, they help entrepreneurs to have greater insights on how they operate in the industry. Thrikawala (2011:111) further contends that this aspect of bringing world class expertise along with deep experience and cross-sector knowledge is an asset to SMEs, and usually results in better performance of enterprises.

Table 4.8 also reveals the responses gathered on the importance of membership of owners/managers to social associations/clubs. A total of 75% of the respondents indicated that it was very important (30%) or important (45%) for them to be members of social association/clubs; 7% of the respondents were of view that it was very

unimportant (2%) or unimportant (5%) for them to join social associations/clubs, and 18% of the respondents were neutral in this regard. The results are consistent with the findings of Ahmad (2007) from her study of Malaysian entrepreneurs, who identified their close associates and social clubs as being critical for their business success.

The above analysis, interpretation and discussion focused on the entrepreneurial competencies of the SME owners/managers surveyed. In the next section, the performance of SMEs in the eThekwini region will be examined.

4.13   PERFORMANCE OF SMEs IN THE eTHEKWINI REGION

A series of questions were posed to the SME owners surveyed to ascertain the criteria they used to measure the performance of their enterprises; the performance of their enterprises over the past five years, and their perceptions regarding the success of their enterprises.

4.13.1 Measures of performance

A number of options were presented to respondents in respect of measures they used to assess the performance of their enterprises, and their responses are presented in Figure 4.9 below.

Figure 4.9: Measures of performance
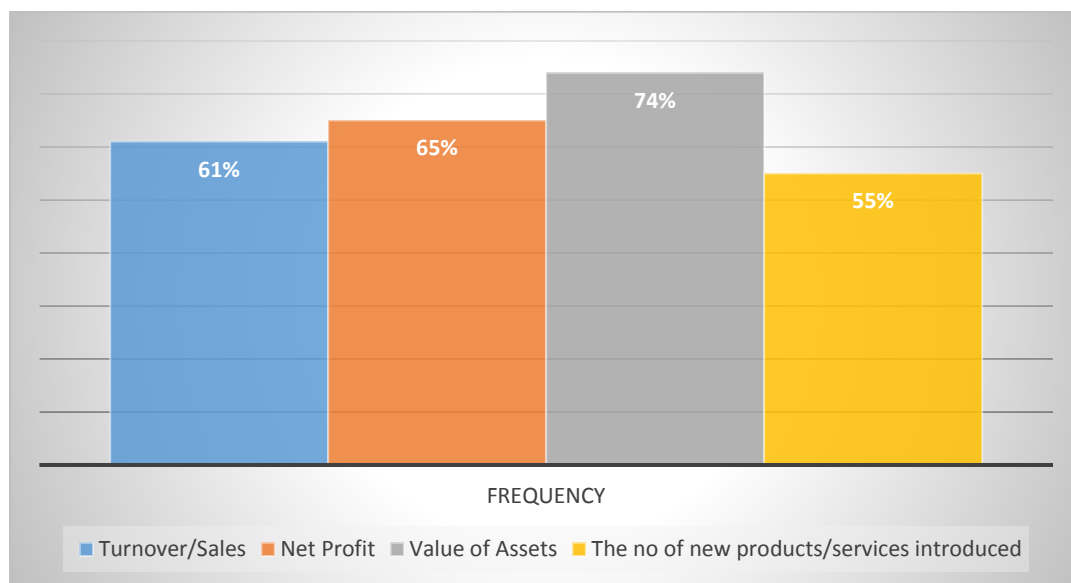
As illustrated in Figure 4.9 above, the largest percentage of respondents (74%) stated that they preferred using the value of assets as a measure of performance, and 55% of the respondents also indicated that they measured performance through the number of new products/services introduced during a given period. Sixty five percent of the respondents indicated they used net profit as a measure of performance, and 61% of the respondents used turnover/sales as a measure of performance. These results indicate the owners/managers favour both financial (turnover/sales, net profit and value of assets) and non-financial (the number of new products/services introduced) measures of performance. However, these results differ from the findings of a study conducted in East Java, Indonesia, by Sarwoko, Surachman and Hadiwidjojo (2013:35), which concluded that SMEs prefer financial measures of performance, like level of sales; profit level; rate of return of capital; turnover, and percentage market share.

4.13.2 The performance of SMEs over the last five years

Respondents were required to indicate whether the performance of their organisations improved, deteriorated, or remained the same over the last five years, and their responses are reflected in Figure 4.10 below. The majority of respondents (82%) indicated that sales had increased over the last five years; with only 4% of the respondents indicating that sales had decreased over the last five years, and 14% of the respondents indicating that the volume of sales had not changed over the last five years.

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Figure 4.10: Performance of SMEs over the last five years
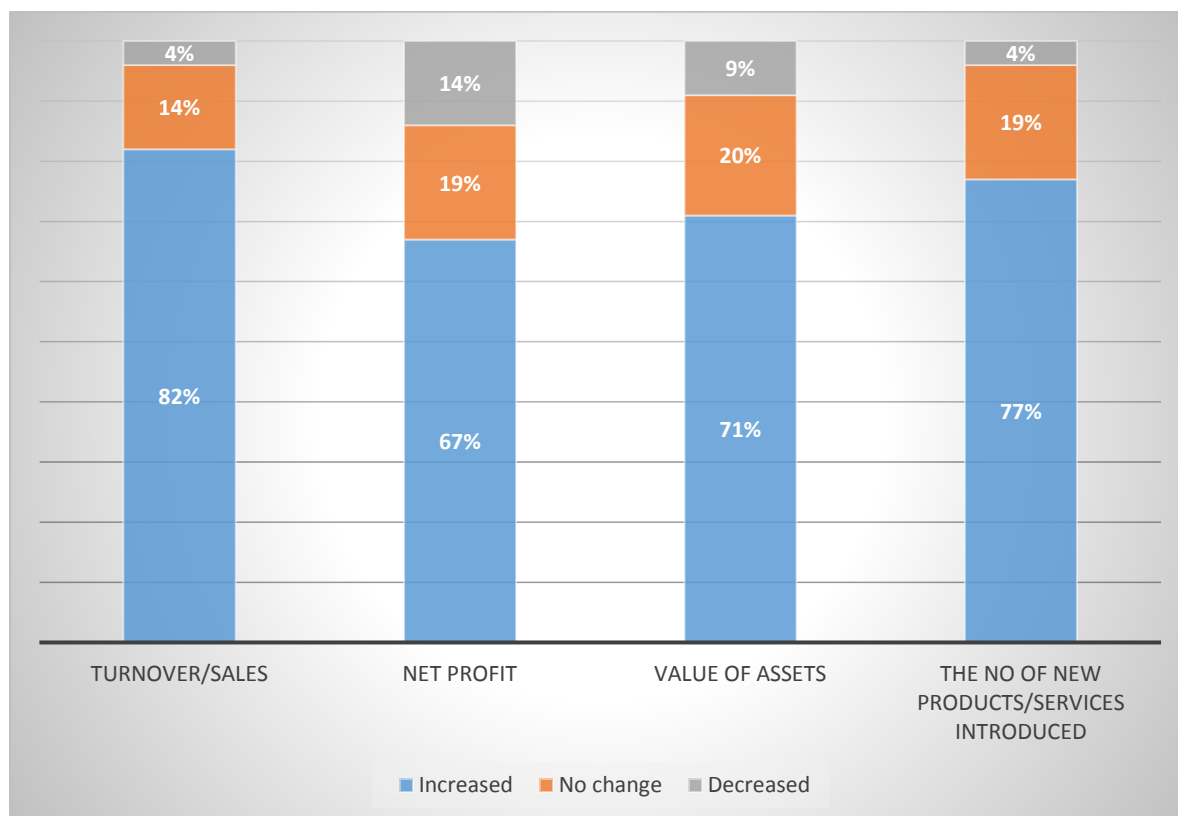
As indicated in Figure 4.10 above, analysing the performance of SMEs in terms of net profit, 67% of the respondents indicated that their net profit had increased over the last five years; 14% of the respondents indicated that their net profit had decreased during this period, and 19% of the respondents indicated that there was no change in their net profit for the last 5 years.

Figure 4.10 reveals that 71% of the respondents indicated that the value of their assets had increased over the last five years; 9% of the respondents indicated a decrease during this period, and the remaining 20% of the respondents indicated that the value of their assets remained unchanged over the last five years. In terms of the number of new products//services introduced, a total of 77% of the respondents indicated that there was an increase in the number of new products/services introduced over the last five years; 4% of the respondents indicated there was a decrease during this period, and 19% of the respondents revealed that there was no change in the number of new products/services introduced over the last five years.

4.13.3 The assessment of business success of SMEs

A five-point Likert scale, ranging from very successful (1) to very unsuccessful (5), was used to ascertain the success rate of the SMEs. As shown in Figure 4.11 below, 79% of the respondents indicated that their business were either very successful (32%) or successful (47%); 14% of the respondents indicated that their businesses were neither successful nor unsuccessful, while 7% of the respondents indicated that their businesses were unsuccessful.

Figure 4.11: The assessment of business success of SMEs
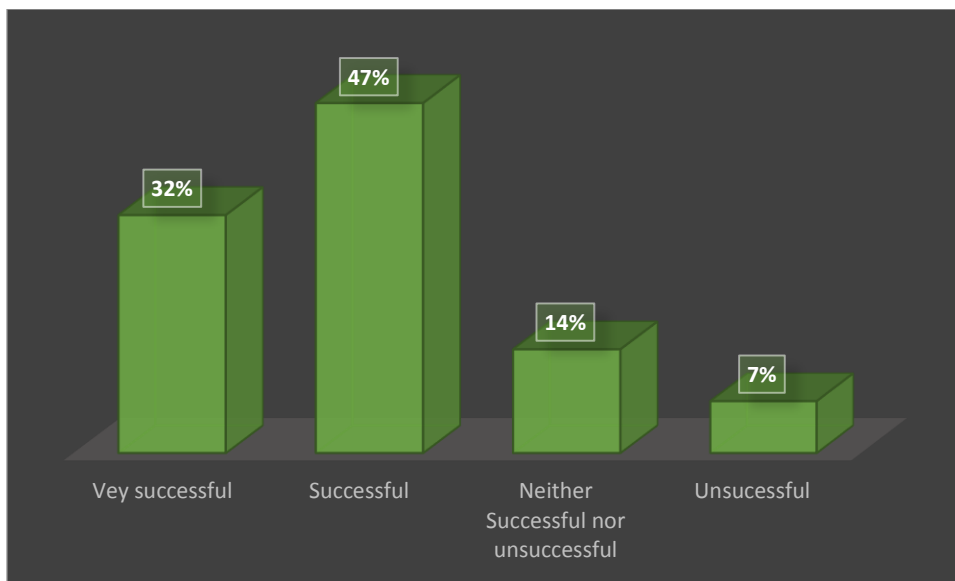
4.14 THE RELATIONSHIP BETWEEN ENTREPRENEURIAL COMPETENCIES AND THE SUCCESS OF SMEs IN THE eTHEKWINI MUNICIPAL REGION

Chi-square tests were carried out to establish the influence of certain entrepreneurial competencies on the performance of SMEs in the eThekwini region, and the major findings are discussed hereunder. According to Wegner (2016), the p-value is the probability of obtaining a test statistic equal to or more extreme than the result obtained from the sample data, given that that the null hypothesis is true. In other words, a p-value less than 5% indicates that there is an association between an entrepreneurial competency and the performance of SMEs. Conversely, a p-value above 5% implies that there is no statistical evidence to indicate that there is an association between an entrepreneurial competency and the performance of SMEs.

