

**AN INVESTIGATION INTO MANAGEMENT STRATEGIES
AFFECTING PERFORMANCE OF MICRO, SMALL AND MEDIUM
ENTERPRISES (MSMEs) IN KENYA**

by

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DECLARATION

Student number **3590-515-6**

I declare that '**AN INVESTIGATION INTO MANAGEMENT STRATEGIES AFFECTING PERFORMANCE OF MICRO, SMALL AND MEDIUM ENTERPRISES (MSMEs) IN KENYA**' is my own work and that all the sources that I have used or quoted have been acknowledged by means of references.

SIGNATURE

(MS W L NJANJA)

DATE

ECCLESIASTES 12:13

Let us hear the conclusion of the whole matter, “Fear God and keep His commandments, for this is the whole duty of man.”
(KJV)

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All Glory to God for his mercies endureth forever!

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*To my guardians and in particular,
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2.1 Conceptual Model

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ABSTRACT

This research was geared towards the investigation of management strategies (factors) that affect the performance of MSMEs in Kenya. Many developed countries record a time in history when entrepreneurial activities led to revival of economical growth after decline. This implies MSMEs is a very vital sector especially for a developing country like Kenya. MSMEs stagnate and their performance is uncertain according to writers such as Namusonge, Management inadequacies have been suggested in several studies. The objectives of this research was to,

- i. To identify the critical management factors affecting the performance of MSMEs in Kenya ;
- ii. To establish the process through which managerial factors affect the performance of a MSMEs in Kenya ;
- iii. To determine the integrative effect of various management factors in the MSMES in Kenya ;
- iv. To establish the effect of demographics and management factors on performance ,
- v. To establish effects of external environment on internal management factors

A conceptual model was formulated from the literature review showing relationships of the management strategies and the environment they operate in. These relationships became the basis for the hypotheses which were later tested.

In chapter 4, a mini research (pilot study) was conducted in May 2007,whose main aim was to test the reliability and validity of the research instruments. The 36 questionnaires returned were analysed through descriptive method. Results obtained indicated the instruments were reliable and the results valid. A few corrections suggested were made. The major correction was addition of question 35 to collect financial information.

The data collection was done between mid August and mid October 2007.In chapter 5, the researcher analysesd the results of the survey after receiving 180 questionnaires. Time was a constraint.

In chapter 6, the hypotheses and conceptual model were analysed and the results obtained suggested that, most strategies did not affect the profitability separately but severally. The integrated effect of the management strategies and the associated factors had a higher impact on performance of the MSMES than any individual strategies.

In chapter 7, the conclusions, summaries and Recommendations are given

Key Terms

Management strategies; Business performance; (MSMES) in Kenya; Development plans; Research strategies; Pilot Study; Sessional Papers; Cross tabulations; logistic regressions; Pearson's correlations; Discriminant analysis; Composite means

CHAPTER ONE

INTRODUCTION

1.1 Management Concept

Management is practised in all kinds of organisations and has been present in all kinds of civilisations as can be concluded from the chronology given by scholars such as Cole (2006: 3 - 6) and Koontz and O'Donnell (2004), among others. Management is concerned with efficient and effective use of resources by the enterprise (Stokes & Wilson 2006: 214, 329). The modern approach to management "has been on organisational effectiveness" focusing on change and strategic issues including social and environmental issues as well (Cole, 2006: 3 - 6, Pearce & Robinson, 2007).

Management is an important activity that helps lead organisations towards their goals. Management actions are very important (Gunningham, Thornton & Kagan 2005:289 - 316). Indeed, managers and management are essential in our modern business organisations and society (Hendricks & Singhal, 2001b: 269 - 285). The activities undertaken in management, determine whether the business fails or succeeds. For example if a company or organisation is in financial difficulty, then cost cutting may be inevitable (Nickels, McHugh &McHugh 2007:239). The way management tackles the problem determines the long-term outcome. It can be observed that cost reduction that destroys morale will only have a short-term advantage if the organisational fabric is destroyed in the process.

The functions of management differ in different business settings. In profit making firms, the primary function of management is to satisfy a range of stakeholders. This typically involves making a profit (for the shareholders), creating valued products at a reasonable cost (for customers), and providing rewarding employment opportunities (for employees). In most models of management, shareholders vote for the board of directors, and that board then hires senior management (Peterman & Kennedy, 2003:1290 - 044). Management also has a responsibility to innovate and improve the functioning of the organisation. In all but the smallest organisations (micro), achieving these objectives involves a division of management labour. People specialize in a limited range of functions so as to quickly gain competence and expertise (Nabi, 2003: 371-82).

Managers require business ideas that are more than "soothing platitudes" argues Rosenzweig (2007: 2). Consultants, chief executives and owner managers, tap scientifically suspect methods to produce what Rosenzweig calls "business delusions" which implies deeply flawed and widely held assumptions tainted by the "halo effect" (Rosenzweig, 2007). Occasionally, there is a rush to attribute sweeping positive qualities to their company from another that has achieved success. Following this rush might provide managers with a comforting story that helps them justify their actions, but it also leads them to gross simplification and to ignore the constant demands of change and the changing business environment, technologies, markets, customers and situations.

Many managers believe that their job is to resolve problems that arise (McNamara & Watson, 2005:184-19). While that is true, it is only the lesser part of the job. More importantly, a manager's job is to prevent problems. If management does not raise

support for an executed change or if managers have not provided good leadership, then the energy is wasted (own deduction). If organisations lose their focus on service, they eventually suffer. If management influence is negative rather than positive, staff morale and the organisation climate suffer. Thus, management must back up statements with positive actions. The management behaviour has to help rather than hinder. “It has to be concrete, real and positive” (Fisher 2007: 25-32).

Micro, Small and Medium Enterprises (MSMEs) like any other organisation, require managers and management to perform. Senior management (CEO or owner manager) has a major influence in MSMEs. MSMEs are present in every industry and all types of economy (Berger, 2005:346).

1.1.1 Business Management Strategies

The management strategies that influence the firms’ performance can be classified as Chief Executive (or Owner manager) characteristics, human resource management factors, technology management factors, strategic management factors, finances/capitalisation factors, marketing management factors, entrepreneurial management factors, interpersonal factors, environmental factors, regulation and Policy Issues (deductions from study). These factors are discussed in detail in chapter 2.

Handy (in Cole 2006:9) concludes that a manager has to grapple with people, work and structures, systems and procedures within the constraints of the goals of the organisation, the technology available and the culture of the organisation. It can, therefore, be concluded that to successfully manage, is to balance these factors in a way that meets the

needs of the organisation at a particular period in time. A few of these factors are explained below:

1.1.1.1 Management Experience

Dyke et al., (1992: 72-87) says that management experience is a significant factor in achieving success or successful performance in the small business environment. They state that "would-be business owners" should be concerned to gain related industry, management, and start-up experience regardless of the type of industry in which they plan to operate (Delmar & Wiklund 2008). They note however, that while experience was a significant factor, it could vary by industrial importance. This is supported by Gibb (2006) who suggests that research for specific industries in specific regions might prove more useful than national studies in a study referring failures of small businesses; however, this may apply to successes also.

1.1.1.2 The Chief Executive Officer (Owner manager)

The Chief Executive Officer (CEO) who may be the business owner or entrepreneur is ultimately responsible for the success or failure of the business (Delmur & Wiklund 2008). He or she provides overall strategic direction for the firm, often with the assistance of a team of deputy managers. Strategic management decisions (like what products to market, what market segments to target, what functions to outsource, what business model to employ, and what geographical areas to operate in) are the responsibility of the CEO.

In small firms, the owner, president, or CEO typically assumes many roles and responsibilities. Executive vice presidents of marketing in a large firm might direct overall marketing strategies, advertising, promotions, sales, and product management, pricing, and public relations policies. In a small firm, they may serve as a liaison between the firm and the advertising or promotion agency to which many advertising or promotional functions are contracted out (Parker, 2004:10-12).

The Chief Executive Officer (or Owner manager) is a key officer in any business organisation (common knowledge). His or her leadership is critical. The senior management team sets not only a strategic direction but also "the tone" of how things are done. In times of difficulty and uncertainty, it is important to work with staff. "A positive culture, where people are working hard to overcome difficulties, is like a turbo charger" (Di Pofi, 2002: 156-8).

1.1.1.3 The Marketing Management Strategies

In Marketing Management, the marketing managers develop the firm's detailed marketing plans and procedures (Kotler, 2004). With the help of subordinates, including product development managers and market research managers, they determine the demand for products and services offered by the firm and its competitors. In addition, they identify potential markets for example, business firms, wholesalers, retailers, government, or the public. Marketing managers develop pricing strategy with an eye towards maximizing the firm's share of the market and its profits while ensuring that the customers are satisfied. In collaboration with sales, product development, and other managers, they monitor trends that indicate the need for new products and services and oversee product

development. Marketing managers work with advertising and promotion managers to promote the firm's products and services and to attract potential users (Parker, 2004: 13-22). Other areas where management is required may be in promotions, public relations, sales, production and all levels of the organisation. These levels may not be that distinct in small businesses.

1.1.1.4 The Management System

A management system describes the organisation and the set of significant institutions and forces in the organisation's complex and rapidly changing environment that affect its ability to serve its customers. The firm must continuously monitor and adapt to the environment if it is to survive and prosper. Disturbances in the environment may spell profound threats or new opportunities for the firm (Walter, Lechner & Kellermanns 2008:531-540). The successful firm will identify, appraise, and respond to the various opportunities and threats in its environment. The nature of businesses is that it sources from the environment for the inputs and through the management processes converts the inputs to outputs that are then disposed back to environment in form of goods or services. It has been said that small business management has to do with the techniques of operations (running the small businesses and entrepreneurship as the creation of new business enterprises (Hartshorn & Wheeler, 2003: 203-220).

The management system can be conceptualized on two levels. The first level involves the organisation's internal environment. Internally, an organisation can be viewed as a resource conversion machine that takes inputs (labour, money, materials and equipment) from the external environment (the outside world), converts them into useful products

(goods and services), and makes them available to customers as outputs. The second level of the management system involves the organisation's external environment. It consists of all the outside institutions and forces that have an actual or potential interest or impact on the organisation's ability to achieve its objectives: competitive, economic, technological, political, legal, demographic, cultural, and ecosystem (Westhead & Wright, 2000: 146-198).

1.1.1.5 The management approach

The ways different managers approach their jobs in organisations differ. This gives rise to different approaches to managing organisations. Some approaches may be described as participative or autocratic (depending on the degree of involvement of members in decision-making), formal or informal (depending on the degree of deliberateness, explicitness and commitment to established planning machinery), ad hoc or systematic (depending on the degree of consistency in decision-making). The management approach that prevails in a company is determined by various contextual factors. Peterman and Kennedy, (2003: 129 - 44) and Douglas and Judge (2001: 158-169) identified these contextual factors to include the company's history and experience, its size, ownership, the industry in which it operates and the business situations it is presently in, resources and dependence. Corbett and Rastrik (2000: 14-26) reinforce this point by emphasizing that management is influenced by environmental forces. Di Poffi (2002: 156 - 158) and Terziovski and Samson (2000: 144 - 149) concur with this proposition by indicating that environmental and organisational factors affect strategic management practices. Similarly, Lumpkin and Ireland (1988: 51-81) point out that management challenges differ across companies across countries.

1.1.2 Organisation Performance

Performance is often defined simply in terms of output terms such as quantified objectives or profitability. Brumbach in Armstrong (2006:7) defines performance as both behaviour and results. This definition covers the achievement of expected levels as well as objective setting and review. The underlying thought behind this study is actually to investigate this relationship bearing in mind that if the behaviour of management is right, then the expected levels of output will be achieved (success) and vice versa for failure. Success and failure are taken as the two ends of the performance continuum.

Many authors have tried to set out a clear definition of performance; (Reed, Lemark & Mero, 2000: 5-26, Ginsbert. and Venkatraman, 1985: 25-39, Chu-Hua, Madu & Lin 2001: 864-72; Terziovski. & Samson, 2000: 144-9), but this debate continues to date within the academic literature, more so regarding some aspects of terminology issues, analytical levels, and the conceptual basis for assessment. According to Ginsbert and Venkatraman (1985:25-39), “There are three different levels of performance within organisations”. They are distinguished as the financial performance, business performance and organisation effectiveness, although the latter has been subsequently known as organisational performance (Chu-Hua, Madu & Lin 2001: 864-72; Terziovski. & Samson, 2000: 144-9). Performance is the key interest of every business manager or owner. The overall performance of the organisation depends on proper management of the three levels, which fall within the jurisdiction of top, middle and lower management.

1.1.2.1 Financial Performance

Firms use financial information developed by accountants to support decisions. For example, the historical revenue and cost information can be used for budgeting decisions. The marketing managers can use sales information to evaluate the impact of a particular promotion strategy while the same sales information can be used by production manager to determine the future production levels. Income statements are very useful in measuring financial performance where many kinds of ratio analysis can be calculated (Madura 2007:565-590).

1.1.2.2 Business Performance

Business performance is sometimes used to refer to the outcome of the whole business but in management, it is used to refer to the middle level activities within an organisation. The managers at this level will select strategies that create competitive advantages in order to experience above average profitability within the industry (Pearce & Robinson 2007: 233)

1.1.2.3 Organisational Effectiveness or Performance

Organisation effectiveness refers to the overall success of the firm. Effectiveness is primarily a question of “doing the right things” even more than performing them efficiently “doing things right” Cole (2006: 5). This effectiveness has to do with long term prosperity as opposed to short- term profitability. To achieve this, long-term objectives are set. Pearce and Robinson (2007: 190-191) suggest the following areas to be covered:

- Profitability
- Productivity
- Competitive position
- Employee relation
- Technological leadership
- Public responsibility.

These areas are covered within the management factors in chapter 2. The first two levels of performance (financial and business) fall into the overall organisation performance. They are shorter term measures of long-term performance.

1.1.2.4 Environmental Forces

It is important to note that organisation performance does not happen in a vacuum but within a certain environment which has challenges and opportunities, (Walter et al 2008: 530-540). Environmental forces create challenges and opportunities for the organisation (Gibb 2006:263-283, Pearce & Robinson 2007:83-114). Managers / owners must react and adapt to changes in their internal and external environment. Globalisation is an example of an opportunity for an organisation (Maxwell, Rankine & Macvicar 2007, Pearce & Robinson 2007: 126-127). Improved technologies, such as transportation and communications, have enabled companies to expand into global or worldwide markets. Globalisation affects how organisations are managed. Managers must learn to deal effectively with multiple cultures and political systems in the midst of rapidly changing markets and technology. They must be able to anticipate this changing environment and develop the vision and competencies at all levels in their organisations to embrace this dynamic future.

1.1.2.5 Success and Failure

Pfeifer and Lussier (2001: 228-239) define failure “...as a condition of the firm when it is unable to meet its financial obligations to its creditors in full”. This would cause the firm to be legally bankrupt, eventually being forced into insolvency liquidation. For the purposes of this research, failure will be treated as either voluntary or forced liquidation. Several causes have been identified as causes of failure or success amongst small firms that point to the importance of management. According to Taylor and Murphy (2004: 280-289), deficiency in functional knowledge, managerial skills and managerial behaviour are the main causes of failure or contributors to success if well managed.

Gaskill, VanAuken & Manning (1993: 18-31) and Justis and Chan (1993: 61-90) identify the causes of business failure as neglect, disaster, fraud, economic factors, experience, sales expenses, customer, assets, and capital. These causes are all within the control of management. Cooper, Drunkleburg and Woo (1989: 317-332) conducted a three-year longitudinal study across industries. They conclude that gender, level of capital and education level were important factors. They further observed that successful entrepreneurs tended to purchase rather than start businesses and that industrial experience, rather than managerial, increased probability of survival. These observations need to be verified for the MSMEs in Kenya.

There seems to be consistency across all the studies that success and failure are associated with at least six factors tabulated below.

Table 1.1: A summary of factors previously studied

The operating capital	Bruno et al., 1987: 50-58; Hoad & Rosco, 1964: 154-168; Reynolds, 1987: 231-26; Vesper, 1980: pp. 27-55; Dun & Bradstreet, 1989: pp. 144-9; Cooper, 1989: 317-332;
Experience	Sommers et al., 1964: pp. 35-39; Vesper, 1980: pp. 27-55; Dun & Bradstreet, 1989: 144-9; Cooper, 1989: 317-332;
Education	Hoad and Rosco: 154-168, 1964, Cooper, 1989: 317-332;
Planning	Bruno, 1987, O'Neill & Duker, 1986: 30-37;
Industry	Susbauer & Baker, 1989: 56-66; Vesper, 1960);
Age	Reynolds, 1987: 231-246; Cooper, 1989: 154-168.

There appears to be no one set of reliable variables that will always consistently promote success, because of the differences that exist within each individual small firm, including owner/manager differences (Kirby, 2003: 215-226). Lussier (1996: 23-37) states that there is no generally accepted list of variables distinguishing business success from failure. The two most commonly stated variables, however, that seem to make the difference are capital and management experience. Steiner and Solem (1988: 51-56) report that key success factors in small manufacturing businesses would include an owner/manager with experience in the business or prior experience; adequate financial resources; a competitive advantage based upon customer and product specialization; and strategic planning. However, the relationship in these factors and how they contribute to performance in a given firm is unknown.

1.1.2.7 Entrepreneurial Skills

The ability of entrepreneurs to combine resources effectively depends on educational policies that emphasize practical business skills. Education has been observed to be one

of the factors that impact positively on growth of firms (Reed et al., 2000: 5-26). Those entrepreneurs with larger stocks of human capital, in terms of education and/or vocational training, are better able to adapt their enterprises to constantly changing business environments (Duchesneau & Gartner, 1990: 297-312). John, (2007: 195-269) and Meyer (2001: 5-26) also highlight the need for education in businesses. They distinguish two types of entrepreneurs in Kenya; the ‘plodders’ running un-dynamic firms, and those having dynamic firms. The difference between the two entrepreneurs is in the level of educational qualification attained by the entrepreneur. The 1999 Baseline Survey also shows incomes of enterprises to differ with levels of education, being highest for postgraduate group and lowest for those with no education.

Also important to skills development is the education system’s ability to impart skills to the trainees. The World Bank policy advice is against vocationalisation of primary and secondary education. The general position of the bank is that because the social returns to vocational education are much lower than those to general secondary education, vocational and technical education is best delayed as long as possible, ideally confined to the workplace, and best preceded by general education (Wood, 1989: 26-27, World Bank 1995).

1.1.3 Micro Small and Medium Enterprises (MSMEs)

Micro, Small and Medium Businesses (MSMEs) are generally regarded as the “backbone of the economy” (Kirby, 2003: 115-226). These businesses constitute a majority of the economic growth and development that is derived. There are more than 22.9 million small and medium businesses (SBA), which account for almost 50% of the

nation's gross domestic product (Walker, 1989:285-296) in the United States and 99.8 percent of firms being classified as small businesses in the European Union (Matlay & Westhead, 2004: 326-27). These authors continue to state that the pool of resources that SMES and MSES or MSMES have is largely having an impact on the misconception that "small business is just small business and should generally be left alone or in the dark".

Small businesses employ large numbers of people and greatly contribute to the national income as documented in various studies. Some of the studies include (Nabi, 2003: 371-82; Berger, 2005:346 and the Kenyan Sessional Paper No. 2 of 2005 on Development of Micro and Small Enterprises). In this regard, a number of studies in the United States and Canada show that contributions of small business enterprises are not the same across all the enterprises. Those small enterprises which survive (Bates, 1995: 26-36) play a much more important role in national development. Reynold (1987: 231-246) indicates that only about one third of all small firms account for most of the societal contributions in terms of sales, employment and out-of-state exports.

Smaller businesses are universally referred to as small and medium -sized enterprises usually abbreviated as SMEs or sometimes SBEs (Hamilton, 2000: 604-31). 'Enterprise' refers to an understanding that is bold or difficult, a readiness to engage in such undertaking showing courage or imaginativeness. The definitions of small business enterprises differ from country to country such as the USA, European community, Canada, Japan and South Africa. The European Commission define small and medium enterprises in terms of number of employees as follows; micro had 0 to 9 employees, small had 10 - 99 employees and, medium had 100-499 employees. This has a close

relationship with American business association definition. Largely, the categorization will differ depending on particular regions.

Longenecker, Moore, Petty and Palich (2006: 7) and (Mason, 1991: 215-226) suggest that to define the small businesses requires use of different criteria such as the number of employees, sales volume and value of assets. They categorise the MSMEs as those businesses that:

- Have been financed by a one or only a few people.
- The business operations are geographically localised.
- They are not dominant compared to bigger firms in the same industry.
- The numbers of employees does not exceed 100.

From the Ministry of Labour in Kenya, a micro-enterprise has 0 to 9 employees, small enterprise has 10 to 49 employees and medium has 50 to 99 employees (further discussion on Kenya in Chapter 3).

1.1.4 Small Business Management and Entrepreneurship

There should be a distinct difference between the management of small businesses and entrepreneurship. Nevertheless, in the minds of many, the two have been taken to be similar. In defining entrepreneurship, a problem mainly arises because it touches diverse disciplines. Studies of the entrepreneur, the impact of entrepreneurs upon economics, the history of entrepreneurship and the sociological of the family business are just but a few (Hagan 2004:18). This discipline of entrepreneurship has been ‘criticized for lack of generally accepted definition’ (Watson 2001: 46-47). An entrepreneur is described as “one who is engaged in the movement of resources from low areas to higher areas of

production and increase” (Chandler, 2005: 32-68). Hamilton (2000: 604-27), attributes the term ‘entrepreneur’ to economic literature. Schumpter’s defines entrepreneur is an “innovator” (Stevenson, 2000: 416-29). There is consensus that entrepreneurship has been in existence since prehistoric times (Shane & Venkatraman, 2000: 13-17) though the term has not had a definite definition.

This research adopts the definition by Longenecker et al., (2006:6) that only ... “an entrepreneur is a person that discovers new markets, launches new firms to meet those needs, takes risk in change situations, is innovative and is progressive in economic life.” Therefore, an entrepreneur is a person that organises, operates and assumes the risk of business venture. The confusion about the meaning of the term entrepreneur is further deepened by the substitution of the term “small business person”. There is a general agreement that he/she can be one and the same. The entrepreneur has ideas which he longs to realize because the accomplishment of one’s own imaginations provides a feeling of achievement or self-actualization (Luthje et al., 2003:135-47). At the same time, managing a business is associated with ego and prestige. Peers and society view such a person as successful, independent and having a creative personality with approval, admiration and envy. There is also the desire for economic prosperity associated with one’s own business (Matlay & Westhead, 2004: 326-27).

In spite of the attractions of small business, the failure rate is very high. This raises a concern on the general performance and therefore, the management of small businesses. Stokes and Wilson (2006:41) attempt to differentiate the different types of small business managers into three distinct types;

- The craftsmen who range from joiners to hairdressers who themselves directly provide a product or service and who enjoy doing it.
- The promoter who is archetypal and often deals with start, growth and selling off of different businesses in pursuit of personal wealth.
- And the professional manager who adopts a more structured approach to building an organisation on the lines of a ‘little big business’.

These managers determine the performance of the small businesses because they make decisions. The success or failure often attributed to the capital base of the firms or limited stocks can be maintained by the managers and access to borrowed capital for small businesses which has been quite unfavourable where security is a necessity (Wood, 1989: 26-27; Meyer, 2001: 6-26).

Small enterprises can flexibly respond under difficult and changing conditions because they do not depend heavily on infrastructure but typically use low level technology allows product lines and inputs to be charged at relatively low cost (Hamilton, 2000: 606-31; Adams, 2004:50). For example, if the raw materials are liable to deterioration and small enterprises production centres are geographically well-spread, (as the case of milk and its products), industrial units, (such as pasteurization and bottling plants), are likely to be small. On the other hand, economies of scale may be exhausted at a very initial stage in several industrial processes where there are no major technical indivisibilities involved, or where they are not very significant in terms of investment or cost. Thus, in the clothing and leather footwear industries, although economies of organisation and marketing may be achieved by combining the output of lots of similar sewing machines

or leather shoe-machines, there is no opportunity for securing the kinds of economies of scale such as are involved in large cement plants and blast furnaces.

For the purpose of this study, the owner manager of MSMEs is referred to as an entrepreneur. The terms small business enterprise (SMEs) and entrepreneurship are used interchangeably. This research considers small businesses and entrepreneurship as similar and seeks to investigate the factors that influence the performance of the MSMEs in Kenya.

1.1.5 MSMEs in Kenya, the Contextual Background

The number of small businesses is growing rapidly in Kenya as evidenced by the growing activities within (Namusonge 2004, Sessional paper 2005, World Bank report). Every sector of operations has smaller operations. These include textile industry, manufacturing, finance, security, food and hotels, transport, service sector to mention a few. The business environment is highly turbulent characterized by external factors (political/legal, economic/demographic, socio-cultural, technological and globalisation) as well as internal business factors (management expertise, resources, individual characteristics etc). In the dynamism and turbulence, small businesses are affected more than the large organisations because the response to environmental changes is different in small businesses than in large companies (Hartshorn & Wheeler, 2003: 203-320), which may exit from one business area and have resources and strategic choices not available to small business enterprises. It's necessary to study the management factors that are in place in the informal sector, that is, investigate individual business adjustment policies in relation to the state policies, the current business performance factors.

The role of MSMEs in the promotion of national development in Kenya has been well-documented (Sessional Paper No. 2, 2005). According to the 2006 Economic Survey, employment within the Sector accounted for 74.2 per cent of the total persons in employment. The sector contributes up to 18.4 per cent of the country's Gross Domestic Product (GDP). The sector is, therefore, not only a provider of goods and services but also a driver in promoting competition and innovation, and enhancing the enterprise culture which is necessary for private sector development and industrialization.

It is expected that by the year 2030, Kenya would have been transformed into a newly industrialized nation. If the country has to make this leap, then the small enterprises are expected to play a key role in this transformation. To play this role, the small enterprises must succeed and the failure rate characterizing the sector be minimized if not abolished. It is also noteworthy that most of the businesses in this sector remain micro, employing less than five people and having such a high mortality rate as such, they never graduate into large or even medium organisations. Research findings report that many do not celebrate their third birthday (Sessional paper, 2005). To this end, there is need for a study that will provide clear understandings of the critical factors that contribute to performance in micro, small and medium enterprises in Kenya hence this study.

1.2 Research Problem

Research has shown that there are factors that contribute to success or failure in small enterprises in the government departments in the world. For example, Bates, (1995: 26-36) reports that of the 90,000 small businesses surveyed, approximately 65% of the franchise firms were still in operation in 1991, while 72% of independent small firms

were still operational in the U.S.A. That indicates that over 28% of young firms went out of business. Dun and Bradstreet (1993: 144-149) report that 51.8% of firms fail during the first five years, with 9.5% failing per year. If the positive aspects of these figures are considered, a large portion of firms does succeed rather as opposed to reported failure figures. Justis and Chan (1993: 61-90) found that accurate data concerning failure rates tend to be confusing and possibly overrated, because of factors such as differences in definitions regarding failure and demographics concerning small businesses, as well as methodology used in data collection.

Generally, these research results are mixed up, making it difficult to understand the exact causes because factors citing reasons for failure also appear as factors affecting success (Gaskill *et al.*, 1993: 18-31). What is missing is the process through which these factors lead to either success or failure. Another limitation of the previous studies is that the various factors were studied in isolation. No effort has been made to investigate the integrated effect of the various factors. Further, most of those studies conducted are concentrated in the west and the models used have not been tested in Kenya. This implies that, Kenyan small business owners cannot reliably make use of those models to predict their business performance. Finally, most of these studies were done more than 10 years ago.

Although a number of researches have been done on factors that contribute to success or failure in SMEs, none has focused on the critical management factors affecting the performance of micro, small and medium business enterprises in Kenya. This study therefore seeks to determine the critical management factors affecting the performance of

MSMEs in Kenya by looking at the process through which the factors lead to success or failure; and further determine the integrative effect of various management factors in the MSMEs in Kenya.

1.3 Research Objectives

The objectives of the thesis are:

1. To identify the critical management factors affecting the performance of MSMEs in Kenya ;
2. To establish the process through which managerial factors affect the performance of MSMEs in Kenya ;
3. To determine the integrative effect of various management factors in MSMEs in Kenya ;
4. To assess the effect of demographics and management factors on performance ,
5. To test effects of external environment on the internal management factors.

1.4 Research Hypotheses

The primary hypothesis for the purpose of the study is;

Management of both internal and external factors and management itself has a major effect on the MSMEs performance. The main hypothesis is supported by testing the following secondary hypotheses:

- i. There is a relationship between the chief executive / owner manager factors leading to either performance or non-performance of MSMEs.
- ii. There is a relationship between the human resources management factors leading to either performance or non-performance of MSMEs.

- iii. There is a relationship between the information technological management factors leading to performance or non-performance of MSMEs.
- iv. There is relationship between the marketing management factors leading to either performance or non-performance of MSMEs.
- v. There is relationship between the strategic management factors leading to either performance or non-performance of MSMEs.
- vi. There is relationship between the finance management factors leading to either performance or non-performance of MSMEs.
- vii. There is relationship between the Entrepreneurial management Factors leading to either performance or non-performance of MSMEs.
- viii. There is a relationship between interpersonal factors leading to either performance or non-performance of MSMEs.
- ix. There is relationship between the Environmental factors leading to either performance or non-performance of MSMEs.
- x. There is relationship between the Regulation and policy factors leading to either performance or non-performance of MSMEs.
- xi. The management processes affects the management factors thus leading to either performance or non-performance of MSMEs.
- xii. The external environmental factors affect the internal environmental factors thus leading to either performance or non-performance of MSMEs.
- xiii. The general organisational profile affects the performance or non performance of MSMEs.
- xiv. There exists a relationship between globalisation factors thus leading to either performance or non-performance of MSMEs.

- xv. The management skills contribute to either performance or non-performance of MSMEs.
- xvi. The whole management process is subject to the environmental factors leading to either performance or non-performance of MSMEs.
- xvii. There exists a difference in management processes that exists between the micro, small and medium enterprises based on size.
- xviii. The level of education determines the performance or non-performance of the micro, small and medium enterprises.

1.5 Research Justification

Micro, small and medium business enterprises in Kenya provide goods and services on top of being a driver in promoting competition and innovation, and enhancing the enterprise culture, which is necessary for private sector development and industrialization contained in the Strategic Plan of 2030. A critical assessment of the management factors affecting the performance of micro, small and medium business enterprises in Kenya would help transform the Kenya economy into a newly industrialized nation because small enterprises are expected to play a key role in such transformations. This study with its stakeholders as entrepreneurs, trainers, owner managers, creditors and suppliers, venture capitalist and even investors would use the research findings, to predict the success or failure of the businesses, based on the orientations prevalent and therefore choose what would be best outfit for their practice.

1.6 Significance of the Study

The findings of this study will be useful to the stakeholders including:

1.6.1 Academics / Researchers

Findings from this research will assist academicians in broadening of the syllabus with respect to this study hence providing a deeper understanding of the critical management factors affecting the performance of MSMEs. The findings may as well attract other researchers to venture into other factors affecting the performance of MSMEs that have not been studied in the African context. The available literature is full of case studies from the west, which cannot be replicated without amendments for organisations operating in Africa.

1.6.2 Micro, Small and Medium Enterprises in Kenya

The findings of this study will help micro, small and medium business enterprises in Kenya and others, with an insight into the benefits of using sound management to predict the success or failure of the businesses based on the orientations prevalent and therefore choose what would be the best outfit for their practice as a continuous performance strategy. The study intends to reveal the critical management factors affecting the performance of micro small and medium enterprises in Kenya.

1.6.3 Governmental Policy-makers

The government can use the findings for their research to assist in policy formulation and development of a framework for critical management factors affecting the performance of micro, small and medium enterprises in Kenya; this study might also help in pointing out the process through which managerial factors affect the success or failure of micro,

small and medium enterprises in Kenya. Policy-makers will use the knowledge and data to adjust or strengthen the position in businesses policy formulation.

1.7 Research Design and Methodology

A research design is defined as the blueprint or plan for a research (Mouton 2005:55-56).

It ensures that the study will be relevant to the problem and that it uses economical procedures. Mouton (2005:55-56) discusses three types of research design, namely exploratory, descriptive and causal. The proposed study will be both descriptive and causal.

The study is cross-sectional in the sense that relevant data shall be collected at one point in time. The reason for preferring a cross-sectional study is due to the vast nature of the project and the limitation of time. Second, the researcher will be dealing with events that have happened and has no control over the variables in terms of being able to control or manipulate them; it is an ex-post facto design (Thietart *et al.*, 2003).

Random sampling design will be used to assist in minimizing bias when dealing with the population. Fourteen towns shall be selected from the eight provinces in Kenya. Stratified sampling will be used to enable the researcher to get information from different sizes of the MSMEs i.e. the micro, small and medium enterprises. Within the different sizes, systematic sampling will be used to arrive at the final sample.

1.7.1 Data Collection

The main data collection instrument will be questionnaires. This shall be completed by the Top/Executive Manager, Middle/Operational Manager, Lower/Functional Manager or the relevant manager who heads the enterprise. It will be administered through interviews with managers. The interview mode of data collection is preferred due to its high response rate as compared to either mail or telephone interview. Further, the mode provides for clarification of questions. This shall be substituted by mail interviews due to wide geographical coverage. This gives the respondent independence and avoids researcher influence (Saunders, Lewis & Thornhill 2003: 280-316).

1.7.2 A Pilot Study

A pilot study will be conducted to refine the methodology and test the instruments such as a questionnaire before administering the final one. Forty questionnaires will be administered to MSMEs. These will be presented to those firms not sampled for the final survey. Issues raised by respondents will be corrected and questionnaire refined. Further a test for validity and reliability will be done.

1.7.3 Data Analysis

Data analysis refers to the systematic organisation and synthesis of research data, and the testing of research hypothesis (Thietart *et al.*, 2001:120). Data analysis followed the four phases normally used in other researches, namely: data clean-up, data reduction, data differentiation and data explanation. Data clean-up will involve editing, coding and tabulation to detect any anomalies in the responses, and assign specific numerical values to the responses for further analysis. This will form the preliminary summary of the data

by categorizing the responses into groups with frequencies to march the respective groups. Data reduction will be done to process the tabulated data further by descriptive measures, such as measures of central tendency (mean, median, and mode) and measures of deviation (range, variance, standard deviation). These values will be used in the next stage; the data differentiation stage.

Inferences has a very important place in management research (Weiers, 2005:122, 314). This is so because conclusions are normally established on the basis of observations or results. Such generalizations will therefore, be made for the population from the samples. The SPSS package will be the main package used to analyze the data.

1.8 Permission to Conduct Research

Permission will be acquired from the Ministry of Education, Science and Technology. A copy of the permit shall be attached to every questionnaire (appendix 2 and 3).

1.9 Delimitations of the Study

The researcher may encounter reluctance from the management who may not be willing to reveal relevant information and providing access to confidential records. To counter this problem, an effort will be made to explain that the exercise would benefit them when recommendations are eventually undertaken by the Government Ministry. Second, the very nature of the field of study may have several limitations being a countrywide survey.

1.10 Outline of the Thesis

The first chapter serves as the introduction to the study of management. The general global outlook outlining the importance of MSMEs is given; followed by the introduction to business performance then a brief differentiation of management and entrepreneurship; the problem statement and research objectives follow and finally the structure and timeframe of the study.

Chapter 2 narrows the review to the main focus of the study. The management factors are discussed. They include factors such as marketing management, financial management, human resource management, strategic management and the roles of management. Other very key items like the business plan and knowledge management and the effects of uncontrollable environment will be discussed to prepare for the next section.

Chapter three describes the study context, which is Kenya. The MSEs and SMEs have been placed separately in two different ministries in Kenya. The study gives the comparison between the different sizes. The geographical distribution is given and issues in the vision 2030 that touch on MSMEs highlighted.

In chapter four, the research methodology has been aligned with the research design. In this chapter, the sampling method is explained and the instrument for data collection elaborated upon. Second, the chapter contains the explanation on choice of different approaches and the data analysis techniques. Chapter four gives some findings of the pilot study. The purpose is to test the research instruments and give the researcher the gist

of the study especially as personal interviews are conducted. The test of the reliability and the validity of the data collection instruments are accomplished in this chapter.