4.14.1 The relationship between the educational level of SME owners and the performance of their enterprises

One of the objectives of the study was to establish the extent to which the level of education of SME owners influenced the performance of their organisations. The Pearson Chi-Square test revealed that there was no statistically significant association between the level of education of SME owners and the success of their business. The above conclusion was reached based on the p value of 0.229, which was above 0.05. This finding is inconsistent with the findings of a study undertaken by Gupta and Muita (2013:91) in Jordon, which concluded that the entrepreneur's level of education positively influences the success of his/her business.

4.14.2 The relationship between the personality traits of SME owners and the success of their enterprises

Another objective of the study was to ascertain whether there was a relationship between the personality traits of SME owners and the success, or lack thereof, of their businesses. An analysis of the Pearson Chi-Square test result (p = 0.029) revealed that statistically, there was a significant positive relationship between the personality traits (like self-confidence, need of achievement, pro-activeness and independence) of SME owners and the success of their businesses. This finding is consistent with the result of a study conducted by Sola (2013:452) in Nigeria, which found that entrepreneurs' characteristics, like self-image; social skills, and knowledge, had a positive impact on the success of their businesses.

4.14.3 The relationship between the personal values and beliefs of SME owners and the success of their enterprises

According to Pushpakumari (2009:101), owner-managers who possessed personal values like achievement, autonomy, ambition, creativity, energy, loyalty, trust, honesty and responsibility were more successful than those who did not possess these values and beliefs. However, the results of this research reflects that at the 5% level of significance, there is no statistical association between personal values and beliefs of SME owners with business success. This finding is unexpected, and may be due to the majority of respondents being medium sized enterprises, as opposed to small enterprises.

4.14.4 The relationship between leadership style and enterprise performance

Regarding the relationship between the leadership style of SME owners/managers and business performance, an analysis of the Pearson Chi-Square test result (p = 0.021) revealed that, statistically, there was a positive relationship between leadership style and business success. By further analysing the descriptive statistics pertaining to leadership style, one of the reasons behind the success of SMEs was that most owners/managers involved their employees in the decision-making process.

4.14.5 The relationship between the ethical values of SME owners and the success of their enterprises

According to Pushpakumari (2009:106), owners/managers who are highly ethical perform better than those owners/managers who are not ethical. However, the result of the Pearson Chi-Square test contradicts this, as it revealed that there was no statistically significant relationship between the ethical conduct of SME owners and the performance of their organisations. This result also contradicts the assertion made by McFarlane (2013:58) that SMEs should have an ethical conscience, as it is vital for building a good reputation and business success.

4.14.6 The relationship between the number of full time employees and business success

Considering the relationship between the number of full time employees and business success, an analysis of the Pearson Chi-Square test result (p = 0.694) revealed that, statistically, there was no significant relationship between the number of full time employees and the success of an enterprise.

4.14.7 The relationship between the length of ownership of existing businesses and business success

The Pearson Chi-Square test revealed that there was no statistically significant relationship between the length of ownership of existing businesses and business success. The above conclusion was reached based on the p value of 0.439. This finding is inconsistent with the finding from a study undertaken by Young (2009:165), among SMEs in Vietnam, which found that the success of SMEs was positively associated with the length of ownership of these SMEs. This disparity may be due to the fact that for this study the majority (90%) of the respondents were medium sized

enterprises. Nonetheless, it is logical to assume that if a SME owner is unable to make a success of his business within a given time period, he/she will either sell his business or close his business.

4.15 CONCLUSION

The data collected via the questionnaire facilitated the analysis, interpretation and discussion of the impact of entrepreneurial competencies on the performance of SMEs in the eThekwini region. The analysis of the data revealed that the majority of owners/managers possessed entrepreneurial competencies. Overall, it emerged that the personal values and leadership style of SME owners/managers had a significant influence on the success of their organisations.

The final chapter highlights the main findings of the study, draws conclusions, and makes recommendations.

CHAPTER 5

REVIEW, CONCLUSION AND RECOMMENDATIONS

5.1   INTRODUCTION

This chapter commences with a summary of the major findings from this study, and is followed by a few concluding remarks, and recommendations for improving the entrepreneurial competencies of SMEs in the eThekwini region. Thereafter, the limitations of the study are outlined, and suggestions presented for future areas of research.

5.2   REVIEW OF THE MAJOR FINDINGS OF THE STUDY

A summary of the major findings of the study, emerging from the literature reviewed (in Chapter 2), and the empirical study undertaken among SMEs located in the eThekwini municipal region, in KwaZulu-Natal, South Africa, is presented below.

From the literature reviewed for this study, the following important issues regarding entrepreneurial competencies and performance of SMEs emerged:

- a competency approach is used to identify long-lasting individual characteristics of SME owners/managers that lead to success;

- individuals, who start and transform firms and who add value through resources organisation, and opportunities recognition, are believed to be in possession of entrepreneurial competencies;

- entrepreneurial competencies are underlying characteristics such as specific knowledge, motives traits, self-images, social roles and skills that contribute to the creation, growth and survival of SMEs;

- entrepreneurial competencies enable owner/managers to play a critical role in SMEs by identifying business opportunities, building relationship with both suppliers and customers, and making sure that the firm operates efficiently;

- the four most important competency areas for owners/managers for SMEs in the Asian countries as management, planning, budgeting, and marketing;

- to function effectively in an entrepreneurial role, two competencies are required: one is the ability to recognize and envision taking advantage of opportunity; the other is the drive to see firm creation through to fruition, which requires the willingness and capacity to generate intense effort for long, hard hours;

- specific competencies consists of industry skills and technical skills, while general competencies includes organization skills and opportunity recognition skills;

- entrepreneurial competencies are assumed to have a strong link not only in the performance and in competitiveness of a firm but also in its growth and success;

- entrepreneurial competency development may be classified into four groups, namely, formal, informal, internal and external;

- formal competency development refers to all planned learning activities that take place during working hours, and are mainly financed by the employer;

- informal competency development, on the other hand, is unplanned learning which is conducted through employees' participation in various work activities;

- entrepreneurial competencies include those groups of related knowledge, attitudes, and skills that entrepreneurs should acquire through managerial learning programmes, and is associated with outstanding performance and maximum profits, while managing a business venture or an enterprise;

- entrepreneurial competencies at functional-level can be sources of competitive advantage through efficiency, quality, innovation, and customer responsiveness;

- managerial competencies may influence owner/managers to energise a team, which is deemed to be an essential skill required by managers;

- within SMEs, entrepreneurial competencies, managerial competencies and technical-functional competencies determine the success of SMEs;

- managerial competencies are measured not only on the basis of only educational qualification, but also of the natural administrative skill and practical experience possessed by an SME's owner/manager in a given business area;

- social competencies emphasise on the successfully use contacts and connections, the entrepreneur needs to possess social competencies in communication, persuasive and relationship building abilities;

- conceptual competencies are competencies that entail using cognitive and analytical thinking, learning, decision making and problem solving, innovating, and in coping with uncertainty and risk;

- the link between entrepreneurial characteristics and firm performance concluded that competencies contribute both directly and indirectly to the performance of SMEs;

- organising competencies, strategic competencies, commitment competencies, external factors, nature of firm, firm knowledge, location, customer orientation, competitor orientation, and inter-functional orientation all have a positive impact on the performance of SMEs;

- other studies found no association between opportunity competencies; relationship competencies; conceptual competencies, and SMEs' performances;

- competencies like efficiency orientation, planning, persuasiveness, self-confidence, organisational awareness, directing others, teamwork, leadership and benchmarking were linked to higher performance of SMEs;

- the findings of a study conducted by Fatoki (2014:142), which investigated the impact of managerial competency determinants on the performance of immigrant-owned enterprises in South Africa, differed from the findings of Camuffo, Gerli and Gubitta (2012:50);

- the association between entrepreneurial competencies and business success was more strongly evident in hostile and dynamic environments than in stable environments, and

- all entrepreneurs who possessed entrepreneurial competencies had a very high probability of achieving long-term SME survival.

From the empirical research undertaken for this study, the following findings regarding the impact of entrepreneurial competencies on the performance of SMEs in the eThekwini region were arrived at:

- eighty nine percent of the respondents either strongly agreed (53%) or agreed (36%) that for their businesses to succeed, SME owners should be highly ethical;

- an overwhelming majority of the respondents (88%) either strongly agreed (56%), or agreed (32%) that the leadership style of the owner plays a major role in the success of the enterprise;

- a total of 94% of the respondents either strongly agreed (61%) or agreed (31%) with the statement that they involve employees in decision making;

- the majority of the respondents (97%) strongly agreed (53%) or agreed (44%) that they demonstrate patience, maturity and poise and respond well in high pressure situations;

- a substantial number of owners/managers (41%) prefer to conduct training when the need arises because they deem it costly to conduct training regularly;

- fifty-nine percent of the owners/managers in the SME sector within the eThekwini region had a formal staff development and training policy;

- the majority of owners/managers have the ability to think out of the box;

- the majority of the SME owners/managers surveyed had the necessary conceptual abilities to make a success of their business;

- SME owners/managers who showed total commitment, determination and dedication, as well as being proactive towards their responsibilities and duties, were more successful;

- the majority of owners/managers of SMEs in the eThekwini region attach great importance to breaking down large projects into more manageable segments;

- the largest percentage of respondents either strongly agreed (66%) or agreed (30%) that they liked challenges and new opportunities;

- the majority of the respondents (85%) indicated that they developed business plans;

- the majority of SMEs (95%) used a combination of superior quality; lower prices, and product/service differentiation to compete;

- the majority of respondents (90%) attended trade fairs and business seminars, which reflects that owners/managers valued the importance of networking;

- the largest percentage of respondents (74%) stated that they preferred using the value of assets as a measure of performance;

- the majority of respondents (79%) indicated that their businesses were either successful (32%) or very successful (47%), and only 7% of the respondents stated that their businesses were unsuccessful;

- there was no statistically significant association between the level of education of SME owners and the success of their businesses;

- there was a significant positive relationship between the personality traits (like self-confidence, need for achievement, pro-activeness and independence) of SME owners and the success of their businesses;

- there was no statistical significant relationship between the personal values and beliefs of SME owners and the success of their enterprises;

- there was a positive relationship between leadership style and business success, and

- there was no statistically significant relationship between the length of ownership of existing businesses and business success.