Chapter five gives the in-depth analysis of the data obtained in this study. It starts by explaining the demographic characteristics of respondents. All the descriptive analysis are done in this chapter. Typical techniques included shall be tabulations, correlations, statistical graphics, and factor analysis.

In chapter six, the hypotheses are tested to show the relationships as depicted in the conceptual model shown after the literature review. The last chapter (seven) presents the summary, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter explores the theoretical and empirical literature of factors affecting the performance of small businesses and gives details of other studies conducted in the same area. Jankowicz in Allen (2005: 2-15) states that “knowledge doesn’t exist in a vacuum, and your work only has value in relation to other people’s. Your work and findings will be significant only to the extent that they’re the same as, or different from, other people’s work and findings.”

The purpose of the study is, therefore, to show the relationships and differences existing between this study and others, as well as to give deeper understanding of the subject under study.

2.2 Management

To some extent, management is an art, while to some other extent, it is a science. Whether management is an art or a science is not what is most important. But that management is a process that is used to accomplish organisational goals; that is, a process that is used to achieve what an organisation wants to achieve. Managers are the people to whom this management task is assigned, and it is generally thought that they achieve the desired goals.

Throughout the years, the role of a manager has changed. Years ago, managers were thought of as people who were "the boss". While that might still be true today, many

managers view themselves as leaders rather than as people who tell subordinates what to do. The role of a manager is comprehensive and often very complex (Nickels *et al.*, 1987: 336-47).

"Management" is a word from Old French ménagement that means" the art of conducting, directing", from Latin 'manu agree' means "to lead by the hand" and characterizes the process of leading and directing all or part of an organisation, often a business, through the deployment and manipulation of resources (human, financial, material, intellectual or intangible) (Hoad & Rosco, 1964: 154-68). The term "management" may also be used to describe the state of managers of an organisation.

Management is an important activity in that it helps lead organisations towards their goals. Indeed, managers and management are essential in our modern business organisations and society (Bryman, 1999: 126-47). To develop some understanding of management, there is need to first define it and outline its processes and functions.

"Management" characterizes the process of leading and directing all or part of an organisation, often a business, through the deployment and manipulation of resources (human, financial, material, intellectual or intangible (Folop & Linstead, 1999: 123-6). Therefore, management is the art of making effective use of resources to achieve goals. It concerns planning, coordinating and implementing all aspects of an organisation's operation in a manner, which fulfils the organisation's aims. In other words, once an organisation identifies its purpose, good management helps to achieve it. Management can also be defined functionally, as the action of measuring a quantity on a regular basis

and of adjusting some initial plan, and as the actions taken to reach one's intended goal. This applies even in situations where planning does not take place. From this perspective, there are five management functions: Planning, Organising, Leading, Coordinating and Controlling (Hellsten & Klefsjo, 2000: 238-44). Management is also called "Business Administration", and schools that teach management are usually called "Business Schools". The term "management" may also be used to describe the state of managers of an organisation, for example of a corporation (Douglas & Judge, 2001:158-69).

Bower (1966:3) defines management as, "the activity or task of determining the objectives of an organisation and then guiding the people and other resources of the organisation in the successful achievement of those objectives". This definition brings out the fact that managers help determine objectives and outline tasks for others to perform and that management revolves around people. However, it does not say much about the content of management or the elements of the management process. Schick (2005: 4) and Folop and Linstead, (1999: 123-129) define management as the process of "getting activities completed efficiently and effectively with and through other people". For example, operations management is an applied form of management science that helps organisations develop techniques to produce their products and services more efficiently (Hendricks & Singhal, 2001a: 359-368; Corbett & Rastrick, 2000: 14-26; Hendricks & Singhal, 2001b: 269-85).

Aosa 1993: 56-67, Pearce and Robison (1988), Thompson and Strickland (1998) have discussed management as an organisational process that includes strategic planning, setting; objectives, managing resources, deploying the human and financial assets needed

to achieve objectives, and measuring results. Hence management also includes recording and storing facts and information for later use or for others within the organisation. Richard, (2003: 51) further defines management as ‘the art of planning, organizing, staffing, directing and controlling the organisational resources efficiently and effectively to achieve the organisational goals’.

Management functions are not limited to managers and supervisors. Every member of the organisation has some management and reporting functions as part of their job (Porter, 1980, Cole 2006). There exists an understanding that management is also the collective administrative heads of a company, institution, business who are responsible for conducting the affairs of the company for meeting its short-range and long-range objectives, and for maintaining it as a profit-making organisation and/or an ongoing enterprise. Hellsten & Klefsjo, (2000: 238-44) add that although management may be the process of getting activities completed efficiently with and through other people; it is affected by setting and achieving goals through the execution of five basic management functions: planning, organizing, staffing, directing, and controlling; that utilize human, financial, and material resources .

Management is further defined as the process of designing and maintaining an environment in which individuals, working together in groups, efficiently accomplish selected aims. [(Koontz & O'Donnell (2000), Hales (1986: 88-115)]. Therefore, Management can be defined as an activity as well as people carrying out the management activity.

The definitions of management include the discipline, system, process, collection of those involved, the activities, the roles and the functions. All geared to the effective and efficient achievement of the organisations goals. This is because as stated earlier, management is universal and happens in all spheres of life. It is practised in every kind of philosophy and it is applied at every level of the organisation and to all sizes of organisations both small and large. The roles of a manager in a small business will differ from those of large organisations. This is brought to being by the very nature of small businesses (own deduction).

2.3 Management Functions

The management of a large organisation generally has three levels: Senior management (or "top management" or "upper management"); middle management and low-level management ("team leadership"). They are all regarded as management. These key functions of management are: planning, organizing, staffing, directing, and controlling (Richard, 2003:51). These key functions of management are applied throughout an organisation, regardless of whether it is a business, a government agency, or a church group. In an owner manger situation, the functions are combined. He continues to state that in a business, many different activities take place , for example, in a retail store, there are people who buy merchandise to sell, people who prepare the merchandise for display, people who are responsible for advertising and promotion, people who do the accounting work, people who hire and train employees, and several other types of workers. There might be one manager for the entire store, but there are other managers at different levels who are more directly responsible for the people who perform all the other jobs. At each

level of management, the four key functions of planning, organizing, directing, and controlling are included. The emphasis changes with each different level of manager.

2.3.1 Planning

Planning is one of the most important management techniques (Zetlin, 1994: 28-31).

Planning is preparing a sequence of action steps to achieve some specific goal. Effective planning reduces the necessary time and effort to achieve a goal. It is much easier to adjust a plan to avoid or smoothen a coming crisis, rather than to deal with the crisis when it comes unexpected. Planning in any organisation occurs in different ways and at all levels. The plan gives the organisation its goals and the procedures to reach them.

Planning could include setting organisational goals. This is usually done by higher-level managers in an organisation. As a part of the planning process, the manager then develops strategies for achieving the goals of the organisation. To implement the strategies, resources will be needed and must be acquired. The planners must also then determine the standards, or levels of quality, that need to be met in completing the tasks.

In general, planning can be strategic planning, tactical planning, or contingency planning. Strategic planning is long-range planning that is normally completed by top-level managers in an organisation (Sommers *et al.*, 1987:35-37. Examples of strategic decisions managers make are; ‘who the customer or clientele should be, what products or services should be sold, and where the products and services should be sold’ (Kotler, 2004).

Short-range or tactical planning is done for the benefit of lower-level managers, since it is the process of developing very detailed strategies about what needs to be done, who

should do it, and how it should be done (Pearce & Robinson 1988: 245-273). These plans can best be developed and implemented by the line managers who oversee the production process rather than managers who sit in an office and plan for the overall operation of the company. The tactical plans fit into the strategic plans and are necessary to implement the strategic plans. Contingency planning allows for alternative courses of action when the primary plans that have been developed don't achieve the goals of the organisation. Economic environment plans may need to be changed very rapidly (Shonesy & Gulbro: 10-12). Planning requires that managers think through activities in advance of undertaking them. There is need to look into the future and try to visualize the future position of the company and try to get there. The actions undertaken in the company are deliberate in that they are envisaged in the plan. Since organisational goals and activities to reach them are determined by the plan, it appears that planning sets the stage for the other management functions for example, organising, leading and controlling.

2.3.2 Organizing

Management can be seen as the combined fields of policy and administration and the people who provide the decisions and supervision necessary to implement the owners' business objectives and achieve stability and growth. The formulation of policy requires analysis of all factors having an effect on short- and long-term profits. The administration of policies is carried out by the Chief Executive Officer, his or her immediate staff, and everybody else who possesses authority delegated by people with supervisory responsibility. Thus, the size of management can range from one person in a small organisation to multilayered management hierarchies in large, complex organisations. The application of scientific principles to decision-making is called management science.

Organizing involves designing and creating an organisational structure, which will assist the company in carrying out its activities (Koontz & O Donnel 2000). It is essential that the appropriate type of structure be identified and developed. The company then has to attract adequately qualified employees to carry out the required tasks. The top members of management, called senior management, report to the owners of a firm; in large corporations, the chairman of the board, the president, and sometimes other key senior officers report to the Board of Directors, comprising elected representatives of the owning stockholders.

Organising refers to the way the organisation allocates resources, assigns tasks, and goes about accomplishing its goals (Richard, 2003: 51). In the process of organizing, managers arrange a framework that links all workers, tasks, and resources so the organisational goals can be achieved. The framework is called an organisational structure. Organisational structure is shown by an organisational chart. The organisational chart that depicts the structure of the organisation shows positions in the organisation, usually beginning with the top-level manager (normally the president) at the top of the chart. Other managers are shown below the president. The choice of structure is important for the type of organisation, its clientele, and the products or services it provides all of which influence the goals of the organisation.

2.3.3 Directing/Leading

Directing is the process that many people would most relate to managing (Richard, 2003: 51). It is supervising, or leading workers to accomplish the goals of the organisation. In many organisations, directing involves making assignments, assisting workers to carry

out assignments, interpreting organisational policies, and informing workers of how well they are performing. To effectively carry out this function, managers must have leadership skills in order to get workers to perform effectively.

Some managers direct by empowering workers (Rosenzweig, 2007: 2). This means that the manager doesn't stand like a taskmaster over the workers barking out orders and correcting mistakes. Empowered workers usually work in teams and are given the authority to make decisions about what plans will be carried out and how. Empowered workers have the support of managers who will assist them in making sure that the goals of the organisation are being met. It is generally thought that workers who are involved with the decision-making process feel more of a sense of ownership in their work, take more pride in their work, and are better performers on the job.

By the very nature of directing, it should be obvious that the manager must find a way to get workers to perform their jobs. Stevenson (2000: 416) infers that there are many different ways managers can do this in addition to empowerment, and there are different ways managers can perform the jobs and there are many theories about the best way to get workers to perform effectively and efficiently. Leading involves the activities intended to get organisation members and resources to move towards the set goals (Richard, 2003: 51). The focus of leading is on the people in the company. They have to be motivated and compensated.

There has to prevail a climate conducive for work and a culture compatible with the nature of the company's objectives.

2.3.4 Controlling

Controlling is the set of activities ensuring that the activities of organisation members are leading the organisation towards its goals (Stevenson, 2000: 416). It involves setting performance standards and taking corrective action whenever actual performance deviates from expected performance. The controlling function involves the evaluation activities that managers must perform. It is the process of determining if the company's goals and objectives are being met. This process also includes correcting situations in which the goals and objectives are not being met. There are several activities that are a part of the controlling function. Managers must first set standards of performance for workers. These standards are levels of performance that should be met; that must then be communicated to managers who are supervising workers, and to the workers so as to know what is expected of them.

After the standards have been set and communicated, it is the manager's responsibility to monitor performance to see that the standards are being met. Once the problems are analyzed and compared to expectations, then something must be done to correct the results. Normally, the managers would take corrective action by working with the employees who are causing the delays. Perhaps it might not be the fault of the workers but instead it might be due to inadequate equipment or an insufficient number of workers. Whatever the problem, corrective action should be taken. Meyer (2001:5-26) and Luthje (2003:135-47) posit that the 'neat sequencing of these management process elements may erroneously suggest that management process is a complex one' though it is necessary.

The different management functions are, in practice, performed simultaneously and not sequentially. In addition, these functions are performed at all levels in a company by managers at these different managerial levels (Stevenson, 2000: 416; Richard, 2003: 51). The importance of control cannot be underrated. At least two perspectives on role of control exist: first, top management expects to control everything, making all decisions, while middle and lower managers implement decisions, and production workers operate only as instructed; second, top management does not decide the "right" way to do something, and lower-level staff become involved in decision-making processes and; lastly, some companies use "slopey should syndrome" style management, where people will take credit for when things go right (Hendricks & Singhal, 2001b: 269-85). However when things go wrong, they will pass the blame and responsibility to people either below or on the same level in the company structure.

2.4 Roles Managers Play

Management can also be described in terms of the roles that managers play. Harney, (2005:59-66) notes that there was a similarity of behaviour of managers at all levels in an organisation. In this, he concurs with other authors such as Folop and Linstead (1999:123-6); Chu-Hau *et al.*, (2001: 864-72), Stevenson, (2000: 416); Richard, (2003: 51). He goes on to identify the roles that have to be performed by all managers in organisations. These roles are interpersonal, informational and decisional.

In the interpersonal role, the manager keeps the organisation running smoothly (Harney, 2005:59-66, Chu-Hau *et al.*, 2001: 864-72). The manager acts as a figure-head, a leader and a liaison officer. He represents the organisation and generally keeps it on course. In

the informational role, the manager is both a receiver and a disseminator of information. Information is needed for decision-making purposes. It has to be collected and then distributed to appropriate decision points. In the decisional role, the manager is a decision maker. He has to make decisions continuously. He acts as an entrepreneur, a disturbance handler, a resource allocator and a negotiator. He thus improves the organisation, contains and maintains good relations within the organisation and also with other outside parties (Richard, 2003:51).

2.5 The Human Resource Management Skills

Management can also be described in terms of the skills required by managers. Corbett and Rastrick (2007: 14-26) suggest that all managers (at all organisational levels) need three basic types of skills in performing their work; the technical, conceptual and human skills. To be an effective manager, it is necessary to possess many skills. Not all managers have all the skills that would make them the most effective managers. Different levels of management in the organisational structure also require different types of management skills. Costa, (1994:32-340; Richard, (2003:51) also agree that managers need to have communication skills, human skills, computer skills, time-management skills, and technical skills.

Richard (2003:51) further observes that communication skills fall into the broad categories of oral and written skills, both of which managers use in many different ways. It is necessary for a manager to orally explain processes and give direction to workers. It is also necessary for managers to give verbal praise to workers. Managers are also expected to conduct meetings and give talks to groups of people. An important part of the

oral communication process is listening. Managers are expected to listen to their supervisors and to their workers. A manager must hear recommendations and complaints on a regular basis and must be willing to follow through on what is heard. A manager who doesn't listen is not a good communicator. Managers are also expected to write reports, letters, memos, and policy statements. All of these must be written in such a way that the recipient can interpret and understand what is being said. This means that managers must write clearly and concisely. Good writing requires good grammar and composition skills. This is something that can be learned by those aspiring to be in a management position.

Human skills tend to be required in similar proportions across all management levels (Shane & Venkatraman 2000:3-17) and human skills fall under the category of relating to other people. The skills are vital in order to be a good manager. It takes a manager with the right human skills to manage this variety of workers effectively (Stevenson, 2000: 416; Richard, 2003:51). Diversity in the workplace is commonplace. The manager must understand different personality types and cultures to be able to supervise these workers. Human skills cannot be learned in a classroom; they are best learned by working with people. Gaining an understanding of personality types can be learned from books, but practice in dealing with diverse groups is the most meaningful preparation.

Considering computer skills, David, (1997:239) asserts that, technology changes so rapidly it is often difficult to keep with the changes. It is necessary for managers to have computer skills in order to keep with these rapid changes. Many of the processes that occur in offices, manufacturing plants, warehouses, and other work environments depend

on computers and thus necessitate managers and workers who can skilfully use the technology. Although computers can cause headaches, at the same time, they have simplified many of the tasks that are performed in the workplace.

With time-management skills and because the typical manager is a very busy person, it is important that time be managed effectively (Stevenson, 2000: 416). This requires an understanding of how to allocate time to different projects and activities. A manager's time is often interrupted by telephone calls, problems with workers, meetings, others who just want to visit, and other seemingly uncontrollable factors. It is up to the manager to learn how to manage time so that work can be completed most efficiently. Good time-management skills can be learned, but managers must be willing to prioritize activities, delegate, deal with interruptions, organize work, and perform other acts that will make them better managers.

Considering technical skills, as opposed to computer skills, the technical skills are more closely related to the tasks that are performed by workers (Di Pofi, 2002: 156-8). A manager must know what the workers who are being supervised are doing in their jobs or assistance that cannot be provided for them. For example, a manager who is supervising accountants needs to know the accounting processes; a manager who is supervising a machinist must know how to operate the equipment; and a manager who supervises the construction of a home must know the sequence of operations and how to perform them.

Keggundu *et al.*, (1993:66-74) conclude that managers need different skills and the proper mix of skills varied with management levels. However, he adds that the mix of skills also depends, on the nature of the company and its environment.

2.6 Success and Failure Models

Classification is significant in management because of growth issues (Perott 2008: 21-30). Businesses with fewer employees will not need middle management structures or delegation of decision-making. The different sizes, for example, an accountancy firm with 50 or 100 employees may be called large. (Terziovski & Samson, 2000:144-9) identify three key issues of differentiating small and large firms which they term as 'uncertainty, innovation and evolution'. The innovation refers to either new products, or marginal differences in the success or failure of new business startups. Evolution refers to state of constant structural and market changes which small firms are likely to experience as the struggle to survive and develop.

Barr and Siems (1996:1) present a failure-prediction model for detecting a banks troubled status up to two years prior to solvency. They observe that management factors generally explain reasons why some banks survive while others fail though in the same identical circumstances. Some frequent statements made from studies observed by (Barr & Siems (1996) are:

“...apart from fraud a single event rarely cripples a bank fatally. Instead the culprit is consistent mismanagement or risky strategies.” Booker 1983:36-41

“...management incompetence in its broad sense is a major cause of bank failure.” (Looney, Wansley & Lane 1989:327-336).

“...the ultimate determinant of whether or not a bank fails is the ability of its management to operate the institution efficiently and to evaluate and manage risk.” (Seballos & Thomson, 1990 (commentary)

“It is the management of the bank that determines success or failure.” Pantalone & Platt 1987: 37-47).