5.3   CONCLUSION

From an analysis of the findings of this study, it seems that entrepreneurial competencies linked to managerial skills; conceptual abilities; levels of commitment; organising abilities; opportunities identification, and strategic and social skills, are more important than others in influencing the growth and success of SMEs in the eThekwini municipal region, in KwaZulu-Natal. The findings that the ethical conduct of SME owners; their personal values and beliefs, and the level of education of owners/managers did not play a major role in influencing the success of enterprises, are inconsistent with the results from previous studies conducted among SMEs, and is a cause for concern.

Small and medium enterprises play a critical role, in terms of employment, the reduction of poverty, and their contribution to the GDP of the country. SMEs have greater backward linkages to micro-enterprises and forward sub-contracting links to large businesses, making them an important driving force in the economy. Therefore, the development of entrepreneurial competencies in individuals should start at an early age, and the education and training offered at schools and tertiary institutions should be such that it creates an entrepreneurial culture among the youth, and does not only prepare them with the knowledge, skills and competencies to be productive employees.

5.4   RECOMMENDATIONS

Based on the findings from the study, the following recommendations are made with the intention of improving the success rate of SMEs in the eThekwini region:

- regular free seminars and workshops to improve the managerial competencies of SME owners should be provided by the eThekwini municipality as well as the national department of Small Business Development;

- entrepreneurship education should be included in the curriculum of primary and secondary school learners, and it should also be included in the curriculum of all courses at tertiary institutions. In addition, the government should provide tax incentives for big businesses that mentor SMEs;

- to develop the financial competencies of entrepreneurs, organizations, such as the South African Banking Association and Seda (Small Enterprise Development Agency), should offer training in financial management;

- the Durban Chamber of Commerce and Industry (DCCI) should create a forum where SMEs in the eThekwini region could network with larger organisations, and

- the services offered by all of the above-mentioned organisations should be integrated and coordinated, so that SMEs in the eThekwini region gain the maximum benefit.

5.5   LIMITATIONS OF THE STUDY

The study examined the impact of entrepreneurial competencies on the performance of SMEs in the eThekwini municipal region in KwaZulu-Natal only. Therefore, the findings do not necessarily apply to SMEs in other municipal regions in KwaZulu-Natal and/or South Africa. Furthermore, the study only examined the impact of entrepreneurial competencies on the performance of SMEs, and the influence of other factors on the performance of SMEs was not investigated.

Another limitation of the empirical study was that 90% of the respondents were medium sized organisations. Had the majority of respondents been small enterprises, or, had there been an almost equal proportion of small and medium enterprises, the findings would have most probably been different. Therefore, comparison of the findings from this study with the results of similar studies among SMEs may have differing results.

5.6   RECOMMENDATIONS FOR FUTURE RESEARCH

The study focused on investigating the impact of entrepreneurial competencies on the performance of SMEs in the eThekwini municipal region in Kwa-Zulu-Natal, South Africa. Future research can be undertaken in the following areas:

- a similar study could be conducted among SMEs in specific sectors in the eThekwini municipal region, for example, tourism and engineering;

- a similar study could investigate the influence of the ethical values of SME owners-managers on the performance of their enterprises;

- a similar study could be conducted in other municipal areas in KwaZulu-Natal, and in South Africa, and

- a study could be undertaken to determine the factors influencing the development of entrepreneurial competencies among SME owners.

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LETTER OF INFORMATION

Title of the Research Study: The impact of entrepreneurial competencies on the performance of SMEs in the eThekwini municipal region of KwaZulu-Natal.

Principal Investigator/s/researcher: Mr Tinaye Mahohoma

Supervisor: Dr S. Chetty

Brief Introduction and Purpose of the Study

SMEs are recognised as the prime vehicle for economic development in both developed and developing countries. In South Africa, it is estimated that SMEs are responsible for approximately 56% of private sector employment and contribute approximately 36% to the gross domestic product of the country. Given the important socio-economic role played by SMEs, it is crucial that they succeed. However, the failure rate of SMEs in South Africa is high. Against this background, the purpose of this study is to evaluate the impact of entrepreneurial competencies on the performance of SMEs. However, due to time and cost constraints, the study will be confined to SMEs within the manufacturing sector in the eThekwini municipal area of KwaZulu-Natal.

Responsibilities of Participants

Once the owners/managers of SMEs in the eThekwini region have consented to partaking in the survey, they will be requested to complete a self-administered

questionnaire, and post or e-mail same to the researcher. The questionnaire should take approximately 20 minutes to complete.

Risks or Discomforts to the Participant

The participants will not be asked to perform any acts or make statements which might be expected to cause discomfort, compromise them, diminish their self-esteem or cause them to experience embarrassment or regret. There are no foreseeable adverse reactions.

Benefits

The benefits of the research include the following:

- The findings of the study has the potential to benefit SMEs in eThekwini region by identifying those entrepreneurial competencies that are positively correlated to business success.

- It is envisaged that the research results will be presented at a local or international conference, and the findings will be published in an accredited journal.

Reason why the Participant May Be Withdrawn from the Study

Participation is voluntary, and participants may withdraw from the study for their own personal reasons, like a lack of time to complete the questionnaire. The will be no adverse consequences for the participants should they choose to withdraw.

Remuneration

The participant will not receive any monetary or other types of remuneration.

Costs of the Study

The participants are not expected to cover any costs towards the study.

Confidentiality

The data collection process will not involve access to confidential personal data. Participants will be assured of anonymity and confidentiality of their responses. The

completed questionnaires, which do not contain the name of the participant or his/her enterprise, will be stored for a period of five years, and will, thereafter, be shredded.

Research-related Injury

There is no anticipated injury to the participants as the participants will not perform any physical acts.

Persons to contact in the event of any problems or queries:

Please contact the researcher, Mr Tinaye Mahohoma (cell. no.: 0730208629), or the supervisor, Dr S. Chetty (chettys@dut.ac.za; or 031 – 3735147). Complaints can be reported to the DVC: TIP, Prof F. Otieno on 031 373 2382 or dvctip@dut.ac.za.

CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Tinaye Mahohoma, about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: _____.

- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.

- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.

- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.

- I may, at any stage, without prejudice, withdraw my consent and participation in the study.

- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_____   _____   _____

Full Name of Participant   Date   Signature

I, Tinaye Mahohoma herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Tinaye Mahohoma   _____   _____

Full Name of Researcher   Date   Signature

_____   _____   _____

Full Name of Witness (If applicable)   Date   Signature

ANNEXURE C: COVERING LETTER ACCOMPANYING QUESTIONNAIRE

Faculty of Management Sciences

Department of Entrepreneurial Studies and Management

Date: 25 September 2015

Dear Participant

I am currently undertaking a Masters degree in Management Sciences (Business Administration) in the department of Entrepreneurial Studies and Management at the Durban University of Technology. The study aims to evaluate the impact of entrepreneurial competencies on the performance of small and medium enterprises in the eThekwini municipal region in KwaZulu-Natal.

Would you be kind enough to agree to complete a questionnaire for the study? The questionnaire will take approximately 20 minutes to complete. Participation is voluntary, and all information collected will be treated as confidential. Upon your request, the findings of the study will be made available to you once they have been finalised. No personal details will be made available to the public or third party.

Please return the completed questionnaire to tinasm12@gmail.com or fax it to 086121432

Thank you for your anticipated response and cooperation.

_____   _____

Mr T. Mahohoma (Researcher)   Dr S. Chetty (Supervisor)

(cell.: 073 020 8629)   (work: 031 – 3735395)

ANNEXURE D: RESEARCH QUESTIONNAIRE

THE IMPACT OF ENTREPRENEURIAL COMPETENCIES ON THE PERFORMANCE OF SMEs IN THE ETHEKWINI MUNICIPAL REGION IN KWAZULU-NATAL

 QUESTIONNAIRE

PLEASE INDICATE YOUR ANSWERS BY PLACING A CROSS (X) IN THE APPROPRIATE COLUMN

Q. 1. To which sector does your business belong?

1.1	Agriculture		1.6	Catering and Accommodation	
1.2	Manufacturing		1.7	Transport storage and communication	
1.3	Construction		1.8	Finance and business services	
1.4	Retailing, and Motor trade and Repairs services		1.9	Community and Personal services	
1.5	Wholesale commercial agents and allied services		1.10	other	

Q. 2. No. of (full-time) employees

2.1	Less than 50 employees	
2.2	51 to 100 employees	
2.3	101 to 150 employees	
2.4	151 to 200 employees	
2.5	Above 200 employees	

Q. 3. How long have you owned your current enterprise?

3.1	Less than 5 years	
3.2	Between 5 and 10 years	
3.3	Between 11 and 15 years	
3.4	Between 16 and 20 years	
3.5	Over 20 years	

Q4. Indicate your highest level of formal education

4.1	Grade 12/ std 10	
4.2	Diploma/ Degree	
4.3	Post Graduate	
4.4	Other	

Q. 5 Please indicate, by means of an "X", the extent to which you agree or disagree with the following

statements:

	Statements	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
5.1	To succeed in business one needs to be highly ethical	1	2	3	4	5
5.2	The leadership style of the owner plays a major role in the success of the enterprise	1	2	3	4	5
5.3	The personal values and beliefs of the owner impact on the success of his/her enterprise	1	2	3	4	5

Q. 6 Please indicate by means of an "X" the extent to which you agree or disagree which the following

statements:

	Statements	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
6.1	I like challenges and new opportunities	1	2	3	4	5
6.2	When faced with difficult problems, I spend a lot of time trying to find a solution	1	2	3	4	5
6.3	When starting a new task or project, I gather a great deal of information	1	2	3	4	5
6.4	It bothers me when things are not done very well	1	2	3	4	5
6.5	I give much effort to my work.	1	2	3	4	5
6.6	I find ways to do things faster	1	2	3	4	5
6.7	I plan a large project by breaking it down into smaller tasks	1	2	3	4	5
6.8	I think of unusual solutions to problems	1	2	3	4	5
6.9	I seek the advice of people who know a lot about the problems or tasks I am working on	1	2	3	4	5
6.10	I work long hours and make personal sacrifices to complete jobs on time	1	2	3	4	5
6.11	I think about the advantages and disadvantages of different ways of accomplishing things	1	2	3	4	5
6.12	I think of many new ideas	1	2	3	4	5
6.13	It bothers me when my time is wasted	1	2	3	4	5
6.14	I try to think alone of problems I may encounter and plan what to do if each problem occurs	1	2	3	4	5
6.15	Once I have selected an approach to solving a problem, I do not change that approach	1	2	3	4	5

6.16	To get the most I can out of the money I have to accomplish a project or task	1	2	3	4	5
6.17	If one approach to a problem does not work, I think of another approach	1	2	3	4	5
6.18	I stick with my decisions even if subordinates disagree strongly with me	1	2	3	4	5
6.19	I tell people what they have to do, even if they do not want to do it	1	2	3	4	5
6.20	I get to know people who may be able to help me reach my goals	1	2	3	4	5
6.21	When I do not know something, I do not mind admitting it	1	2	3	4	5

Q. 7	Please indicate to what extent you agree or disagree with the following statements:	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
7.1	I build communication processes that make it safe for employees to say what is on their minds.	1	2	3	4	5
7.2	I demonstrate to my peers that I believe that trust is the foundation for successful collaboration.	1	2	3	4	5
7.3	I reward employees for good performance and provide encouragement to motivate them	1	2	3	4	5
7.4	I involve employees in decision making	1	2	3	4	5
7.5	I demonstrate patience, maturity and poise and respond well in high pressure situations	1	2	3	4	5

Q. 8	Please indicate by means of a "X" your response to the following questions	Yes	No
8.1	Are you a member of any kind of professional association such as chamber of commerce?	1	2
8.2	Have you attended any trade fairs and business seminars?	1	2
8.3	Do you maintain relationships with government agencies?	1	2
8.4	Do you make use of external consultants	1	2
8.5	Do you belong to any social associations or clubs?	1	2

Q. 9 Please indicate the importance of each of the following for business success

	Source	Very important	Important	Neither important nor unimportant	Unimportant	Very unimportant
9.1	Membership of professional associations	1	2	3	4	5
9.2	Attendance of trade fairs and business seminars	1	2	3	4	5
9.3	Liaising with government agencies	1	2	3	4	5

9.4	External consultants	1	2	3	4	5
9.5	Membership of clubs/ associations	1	2	3	4	5

Q. 10 Do you have a formal business plan?	
10.1	Yes	
10.2	No	

Q. 11	**How far ahead do you plan**	
11.1	Less than 1 year	
11.2	1 - 2 years	
11.3	1 - 3 years	
11.4	1 - 4 years	
11.5	1 – 5 years	
11.6	More than 5 years	

Q. 12	**Does your organisation conduct any formal staff development and training workshops?**	**Yes**	**No**

Q.13	**If you answered "Yes" to Q. 12 above, how often are formal staff development and training workshops conducted?**	
13.1	When the need arises	
13.2	At least once a year	
13.3	2 to 5 times a year	
13.4	More than 5 times a year	

Q. 14	**What strategies do you use to remain competitive?**	
14.1	Superior quality	
14.2	Lower prices	
14.3	Product/service differentiation	
14.4	Other (please state)	

Q. 15	**Which of the following measures do you use to evaluate the success of your organisation?**	
15.1	Turnover/ Sales	
15.2	Net profit	
15.3	Value of assets	
15.4	The number of new products/services introduced	

Q. 16 Over the past 5 years, what has been the trend in respect of the following?

	Indicators	Increased	No change	Decreased
16.1	Turnover/ Sales			
16.2	Net profit			
16.3	Value of assets			
16.4	The number of new products/services introduced			

Q. 17 How would you rate the success of your business?

17.1	Very successful	
17.2	Successful	
17.3	Neither successful, nor unsuccessful	
17.4	Unsuccessful	

Thank you for taking your time to complete this questionnaire. Rest assured that all of your responses will remain strictly confidential.

If you would you like to receive a report on the main findings of this study please state your e-mail address or postal address:

………………………………………………………… …………………………………

PLEASE FORWARD YOUR COMPLETED QUESTIONNAIRE TO: **tinasm12@gmail.com** or fax to 086 612 1432

1. DESCRIPTIVE STATISTICS

Table 1

		To succeed in business one needs to be highly ethical				
		Strongly Disagree	Neutral	Agree	Strongly Agree	Total
No. of (full-time) employees	<50			5.2%	5.2%	10.4%
	51-100	4.3%	.9%	14.8%	20.9%	40.9%
	101-150	1.7%	1.7%	7.8%	13.9%	25.2%
	151-200	1.7%		7.0%	13.0%	21.7%
	>200		.9%	.9%		1.7%
	Total	7.8%	3.5%	35.7%	53.0%	100.0%

Table 2

		How would you rate the success of your business?				
		Unsuccessful	Neutral	Successful	Very successful	Total
To succeed in business one needs to be highly ethical	Strongly Disagree			7.0%	.9%	7.9%
	Neutral		.9%	2.6%		3.5%
	Agree	4.4%	5.3%	15.8%	9.6%	35.1%
	Strongly Agree	2.6%	7.9%	21.9%	21.1%	53.5%
	Total	7.0%	14.0%	47.4%	31.6%	100.0%

Table 3

		How would you rate the success of your business?				
		Unsuccessful	Neutral	Successful	Very successful	Total
The leadership style of the owner plays a major role in the success of the enterprise	Strongly Disagree			7.6%	.8%	8.5%
	Neutral		.8%	2.5%		3.4%
	Agree	4.2%	7.6%	11.9%	8.5%	32.2%
	Strongly Agree	2.5%	5.1%	25.4%	22.9%	55.9%
	Total	6.8%	13.6%	47.5%	32.2%	100.0%

Table 4

		How would you rate the success of your business?				
		Unsuccessful	Neutral	Successful	Very successful	Total
The personal values and beliefs of the owner impact on the success of his/her enterprise	Strongly Disagree			7.0%	.9%	7.9%
	Disagree			1.8%		1.8%
	Neutral		1.8%	.9%	1.8%	4.4%
	Agree	3.5%	5.3%	14.9%	7.9%	31.6%
	Strongly Agree	3.5%	7.0%	22.8%	21.1%	54.4%
	Total	7.0%	14.0%	47.4%	31.6%	100.0%

Table 5

		How would you rate the success of your business?				
		Unsuccessful	Neutral	Successful	Very successful	Total
I demonstrate to my peers that I believe that trust is the foundation for successful collaboration.	Neutral			1.7%		1.7%
	Agree	2.6%	6.8%	20.5%	6.8%	36.8%
	Strongly Agree	4.3%	6.8%	25.6%	24.8%	61.5%
	Total	6.8%	13.7%	47.9%	31.6%	100.0%

Table 6

		To succeed in business one needs to be highly ethical				
		Strongly Disagree	Neutral	Agree	Strongly Agree	Total
Indicate your highest level of formal education	Grade 12/ std 10	1.7%		7.0%	9.6%	18.3%
	Diploma/ Degree	.9%	1.7%	20.0%	28.7%	51.3%
	Post Graduate	5.2%	1.7%	8.7%	13.0%	28.7%
	Other				1.7%	1.7%
	Total	7.8%	3.5%	35.7%	53.0%	100.0%

2.   INFERENTIAL STATISTICS

2.1 Correlation coefficient analysis

Table 7

	Qn 1	Qn 2	Qn 3	Qn 4	Qn 5.1	Qn 5.2	Qn 5.3	Qn 6.1	Qn 6.2	Qn 6.3	Qn 6.4	Qn 6.5	Qn 6.6	Qn 6.7	
Qn 1	1,00														
Qn 2	0,06	1,00													
Qn 3	-0,11	-0,03	1,00												
Qn 4	-0,20	-0,16	0,24	1,00											
Qn 5.1	-0,14	0,01	0,16	0,09	1,00										
Qn 5.2	0,12	0,22	0,02	0,07	0,11	1,00									
Qn 5.3	0,06	0,15	0,01	0,12	0,15	0,84	1,00								
Qn 6.1	0,12	0,10	0,06	0,10	0,14	0,84	0,90	1,00							
Qn 6.2	0,01	0,08	-0,06	0,00	0,25	0,59	0,51	0,52	1,00						
Qn 6.3	-0,02	-0,09	0,05	0,00	0,14	0,26	0,24	0,32	0,51	1,00					
Qn 6.4	0,09	-0,04	-0,05	-0,05	0,12	0,42	0,26	0,32	0,45	0,56	1,00				
Qn 6.5	0,18	-0,03	-0,05	-0,16	0,06	0,32	0,24	0,33	0,40	0,35	0,39	1,00			
Qn 6.6	-0,04	0,18	0,04	0,12	0,14	0,54	0,47	0,54	0,74	0,31	0,23	0,29	1,00		
Qn 6.7	0,08	0,16	-0,02	-0,13	0,02	0,11	0,15	0,24	0,29	0,25	0,17	0,30	0,34	1,00	
Qn 6.8	-0,05	0,07	-0,09	0,00	0,05	0,33	0,31	0,30	0,47	0,41	0,40	0,05	0,49	0,30	
Qn 6.9	0,18	0,04	-0,17	-0,34	-0,07	0,13	0,07	0,08	0,24	0,35	0,29	0,36	0,11	0,39	
Qn 6.10	-0,11	0,00	-0,08	0,04	0,18	0,14	0,07	0,08	0,27	0,35	0,31	0,09	0,31	0,24	
Qn 6.11	-0,13	0,09	0,02	0,17	0,15	0,34	0,20	0,30	0,44	0,36	0,19	0,30	0,56	0,31	
Qn 6.12	-0,02	0,03	-0,09	0,06	-0,03	0,13	0,09	0,10	0,24	0,34	0,33	0,09	0,30	0,40	
Qn 6.13	-0,06	0,14	-0,05	-0,17	-0,03	0,14	0,15	0,12	0,23	0,18	0,25	0,19	0,28	0,42	
Qn 6.14	-0,04	-0,08	-0,04	-0,04	-0,09	0,11	0,03	0,04	0,19	0,11	0,23	0,09	0,18	0,11	
Qn 6.15	0,12	-0,12	-0,02	0,09	0,08	0,11	0,12	0,11	0,04	-0,18	-0,21	0,02	0,10	0,04	
Qn 6.16	0,13	0,00	0,10	0,13	0,07	0,03	0,07	0,04	-0,06	-0,17	-0,24	-0,20	-0,06	-0,07	
Qn 6.17	0,00	-0,05	-0,04	0,12	0,10	0,19	0,11	0,11	0,23	0,38	0,33	-0,07	0,13	0,15	
Qn 6.18	-0,12	0,03	-0,10	0,13	0,17	0,12	0,13	0,09	0,17	0,17	0,21	-0,07	0,16	0,05	
Qn 6.19	-0,02	-0,02	0,16	0,27	0,17	0,13	0,13	0,12	0,08	-0,08	-0,26	-0,17	0,08	-0,13	
Qn 6.20	0,15	0,01	-0,05	0,17	-0,03	0,30	0,34	0,29	0,18	-0,06	-0,14	0,00	0,17	0,09	
Qn 6.21	0,00	-0,10	-0,07	0,09	-0,05	0,15	0,15	0,11	0,09	0,05	0,12	-0,08	0,08	0,12	
Qn 7.1	0,01	-0,14	-0,09	-0,17	0,08	-0,01	0,00	-0,01	0,02	-0,09	-0,01	0,00	-0,06	-0,12	
Qn 7.2	-0,11	0,07	0,01	0,04	0,11	0,30	0,26	0,20	0,33	0,25	0,26	0,04	0,24	0,34	
Qn 7.3	0,01	0,16	-0,06	-0,14	0,01	0,30	0,27	0,26	0,28	0,11	0,32	0,20	0,28	0,34	
Qn 7.4	0,01	0,05	0,12	0,15	0,08	0,16	0,22	0,11	0,09	0,06	0,16	0,01	-0,02	0,16	