“Management factors generally explain why one bank fails while another succeeds when facing almost identical circumstances.” (Bovenzi, Marino & McFadden 1983:14-26).

Management quality has, therefore, been cited as the most important factor in the long-run survival of a bank. Earlier, Altman (1968:15-21) developed discriminant models for predicting corporate bankruptcy. Though discriminant models have evolved over the years, the variables remain largely constant. For financial institutions they fall under CAMEL categories. Where C stands for Capital adequacy, A for Assets quality, M for Management quality, E for Earnings ability, and L for Liquidity position. Assessing the management quality, however, requires professional judgment of banks compliance to policies and procedures, aptitude for risk-taking, development of strategic plans and the degree of involvement by the bank’s officers and directors in making decisions. To measure the management quality, most recent studies have focused on the ratio of total operating income to total operating expense.

Lussier (1995:21-33) success versus failure prediction model has been published in more journals than any other and it's the most current (Lussier 1995:23-37; 1996a; 1996b; 1997; Lussier & Pfeifer 2000; 2001). The model is non-financial and it uses resource based theory (RBT). It helps better understand the role of resources in new ventures by focusing on the identification and acquisition of resources than deployment or allocation of activities that are crucial for the firms' long-term success (Lichtenstein & Brush 2001:35-58). It uses 15 variables: S/F=f (capital, record keeping and financial control, industrial experience, management experience, planning, professional advisors, education, staffing, product/service timing, economic timing, age of owner, partners, parents owned a business, minority, marketing skills).

The key variables in the model have been tested in other studies as in “the comparison between U.S. and Central Eastern Croatian Entrepreneurs (CEEC)” yielding different results. Other scholars have attributed these differences to economic stability (Hagan, 2004: 88), cross cultural (Shane 2005:4), differences in entrepreneurship across countries (Shane & Venkatraman, 2000:13-17). Scholars report many reasons for business success and failure (Altman 1983:15-21; Hofer & Sanberg 1987:11-25; Ibrahim & Goodwin, 1986:41-50). The general consensus is that the human resource element is very highly significant amongst other factors as a measure of probable success. These are staffing, education level, professional advice and planning. Lussier (1996:23-37) accepts that there was no generally accepted list of variables distinguishing business success from failure across all regions or under all circumstances. Many of the studies testing Lussier (1996:23-37) model have been conducted in Europe and USA or thereabouts where the conditions differ from Kenya in most if not all respects. Many of the researches are over

10 years old and were carried out. None known to the researcher has been tested in Kenya or the immediate surrounding.

In strengthening the position that poor management has often been associated with firm failure (Watson, 2000:46-67; Gaskill *et al.*, 1993: 18-31; O'Neil and Duker 1986:30-37), Bruno *et al.*, (1987:50-58) report that an effective management team is more important for firm success than overall management competence. Indeed in 70% of the cases, an ineffective management team is seen to be one of the major reasons for firm failure. Lack of management skills is seen to be a major failure determinant. The entrepreneurs' inability to perform both planning and administrative functions are factors related to product/services and markets/customers and cooperation with stakeholders. Berger (2003:346) in his study concludes that in many cases, the root cause of failure are internal and therefore in management control. Lack of strategic management in particular is a root cause.

Steiner and Solem (1998:51-56) report that key success factors would include an owner/manager with experience in the business or prior experience, adequate financial resources, a competitive advantage based upon customer and product specialization and strategic planning. Shonesy and Gulbro (1998:10-12.) while reviewing success issues conclude that three categories of variables are key to success in the small businesses, which they name as demographics, characteristics of owners/entrepreneurs and strategic planning/decision issues. Research should also include effects of gender differences, individual differences in management styles, industrial differences and other areas that could better help the understanding of MSME's performance. These factors are discussed below.

2.7 Factors Affecting Business Performance

One way of reinforcing the need to develop management skills is to look at studies identifying reasons why small firms succeed or fail. The two studies conducted by Ibrahim (1986: 41-50), provide evidence that management skills are critical factors in both the failure and success of businesses (Lichtenstein & Brush, 2001: 35-58). They illustrate that accounting, cash flow, and marketing need management skills and lack of them is a major cause of failure. Weaknesses in these areas are found to impact on all other areas of the business. The factors are summarized in Table 2.1 below.

Table 2.1: Perceived Causes of Success and Failure in Small Business

Factors Affecting Success	Factors Affecting Failure
Factor 1: Entrepreneurial intuition	Factor 1 – Entrepreneurial
Extrovert	Bad judgment
Risk taker	Lack of entrepreneurship. Values
Creative	Risk avert
Flexible to change	
Sense of independence	
High value of time	
Factor 2 (competence)	Factor 2 (incompetence)
Effective cash flow management	Lack of experience
Niche Strategy	Lack of accounting skills
Pre-ownership experience	Cash flow problem
Education	Lack of marketing skills
Delegation	Lack of education
Simple org. structure	Lack of strategic planning
Factor 3 - Interpersonal skills	Factor 3 - Poor Interpersonal skills.
Good customer and employee relations	
Good relations with a credit officer	
Good interpersonal skills	
Factor 4 - Environmental values (less important)	Factor 4- Non-controllable (less important)
Interest rates	Government regulations
Taxes	Taxes
Government assistance	High interest rates
	Economic recession
	Competition

Table 2.1 Adapted from Ibrahim and Goodwin (1986: 41-45)

Successful businesses were identified as effectively managing their cash flow, having a niche marketing strategy delegating responsibility and having a simple organisational structure. If many of the failure and success factors are skill sets built into the

competency blocks then the chances of success should improve using these performance measures. Several factors have been mentioned above in relation to performance of small businesses and their effects analysed by different researchers. Moreover, Storey (1994:47) and Stevenson (2000:34-67) identified several factors, which influence the probability of business failure. They cited size, age, and ownership, sector, past performance, macroeconomic conditions, people/management, location, business in receipt of state subsidies type of firm and ‘it was ever so’ (issues difficult to categorise). These factors were summarized by Taylor and Murphy (2004:280-289) into 3 categories as functional knowledge, managerial skill and managerial behaviour. Shonesy and Gulbro (1998:10-12.) also summed the major factors as owner/manager characteristics, demographics and strategic planning. Below is a review of some key factors that affect small businesses discussed in the table 2.1 above.

2.7.1. Strategic Management Factors

Strategic management can be defined as ‘the art and science of formulating, implementing and evaluating cross-functional decisions that enable an organisation to achieve its objectives (Pearce & Robinson 2007). As this definition implies, strategic management focuses on integrating management, marketing, finance/accounting, production/operations, research & development, and information systems aspects of a business to achieve organisational success. The strategic management process consists of three stages: Strategy formulation, strategy implementation, and strategy evaluation. According to Johnson and Scholes (1999: 67-78), strategic management includes strategic analysis, in which the strategist seeks to understand the strategic position of the firm, which has to do with the formulation of possible courses of action, their evaluation

and the choice between them, and the strategic implementation which is concerned with both planning how the choice of strategy can be put into effect, and managing the changes required.

No one definition can be said to capture explicitly all of the dimensions of strategy. As Mintzberg (1994:7-9) argues, these definitions compete (in that they can substitute for each other), but in more important ways, they complement each other. As such, their complementary nature provides additional insights that facilitate our understanding of strategy. In recognizing this complementary nature of the various views on strategy, Hax and Majluf (1988:102) suggest a comprehensive definition of strategy. To them, strategy; ‘is a coherent, unifying and integrative pattern of decisions.’ It determines and reveals the organisational purpose in terms of long-term objectives, action programmes and resource priorities. It also selects the business the organisation is in or is to be in; strategy thus defines the kind of economic and human organisation the company is or intends to be; and attempts to achieve a long-term sustainable advantage in each of its businesses by responding properly to opportunities and threats in the firm’s environment and the strengths and weaknesses of the organisation. Further, strategy engages all levels of the firm (i.e. corporate, business, and functional) and defines the nature of the economic and non-economic contributions it intends to make to its stakeholders.

Strategy has been defined as the direction and scope of an organisation over the long-term which achieves advantage for the organisation through its configuration of resources within a changing environment (Johnson & Scholes, 1999: 67-78). Management of strategy is all-encompassing because it relates to the whole company. That means

strategy and the total management activities are carried out by the same people in all levels of the company. The planning and practice of strategy cannot be separated from the process of management. The timing of the implementation of strategy is a factor that determines its success. Terziovski and Samson, (2000: 144-9); Steiner *et al.*, (1979:51-56) studying reasons for failure of planning in companies have concluded that it's because of separating strategy from the entire management process and failing to integrate it with the total management system that reduces its effectiveness in the company.

The importance of a formalised approach to strategy formation is emphasised. Watson (2001: 26-27), point to the absolute need for a clear strategy and a business plan to complement but not stifle the firm's innovative process. A formalised strategy, even for a young emerging company, is necessary to provide consistency and focus in decision-making. Watson (2001:26-27) calls for a more rational analysis of the opportunities and threats confronting the firm through the use of more external information and analytical techniques. According to Zetlin (1994: 28-31), the presence or absence of formal planning in the early stages of organisational development contributes to the performance of the organisation.

The initiation of a new venture is first and foremost predicated on the strategic decisions of its founder at the corporate strategy level (what business are we in?) and by their behaviours (how do we compete?) at the business strategy level (Hofer & Sandberg 1987:11-25.). New firm formation encompasses the practice of strategy; the everyday routines and micro-practices or “strategising” as it has become known in recent

literature(Morino Lorirke, Hill , Weaver and Tambunan 2008 : 157-180). (Shonesy & Gulbro, 1998:10-12). These activities involve the interplay between thinking and acting that encompass strategising as purported by Taylor and Murphy (2004: 280-289).

David (1997:239) indicates that sound policies, organisational structure, resource allocation, corporate culture, leadership, managing conflict and resistance to change are key to consideration in the process of implementation of strategy and can act as impediment if not well-managed. In his study, he found that factors such as leadership, organisational structure, resource allocation, management of change, corporate culture and conflict management were fundamental to sound strategy implementation process. (Perrott 2008: 21-30). From a sample of 70 cases which implemented strategy to companies had succeeded by using the above factors in implementation process and had improvements in their profit reports as well as increase in their customer base and had greatly increased their market share.

Hartshon and Wheeler (2003: 203-30) discuss the role of professional services in facilitating strategic businesses responses to the challenge of sustainability and thereby creating a competitive advantage for their clients. This is because these firms have an ability to convene multidisciplinary teams of strategic advisors. Such firms appear to have some competitive strengths with respect to sustainability consulting and third party auditing and verification. Their study was necessitated by the interest to find how successful management of markets processes and organisational forms frequently required facilitation and expertise that was not always available in house. They found some disparity between the services professional firms are offering and the services

demanded by the industry. However, there was less disparity in the services perceived as offering more potential for growth the social dimension (stakeholder relations and dialogue and customer loyalty) is normally considered as the most challenging aspect of sustainability.

The application of management learning and organisational learning theories to small firms is relatively new, but the evidence we have suggests that changes in the firm's environment and the search for information to help adjust to these changing conditions can lead to process and product changes within the firm (Boyle & Desai, 1991: 33-42). The literature shows that learning, and subsequent changes in activities and performance, can begin with events or 'jolts' from environmental changes, for example, in terms of competition. In the management learning literature, there is little explicit connection made between regulation, organisation response and management learning. However, a new regulation may be regarded as a 'shock' to the status quo of the business and as such, may lead to the search for information outside the business.

Peterman and Kennedy (2003:129-44) define the learning organisation as "organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together." Senge (2005) has framed the understanding of the learning organisation with an ensemble of disciplines, which he believes must converge to form a learning organisation. These are briefly described below:

Systems Thinking: The underlying structure and the interlinking components of each of our work systems, shape a great deal of the behaviour of the individuals who work inside the work system. Think about Dr. W. Edwards Deming's admonition. When something goes wrong, rather than seeking someone to blame, ask, what system caused that individual to fail?

Personal Mastery: "Personal mastery is the discipline of continually clarifying and deepening our personal vision, of focusing our energies, of developing patience, and of seeing reality objectively." It offers that an organisation's learning can only be as great as that of each of its individual members. Consequently, personal mastery and the desire for continuous learning integrated deeply in the belief system of each person are critical for competitive advantage in the future.

Mental Models: These are the deeply held pictures each of us holds in our mind about how the world, our families, and so on work. Mental models influence our vision of how things happen at work, why things happen at work, and what we are able to do about them.

Building Shared Vision: By shared vision, Peterman and Kennedy (2003:129-44) refer to a process in which the original vision for an organisation, probably determined by the leader, is translated into shared pictures around which the rest of the organisation finds meaning, direction, and reasons for existing.

Team Learning: Peterman and Kennedy (2003:129-44) and Senge (1990) found that “teams, not individuals, are the fundamental learning unit in modern organisations.” It is the dialogue among the members of the team which results in stretching the ability of the organisation to grow and develop.(Grunhagen and Mishra 2008 (1-3).

2.7.2 Finances/Capitalisation Strategies

Researches discussed earlier (Lussier 1995, 1996, Bates 1995:26-36, Beckman and Marks 1996:82-84, Castrogiovanni 1996, Bruno *et al.*, 1987) etc) indicate that, success and failure are often determined by poor cash flow management and a lack of a simple accounting process. That is why Management Accounting and Cash Control skills are given as performance measures. There is need for establishing all the necessary accounting procedures to manage cash. Cash management helps the small business owner get a better handle on the source of financial problems. ‘Many surveys of MSEs show that lack of capital is a strong constraint to growth’ (Chu-Hua *et al.*, 2001: pp. 864-72).

Most MSEs mainly rely on own savings and reinvested profits to finance their business. Comparison of results of the three baseline studies done in Kenya of 1993, 1995 and 1999 show minor improvements in the situation-from 9 percent of MSEs accessing credit in 1993 to 10.8 percent in 1999. Formal credit increased from 4 percent to 5.7 percent, a reflection of a rise in the number of NGOs focusing their support on MSEs. The number of NGOs increased from 46 to 130 between 1995 and 1999 (Oketch, 2000). Many of these NGOs however, have limited financial resources and few have systems and organisational structure to support large MSEs. In 1995, the Kenya Rural Enterprise

Programme (K-REP) realized that as an NGO, it lacked capacity to serve as an effective financial intermediary and decided to establish a micro-finance bank in 1999.

Formal financial institutions perceive the high risks and transaction costs as an impediment to lending to the MSE sector. In addition to the limited capacity of banks to lend to MSEs, there is the difficulty of enforcing contracts due to an inadequate legal framework and inefficient court systems. The banking laws and regulations do not currently differentiate the market segments served by micro-finance institutions. There is need to review the regulations in order to reflect innovations in financing MSEs. Where formal banks have lent to the MSE sector, they have simply acted as a conduit for funds externally sourced from donors and guaranteed by the government. The fact that there has been no significant lending from the banks own initiative is an indication of a weakness in policy. The banks' continued lack of interest and the subsequent reluctance of the Central Bank to relax the lending requirements to the MSE sector might reflect inadequate consultations between stakeholders

There has been a change in attitude towards the MSE sector which has been achieved through courses offered by the College of Banking, although the existing culture in the financial sector makes it difficult to apply what is taught (Oketch, 2000-IDRS report). Furthermore, very few banks have sent their staff for retooling, an indication that the banks do not find the sector viable. The enactment of the Micro-finance Bill is hoped to ease the regulatory and other financial risks that currently constrain lending to the sector. But as much as Kenyan entrepreneurs may cite lack of credit as the most constraining factor to business operations and contributing to 37 percent of business closures (National

Baseline Survey, 1999), lack of capital can be a secondary rather than a primary problem. Rukunga 1999 in (Ronge Ndirangu & Nyangito (2002) indicates that most MSEs do not keep proper records and most entrepreneurs do not pay themselves a salary. Instead, they make withdrawals as need arises. Such withdrawals may exceed earned income, therefore eating into the working capital. This is a problem of poor management skills.

2.7.3 Marketing Management Strategies

According to Kotler (2004), Bakers (1999) Churchill (1995) and Chaston (2002), marketing management is a philosophy that leads to the process by which organisations, groups and individuals obtain what they need and want by identifying value, providing it, communicating it and delivering it to others. The core concepts of marketing are customers' needs, wants and values; products, exchange, communications and relationships. Marketing management is strategically concerned with the direction and scope of the long-term activities performed by the organisation to obtain a competitive advantage. The organisation applies its resources within a changing environment to satisfy customer needs while meeting stakeholder expectations. Marketing skills required would provide a proper definition of marketing, preparation of a marketing plan (concept paper); setting the communication models and public relations activities and the overall marketing strategies intended to deliver value to the customers. Essentially, the marketing plan focuses on identifying the target market and knowing what the needs and characteristics of this market are through marketing research. The success of many small firms is to be able to effectively sell and provide the necessary service to meet the needs of a niche market. A marketing plan is developed along with identifying promotional activities, sales support material and advertising. This also includes the development of a

'public relations strategy to market the concepts and ideas to the target audience' (Berger, 2005:346).

Chaston and Mangles (2002) highlight the importance of product and service lifecycle. The concept proposes that products and services pass through four stages namely, introduction, growth, maturity and decline. In recognition of the risks associated with a small firm depending upon a single product, which has a finite life, the more successful small firms will have a number of products positioned at different stages on the lifecycle curve. There are many factors involved in a product's lifecycle in addition to having the correct marketing mix. A firm's reputation and prestige that may affect the consumer choice, the competitor activity and the price of substitutes thus contributing to survival chances as well as demand. Porter (1980) explains how a firm should gain competitive advantage by taking account of the forces "porters five forces" (buyers, suppliers, new entrants, substitutes, rivalry) that interacts with each other to either open up or close down opportunities. Under the conditions produced by the five forces, product differentiation is paramount. Lowest price and cost leadership may be an important means of differentiation as is product branding and adding extra features and services. When all these features are integrated to the marketing mix, they sustain a longer lifecycle.

Understanding where a business is in its development (the business cycle and product lifecycle) is essential to making good judgment about purchasing an existing business, expansion growth, and financial and management decisions. Referring back table 2.1, the key factors in small business failures were lack of industrial experience and (from an

entrepreneurial perspective) bad judgment (Ibrahim &Goodwin, 1986: 41-50). While intuition, creativity and initiative are important entrepreneurial attributes for success, knowing what is happening in a business as it is going through various strategies for growth and development are likely to assist in better judgment.