Table 8

	Qn 1	Qn 2	Qn 3	Qn 4	Qn 5.1	Qn 5.2	Qn 5.3	Qn 6.1	Qn 6.2	Qn 6.3	Qn 6.4	Qn 6.5	Qn 6.6	Qn 6.7
Qn 7.5	-0,05	-0,12	-0,02	0,21	-0,08	-0,20	-0,14	-0,18	0,01	0,15	0,12	-0,10	-0,13	0,09
Qn 8.1	0,14	-0,08	-0,19	-0,09	-0,05	-0,02	0,02	-0,10	0,04	0,16	0,18	0,02	-0,10	0,20
Qn 8.2	-0,09	-0,16	-0,02	0,08	0,07	-0,08	0,04	-0,01	0,02	0,07	-0,07	0,07	0,03	0,02
Qn 8.3	0,04	0,03	0,21	0,10	0,06	0,08	0,00	0,02	0,20	0,19	0,19	0,05	0,18	0,14
Qn 8.4	0,05	-0,28	0,07	0,10	0,10	-0,04	0,02	0,02	0,09	0,02	0,00	0,16	0,07	-0,03
Qn 8.5	-0,05	-0,09	0,12	0,28	-0,14	-0,11	-0,09	-0,14	-0,11	0,13	-0,04	-0,19	-0,12	-0,06
Qn 9.1	-0,05	-0,11	0,12	0,30	-0,14	-0,06	0,01	0,00	-0,03	-0,13	-0,14	-0,15	-0,08	-0,02
Qn 9.2	0,12	0,07	0,06	-0,08	-0,06	-0,17	-0,02	0,05	-0,17	-0,03	0,02	-0,01	-0,04	0,05
Qn 9.3	0,14	0,12	0,07	-0,20	-0,15	-0,08	-0,04	-0,01	-0,08	0,14	0,05	0,07	-0,04	0,10
Qn 9.4	0,13	-0,13	-0,12	0,08	-0,12	-0,15	-0,01	-0,08	-0,08	0,05	0,11	0,18	-0,09	-0,04
Qn 9.5	-0,09	-0,06	0,09	0,20	-0,04	-0,16	-0,09	-0,15	-0,08	0,08	0,06	-0,16	-0,05	-0,15
Qn 10	0,15	0,02	-0,18	0,05	-0,26	0,05	0,12	0,15	-0,21	-0,23	-0,10	0,00	-0,16	-0,08
Qn 11	-0,05	0,02	0,11	0,18	0,08	0,37	0,39	0,34	0,38	0,20	0,16	0,04	0,51	0,17
Qn 12	-0,07	-0,09	0,09	-0,06	0,31	-0,19	-0,12	-0,22	-0,03	0,03	-0,15	-0,08	-0,15	-0,05
Qn 13	0,00	0,00	-0,05	0,22	-0,11	0,11	0,06	0,07	0,11	0,03	0,09	0,07	0,16	0,06
Qn 14.1	-0,03	0,09	0,16	0,14	0,04	-0,05	-0,07	-0,09	-0,10	0,10	0,14	0,10	-0,19	-0,19
Qn 14.2	-0,15	0,17	-0,20	-0,17	-0,03	-0,07	-0,07	-0,08	-0,07	0,02	0,23	-0,06	0,20	0,10
Qn 16.2	0,08	0,12	0,04	0,07	0,04	0,12	0,21	0,10	-0,12	-0,04	0,08	-0,06	-0,05	-0,07
Qn 16.3	-0,13	0,21	-0,07	0,17	0,08	0,28	0,18	0,16	0,06	-0,01	0,30	-0,01	0,05	0,05
Qn 16.4	0,06	0,16	-0,22	-0,16	-0,14	-0,03	0,05	0,10	-0,07	-0,21	-0,19	0,11	-0,04	0,14
Qn 17	0,02	-0,07	-0,22	0,05	-0,06	0,04	0,05	-0,04	-0,02	0,02	0,17	-0,13	-0,08	-0,15

Table 9

Qn 6.7	Qn 6.8	Qn 6.9	Qn 6.10	Qn 6.11	Qn 6.12	Qn 6.13	Qn 6.14	Qn 6.15	Qn 6.16	Qn 6.17	Qn 6.18	Qn 6.19	Qn 6.20	
1,00														
0,30	1,00													
0,39	0,39	1,00												
0,24	0,37	0,13	1,00											
0,31	0,44	0,11	0,41	1,00										
0,40	0,49	0,34	0,47	0,44	1,00									
0,42	0,29	0,19	0,16	0,17	0,31	1,00								
0,11	0,24	-0,06	0,08	0,13	0,28	0,31	1,00							
0,04	-0,11	-0,17	-0,22	0,03	0,00	0,07	0,20	1,00						
-0,07	-0,22	-0,27	-0,19	-0,22	-0,20	-0,09	0,07	0,54	1,00					
0,15	0,33	0,22	0,21	0,19	0,42	0,08	0,13	0,01	0,04	1,00				
0,05	0,32	0,21	0,31	0,16	0,38	0,25	-0,03	-0,09	-0,07	0,36	1,00			
-0,13	-0,16	-0,32	-0,11	-0,07	-0,28	-0,08	0,04	0,44	0,63	0,06	0,08	1,00		
0,09	0,00	-0,08	0,00	0,09	-0,13	-0,07	0,00	0,49	0,45	0,08	0,05	0,62	1,00	
0,12	0,20	-0,03	0,14	0,03	0,17	0,03	-0,02	0,22	0,11	0,11	0,09	0,14	0,30	1,00
-0,12	-0,04	-0,06	0,16	-0,25	-0,18	-0,01	-0,02	0,09	0,38	-0,01	-0,01	0,23	0,22	-0,02
0,34	0,44	0,23	0,24	0,18	0,29	0,42	0,14	-0,07	-0,25	0,26	0,27	-0,05	-0,05	0,09
0,34	0,36	0,34	0,30	0,15	0,30	0,46	0,19	-0,09	-0,13	0,20	0,20	-0,17	-0,10	-0,01
0,16	0,16	0,20	0,21	-0,04	0,23	0,21	0,02	-0,14	-0,21	0,23	0,19	-0,05	0,02	0,15

Table 10

0,09	0,15	0,05	0,19	0,11	0,28	0,08	-0,09	-0,21	-0,25	0,16	0,11	-0,21	-0,29	-0,02
0,20	0,26	0,43	0,26	-0,13	0,19	0,24	0,02	-0,21	-0,12	0,39	0,29	-0,08	0,06	0,14
0,02	0,06	-0,15	-0,02	0,04	0,19	0,02	0,44	0,34	0,18	0,07	0,09	0,24	0,12	0,25
0,14	0,31	0,14	0,10	0,12	0,29	0,17	0,24	-0,04	-0,03	0,27	0,22	0,11	0,04	0,25
-0,03	0,06	-0,12	0,02	0,02	0,12	0,10	0,17	0,37	0,22	0,03	0,15	0,22	0,24	0,38
-0,06	0,09	0,00	0,09	0,15	0,23	-0,09	0,00	-0,30	-0,31	0,22	0,14	-0,19	-0,13	0,06
-0,02	-0,06	-0,15	-0,24	-0,09	-0,11	-0,16	0,09	0,07	0,17	-0,01	-0,11	0,33	0,08	0,15
0,05	0,00	0,02	-0,10	-0,27	-0,03	0,05	0,16	0,12	0,11	-0,02	-0,07	-0,01	0,06	-0,03
0,10	0,16	0,26	0,12	-0,07	0,20	0,02	0,04	-0,11	-0,10	0,03	-0,03	-0,14	-0,12	0,05
-0,04	0,15	0,12	0,04	-0,13	0,07	0,13	0,09	0,24	0,14	0,04	0,13	0,03	0,11	0,23
-0,15	0,18	0,04	-0,05	-0,07	0,19	-0,01	0,08	-0,22	-0,16	0,24	0,07	-0,15	-0,31	-0,07
-0,08	-0,09	0,00	-0,30	-0,20	-0,23	-0,14	-0,09	-0,01	0,05	0,00	0,07	-0,03	0,11	-0,01
0,17	0,38	0,17	0,18	0,26	0,38	0,26	0,05	0,08	-0,05	0,30	0,38	0,06	0,06	0,04
-0,05	0,04	0,14	-0,12	0,06	-0,07	-0,05	-0,05	-0,09	-0,22	-0,08	-0,08	-0,17	-0,28	-0,09
0,06	0,21	0,08	0,18	0,06	0,30	0,11	-0,01	-0,16	-0,19	0,20	0,19	-0,14	-0,07	0,20
-0,19	-0,08	0,20	-0,11	-0,08	-0,21	0,02	-0,17	-0,23	-0,16	-0,05	0,13	-0,07	-0,08	-0,18
0,10	0,10	#DIV/0!	0,13	0,07	0,08	0,26	0,10	-0,07	0,06	0,05	0,11	-0,02	-0,01	0,01
-0,07	0,05	0,09	-0,01	-0,05	-0,02	0,24	-0,21	-0,19	-0,08	0,00	0,10	-0,05	-0,08	0,00
0,05	0,08	0,17	0,12	0,05	0,22	0,18	-0,06	-0,31	-0,19	0,11	0,15	-0,17	-0,11	0,10
0,14	-0,11	0,09	-0,07	-0,12	-0,01	0,08	-0,18	-0,10	-0,15	-0,09	-0,32	-0,14	-0,02	-0,10
-0,15	0,36	0,26	0,09	0,00	0,21	0,02	0,07	-0,06	-0,15	0,08	0,16	-0,20	0,04	0,14

2.2 CHI-SQUARE TESTS

Table 11

To which sector does your business belong? * To succeed in business one needs to be highly ethical

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	28.589[a]	27	.381
Likelihood Ratio	30.032	27	.313
Linear-by-Linear Association	5.710	1	.017
N of Valid Cases	114		

a. 31 cells (77.5%) have expected count less than 5. The minimum expected

count is .18.

Table 12

To which sector does your business belong? * The leadership style of the owner plays a major role in the success of the enterprise

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	29.757[a]	27	.325
Likelihood Ratio	29.167	27	.353
Linear-by-Linear Association	2.487	1	.115
N of Valid Cases	117		

a. 32 cells (80.0%) have expected count less than 5. The minimum expected

count is .13.

113

Table 13

To which sector does your business belong? * The personal values and beliefs of the owner impact on the success of his/her enterprise

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.268[a]	36	.117
Likelihood Ratio	42.264	36	.219
Linear-by-Linear Association	1.157	1	.282
N of Valid Cases	114		

a. 42 cells (84.0%) have expected count less than 5. The minimum expected count is .09.

Table 14

To which sector does your business belong? * I like challenges and new opportunities

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.891[a]	27	.052
Likelihood Ratio	24.958	27	.577
Linear-by-Linear Association	.673	1	.412
N of Valid Cases	117		

a. 32 cells (80.0%) have expected count less than 5. The minimum expected count is

.04.

Table 15

To which sector does your business belong? * When faced with difficult problems, I spend a lot of time trying to find a solution

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	62.821[a]	27	.000
Likelihood Ratio	60.133	27	.000
Linear-by-Linear Association	.947	1	.331
N of Valid Cases	116		

a. 29 cells (72.5%) have expected count less than 5. The minimum expected count is .04.

Table 15

No. of (full-time) employees * Which of the following measures do you use to evaluate the success of your organisation: Turnover/ Sales

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.491[a]	4	.050
Likelihood Ratio	10.173	4	.038
Linear-by-Linear Association	3.433	1	.064
N of Valid Cases	89		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .39.

Table 16

No. of (full-time) employees * Which of the following measures do you use to evaluate the success of your organisation: Net profit

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.274[a]	4	.991
Likelihood Ratio	.265	4	.992
Linear-by-Linear Association	.025	1	.874
N of Valid Cases	100		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count

is .70.

Table 17

No. of (full-time) employees * Which of the following measures do you use to evaluate the success of your organisation? Value of assets

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.229[a]	4	.124
Likelihood Ratio	7.452	4	.114
Linear-by-Linear Association	6.091	1	.014
N of Valid Cases	80		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is

.26.

Table 18

No. of (full-time) employees * Which of the following measures do you use to evaluate the success of your organisation? The number of new products/services introduced

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.670[a]	4	.031
Likelihood Ratio	13.362	4	.010
Linear-by-Linear Association	.635	1	.426
N of Valid Cases	88		

a.   4 cells (40.0%) have expected count less than 5. The minimum

expected count is .45.

Table 19

No. of (full-time) employees * Over the past 5 year, what has been the trend in respect of the following: Turnover/ Sales?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.717[a]	8	.787
Likelihood Ratio	6.021	8	.645
Linear-by-Linear Association	.171	1	.679
N of Valid Cases	93		

a. 10 cells (66.7%) have expected count less than 5. The minimum expected

count is .04.

Table 20

No. of (full-time) employees * Over the past 5 year, what has been the trend in respect of the following: Net profit?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.899[a]	8	.351
Likelihood Ratio	10.227	8	.249
Linear-by-Linear Association	.510	1	.475
N of Valid Cases	96		

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count

is .15.

Table 21

No. of (full-time) employees * Over the past 5 year, what has been the trend in respect of the following: Value of assets?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.677[a]	8	.166
Likelihood Ratio	13.892	8	.085
Linear-by-Linear Association	3.429	1	.064
N of Valid Cases	70		

a. 10 cells (66.7%) have expected count less than 5. The minimum expected

count is .09.

Table 22

No. of (full-time) employees * Over the past 5 year, what has been the trend in respect of the following: the number of new products/services introduced?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.589[a]	8	.035
Likelihood Ratio	16.076	8	.041
Linear-by-Linear Association	4.338	1	.037
N of Valid Cases	91		

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count is .09.

Table 23

No. of (full-time) employees * How would you rate the success of your business?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.105[a]	12	.694
Likelihood Ratio	10.831	12	.543
Linear-by-Linear Association	.001	1	.979
N of Valid Cases	118		

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is .14.

Table 24

How long have you owned your current enterprise? * Which of the following measures do you use to evaluate the success of your organisation: Turnover/ Sales?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.918^a	4	.205
Likelihood Ratio	5.894	4	.207
Linear-by-Linear Association	.036	1	.849
N of Valid Cases	89		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count

is 3.15.

Table 25

How long have you owned your current enterprise? * Which of the following measures do you use to evaluate the success of your organisation: Net profit?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.104^a	4	.131
Likelihood Ratio	7.817	4	.098
Linear-by-Linear Association	5.007	1	.025
N of Valid Cases	98		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count

is 3.21.

Table 26

How long have you owned your current enterprise? * Which of the following measures do you use to evaluate the success of your organisation?: Value of assets

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.837[a]	4	.766
Likelihood Ratio	1.867	4	.760
Linear-by-Linear Association	.073	1	.787
N of Valid Cases	80		

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count

is 2.10.

Table 27

How long have you owned your current enterprise? * Which of the following measures do you use to evaluate the success of your organisation: The number of new products/services introduced

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.659[a]	4	.047
Likelihood Ratio	12.701	4	.013
Linear-by-Linear Association	.643	1	.423
N of Valid Cases	87		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count

is 3.59.

Table 28

How long have you owned your current enterprise? * Over the past 5 year, what has been the trend in respect of the following: Turnover/ Sales?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.667[a]	8	.792
Likelihood Ratio	5.700	8	.681
Linear-by-Linear Association	.400	1	.527
N of Valid Cases	92		

a. 10 cells (66.7%) have expected count less than 5. The minimum expected count is .35.

Table 29

How long have you owned your current enterprise? * Over the past 5 year, what has been the trend in respect of the following: Net profit

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.926[a]	8	.349
Likelihood Ratio	11.539	8	.173
Linear-by-Linear Association	2.811	1	.094
N of Valid Cases	95		

a. 8 cells (53.3%) have expected count less than 5. The minimum expected count is 1.33.

Table 30

How long have you owned your current enterprise? * Over the past 5 year, what has been the trend in respect of the following: Value of assets?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.757[a]	8	.120
Likelihood Ratio	13.942	8	.083
Linear-by-Linear Association	1.733	1	.188
N of Valid Cases	70		

a. 10 cells (66.7%) have expected count less than 5. The minimum expected

count is .69.

Table 31

How long have you owned your current enterprise? * Over the past 5 year, what has been the trend in respect of the following: The number of new products/services introduced?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.261[a]	8	.917
Likelihood Ratio	4.554	8	.804
Linear-by-Linear Association	.212	1	.645
N of Valid Cases	88		

a. 9 cells (60.0%) have expected count less than 5. The minimum expected count

is .36.

Table 32

How long have you owned your current enterprise? * How would you rate the success of your business?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.088[a]	12	.439
Likelihood Ratio	16.424	12	.173
Linear-by-Linear Association	1.212	1	.271
N of Valid Cases	115		

a. 12 cells (60.0%) have expected count less than 5. The minimum expected

count is .63.

Table 33

Indicate your highest level of formal education * Which of the following measures do you use to evaluate the success of your organisation?: Turnover/ Sales

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.983[a]	3	.112
Likelihood Ratio	6.712	3	.082
Linear-by-Linear Association	.327	1	.567
N of Valid Cases	89		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count

is .79.

Table 34

Indicate your highest level of formal education * Which of the following measures do you use to evaluate the success of your organisation: Net profit?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.288[a]	3	.152
Likelihood Ratio	5.914	3	.116
Linear-by-Linear Association	2.746	1	.098
N of Valid Cases	100		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count

is .70.

Table 35

Indicate your highest level of formal education * Which of the following measures do you use to evaluate the success of your organisation: Value of assets?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.038[a]	3	.029
Likelihood Ratio	9.435	3	.024
Linear-by-Linear Association	.168	1	.682
N of Valid Cases	80		

a. 3 cells (37.5%) have expected count less than 5. The minimum expected count

is .53.

Table 36

Indicate your highest level of formal education: Which of the following measures do you use to evaluate the success of your organisation? The number of new products/services introduced

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.599[a]	3	.204
Likelihood Ratio	5.388	3	.145
Linear-by-Linear Association	4.222	1	.040
N of Valid Cases	88		

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count

is .91.

Table 37

Indicate your highest level of formal education. Over the past 5 years, what has been the trend in respect of the following: Turnover/ Sales?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.719[a]	6	.190
Likelihood Ratio	9.908	6	.129
Linear-by-Linear Association	.130	1	.718
N of Valid Cases	93		

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count

is .09.

Table 38

Indicate your highest level of formal education. Over the past 5 years, what has been the trend in respect of the following: Net profit?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.833ᵃ	6	.004
Likelihood Ratio	16.839	6	.010
Linear-by-Linear Association	.543	1	.461
N of Valid Cases	96		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count

is .29.

Table 39

Indicate your highest level of formal education. Over the past 5 years, what has been the trend in respect of the following: Value of assets?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.157ᵃ	6	.406
Likelihood Ratio	5.936	6	.430
Linear-by-Linear Association	1.346	1	.246
N of Valid Cases	70		

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count

is .17.

Table 40

Indicate your highest level of formal education. Over the past 5 years, what has been the trend in respect of the following: the number of new products/services introduced?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.381ᵃ	6	.004
Likelihood Ratio	16.224	6	.013
Linear-by-Linear Association	.308	1	.579
N of Valid Cases	91		

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .09.

Table 41

Indicate your highest level of formal education. How would you rate the success of your business?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.722ᵃ	9	.229
Likelihood Ratio	12.304	9	.197
Linear-by-Linear Association	.552	1	.458
N of Valid Cases	118		

a. 9 cells (56.3%) have expected count less than 5. The minimum expected count is .14.

Table 42

The leadership style of the owner plays a major role in the success of the enterprise * How would you rate the success of your business?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.495[a]	9	.021
Likelihood Ratio	21.830	9	.009
Linear-by-Linear Association	1.167	1	.280
N of Valid Cases	118		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected

count is .27.

Table 43

The personal values and beliefs of the owner impact on the success of his/her enterprise. How would you rate the success of your business?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	15.242[a]	12	.228
Likelihood Ratio	17.229	12	.141
Linear-by-Linear Association	.150	1	.699
N of Valid Cases	114		

a. 14 cells (70.0%) have expected count less than 5. The minimum expected

count is .14.

Table 44

I involve employees in decision making * How would you rate the success of your business?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.710[a]	9	.230
Likelihood Ratio	12.881	9	.168
Linear-by-Linear Association	.560	1	.454
N of Valid Cases	116		

a. 10 cells (62.5%) have expected count less than 5. The minimum expected

count is .21.

Table 45

I demonstrate patience, maturity and poise and respond well in high pressure situations * How would you rate the success of your business?

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.048[a]	6	.029
Likelihood Ratio	15.475	6	.017
Linear-by-Linear Association	5.654	1	.017
N of Valid Cases	116		

a. 6 cells (50.0%) have expected count less than 5. The minimum expected count

is .21.