Access to markets and lack of market information are among most critical constraints to the growth of emerging MSEs in Kenya (Sessional Paper No. 2, 2005). The prescribed policies for addressing this problem do not seem to have achieved much success because access to market and information on competitors continues to be a severe problem for MSEs (as cited by 34% of those interviewed in the 1999 National Baseline Survey). Due to the depressed state of economic activity in Kenya, markets have been characterized by limited purchasing power of the average consumer. A wide range of consumer goods competes for the buyer's money and preference is often oriented to the cheapest product. In turn, the enterprises compete in a market that views domestic products as vastly inferior to foreign-made products. Since the release of Sessional Paper No. 2, MSEs have had to contend with shifts from import controls to import liberalization and this has intensified competition leading to closure of many enterprises (business failure).

2.7.4 Entrepreneurial Management Strategies

The study of entrepreneurship is the study of the process through which identifying an opportunity in the form of a vision, validating and conceptualising a business concept and strategy that help attain the vision, marshalling the required resources to implement the concept, implementing the business concept or venture, capturing the full opportunity through the growth of the enterprise, extending the growth of the enterprise through

sustained entrepreneurial activity and capturing the value through which a business exit occurs (Schindelhutte, Monis & Kocav 2008: 4-26, Keats & Bracker. 1988, Keggundu, Jorgenson and Hafs 1993:66-64). The entrepreneur is the key factor to understanding how and why new organisations are established. Entrepreneurship as a function of this factor alone, however, is unable to fully account for the phenomenon of entrepreneurship (Lichtenstein & Brush, 2001:5-58). Past research into how personality traits distinguish successful entrepreneurs from others has, in fact, had limited success (Brockhaus, 1982:26 - 27). A more recent strand of research emphasises the importance of external structural influences on the creation, selection and survival of new ventures. This is generally referred to as the “ecological” approach, and is based on aggregated events at the population level of analysis. Because entrepreneurial innovation is largely a function of existing infrastructure at the industrial level, the ecological approach has been criticised by some authors (Gaskill *et al.*, 1993:18-31).

Shonesy and Gulbro (1998:10-12), Guzman and Santos (2001:211-228) and Darroch and Clover (2005) suggest that personal characteristics of the entrepreneur, and external socio-economic and institutional factors, such as macro-economic policies, directly affect enterprise success and eventually economic development. Personal characteristics include the preference for working as self-employed which is influenced by specific psychological features of entrepreneurs, such as the desire for independence, and an aversion to the hierarchical structures of many organisations. This is a necessary, albeit not sufficient condition to be categorised as a quality entrepreneur. Table 2.1 lists entrepreneurial factors as individual intuition, extrovert, and risk-taker, creative, flexible to change, independence, innovative, the list may differ depending on the writer. What

motivates the entrepreneur/business owner may be intrinsic resulting from the pleasure associated with carrying out a certain activity, which eventually results in economic rewards such as wealth or career satisfaction or prestige. Extrinsicly motivated entrepreneurs usually look for tasks that are easier to carry out, reach a lower level of conceptual learning, require little creativity, maintain their behaviour for only a short time after reaching their goal and are usually more inclined to negative emotions. Guzman (2001:211-228) identifies ‘energizer’ behaviours that are considered to be essential in ‘good’ entrepreneurs as follows:

...the ambition or capacity to grow; the capacity to innovate; collaborating with other businesses and individuals in order to promote higher enterprise growth; and behaviours such as planning, budgeting, and training employees, that derive from a ‘venturesome spirit’ which should imbue any decision the entrepreneur makes to ensure business survival and growth.

Abilities and attitudes associated with entrepreneurial quality include the capacity to identify new products and opportunities, to know how to evaluate business opportunities and to think critically, persuasive communication and/or negotiation skills, and problem solving. Personal factors include formal education, professional experience in the sector he/she operates in, and the influence of the entrepreneur’s family. Education is thought to increase intrinsic motivation and energizer behaviours (Guzman & Santos, 2001:211-228), and the more enterprise education an individual receives, the greater the possibility of entrepreneurial success (Costa, 1994:32-34). An entrepreneur’s professional experience is an essential means of acquiring abilities and attitudes, reinforcing motivations and improving energizer capacity. An increased professional experience improves the quality of an entrepreneur. In other instances, the family may positively motivate the entrepreneur. This can be so either through supplying materials, improving entrepreneurial quality by educating him or developing his abilities in an environment

where entrepreneurial culture is highly considered. In addition, motivation can be achieved through supplying economic resources, labour or personal contacts (Lichtenstein & Brush, 2001:35-58). Socio-economic and institutional factors seemingly, shape the environment for entrepreneurial opportunities and information, and thus directly influence the preference for working as self-employed, the type and strength of entrepreneurial motivation. Unlike personal and interpersonal factors, these factors impinge on all entrepreneurs in a region regardless of their education, experience or family support.

External and personal factors affect both the preference for working as self-employed and entrepreneurial quality, while enterprise success or failure directly influences the rate of economic development (Costa, 1994:32-34). The impact of business success or failure on the personal factors implies that success or failure would create a new situation that could result in a higher education, more experience, or different family support. The impact of a specific level of economic development on the external factors would cause changes in the quality and quantity of productive opportunities, socio-cultural aspects of a population and changes in the mode of operation of the institutions that support entrepreneurial initiatives.

According to Shane and Venktaraman (2000:13-17), the ‘choice of exploitation mode depends on the nature of the industrial organisation (financing, first-mover advantages, low barriers to entry), the opportunity (uncertainty prevails) and the appropriability regime (property and patent laws)’. In addition to the influence of existing infrastructure on entrepreneurial development, Reynolds (1991:231-246) has also suggested an

extensive set of social networks as an important prerequisite for starting a successful new venture. Similarly, the existence of venture capital, business angels or incubator regions and structures (i.e. Technology Business Incubators) are elements that have all been put forward as essential ingredients in an entrepreneurial start-up (Shane, 2005:4). This suggests those both personal and business networks, as well as the institutional and social environment in which the entrepreneurial process takes place; need to be taken into account.

High-tech or knowledge-intensive firms are in fact likely to be more risky ventures (Susbauer & Baker, 1989: 56-66). The entrepreneur is expected to have special insights, or to possess special information, which enables him to discover and explore entrepreneurial opportunities which others either fail to see or mainly see a risk of failure. This does not mean or imply that entrepreneurs never fail. On the contrary, the creation of new firms has always been accompanied by the death of others - what is generally referred to as "creative destruction", or simply "business dynamics". Traditionally, economic growth is accompanied by company turbulence or "churning" (Susbauer & Baker, 1989:56-66). It is evident, however, that the likelihood of discovering entrepreneurial opportunities must be influenced by various factors. It is proposed that human and social capitals are useful theoretical stepping-stones to a further understanding of the entrepreneurial phenomenon. While the above indicates that the failure of new ventures is part of the entrepreneurial tournament, research on new ventures seems to be biased towards successes (Susbauer & Baker, 1989: 56-66), Nutt 2008: 425-452). However, the past experience of an entrepreneur, including experiences from failed ventures, can be invaluable to the success of new ventures. To further our

understanding of the entrepreneurial process, failures must be studied with an aim to establish the extent to which previous experiences of failure influence the establishment and success of new entrepreneurial attempts.

Social, human and financial capital, as well as the characteristics of the market, contribute to the success of an entrepreneurial venture (Matlay & Westhead, 2004: 234-239). During the early stages of a new venture's development, the characteristics of both the entrepreneur and the market are likely to be the best indicators of the firm's success and early growth. Later on, however, the firm is likely to become increasingly independent of the entrepreneur, in part because s/he will typically give up part of his control and ownership of the firm to obtain new financial capital. At this stage, the firm's success is likely to become an additional, independent factor for access to new funding opportunities. An entrepreneur's social capital consists of all the social relationships and social structures that can be used to achieve his goals. Social capital is the result of a dynamic interaction, and is potentially present in all non-conflict-based social relations. However, it only becomes "capital" when it is used by actors in concrete situations (Stevenson, 2000: 34-67)

Individual social capital consists of the set of social relations (social ties) surrounding the actor – in our case, the entrepreneur – that can more or less be consciously mobilised when needed (Montago, Kuratko & Scarella 1986:25-43, Schindehutte *et al* 2008: 4-26). The person's gender, age and family background are generally expected to influence the number and type of social ties. For example, a person with extensive business experience will have access to people with special know-how, while a graduating student is likely to

lack such contacts. These social relations (or ties) can be private or business-related. Collective social capital is the result of all social interactions and relations that take place, or have taken place, in a given society. Social capital gives rise to what is defined as the “institutional environment.” For example, Montago *et al.*, (1986: 25-43) found in their study that organisational processes develop within an institutional logic that is unique to a society. This institutional logic includes norms and values, as well as the interpersonal trust level. Trust is defined as confidence in others’ moral integrity or goodwill in dealing with unpredictable issues (Matlay & Westhead, 2004: 234-9).

Collective social capital is also “structural embeddedness,” which implies that the entrepreneur’s position may affect the possible success of a new venture. Varying levels of and unique access to collective social capital, e.g. via the support of a TBI’s facilities and resource network, can give rise to a particular set of economic opportunities. The latter help explain different behaviours in response to seemingly identical environmental uncertainty (Parker, 2004:123-78). We define human capital as resulting from the experience and educational background of the entrepreneur. Experience and education can be general, or related specifically to the business sector and entrepreneurial activity. In this sense, the number of years, as well as level and type, of education, including courses and languages, are part of the human capital at the disposal of the entrepreneur. Again, also in this case, age, gender and socio-economic background of the family of origin are likely to influence the educational and professional opportunities and choices of future entrepreneurs.

According to Table 2.1, financial capital can be made up of personal and general funds. Personal funds can be sweat equity (i.e. time invested by the entrepreneur without getting paid), an entrepreneur's own funds, and help from family and friends, as well as bank loans based on personal collateral. Other capital might include seed funding from a development agency, government-backed loans, or funds from a venture capital (VC) firm (John 2007: 147-98). All three types of capital - social, human and financial - are assumed to be related to each other. For example, social capital in the form of contacts to certain resource centres (e.g. government agencies) may help in securing external funding. Later on, the firm's success might allow the hiring of the new human capital needed to increase the probability of success, thereby creating additional individual and social capital.

An entrepreneur may decide to launch a new venture if s/he has the human, social and financial capital needed to start a firm. If not, s/he may decide that additional financial or human capital is needed first, and try to get another partner and more financing in order to launch or expand the firm. Social, human and financial capital thus comes into play both before the launch and during the various initial phases of a new firm. (John, 2007:147-98).

Innovation is considered to be one of the main drivers of economic growth and prosperity in the knowledge economy. Understanding and managing innovation processes and structures in general and particularly in developing countries have the potential for huge benefits for participants, local clusters, and the national system of innovation. Research in this area should promote knowledge in the fields of techno-preneurship and

technology management and transfer as well as intellectual property. A number of authors have reported on cases and surveys of localized research on innovation conducted in a locality or region. Matlay and Westhead (2004:326-27) reported on their investigation of the management of innovation in French SME sector companies. These authors surveyed managers of SME sector firms, seeking to identify the imperatives for change and sources of innovation and nature of innovation in the target firms.

The results tended to contradict much of the previous literature, in that networking with other businesses through membership organisations and externally sourced research and development were seen as making little contribution to innovation and Lindman (2002:224-36) examined the strategic approach to new product development of a sample of SME firms in Finland. The five firms were all successful and careful investigation of their approach indicated that the firms did not have a long range plan for new product development, but tended to adopt a closed strategy for new product development, relying on knowledge internal to the firm. This resulted in technology-driven innovation rather than market-driven new product development. The closed strategy has demonstrated risk-averse behaviour with the consequent effect of slow growth and innovation used as a necessary reaction to immediate market demands rather than as a strategic tool. Bagchi-Sen (2001) looked at the relative performance of companies in an area of industrial decline in Canada and found that companies in traditional industries in these areas adjusted better if they followed product and process innovation than if they did not.

2.7.5 Interpersonal Factors

Within the entrepreneurship literature, there has been a growing appreciation that an entrepreneur's social capital is not a homogenous commodity (John, 2007:147-98). Broadly defined, social capital is an asset that essentially exists in social relations and networks and its generation can be perceived as one outcome of network interactions (Parker, 2004: 123-78; Matlay & Westhead, 2004: 326-27). As such, social capital involves resources embedded in relationships and includes many aspects of the social context, for instance, social interaction, trusting relationships and value systems (Parker, 2004: 123-78). It represents a pool of good will residing in a social network or group and can be envisaged as a revolving mutual fund of traded and untraded interdependencies.

By investing in social interaction it has been argued that entrepreneurs should look to accumulate social capital in the same way they would accumulate physical resources, using, building and developing social networks (Hendricks & Singhal, 2001b: 269-85). The entrepreneur's network, probably through necessity, includes a diversity of people who contribute to the practice and process of entrepreneurship (Parker, 2004:123-78; Johannisson, 2000:368-386). These multifarious relationships range from close relationships between friends and family to professional acquaintances rarely encountered or utilised (Boissevain, 1974). The entrepreneur's network can, therefore, be viewed as a unique and individual social artefact where relationships are drawn to the fore and faded to the background depending on the agenda of the entrepreneur and the contacts and relationships available to them (Birley & Westhead, 1994: 234-9). Schindehute et al 2008: 426.

The entrepreneur's ties which are strongly embedded can be seen as their social core which they often refer to and mostly consider when making decisions. These ties are at a personal level and are seen to be strengthened by the passage of time and shared experiences (Parker, 2004: 123-78). Examples of these are family members, close friends and workplace colleagues who have access to the entrepreneur's most personal space and attention Miller , Briton – Miler & Schnolnik (2008:51-77) (Nohria, 1992). It has been established that from a network perspective, the role that the entrepreneur designates for their family in relation to the business could influence the wellbeing of both their family and their business. Miller et al (208:51-77).

2.7.6 Gender Issues

Some gender issues are important for the success of MSEs (Perin 2004:78-98; Schmidt & Parker 2003: 428-439). Women, for instance, have different goals and employ different strategies to those of male entrepreneurs. The goal of women is mainly to feed and educate their children (Hendricks & Singhal, 2001b: 269-85; Marlow & Carter 2004) while men generally undertake business risks in pursuit of profits. Conflicts arising from the different roles women have to play in households, including the “long” time spent at the enterprise site, have been cited as constituting a major obstacle to the stability and growth of women-owned enterprises and their development in Kenya (Kinyanjui & Munguti, 2000).

Decision-making has mainly remained the prerogative of men and the household authority model is such that the wife has to ask for permission from the husband before undertaking any economic venture (Nutt 2008 : 425-452). The 1999 National Baseline

Survey showed that even where women manage the business, the man controls the finances. This has consequences in terms of availability of credit to women. The gender differences in society have permeated the credit market to favour the male entrepreneur (Ronge *et al.*, 2002). The lack of credit for women has been associated with lack of collateral and sometimes a negative attitude that perceives women as creditworthy. To address this gender imbalance, credit schemes such as the Kenya Women Finance Trust (KWFT) have been established to target women entrepreneurs.

From the extant evidence (Marlow 2005:717-735; Carter, Brush, Greene, Gatewood, & Hart, 2003:1-28), it would appear that gender does impact negatively upon women's experience of self-employment. Female owned firms, on the whole, under perform on a variety of indicators in comparison to those owned by their male counterparts (Marlow and Carter, 2004). An important contributor to such under performance is under capitalisation whereby women owned firms demonstrate poorer levels of financial and human capital within their enterprises both at start-up and growth (Watson, 2002; Coleman 2000:151-174). Consequently, without such investment, their firms will struggle to survive hence, it is critical to explore how gender impacts upon capitalisation.

The importance of women entrepreneurs in the development of national economies has been recognized by a number of international organisations including the European Union (EU), the Organisation for Economic Co-operation and Development (OECD), the International Labour Organisation (ILO) and the World Trade Organisation (WTO). Moreover, the contribution that female entrepreneurs can potentially make to any economy is significant and the importance of women as an untapped source of

entrepreneurship is now widely accepted (Carter, *et al.*, 2003:1-28; GEM, 2001; Hoxha & Krasingi 2005

Many authors (Spilling, 1997:226-50; 1998:401-7; Storey & Johnson 1993:279-99, Bevear 2002: and others) indicate that business owned by females tend to be smaller in size compared to their male counterparts. An econometric study conducted by Aidis 2002b in (Aidis 2004: Occasional paper); and Aidis & Sauka (2005:1-21) found evidence that female SMEs have significantly smaller business in terms of number of employees. Also some of the authors mentioned above emphasize that the female business tends to be of recent origin. Earlier, the empirical evidence for gender as a determining factor yielded contradictory results (Chell & Baines, 1998:117-35). It showed no significant difference between the performance of female and male-owned small businesses. The primary similarity between male and female entrepreneurs could be bound in their motivation for starting their own business. (Birley & Westhead, 1994:234-9).

On the other hand, different studies show differences between male and female-owned businesses. For example, Mukhtar (1998), in a study involving a sample of 6000 SMEs, found significant differences between female and male-owned businesses in post-formation period and suggests that females exhibit different forms of entrepreneurialism than males. In addition, researchers give evidence of many differences in the management style, perception of success, access to loans level of confidence etc. Regarding the managerial experiences (Birley & Westhead, 1994: 234-9) found that most women gained their first managerial experience in their own business. Moreover, the female entrepreneurs are likely to have different management styles that

are related to differences in personality and background. Males are more likely to perform a directive management style, while women have a preference on using more collaborative approach to leadership (Verheul, Risseeuw & Barelse, 2002:443-476).

Females face difficulties finding financial resources. The reason could be that women are more emotionally involved with their ideas and do not focus enough on the possible revenues. They also face credit-scoring mechanisms which tend to discriminate them. Other problems are environmental and technological. The environmental are basically external and not within the management control, namely, the political/legal, economic, social-cultural and the technological issues but directly impact on the management of MSMEs. Included under the political/ issues are the policy and institutional factors. According to McNamara and Watson (2005:184-190) technology can be defined as:

...the totality of means – means such as knowledge, methods, materials, and tools used to achieve practical outcome. A way for the company to establish work methods, work patterns, and information structures...It is the tools and the means, but not the primary goal or result to be pursued...Technologies have the potential to improve speed, quality and efficiency.

In the mainstream of modern culture, technology is considered to be one of the answers to most problems and/or restrictions in business. It is seen as the way that a business can emerge from the past and enter a brighter, more efficient future. There are many and various technologies that could be addressed in terms of benefiting SMEs. For this research, only a specific few will be dealt with in terms of those that are considered to be leading edge and most appropriate for SMEs.

Industrial technology in Kenya is yet to take off and most MSEs have not even achieved the first level of industrial take-off (Aduda, Kaane & Namusonge, 1999; Namusonge 2004:11). This first level entails encouraging enterprises manufacturing consumer goods

to acquire the latest technologies that are efficient in use of materials and utilities in addition to being more environmental friendly.

The challenge facing MSEs in developing countries, Kenya included, is how to move from the relatively informal cottage industries to larger enterprises with stronger technological capacities and performance (Aduda, *et al.*, 1999). Innovation potential exists in many small entrepreneurs. Little funding has gone into ‘identifying, documenting, follow-up and financial support for technological change and innovation in MSEs (Mihyo, 1994). There are serious shortcomings in technology management and there are no systems for promoting goods innovations and information exchange among MSEs and other stakeholders in the sector. One way of achieving this would be through inter-firm linkages.

Although larger enterprise size may seem desirable, the global trend in industrial structure is towards small-sized enterprises (Meyanathan & Munter in Kata & Wan 2001:259). Inter-firm linkages are therefore, paramount if Kenyan firms are to benefit from increased decentralization and downsizing in the global arena. The policy imperative is, therefore, to create environments and incentives for the formation of industrial structures rich in linkages among MSEs, for example formation of clusters, and between MSEs and large enterprises.

Many SMEs are hoping to set aside more money for technological expansion (Baseline Survey, 1999). Most (65 per cent) of those businesses are doing so because they “are more interested in solving business problems that help them maintain competitiveness

and generate profit growth than with implementing technology for technology's sake. SMEs are interested in solutions to their everyday business problems that will allow them to better succeed in their industry. The use of technology in some form is widespread. The problem for most businesses is that they have not fully integrated the technology that they have or are trying to obtain with their business (McNamara 2005:184-190). They "tend to be tactical, not strategic, in their technology adaptation" (Harney 2005:59-66). The competitive advantages that certain technologies bring to existence are very important, especially where there is a high aggressive industry. Small businesses look for new ways that will help them achieve these distinctions. Capitalizing on these technologies would help spur MSMEs forward.

Another area in which technology is useful for is helping small businesses to keep track of inventory and the general book-keeping. Inventory control has long been a defining factor in determining the wellness of a business. By being able to know exactly what is coming and going, a business is better able to plan for the future. Today, businesses have the ability to track exactly where their inventory is in real time. That ability helps them to identify key areas that could be improved or changed in order to limit time between processes or transactions (Berger, 2005: 346). If a business is not as concerned with a real time display, but instead needs to have a better understanding of what their inventory looks like, bar coding may be the better and less costly option.

Many MSMEs have a very local flavour to them and they do not see the "need for connectivity". They address the needs of a very local market and do not recognize any need for expanding their current operations technologically. These businesses do know

that adapting new technologies will further benefit their current business model because most of their businesses are done within a small community and their customers rely fully on them for service and product guarantee. Some small business owners or managers are reluctant to enter the technology scene because they are uncertain of the security and privacy concerns that are almost certain to occur. For this business owner, the idea of e-commerce in any shape is too risky for their business. The idea of internet-related business activities or electronic data is not a necessary thing but something to be avoided at all costs.

Other issues relate to the lack of IT professionals, because technology industry seems to be so complicated, there are many companies who do not engage in new technologies due to lack of the expertise on their staff to handle the potential problems that might arise. Mihyo (1994) in his East African study mentions ‘budget for the technology’ as seen to be quite expensive and also ‘lack of proper infrastructure’ (incompatibility between the old and new technology).

Available technologies for SME’s are Voice over Internet Protocol (VoIP) which is a technology that “allows you to make telephone calls using a computer network, over a data network like the Internet” (Chandler, 2005:32-68). The major benefit of VoIP is that it takes what would otherwise be a long distance call and makes it a local call. The reduction in cell phone bills alone for one company can make up for the costs of implementation.

Radio Frequency Identification used to track inventory, Bar Coding, Wireless, web Content Management (Software programme that allow a business to design and keep track of their management packages), data protection. There are several different technologies that fall under the category of data protection. For those networks that are linked both internally and externally, a firewall is necessary to keep would-be hackers and pilferers out. Others are file servers utilized by businesses that have two or more users sharing information between computers. By taking advantage of a file server, SMEs can store more information and applications on their computers, making them more efficient.

Other technological solutions available are the middleware technology that has the capability of merging two systems together and integrating the data between them. This can be an old system and a new one or two new systems coming together in a business merger. Either way, the middleware software applications are relatively inexpensive compared to a complete overhaul of the two systems and require very little maintenance. Another option is for MSMEs to hire a consultant who can go through its current business processes and then give suggestions as to what new technologies best could benefit it. These consultants are usually able to set up and install whatever choices the MSMEs make. A final option for MSMEs who are choosing to integrate technology is outsourcing. By outsourcing its technological needs, a small business can focus more of its attention on doing what it does best rather than diverting it to another area.

2.7.7 Regulation and Policy Issues

For business owners, important regulations include state actions relating to the following non-exhaustive list, contract enforcement, property rights, including intellectual property, corporate governance, taxation and financial reporting, employment and health and safety, trading standards and consumer rights, environmental protection, premises and planning rules, data protection, transport. Some regulations apply to particular types of business. For example, VAT registration in the UK is only compulsory for those trading above the specified turnover threshold (currently £60k per annum). Employment rights are only relevant to those employing, or considering employing, others. Other types of regulation, though universal in their scope, vary in their impact across businesses. Environmental regulations concerning the storage and use of hazardous substance are likely to have a greater impact on certain sectors than others, for example, agriculture, manufacturing and transport and communications businesses (Carter *et al.*, 2004).

Critics of state regulation argue that it imposes costs on individuals and businesses that impede business start-up, investment, innovation, employment, business growth and, ultimately weaken national economic performance (HM Treasury/SBS 2002) from which businesses, workers and consumers all suffer. This, of course, will depend on pre-existing business practices at the time a regulatory change comes into effect as well as the regulatory requirements themselves.

2.7.8 Macro-economic Environment

Although the move towards economic liberalization proposed in the late 1980s and 1990s was aimed at reducing distortions in the economy, deregulation of markets has had

adverse impact on MSEs (Sessional Paper No. 2, 2005). The effects include increased macro-economic instability characterized by high inflation rate, current account deficits and policy uncertainty. While the effects have been harmful to all private enterprises, the MSEs have been particularly hurt given their small size, and because they have fewer options to ride over instabilities.

1.7.8 Incentive Policies

Trade policy is the most important incentive policy because it provides the link to a market for MSE outputs, and a source of inputs and opportunities to produce within an international production chain (Krugen & Obstfeld, 2007 ch 10; Ronge *et al.*, 2002) since the adoption of an open trade policy in Kenya, MSEs have increasingly been involved in the global market. Imports have increased rapidly and this has meant greater competition for their goods in the local market. Trade liberalization has increased competition at home and this is seen as detrimental to MSEs in Kenya, especially those in textile industries. Similar observations were made in Latin America and Canada (Berry, 1996). The indication for Kenya may be that although general incentive reforms are necessary, they may not be sufficient to foster the growth of MSEs.

Experiences of the more successful industrial performers among developing countries suggest that government interventions, despite their dismal record in many countries, play a vital role if carefully designed and well-implemented (Crook, 1992 Report). Incentives geared to promoting competitiveness in world markets, but providing some protection for “infant industries” and building up indigenous capabilities, seem to be the most effective combination. Capabilities should be developed through education,

training, technological effort and diffusion in which governments and donors have a role to play because many skill and information markets suffer from market failure.

2.7.10 Institutional Policies

An unhealthy incentive environment may exist in form of regulations (Ronge *et al.*, 2002). Regulatory policies may discourage increases in size of operation for firms, even though there may be opportunities to exploit economies of scale. But the cost of registering business, the need to use external accountants to satisfy regulatory requirements, and the time spent dealing with disputes with regulatory agencies can be more expensive per unit of production for MSEs. The informal entrepreneurs in MSEs have frequently borne high costs in the form of harassment for non-compliance, and often run the risk of permanently being put out of business.

The tendency of micro and small scale operators, especially small sellers and producers, to congregate in the dense markets and overcrowded cities makes them prey to city authorities in the effort to clear congestion and pollution. Policies that provide a central location where micro enterprises can share facilities are totally lacking in Kenya. Such policies should entail developing a programme of orderly urban development that accommodates the needs of micro-enterprises and discourages dispersal to remote areas, as this will retard the growth of MSEs.

Institutions are the foundation of property rights (Kimenyi, Karingi & Njuguna 1999). As such, they must give confidence to firms to write contracts and also allow legal recourse to be cost-effective so that contracts can be enforced. Institutions provide good protection

from arbitrary rules of governments and reduce uncertainty Manolova, Eunice &Gyoshev 2008. Unfortunately, for Kenyan MSEs, there are indications of instability of property rights, which undermines the effectiveness of contracts. In their study on evaluation of the mechanisms for creating property rights for informal firms in Nairobi, Kimenyi *et al.*, (1999) show that the vulnerability of the informal sector property rights to revocation makes law a critical threat and veto point that could be used by extortionist officials to levy taxes on informal enterprises. All these unfavourable features of the external environment for businesses much be addressed because very little success can be achieved through general promotion of MSEs.

2.7.11 Poor Infrastructure

Infrastructure as it relates to provision of access roads, adequate power, water, sewage and telecommunication has been a major constraint in the development of MSEs (Bokeia, Dondo & Mutiso, 2000). The public sector has failed to provide a good infrastructural framework, which is essential for the growth and development of a competitive private sector. Although several politically inspired attempts have been made to provide good infrastructure, mainly work sheds, for MSMEs, this is not often included in town planning. Access roads to MSMEs sites are in poor shape and this has meant higher costs of doing business. Though Sessional Paper No. 1 of 1986 promised expansion of electricity supply and water for all by the year 2000, the situation is far from what was envisaged. Frequent power rationing and water shortages experienced in the late 90s have hindered technological growth for MSMEs given that most modern processes are electrical. The high cost of electricity (including high connection charges) has also been a

hindrance to access to power. There is also lack of a clear policy for enhancing power supply to MSMEs.

Availability of reliable water supply makes compliance with health and environmental requirements easier (Nyangito, 1996). In terms of environmental conservation, small enterprises are a hazard given that over 60 per cent do not have water in their premises and use open spaces, rivers and streams to dispose their waste and affluent. About 78 per cent of small enterprises rely on burning or dumping for waste disposal. The infrastructure needs of these MSMEs need to be addressed in order to mitigate on this negative aspect and to increase environmental awareness among MSMES. However, although MSMEs may face financial limitations in adopting pollution control systems, they need to be encouraged to adopt cleaner methods of production and exhibit respect for environment safety.

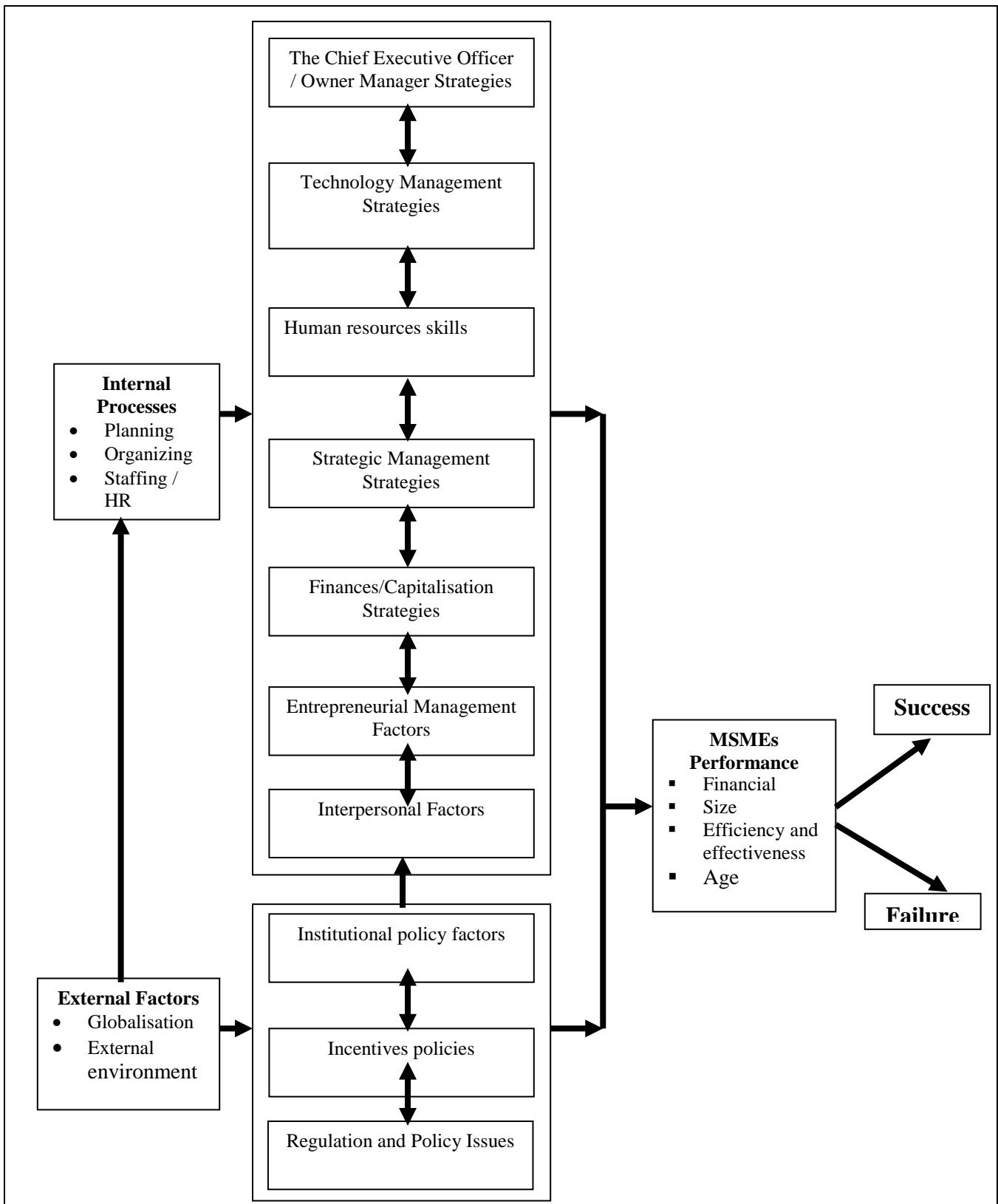
2.8 The Conceptual Framework

Conceptual framework means that concepts that relate to one another will be used to explain the research problem. Since business performance is influenced by both internal and external factors, managers need to understand what influences businesses to reach peak performance. Environmental factors are external namely, the political/legal, economic, social-cultural, environmental factors, regulation and policy issues, and the technological issues. The influence of these factors to the firm performance is very important but it is note worthy that the management has no control over them. Nevertheless, the factors must be closely monitored to ensure that stringent measures are

taken within the best time to either take advantage of the opportunities or combat the threats found in the external environment.

The internal management factors that influence the firms' performance can be classified as human resources management factors, technological factors, operations management factors, strategic management factors, finances/capitalisation factors, marketing management factors, entrepreneurial management factors, interpersonal factors. The relationship can be expressed and shown in figure 2.1.

Figure 2.1: Internal and External management factors



Source: Researcher's Model

Strategic management factors will focus on integrating management, marketing, finance/accounting, production/operations, research & development, and information systems aspects of a business to achieve organisational success. Finances/capitalisation factors will be based on management accounting and cash control skills used as performance measures in the business. Marketing management factors will be based on whether marketing obtains information on what customers need and want by identifying value, providing it, communicating it and delivering it. Entrepreneurial management factors will be on whether business entrepreneurs have identified an opportunity in the form of a vision, validating and conceptualising a business concept and strategy that help attain the vision. Technology management factors will be on whether the business “is more interested in solving business problems that help it maintain competitiveness and generate profit growth than with implementing technology for technology’s sake”. Macro-economic factors will be on the effect of deregulation of markets on business and policy issues surrounding the business.

Performance refers to efficiency and effectiveness in the delivery of services by the employees. Therefore, good performance will be success and bad performance will be treated as failure in business.

To align the Conceptual Framework with the first and second research objectives, business performance is the dependent variable whereas human resources management factors, technology management factors, operations management factors, strategic management factors, finances/capitalisation factors, marketing management factors,

entrepreneurial management factors, interpersonal factors, political/legal, economic, social-cultural, environmental factors, regulation and policy issues, and the technological issues are all independent variables.

CHAPTER THREE

MICRO, SMALL AND MEDIUM ENTERPRISES IN KENYA

3.1 Introduction

Chapter 3 describes the study context and presents an overview of the state of business, the challenges faced within the MSMEs arena and the steps the government is undertaking to assist the sector.

3.2 The history of Kenya with respect to micro , small and medium enterprises

Kenya is a developing country situated in the eastern part of Africa. She got independence in 1963 after several years of British colonization. It's within the period of colonization that business systems started. Several stages in the growth of the business sector in Kenya can be drawn. There is the pre-independence and post-independence period where business activities differ slightly (Sessional paper No. 1 of 1986 and the Sessional Paper No. 2 of 2005).

The post-independence is characterized by intense changes, some caused by internal as well as external factors. The first ten years recorded positive growth but in the next 10 years, the country was not spared by the world oil crisis whose effect has lasted to date. The 1990s multiparty dilemma dominated the political arena and this together with the call for structural adjustments saw the World Bank and International Monetary Fund (IMF) withdrawing every financial aid from the country. At some point, a compromise was reached resulting in economic sanctions and mass lay-offs. To make a living, many resulted in starting small businesses (inclusive of micro and medium enterprises) thus,

the sector mushroomed employing over 74% of the individuals in workforce (Sessional Paper 2005) and contributing a significant 18% of gross national product (GDP).