2.3 Reliability test: Cronbach alpha test

Table 44

ID	Qn5.1	Qn5.2	Q5.3	Qn6.1	Qn6.2	Qn6.3	Qn6.4	Qn6.5	Qn6.6	Qn6.7	Qn6.8	Qn6.9	Qn6.10	Qn6.11	
1	2	1	2	1	1	2	1	1	1	2	1	1	2	2
2	2	3	3	2	2	1	3	2	2	1	2	1	1	2
3	2	2	2	1	2	1	1	1	2	1	2	2	1	1
4	1	3	2	1	1	1	1	1	2	1	2	1	1	1
5	1	1	1	1	2	1	1	1	1	1	2	1	2	1
6	1	1	1	2	2	1	1	1	1	2	2	2	1	1
7	1	1	1	1	2	1	1	1	2	2	2	1	1	1
8	2	2	1	1	1	1	1	1	1	2	2	2	2	2
9	1	1	1	1	3	1	1	1	1	1	1	2	3	1
10	1	1	1	2	2	2	1	1	1	1	2	2	1	1
11	1	1	1	2	2	2	1	1	1	1	2	2	1	1
12	1	2	1	2	3	2	2	1	1	2	2	1	1	1
13	1	1	1	1	2	3	1	2	2	2		2	2	2
14	1	1	1	2	2	1	2	1	2	2	3	1	2	2
15	3	2	4	1	3	2	2	2	2	3	2	2	4	2
16	1	1	1	1	1	1	1	1	1	1	2	1	1	1
17	1	2	2	1	2	1	1	1	1	1	1	1	1	1
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	2	2	2	1	1	1	1	1	1	1	1	1	1	1
20	2	2	2	1	1	1	1	1	1	1	1	1	1	1
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1
23	1	2	2	1	1	1	1	1	1	1	1	1	1	1
24	2	2	2	1	1	1	1	1	1	1	1	1	1	1
25	2	2	2	1	1	1	1	1	1	2	2	2	2	2
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	2	2	1	1	1	1	1	1	1	2	2	2	2	1
28	1	1	1	2	2	2	2	2	2	2	2	2	2	2
29	1	1	1	2	2	1	1	2	3	2	3	2	3	4
30	2	1	2	2	2	2	2	3	2	2	2	2	2	2
31	2	2	1	1	2	2	1	1	2	2	3	2	1	2
32	1	1	1	1	2	1	1	1	2	1	2	1	1	2

Table 45

Qn6.11	Qn6.12	Qn6.13	Qn6.14	Qn6.15	Qn6.16	Qn6.17	Qn6.18	Qn6.19	Qn6.20	Qn6.21	Qn7.1	Qn7.2	Qn7.3	Qn7.4	
2	1	4	5	3	3	1	4	2	1	1	1	1	1	1
2	3	2	3	2	1	1	3	3	2	3	2	2	2	1
1	1	2	2	4	1	1	4	4	2	5	1	2	1	1
1	2	2	3	5	1	1	3	4	2	3	1	2	1	1
1	2	1	2	4	1	2	4	2	2	1	1	1	1	1
1	1	1	2	4	2	1	4	4	2	5	1	1	1	1
1	2	2	2	3	2	2	4	4	2	1	2	1	1	1
2	1	1	2	3	2	2	4	4	2	5	1	2	2	2
1	1	1	2	3	2	1	5	5	1	1	2	1	2	2
1	1	1	2	2	2	2	4	3	2	5	1	1	2	2
1	1	1	2	2	2	2	4	3	2	5	1	1	2	2
1	2	1	3	4	2	1	4	2	2	4	1	1	1	2
2	3	2	2	4	2	2	3	3	2	2	1	2	1	2
2	2	2	2	4	2	2	2	4	2	2	1	1	1	1
2	2	2	3	4	2	2	5	2	2	5	2	2	1	1
1	2	2	4	5	2	1	4	4	1	4	1	2	1	1
1	1	2	4	5	1	1	2	2	1	4	1	1	1	2
1	1	1	4	5	1	1	4	4	2	4	1	1	1	1
1	1	1	4	4	2	1	4	4	2	4	1	1	1	1
1	1	1	4	5	2	1	1	2	2	4	1	1	1	1
1	1	1	4	4	1	1	4	4	2	4	1	1	1	1
1	1	1		5	1	5	5	4	1	4	1	1	1	1
1	1	1	2	5	2	2	4	4	2	4	1	1	1	1
2	1	2	1	2	1	2	2	1	2	1	2	2	2	2
1	2	2	2	1	1	1	2	2	1	2	2	2	2	2
1	2	2	1	1	1	1	1	2	1	2	2	2	2	2
2	2	2	1	1	1	1	1	1	3	3	3	2	2	1
4	3	2	3	3	2	1	1	1	1	1	2	2	2	2
2	1	1	1	1	1	1	1	1	3	4	1	2	1	1
2	2	1	3	3	3	3	3	3	2	2	3	3	2	2
2	1	2	3	4	2	1	4	3	2	1	1	1	1	1

Table 46

Qn7.4	Qn7.5	Qn9.1	Qn9.2	Qn9.3	Qn9.4	Qn9.5	Total
1	1	1	1	2	2	1	57
1	2	2	1	2	1	1	66
1	2	1	1	1	1	1	59
1	2	2	1	2	1	2	60
1	1	1	1	1	1	1	48
1	1	1	1	1	1	1	55
1	2	1	1	1	1	2	55
2	2	1	1	1	1	1	61
2	2	1	1	1	1	1	55
2	2	2	1	1	2	1	58
2	2	2	1	1	2	1	58
2	2	1	1	2	2	1	61
2	1	2	1		2	1	60
1	2	1	1	1	1	2	59
1	1	2	1	1	1	1	76
1	1	1	1	1	1	1	55
2	1	2	1	1	1	2	53
1	1	1	1	1	1	1	51
1	1	1	1	1	1	2	55
1	1	2	1	2	1	1	52
1	1	2	1	1	1	1	51
1	1	1	1	1	1	1	50
1	1	2	1	2	1	2	56
1	1	1	1	1	1	1	54
2	2	1	1	1	1	1	52
2	1	1	1	1	2	2	46
2	2	1	1	1	2	1	50
1	2	1	1	1	1	1	56
2	1	1	1	1	1	1	60
1	1	1	1	1	1	1	54
2	3	1	1	2	1	2	69
1	1	2	2	1	2	1	54

Table 47

33	1	1	1	1	1	1	1	1	1	1	1	1	1	1
34	1	1	1	2	2	1	1	1	3	2	1	1	3	2
35	1	2	2	1	2	1	1	1	2	1	2	1	1	2
36	2	1	1	1	1	1	1	1	1	1	1	2	2	1
37	1	1	1	1	3	2	1	1	1	2	1	2	4	3
38	1	1	1	1	1	1	1	1	1	1	1	1	1	1
39	1	1	1	1	2	1	1	2		1	2	1	3	1
40	5	5	5	5	3	2	2	5	2	3	2	2	4	2
41	1	1	1	1	1	1	3	1	1	1	2	1	2	1
42	5	5	5	5	3	2	2	5	2	3	2	2	4	2
43	1	1	1	2	2	1	1	2	1	1	2	2	2	3
44	2	2	2	2	1	2	2	1	2	1	2	2	2	1
45	2	2	2	1	2	3	2	2	2	2	2	2	2	3
46	1	2	1	1	2	1	1	1	1	2		1	1	2
47	1	1	1	1	1	1	3	1	1	1	2	1	2	1
48	5	5	5	5	3	2	2	5	2	3	2	2	4	2
49	1	1	1	2	2	1	1	2	1	1	2	2	2	3
50	1	1	1	1	2	1	1	1	2	2	2	1	1	1
51	1	1	1	1	3	1	1	1	1	1	1	2	3	1
52	3	1	1	2	2	3	1	1	1	2	3	1	1	2
53	5	5	5	1	1	1	1	1	1	1	2	1	2	1
54	5	5	5	2	2	2	2	2	2	2	2	1	2	2
55	2	2	2	1	2	1	1	1	1	2	2	1	1	1
56	1	1	1	1	2	1	1	1	1	1	2	1	1	2
57	1	1	1	1	1	1	1	1	1	1	1	1	2	1
58	1	1	1	1	1	1	1	1	1	1	1	1	1	1
59	1	1	1	1	2	2	1	1	1	2	2	1	2	1
60	1	1	2	1	2	1	1	1	2	2	3	1	2	2
61	1	2	3	1	2	3		2	3	2	2	2	2	2
62	1	2	2	1	2	1	1	1	1	1	2	2	1	1
63	2	2	1	1	2	2	1	1	2	2	3	2	1	2
64	1	1	1	1	2	1	1	1	2	1	2	1	1	2
65	1	1	1	1	2	1	1	1	2	1	2	1	1	2

Table 48

66	1	1	1	1	1	1	1	1	1	1	1	1	1	1
67	2	1	1	1	1	1	1	1	1	1	1	2	2	1
68	1	1	1	1	3	2	1	1	1	2	1	2	4	3
69	1	1	1	1	1	1	1	1	1	1	1	1	1	1
70	1	1	1	2	2	1	1	1	2	2	3	2	2	2
71	5	5	5	5	3	2	2	5	2	3	2	2	4	2
72	1	1	1	1	1	1	2	3	2	1	2	1	2	1
73	2	1	2	1	2		1	1	1	2	2	1	2	1
74	2	1	1	2	1	1	5	2	3	1	5	1	5	2
75	2	1	1	2	2	2	1	1	2	1	2	1		1
76	2	1	2	2	2	2	2	2	2	2	2	2	3	2
77	2	2	2	2	2	2	1	1	1	3	3	2	2	2
78	2	2	2	1	2	1	1	1	2	2	4	1	1	2
79	2	3	3	2	2	2	2	2	2	3	3	2	2	2
80	2	3	2	1	1	2	2	1	1	2	2	1	2	2
81	1	2	1	2	3	2	2	1	1	2	2	1	1	1
82	5	5	5	1	1	1	1	1	1	1	2	1	2	1
83	1	1		2	2	1	2	1	2	1	3	1	1	1
84	5	5	5	2	2	2	2	2	2	2	2	1	2	2
85	2	1	1	2	2	2	2	2	2	2	3	3	1	2
86	3	1	1	2	2	3	1	1	1	2	3	1	1	2
87	1	1	1	2	2	1	1	2	1	3	3	1	1	1
88	2	1	2	2	2	2	1	1	1	1	3	1	1	2
89	1	1	1	2	2	2	2	1	2	2	3	2	2	2
90	2	1	1	2	2	2	2	1	2	2	2	2	3	2
91	5	5	5	4	5	5	5	1	1	1	3	1	1	1
92	2	1	2	1	2	2	1	1	2	1	1	2	2	2
93	2	2	2	2	2	2	2	2	2	4	3	2	2	3
94	0	1		1	4	2	4	1	2	1	4	3	2	2
95	2	1	3	1	2	1	3	2	1	1	1	1	2	1
96	2	1	1	1	2	2	1	1	1	2	4	1	2	2
97	0	5		1	2	1	1	1	2	2	2	2	1	2
98	0	2		2										