Since 1986, the small business enterprise sector, as a means of strengthening Kenya's economy, is highlighted in the Sessional Paper No. 1 of 1986, the Sessional Paper No. 2 of 1996 on industrial transformation to the year 2020 and Eighth National Development Plan (1997 – 2001). The Sessional Paper No. 2 of 1992 on small-scale and Jua Kali enterprise development in Kenya contains the overall policies and strategies in which essential activities could be implemented to promote small enterprise development. The vision of the policy statement is to promote a strong Kenyan economy, which the small enterprises are effectively integrated and able to make significant contribution in the production of goods and services. It also emphasizes the role, importance and benefits of small enterprises.

Despite the critical role played by the small enterprise sector, it is faced with numerous changes and constraints that include unfavourable policy access to financial services and markets, inadequate business know-how and linkages with large enterprises, gender inequality, job quality deficits, limited access to information, impact of HIV/AIDS pandemic, unsatisfactory occupational health and safety standards. These constraints have not been well-addressed resulting in a weak base for industrial take-off and sustainable development. Nevertheless, the field of small businesses still remains attractive because the creative enterprising individual likes to be independent and be in control of action and issuing instructions (Sessional Paper No. 2; 2005).

3.3 Training in micro, small and medium enterprises

According to a World Bank study (1995), 40% of all trainees acquired their skills through apprenticeship. Apprenticeship on-the-job-training in business setup has been found to be very efficient in terms of employment and cost since most of those trained are absorbed in the sector and also contribute to the cost of the training (Wellesly, 2000: 69-80). However, this kind of training is limited by low exposure to technology because the trainee can only learn using the available tools, by the ability of the artisan to impart the knowledge, and also by the time the artisan usually has to impart the knowledge and skills. There are several institutions in Kenya, both private and public, providing technical training. The institutions have been established with a strong vocational bias and with the objective of self-employment. There are three national polytechnics, 17 institutes of technology, 20 technical training institutes, over 600 youth polytechnics, the National Youth Service, Christian Industrial Training Centres, YMCA Vocational Training Centres and three Industrial Training Centres.

Despite the many institutions, only a handful (1.5%) of entrepreneurs reported having received any form of training (National Baseline, 1999). This formal training in the formal sector is compared with that in the informal sector (National MSE Baseline Survey 1999: 10-217) (See table 3.1 below).

Table 3.1: Formal Training in the Formal and the Informal Sector

SECTOR	URBAN COL			RURAL			TOTAL	
	NO.	%	ROW %	NO.	COL %	ROW %	NO.	%
Manufacturing	45,019	10.2	26.1	127	15.1	73.9	172	13.4
Trade	273,738	61.5	33.1	552	65.0	66.9	826	64.1
Bars/Hotels/Restaurants	24,888	5.9	32.5	51	6.5	67.5	76	6.1
Services	92,937	21.0	48.6	98	11.6	51.4	191	14.8
Construction	6,551	1.5	29.7	15	1.8	70.3	22	1.7
Total	443,133	100	34.4	845,879	100.0	65.6	1,289,012	100.0

Source: National MSE Baseline Survey 1999, (CBS, K-Rep, and ICEG): pp. 10-217

3.4 The Control of small Enterprise to GDP

The sector contributes over 90% of new employments (See table 3.2 below). The government has undertaken several measures or policies as stipulated in the Sessional Paper No. 2 of 2005 geared towards encouraging the entire MSE sector in very specific ways as follows: First, the emphasis on the role of markets and making markets work. The government objective is to promote the number and competitiveness of MSEs by reducing the cost of doing business and generally creating a more favourable environment for businesses to thrive while improving the quality of employment in the sector. Second, the sector is to be integrated into the national economic grid. To achieve this integration, the new policy will promote the small businesses in the formal and informal economies including commercial small scale agriculture, in a policy framework that will encourage all forms of linkages. Third, improving the effectiveness of the existing institutions by strengthening the department of MSEs and establishing the national council for small enterprises and legislating an MSEs act. The aim shall be to strengthen policy coordination, implementation, and monitoring and evaluation, which have been largely lacking in previous attempts by government to promote the MSE sector. Fourth, partnership between key stakeholders including the citizenry and micro-

small entrepreneurs, community, private sector, civil society, NGOs and development partners will be promoted through appropriate policy dialogue to harness the synergy for effective resource mobilization, utilization and overall development of the sector (strategic mgt); and lastly incorporation of a plan of action for policy implementation and a mechanism for monitoring and evaluation of the policies and their impacts (Sessional Paper No. 2, 2005).

Table 3.2: Total number of MSEs and their employment

STRATA		MSEs		WORKERS		
	% of National Population	Number	%	Number	%	Mean
Nairobi and Mombasa	9.7	204,280	15.8	494,858	16.9	2.1
Other major towns	6.2	157,533	12.2	279,133	11.8	1.8
Rural Towns	2.1	81,320	32.5	135,349	5.6	1.6
Rural Areas	82.0	845,879	48.6	1,551,930	65.7	1.8
Total	100.0	1,289,012	100.0	2,361,250	100.0	1.8

Source: National MSE Baseline Survey 1999, (CBS, K-Rep, and ICEG)

3.5 Small Enterprise Policy in Kenya

As far as small-scale enterprises are concerned in Kenya, little has been done to incorporate it in the country's multi-sectoral development planning. In the past two decades starting from the time the International Labour Organization (ILO, 1972) carried out a detailed study on the sector in the country, a lot of literature has been added to it, but the sector only received some government attention during the current national development plan which was based on the Sessional Paper No. 1 of 1986. On the contrary, before the paper was published, the MSEs especially suffered from a relative negative public image despite the fact that the sector has so many positive characteristics and a vital role to play in Kenya's economic development.

3.5.1 Policy Survey Independence

The Kenya Government strategy for industrialization after independence was based on the need for an expanded overall output – industrial development policy was for the formal sector especially those industries that were viewed to support the then policy of import substitution. (Industrial Review, October 1988). At a lower scale, the government established the Kenya Industrial Estates to look into ways of financing and giving technical aid to medium sized enterprises. The small-scale enterprises were not included anywhere within the government policy system.

3.5.2 The 1970-1974 Development Plan

The 1970-74 Development Plan laid emphasis on the development of medium-sized industries as a major strategy for the alleviation of the employment problems. The main focus of such a policy was to provide the opportunity to “Kenyanise” commerce and industry, a view that was held to be quite important for the future economic development of the country. As such, small-scale enterprises used in this study were not included within the official policy framework. In 1972, the International Labour Organisation (ILO) conducted a detailed study of the small-scale enterprises in Nairobi. The report detailed out how this sector could promote growth of income and employment of the developing countries.

The Government of Kenya in 1973 reacted to the ILO report in an accommodating manner in their Sessional Paper on Employment (GoK 1973). The paper accepted the views of ILO and promised that the “government will in future devise policies that will

promote the growth and development of the informal sector” so that it could play its rightful role in economic development.

3.5.3 1974-1979 Development Plan

In this plan (1974-1979), the government policy stressed the need for laying emphasis on the promotion of small-scale enterprises. This government policy outline was to be strengthened through the establishment of industrial estates, rural industrial development centres and the promotion of indigenous African entrepreneurs, within the small-scale enterprises. To achieve the above objectives, the policy as outlined by the development plan was to take three forms; first, the government was to review central and local government regulations that were unfriendly to small-scale enterprises. Second, the government was to direct assistance to small-scale business enterprises all over the country and lastly, to establish an organization that was well-equipped to administer and provide extension services to the small-scale enterprises. In the Development Plan (1974-1979), the Government “was to review all general industrial and commercial policies as well as regulations with references to their impact on small scale enterprises.” Built in such reviews was to see how certain aspects of the sectors for example manufacturing could be reserved mainly for small enterprises.

On the quality, quantity and coordination of services to the small business, a new corporation to be known as Small Business Development Corporation was to be established. The aim of such an organization was to coordinate all extension services, research and development as would have been required by the small-scale enterprises. However, it should be noted that up to now, no such organization exists. Even if it would

have existed, it was geared towards medium sized enterprises, rather than the small- scale enterprises included in this research. The Development Plan (1974-1979) further observes that Kenya Industrial Estates would be strengthened to cover all small-scale enterprises in even smaller urban centres but this is noted not to have been successful as detailed in the International Labour Organization (ILO) evaluation report of 1984.

3.5.4 The 1979-1983 Development Plan

The 1979-83 Development Plan just like the one preceding it recognized the potential role of the small-scale enterprises in promoting economic growth throughout the country. Therefore, the plan outlined a set of policy guidelines to be undertaken for the implementation and promotion of the sector.

This included first, a massive expansion of KIE services at least one facility in each of the 43 districts by the end of the plan period; second, a fund of Kshs. 50 million to assist the informal sector (where most MSEs were found) to enable them to take advantage of the facilities available with KIE network and other industrial development agencies. Third, the government advocated for a programming and evaluation sector within the Ministry of Commerce and Industry, to assist the District Development Committees in the preparation of coordinated programmes for MSEs manufacturing drifts. Fourth, the government advocated the centralization of the tendering system to districts so that small-scale enterprises in the various localities could get priority of supplying required goods and services within their areas. Fifth, a wide variety of training programmes such as village polytechnics, management training advisory centres, etc. To be offered by the government to small business entrepreneurs. Sixth, the government was to provide the

establishment of credit guarantee schemes for loans given by commercial banks to small-scale enterprises.

Despite the fact that all the above could have helped the small-business enterprises, apart from the first and the second, the rest were not fully implemented. Thus, the policy did not at the end of the day achieve its desired objectives.

3.5.5 The 1984-1988 Development Plan

The 1984-88 Development Plan, apart from stressing the above (as 1979-1983 Development Plan), had the government commitment, “to the establishment of a full-fledged small-industries division in the Ministry of Commerce and Industry to monitor the implementation of small industries development programme and to provide assistance to the industrial extension services in collaborations with the project studies division.” As it stands today, the division exists but the effectiveness is yet to be gauged.

As the implementation of the 1984-1988 Development Plan was taking place, the government came out with a publication- Sessional Paper No. 1, 1986 on economic management for renewed growth. The Sessional paper makes it clear that “secto. (informal) will feature more prominently in the country’s future development strategies and that it will shoulder a much heavier responsibility than hitherto”, in trying to make the sector play its rightful role in economic development. In the Sessional paper, the government notes that in order to stimulate growth of informal sector enterprises, then macro-economic policies have to be instituted aimed at the economy as a whole. The government paper therefore, recognizes “that farm productivity and incomes, for

example, must be raised so as to stimulate the demand for goods and services provided by the informal sector". The idea is that since the sector tends mainly to cater for the needs of low income groups in both rural and urban areas, increased incomes would ensure effective demand for informal sector goods. Second, macro-economic policy that the government outlines as important for the sector is the lowering of tariffs on raw materials, semi- processed goods and inputs, with a bias towards those used widely by the informal sector. The lowering of tariffs would ensure that the cost of production would remain reasonably low for the low-income consumers and thus, ensuring a constant effective demand.

The third macro-economic policy that the government intends to follow has to do with investment incentive. As outlined in the Sessional paper (GoK 1986), the government has opted for an "investment incentive structure, that encourages the substitution of labour for machinery and will thus, boost small-scale activities that are characteristically labour-incentive".

The Kenya Government (1986), the policy further outlines that macro-economic policies will be complemented by efforts to provide direct assistance to individuals and small-scale businesses. To this end, the government policy still recognizes the need for financial assistance. As a result, initiatives are now being undertaken to expand access to credit facilities for informal sector business. Also, efforts are being undertaken to disseminate information on market opportunities and appropriate production methods for small-scale manufacturing. Further, efforts being undertaken by the government include

the expansion of Youth Polytechnic Training and focus on appropriate skills and management on informal sector activities. (GoK 1986).

On technical and vocational training at all levels, the paper notes that “there is need to correct the inverted pyramid in Kenya labour force, where university trained managers are supported by too many unskilled workers and too few well-trained technicians and artisans. To this end, the policy advocates for the expansion of technical training at all levels.

The Government of Kenya for the last few years has an educational policy that is geared towards providing the youth with vocational and technical education through the 8-4-4 system of education (8 years of primary, 4 years secondary and 4 years University education) to be self- supporting. (Industrial Review, October, 1988).

In its 8-4-4 education policy, the incorporation of technical training is hoped to achieve the following objectives, first, the provision of increased opportunities for school leavers that will enable them to be self- supporting; second, that it will allow the development of practical skills and attitudes which lead the trainees to income-earning activities; third, that it will allow for the provision of technical knowledge and vocational skills necessary for the manpower development; and lastly, that it will allow for the production of persons who can translate scientific knowledge into solution of environmental problems.

3.5.6 Development Plan 1989-1993

Development Plan 1989-93 had little for small-scale enterprises except that the government was to launch small-scale development programmes. This is done by the publication of “A strategy for small scale enterprise development in Kenya: towards the year 2000 (GoK 1989).” This is a publication which outlines Kenya’s government policy that recognizes all the factors that are considered to affect the small-scale enterprises to give ways through which the government hopes to face them off.

3.5.7 Development Plans 1994- 2001

In the development issues articulated in the Sessional Paper No.2 of 1992 in small businesses scale sector got further emphasis. There was need to develop and review the legal and regulatory environment for informal sector, formulating programmes to ease access to credit and finance and support to women and youth who are greatly involved in the MSMEs. Other issues discussed were based on encouraging linkages especially in the manufacturing sector and the review of licensing procedures.

3.5.8 Development Plans 2002-2008

The adoption of the Sessional Paper of 1992 on small enterprise development in Kenya led to the review of various rules and regulations that affect operation and growth in MSEs. These include formation of task forces to review various laws that impact on the performance of the sector. The registration was decentralized to district levels.

The Sessional Paper No. 2 of 2005 further fills the gaps and builds on the previous policies in very specific ways. In this issue, the emphasis is on the role of markets and

mainly how to make markets work. Further, it seeks an integration of the new policy that will promote the sector in the formal and informal economies including commercial small-scale agriculture in a policy that encourage linkage partnerships between key stakeholders including citizenry, entrepreneurs, community, private sector, civil society, NGOs and development partners will be promoted through appropriate policy dialogue to harness the synergy for effective resource mobilization, utilization and overall development of the sector . Then, there will be incorporation of a plan of action for policy implementation and a mechanism for monitoring and evaluation of the policies and their impacts.

3.6 The 2030 Strategic Plan

Strategy 1.20 of the Action Plan is dedicated to full formation of an MSME Department of the Ministry of Trade and Industry (MToI). This is after recognising the importance of MSMEs as economic stimulants, job creators and agents of reducing poverty. Strategy 5.1 dwells on developing action plans to implement interventions identified in the Sessional Paper No. 2 of 2005. Strategies 6.3, 6.4 and 6.5 are also dedicated to enhancing the MSME sector in different ways. Some of which are development of linkages to solve the problem of lack of markets, to enhance women and youth projects and credit and to facilitate e- commerce facilities around the country. To implement those strategies, the MToI has developed the private Sector Development Strategy (PSDS) whose second objective is “...to enhance the growth and competitiveness of the Private Sector especially MSMEs” (PSDS 2006-2010:19). The creation of Ministry of Youth Affairs and provision of the Women projects fund by the Government of Kenya in the period 2003-2007 is the

closest step to the implementation of the numerous national development plans and Sessional papers.

3.7 Existing MSE and SME Programme in Commercial Banks

Within the banking arena, the financial needs of MSMES are being addressed in different ways:

- Barclays has about nine loan schemes. These are shared with Kenya Women's Finance Trust, the Organization of African Unity, the European Investment Bank, DFID, USAID and the Barclays Development Fund. Only two are sponsored by Barclays Bank of Kenya.
- KCB runs MSE Credit schemes funded by the bank and other donors.
- Co-operative Bank runs two schemes for MSE, an organization with MFIs funded by DFID. The aim is to mobilize sponsors and the target population recognizing that majority of low-income households manage their affairs with savings and do not necessarily demand credit. Other beneficiaries are existing bankers.
- Standard Chartered Bank has a whole range of products for small and medium enterprises manned by a whole department.

Others are K-Rep Bank, Equity Bank which have tailored products and targeting the SMEs and MSEs.

3.8 The Missing Middle

A study conducted by Omollo and Omiti (2005:35) on difficulties of employment creation in Kenya observed that Kenyan firms had stagnated growth. Compared to Ghana

and Zimbabwe, Kenya had the least of micro firms growing to small and suddenly to medium. Firms must live long enough in order to grow and graduate and transform. The short lifecycle dynamism in Kenya deters this movement. Majority of the new firms do not celebrate their third birthday (Sessional Paper 2/2005).

This has introduced the phenomenal of the missing middle. Firms grow when their owners / managers value expansion, size opportunities and overcome growth obstacles. When growth is not perceived as beneficial and barriers are not surmountable, firms tend to stagnate (Mcormick in Omollo and Owiti 2005). This sentiment forms the basis of this study that sought to identify those critical factors that contribute to the success or failure of MSMEs in Kenya.

3.9 Conclusion

Kenya is in the process of developing and has been on an economic slow-down for several years, just to start rising with the outgoing Narc Government at 6% per annum. Currently, the insecurity problem is high and the political environment rather turbulent with constitutional changes being proposed, the population growing and the employment sector contracting. There is need to establish whether the MSMEs are growing to accommodate those rejected or not fitting in the formal employment sector.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter focuses on the following strategic areas: Research design, target population, sampling procedures, data collection instruments, test of validity and reliability of instruments, data collection procedures, operationalisation of the variables, ethics, limitations and data analysis.

4.2 Research Strategies

The research strategies link the research questions to the research plan. Thietart *et al.*, (2001: 173-195) suggest several strategies of data collection. They can be classified into: three broad categories; observation, experimental and survey methods. Whereas it would have been best to conduct a census study on all the MSMEs in Kenya to identify the critical management factors affecting the success and failure of each of them, the survey was adequate. The survey strategy was chosen as the most appropriate method that could provide a broad overview of a sample representing MSMEs that would allow for generalisation (Mouton 2005:152-3).

4.2.1 Research Design

Mouton (2005: 55-56) discusses three types of research design, namely; exploratory (this emphasizes discovery of ideas and insights), descriptive (concerned with determining the frequency with which an event occurs or relationship between variables), casual (this is concerned with determining the cause and effect relationships).

This study is descriptive to the extent that it seeks to find the management strategies that contribute towards MSMEs performance. It also attempts to make specific predictions about reasons of performance (causes of success or failure). Second, the study employs a causal survey design in that the relationship between variables is correlated with an aim of estimating the integrated effect of the factors on MSMEs performance.