Table 49

1	1	1	1	4	1	1	4	1	1	1	1	1	1	4
2	2	1	4	3	1	1	3	3	2	1	2	1	1	4
2	2	1	2	2	2	1	4	4	2	1	2	1	2	2
1	1	1	1	4	1	1	5	4	1	5	1	1	1	1
3	1	2	3	3	3	2	2	3	3	1	1	1	1	3
1	1	1	5	5	1	1	5	5	5	1	1	1	1	1
1	1	2	2	3	3	1	4	3	1	1	1	1	1	1
2	2	2	4	4	2	2	5	5	2	2	2	2	1	1
1	1	1	3	2	1	2	4	4	1	1	1	1	1	1
2	2	2	4	4	2	2	5	5	2	2	2	2	1	1
3	1	1	2	3	3	3	3	3	2	2	1	1	2	2
1	1	1	1	2	2	1	1	2	2	1	2	2	2	2
3	3	2	2	2	2	2	2	2	2	2	1	2	1	2
2	1	2	4	3	1	2	4	2	1	1	2	1	2	1
1	1	1	3	2	1	2	4	4	1	1	1	1	1	1
2	2	2	4	4	2	2	5	5	2	2	2	2	1	1
3	1	1	2	3	3	3	3	3	2	2	1	1	2	2
1	2	2	2	3	2	2	4	4	2	1	2	1	1	1
1	1	1	2	3	2	1	5	5	1	1	2	1	2	2
2	2	2	2	3	2	2	3	2	2	1	2	2	2	2
1	1	1	3	3	1	1	4	5	3	1	1	1	2	1
2	2	1	2	4	3	2	4	4	2	2	2	2	2	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	2	2	1	1	1	1	1	1	1	1	1	1
1	2	1	2	2	1	1	1	1	1	1	1	1	1	1
1	1	1	1	2	1	1	1	1	1	1	1	1	1	1
1	1	1	1	3	2	1	1	1	1	1	1	1	1	1
2	1	1	2	3	1	1	2	2	1	1	1	1	1	2
2	1	1	1	1	1	1	1	4	2	1	1	1	1	1
1	2	1	1	1	1	2	1	1	1	1	1	2	1	2
2	2	1	3	3	3	3	3	3	2	2	3	3	2	2
2	1	2	3	4	2	1	4	3	2	1	1	1	1	1
2	1	2	3	4	2	1	4	3	2	1	1	1	1	1

Table 50

4	1	1	1	1	2	2	45
4	1	1	1	1	1	1	57
2	1	2	1	1	1	1	55
1	1	1	1	1	1	1	51
3	1	1	1	2	2	1	61
1	1	1	1	2	1	2	56
1	2	1	1	1	1	2	51
1	1	1	1	1	1	1	89
1	1	1	1	2	1	2	50
1	1	1	1	1	1	1	89
2	2	1	1	1	2	1	59
2	2	1	1	1	1	2	54
2		1	1	1	1	1	61
1	1	1	1	1	2	1	51
1	1	1	1	2	1	2	50
1	1	1	1	1	1	1	89
2	2	1	1	1	2	1	59
1	2	1	1	1	1	2	55
2	2	1	1	1	1	1	55
2	2	1	1	1	1	1	60
1	1	1	1	1	1	2	63
1	2	1	1	1	2	2	78
1	1			1	1	1	38
1	1	1	1	1	1	1	39
1	1	1	1	1	2	1	39
1	1	1	1	1	2	2	37
1	1	2	1	1	2	1	44
2	1	1	2	1	2	2	51
1	1	2	1	1	1	1	52
2	1	1	2	1	1	2	45
2	3	1	1	2	1	2	69
1	1	2	2	1	2	1	54
1	1	2	2	1	2	1	54

Table 51

1	1	1	1	4	1	1	4	1	1	1	1	1	1	4
1	1	1	1	4	1	1	5	4	1	5	1	1	1	1
3	1	2	3	3	3	2	2	3	3	1	1	1	1	3
1	1	1	5	5	1	1	5	5	5	1	1	1	1	1
2	1	1	4	4	2	2	4	4	2	2	1	1	1	1
2	2	2	4	4	2	2	5	5	2	2	2	2	1	1
1	2	1	2	1	1	1	1	2	1	1	1	1	1	1
1	1	1	3	2	2	1	3	4	3	1	1	1	1	1
2	2	1	5	1	1	1	1	4	1	1	1	2	1	2
1	1	1	1	2	2	1	2	2	2	2	2	2	2	
2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
2	2	1	2	2	2	2	2	3	2	4	2	2	1	2
2	2	1	4	3	3	2	2	3	2	2	2	1	1	2
2	2	1	3	3	2	2	3	3	2	2	2	2	3	2
2	2	2	2	2	1	2	2	2	2	2	2	2	2	1
1	2	1	3	4	2	1	4	2	2	4	1	1	1	2
1	1	1	3	3	1	1	4	5	3	1	1	1	2	1
1	1	1	1	5	3	1	5	2	1	5	1	2	1	1
2	2	1	2	4	3	2	4	4	2	2	2	2	2	1
2	3	2	2	3	2	2	3	3	2	4	2	2	2	2
2	2	2	2	3	2	2	3	2	2	1	2	2	2	2
1	1	2	1	1	1	1	2	4	2	4	1	1	1	2
2	1	1	2	1	2	2	3	2	2	1	2	1	1	2
2	1	2	2	2	2	2	2	2	2	2	1	2	1	2
2	1	2	2	3	2	1	3	4	2	2	1	1	1	1
1	1	2	1	2	2	1	1		1	3	1	1	1	1
2	4	2	4	3	2	3	4	4	2	5	1	1	1	1
3	2	2	2	3	3	2	2	4	3	4	2	2	3	2
2	1	1	2	4	1	1	2	2	2	3	1	1	1	1
1	1	1	2	1	2	1	2	1	1	1	1	2	1	2
2	1	1	2	4	2	2	1	4	1	5	1	2	1	1
2	1	1	2	2	2	2	3	4	3	2	1	1	2	2
													1	

Table 52

4	1	1	1	1	2	2	45
1	1	1	1	1	1	1	51
3	1	1	1	2	2	1	61
1	1	1	1	2	1	2	56
1	2	1	1	2	1	1	61
1	1	1	1	1	1	1	89
1	2	1	1	1	1	1	44
1	2	2	2	1	1	2	54
2	1	1	1	1	1	1	62
	1	1	1	1	1	1	47
1	1	1	1	1	1	2	59
2	2	1	1	2	1	1	64
2	2	2	1	1	2	2	64
2	2	2	2	2	1	1	74
1	2	2	2	2	2	2	62
2	2	1	1	2	2	1	61
1	1	1	1	1	1	2	63
1	2	1	1	1	1	1	56
1	2	1	1	1	2	2	78
2	2	2	2	2	2	1	72
2	2	1	1	1	1	1	60
2	2	2	1	2	2	1	55
2	2	1	1	1	1	1	52
2	2	1	1	1	1	1	57
1	2	1	1	1	1	1	59
1	1	1	1	1	1	2	68
1	2	1	1	1	1	1	66
2	3	2	2	2	2	2	81
1	2	1	2	2	1	1	59
2	1	2	1	1	1	2	49
1	2	1	1	1	1	2	59
2	2	1	1	1	1	1	57
		1					6

Table 53

2	1	1	1	2	2	1	2	3	1	3	1	2	1	2
1	1	1	2	4	2	2	4	4	2	1	1	1	2	1
2	1	1	2	3	2	2	2	4	2	2	2	2	2	3
1	1	2	4	5	1	1	4	4	1	4	1	1	1	1
1	1	2	4	5	2	1	4	4	2	4	1	1	1	1
1	2	1	2	4	1	2	4	2	2	1	1	1	1	1
1	1	1	4	5	2	1	4	4	2	4	1	1	1	1
2	1	2	4	5	2	1	4	4	1	4	1	2	1	1
1	2	2	4	4	2	1	4	4	2	2	2	2	3	2
1	2	2	4	4	2	1	4	4	2	2	2	2	3	2
1	1	2	4	4	2	1	4	4	1	2	1	1	1	1
1	1	1	4	4	1	1	4	4	1	2	1	1	1	1
2	2	2	4	5	1	1	4	4	2	4	1	2	2	2
1	1	1	4	5	2	1	4	4	2	4	1	1	1	1
2	1	2	4	5	1	1	3	4	2	2	1	1	1	1
1	1	1	4	5	2	1	4	4	2	4	1	1	1	1
1	2	1	4	5	1	1	4	4	1	3	1	2	1	1
1	1	2	4	4	1	1	5	4	2	4	1	1	1	1
1	1	1	4	5	1	1	4	4	2	4	1	1	1	1
1	2	2	3	5	1	1	4	4	2	3	1	2	1	1
1	2	2	2	5	1	1	4	4	2	4	1	1	1	1
181	172	170	309	387	201	173	378	371	215	286	157	165	158	171
0,404824	0,387078	0,29987	1,301061	1,5536	0,432638	0,439012	1,616399	1,401562	0,506519	1,989859	0,274446	0,275895	0,289987	0,45756

Table 54

2	2	2	2	2	2	2	57
1	2	2	1	2	2	2	61
3	2	1	1	1	1	2	65
1	1	2	1	1	1	2	56
1	1						49
1	1	1	1	1	1	1	48
1	2	1	1	1	1	1	57
1	2	2	1	1	1	2	61
2	2	2	1	2	1	1	68
2	2	2	1	2	1	1	68
1	1	2	1	1	1	2	51
1	1	1	1	1	1	1	48
2	2	2	1	2	1	1	66
1	1	1	1	1	1	2	58
1	1	2	1	2	1	1	60
1	1	1	1	1	1	1	56
1	1	2	1	2	1	1	60
1	1	1	1	1	1	2	55
1	2	1	1	1	1	2	58
1	2	2	1	2	1	2	56
1	2	1	1	1	1	1	55
171	175	152	129	147	147	160	6830
0,45756	0,303861	0,211465	0,092838	0,197526	0,197526	0,234453	22,17074

Table 55

99	1	2	2	1	2	2	1	1	1	2	3	1	1	2
100	1	1	2	1	2	1	1	2	2	2	4	1	1	1
101		2	4	2	2	2	1	1	3	2	2	2	2	2
102	1	2	2	1	1	1	1	1	1	1	2	1	1	1
103	2	1	1	1	1	1	1	1	1	1	1	1	1	1
104	1	1	1	1	2	1	1	1	1	1	2	1	2	1
105	2	2	2	1	1	1	1	1	1	1	2	1	1	1
106	2	2	2	1	1	1	1	1	1	1	1	2	1	2
107	2	2	2	2	2	2	2	1	2	1	2	1	1	1
108	2	2	2	2	2	2	2	1	2	1	2	1	1	1
109	1	1	1	1	1	1	1	1	1	1	1	1	1	1
110	2	1	1	1	1	1	1	1	1	1	1	1	1	1
111	1	2	2	1	2	1	2	1	2	1	2	1	1	2
112	2	2	2	1	1	1	1	2	2	1	1	1	1	1
113	3	2	2	1	1	2	2	2	1	1	1	2	1	2
114	2	2	2	1	1	1	1	1	1	1	2	1	1	1
115	1	2	3	1	2	1	2	1	2	1	2	1	1	1
116	1	1	1	1	1	1	2	1	1	1	2	1	1	1
117	2	2	2	1	1	1	1	1	2	1	2	1	1	1
118	1	1	1	1	1	1	1	1	1	1	1	1	1	1
119	1	1	1	2	1	1	2	1	2	1	1	1	1	1
Total	200	205	203	174	209	169	166	160	174	179	228	164	195	181
Variance	1,256555	1,286854	1,321587	0,708304	0,519846	0,438697	0,573092	0,675648	0,338196	0,439881	0,65967	0,274084	0,810345	0,404824

K	34
∑variance	22,17074
Var	117,9529
α	0.84