The study was cross-sectional in the sense that relevant data will be collected at a point in time. The reason for preferring a cross-sectional study is the vast nature of the project. Finally, the researcher was dealing with events that have happened and had no control over the variables in terms of being able to control them. This research, therefore, utilized an ex-post facto design because such independent variables as business age, manager's experience or qualifications; gender, business size and type and other business-related factors cannot be manipulated. The research relied on records of events that have already taken place.

4.2.2 Triangulation Strategies

Mole (2002:149) notes that triangulation is a useful approach to establish the credibility of qualitative research noting that, ‘mixing a qualitative method and a quantitative method gives the researcher the potential to cover each method’s weaknesses with strength from the other method’. The distinction between qualitative and quantitative is based on many criteria. Some refer to the data, methods or even variables (Thietart *et al.*, 2001:77-83). This research applied a combination of quantitative and qualitative methods of doing research, which has been practised, as recommended by Keggundu *et al.*, (1993:66-4), Thietart *et al.*, 2001: 82-83).

A quantitative research refers to the systematic investigation of scientific or mathematical properties and their relationships. It has been used in this research to study the relationships between the management factors and performance of MSMEs. It was found necessary to use the approach because it increases the statistical reliability of the results. This implies that it is possible to deduce that one alternative is better than the other. Second, it implies that the results can be projected to the population.

A qualitative approach which refers to the in-depth investigation that is more descriptive than numerical has also been used in this research. Interviews were conducted on a one-to-one basis and focus group discussion (FGD) where small groups were involved. It allows the researcher or moderator to interact with respondents thus being able to ask clarifying questions in different ways. This allowed interaction between the researcher and the respondents or group members which brought to the service issues beyond the researcher's expectation. The purpose of the FGD was to verify information recorded on the questionnaire.

Out of 185 researches conducted in the ISBE study, Ritchie and Lam (2006:312-327) report that 62 applied the qualitative approach, 22 applied the quantitative approach while 45 studies applied a mixture of both qualitative and quantitative methods. The balance of 56 used either literature review, practitioner evaluation study or conceptual framework. Therefore, the researcher selected a breed of the two methods in order to take advantage of the strength in one and minimise the weaknesses in the other. This has been termed triangulation approach. Where the research question can be widely studied in different

ways, the approaches increase the validity of the findings and the methods are self checking.

4.3 Target Population

The population of the study consisted of all MSMEs in Kenya. Information from the Ministry of Trade and Industry indicates that most of formal businesses are located in the Nairobi region while informal sector businesses are more widely distributed with the majority being in rural areas. Most of the enterprises are in services and trade, while the rest are found in the trade sub-sector.

4.4 Sampling Procedure

A list was obtained from the Kenya National Chamber of Commerce and Industry (KNCCI) which covers 68 major towns of Kenya. There are 8 provinces in Kenya so stratified random sampling was done to ensure their representation. A total of 10 towns were identified which had the 3 categories of MSMEs and situated within the 8 provinces.

Second, stratified sampling was used to divide the MSMEs into categories according to homogeneity. This ensured that the micro-businesses, the small businesses and the medium businesses were proportionately represented in all towns.

From the three separate lists (that were verified with lists obtained from the Ministry of Labour), systematic sampling was applied to select the respondent businesses. These groupings were meant to ease analysis and give room for comparison of results.

Table 4.1: Categories of MSMEs

MSMEs	Sample No.	Total
Micro Enterprises	>4,000	150
Small Enterprises	>3,000	100
Medium Enterprises	>3,000	100
Total	>10,000	350

The study targeted the three levels of management in all MSMEs in Kenya that is, the senior management, middle management and functional level management. This included the human resources managers, information technology managers, strategic managers, CEO/Owner managers, finances/capitalisation managers and marketing managers.

The random sampling assisted in minimizing bias when dealing with the population sample and; stratified sampling enabled the researcher to get information at different levels/sizes of the MSMEs. In stratified sampling, the study population was segmented into three cadres. This involved stratifying the businesses into meaningful levels and running disproportionate samples from the strata.

The samples from the strata consisted of the three types of MSMEs owner managers/top managers, senior managers, supervisors and junior managers. In random sampling, the respondents from various business types were selected randomly with a big percentage of 40% being given to the micro enterprises since they were the majority, 30% were given to the small business managers, 30% to the medium level businesses.

4.5 Data Collection

Data were collected from the sampled respondents or managers in the MSMEs after attaining research permit from the Ministry of Education and Technology. The Ministry

of Trade and Industry Headquarters top management at Nairobi was contacted for permission before the commencement of the study. A brief introduction was made to the respondents before administering the questionnaires; the researcher explained the nature and importance of the study to the respondents during pilot and main study. Confidentiality was assured to the respondents through the letters of transmittal that accompanied the questionnaires.

4.5.1 Data Collection Instruments

The following data collection instruments were used: questionnaires (both structured and unstructured); interviews (personal interviews) which consisted of structured and open-ended questions, a focus group, secondary data from files, pamphlets, office manuals, circulars, policy papers and observations were used to provide additional information where appropriate.

4.5.2 Questionnaire Method

The researcher administered a set of structured and unstructured questionnaires (Appendix 2) to the sampled group and gave them a period of (18) days to respond. She picked the questionnaires on an appointed date and went through the questions with the manager.

The questionnaire was made up of three Sections. Section A contained respondent's organisational profile. Section B contained the general information on business performance while Section C was the determination of management strategies affecting business performance. Questions from Section B were intended to answer the Second

objective that is, establish the process through which managerial strategies affect the success or failure of a MSMEs in Kenya while questions in Section C answered the first objective that refers to the assessment of the critical management strategies affecting the performance (success and failure) of MSMEs in Kenya. The third objective was determined from the statistical analysis of the results of the first two. Permission to access office circulars, strategic plans, files and manuals and other relevant documents was initiated through the head of administration or the business owners.

4.5.3 Scheduled Interviews

The researcher used face-to-face interviews with the MSMEs managers (senior managers/owners) in some selected businesses. The method was desirable in that it gave the two people concerned an opportunity to interact and get details on the questions and answers. Through interviews, clarification of issues is easily achievable leading to accuracy of data from the respondents.

4.5.4 Focus Groups

Secondary research adequately proves that the majority of research in small businesses has applied the qualitative methods of data collection (Richie & Lam, 2006:312-327; Borch & Arthur, 1995; Grant, Gilmore, Carson, Laney & Pickett 2201:66-74). This coupled with the definite advantages spelt out earlier made the researcher choose the focus method to collect qualitative data from the MSMEs. This created a forum where the researcher and the business practitioners met. Exercises, structured and open discussions were done. Respondents discussed issues and the researcher collected the data in the

process. The sessions were taped to ensure that clarity of points made were properly reported. These were cross-checked with information collected in the questionnaires.

4.6 Pilot Study

The researcher administered a set of designed structured and unstructured questionnaires through a pilot study to appraise the questionnaire soundness of the items and to estimate time required to answer the items. The pilot study covered some of the 36 MSMEs not covered in the sampled population. The results of the pilot study were discussed with the respondents to make the required adjustments. The major objective was to test the instrument reliability and validity.

4.7 Validity Tests

Validity is the degree to which a test measures what it purports to measure. Thietart *et al.*, (2001:196-219), Hardy & Bryman (2004:23) define validity as the accuracy and meaningfulness of the inferences, which are based on the research results. It is the degree to which results obtained from the analysis of the data actually represents the phenomena under study. Mouly and Sankaran (2004) contend that the validity of the questionnaire data depends on a crucial way the ability and willingness of the respondents to provide the information requested.

4.8 Reliability of the Instruments

The reliability of instruments measures the consistency of instruments. Thietart *et al.*, 2001:205); Best and Kahn (2000) consider the reliability of the instruments to be the degree of consistency that the instruments or procedure demonstrates. What it measures it

does so consistently. The reliability of a standardized test is usually expressed as a correlation coefficient, which measures the strength of association between variables. Such coefficients vary between -1.00 and +1.00 with the former showing that there is a perfect negative reliability and the latter shows that there is perfect positive reliability, which is an ideal situation. In our pilot study reliability was ascertained by splitting the instruments into two, placing all odd numbers in one sub-set and all even number items in another sub-set and then finding the coefficient of internal consistency. The results in section 4.11 shows reliability was estimated to be 0.89 indicating that the instruments would be more reliable.

4.9 Operationalisation of the Dependent and Independent Variables

Saunders *et al.*, (2003:86) and Thietart *et al.*, (2001:277) state the need for operationalisation of variables. Operationalised variables enable facts to be measured. The main variables in this study will be operationalised as follows:

Table 4.2 Operationalised variables

i.	CEO/Owner manager factor	Provision of overall strategic direction for the firm, often with the assistance of a team of vice presidents, provision of strategic management decisions on what products to market, provision of strategic management decision on what market segments to target, provision of strategic management decisions on what business model to employ, provision of strategic management decisions on what geographical areas to operate in.
ii.	Globalisation	Improving technologies, such as transportation and communications Expansion of the business into global or worldwide markets.
iii.	The organisational processes.	Strategic planning, Setting objectives ,Managing resources, Deploying the human and financial assets, the extent of business record and stored facts and information for later use or for others within the organisation
iv.	The Management Functions.	Planning, Organizing, Staffing, Directing Controlling human, financial, and material resources.
v.	The Human Resources Skills.	The employee satisfaction, development, communication skills, Evidence of regular training programmes for staff, number of university graduates employed, to assess staff performance and has accountable and transparent managers.
vi.	Strategic Management Factors.	Strategies formulation, vision, mission and decision making procedures, change management, systems thinking, team leadership, resource allocation
vii.	Finances/Capitalisation Factors.	Poor cash flow management, Accounting and Cash Control skills, book keeping, investments, risk taking.
viii.	Marketing Management Factors.	Customers need, sufficient marketing skills, marketing strategies, core concepts of marketing, a marketing plan.
ix.	Entrepreneurial management Factors:	Extrovert, risk taker, creative, flexible to change, sense of independence
x.	Interpersonal skills	Good relations with a credit officer, Good customer and employee relations Good interpersonal skills (communication, teamwork)
xi.	Technological Factors.	Has set aside more money for technological expansion, solving business problems that help it maintain competitiveness and generate profit growth, implementing technology for technology's sake, doing important joint research with research institutions, Sponsoring staff for training, involvement of consultants for new ideas and formation of strategic alliances.
xii.	Macroeconomic Environment Factors.	Effect of deregulation of markets on business, current account deficits and policy uncertainty, increased macroeconomic instability characterized by high inflation
xiii.	Regulation and Policy Issues	State actions relating to contract enforcement, State actions relating to property rights, State actions relating to intellectual property, State actions relating to corporate governance, State actions relating to taxation and financial reporting, State actions relating to taxation and financial reporting, State actions relating to employment and health and safety, State actions relating to trading standards and consumer rights, State actions relating to environmental protection, State actions relating to premises and planning rules ,State actions relating to data protection.
xiv.	Organisational Performance	This wills operationalised by getting indicators of performance which includes: Effectiveness -The number of clients served, quality of products. Collaborative delivery, employee turnover rates, employee absenteeism Financial Viability - Ratio of total assets total liabilities, ratio of current assets to current liabilities, change in sales and profit levels.

Table 4.2 continued

xv.	Age.	This will be obtained by getting the number of years a firm has been in operation in Kenya
xvi.	Size.	Size was operationalised by getting the number of permanent employees that a company has. Capital employed and average sales turnover in the last two years
xvii.	Managerial Competencies/ skills	This will be assessed by getting such indicators as the number of managers who are graduates, the number of managers with specialized training, ability to meet set deadlines, ability to manage staff meetings and team spirit in management.

4.10 Data Analysis Method

Data analysis was done through a combination of both descriptive and inferential statistics. Descriptive statistics were used to provide details of the various factors that affect performance of MSMEs; these have been grouped into both internal factors as well as external factors. In this respect, measures of central tendency such as the mean and standard deviation has been used.

To evaluate the effects of various internal and external factors on the performance of micro, small and medium enterprises, multivariate analysis and correlation analysis were used. The statistical package for social sciences (SPSS) version 15, SAS Version 9.1 and Excel were used for the data analysis. Results obtained are in chapters five and six.

4.11 Results from the Pilot Study

Data analysis techniques based on the research questions were designed at the beginning of the research. Frequency tables, percentages and means were used to explore the data. Responses in the questionnaires were tabulated, coded and processed by use of a computer. The results of the pilot study are shown below:

Table 4.3 MSMEs exploitation of the opportunities resulting from globalisation

Opportunities Resulting from Globalisation	N	Minimum	Maximum	Mean	Std. Deviation
Development of a vision and competencies at all levels in the business	31	1.00	5.00	2.2903	1.29598
Improving technologies, such as transportation and communications	36	1.00	5.00	2.5833	1.42177
Effective interaction with multiple cultures and political systems	35	1.00	5.00	2.9714	1.63574
Expansion of the business into global or worldwide markets	35	1.00	5.00	3.0571	1.43369

The respondents were asked to indicate whether they had exploited some of the opportunities resulting from globalisation, and it was found that they have exploited them most to the development of a vision and competencies at all levels in the business, and the improved technologies, such as transportation and communications in their businesses.

Table 4.4: General management of MSMEs in Kenya

Statement on MSMEs Management in Kenya	N	Minimum	Maximum	Mean	Std. Deviation
Management is an important activity in that it helps lead MSMEs towards their goals.	36	1.00	4.00	1.6111	1.04957
Management actions are very important	34	1.00	4.00	1.6765	1.14734
The way management tackles organizational problem determines the long-term outcome	36	1.00	5.00	1.6944	1.19090
There is a positive culture, where people are working hard to overcome difficulties	36	1.00	4.00	1.7778	.83190
Managers and management in the Kenyan MSMEs are essential in the modern business organizations and society	35	1.00	5.00	1.8857	1.25491
The activities undertaken in the management of Kenyan MSMEs determine whether the business fails or succeeds.	35	1.00	4.00	1.9143	1.14716
Senior management has a major influence in the management of MSMEs in Kenya.	32	1.00	5.00	1.9375	1.31830
The functions of Management in the Kenyan business environment differ in different business settings	35	1.00	5.00	1.9429	1.18676
Management experience in Kenya is a significant factor in achieving success or successful performance in the small business environment	35	1.00	5.00	2.0000	1.37199
The Kenyan MSMEs' management has a responsibility to innovate and improve the functioning of the organization.	35	1.00	5.00	2.0857	1.31443

Table 4.4 Continued

The Kenyan MSMEs' manager make effective use of resources to achieve organizational goals	36	1.00	4.00	2.1111	1.16565
The Kenyan MSMEs' managers plan, coordinate and implement all aspects of an organization's operation in a manner which fulfils the organization's aims	36	1.00	5.00	2.3333	1.28730
The chief executive is a key appointment in Kenyan MSMEs.	36	1.00	5.00	2.4722	1.29804
Successful entrepreneurs in Kenya tend to purchase rather than start businesses	23	1.00	5.00	2.7391	1.57299
Many managers in Kenya believe that their job is to resolve problems that arise	36	1.00	5.00	2.7778	1.49497
Successful entrepreneurs in Kenya tend to apply industry experience, rather than managerial experience	34	1.00	5.00	2.8529	1.41705
The Kenyan MSMEs especially, the smallest organizations (micro), are highly involved in division of management labour.	34	1.00	5.00	3.1176	1.53277
Successful entrepreneurs in Kenya tend to purchase rather than start businesses	35	1.00	5.00	3.2857	1.69031
The Kenyan MSMEs' manager's job is to prevent problems	36	1.00	5.00	3.3611	1.62398

The respondents were also to indicate how some of the MSMEs have been managed in Kenya, and, to an extent, they agreed that: Management is an important activity in that it helps lead MSMEs towards their goals. Management actions are very important. The way management tackles organizational problem determines the long-term outcome. The functions of management in the Kenyan business environment differ in different business settings. Management experience in Kenya is a significant factor in achieving success or successful performance in the small business environment.

4.11.2 Emphasis of the three Performance Levels in the MSMEs

The respondents were asked to indicate the extent to which they emphasize the different levels of performance within their businesses as an MSME in Kenya It was found that they have emphasized organisational performance as opposed to other levels of performance (Table 4.5).

Table 4.5 Level of Performance

Levels of Performance	N	Minimum	Maximum	Mean	Std. Deviation
Business Performance	35	1.00	4.00	1.6857	.75815
Financial Performance	36	1.00	5.00	2.0556	1.35107
Organization Effectiveness	36	1.00	4.00	2.0556	.92410
Organizational Performance	34	1.00	4.00	2.2941	1.05971

4:11.3 General Causes of Failure and Threats to MSMEs

The respondents were asked to indicate the extent to which some general causes of failure have contributed to threats of their business failure, and the results are tabulated below.

Table 4.6: General Causes of Failure

General Causes of Failure	N	Minimu m	Maximu m	Mean	Std. Devatio n
Management's experience	36	1.00	4.00	1.9167	1.02470
The Management function within the control of management	36	1.00	5.00	2.2222	1.24467
Capital base within the control of management	35	1.00	4.00	2.0571	1.10992
Negligence within the control of management	33	1.00	5.00	2.1818	1.23629
A competitive advantage based upon customer and product specialization	35	1.00	4.00	2.2286	1.16533
Disasters within the control of management	36	1.00	5.00	2.4167	1.18019
The ability of entrepreneurs to combine resources effectively depending on educational policies that emphasize practical business skills	28	1.00	5.00	2.5000	1.47824
Sales expenses within the control of management	36	1.00	4.00	2.5833	1.13074
Fraud within the control of management	35	1.00	5.00	2.7429	1.50182
Assets base within the control of management	35	1.00	5.00	2.9143	1.46270
Economic factors within the control of management	36	1.00	5.00	2.9444	1.21760

From the table above, the factors that have contributed to threats of their business failure were management's experience, the management function within the control of management, capital base within the control of management, negligence within the control of management, and a competitive advantage based upon customer and product specialization.

4.11.4 Specific Causes of Success Contribution to MSMEs Performance

The respondents were asked to indicate the extent to which specific causes of success contributed to success of their business failure, and the results are tabulated below.

Table 4.7: Factors affecting Success

Factors Affecting Success	N	Minimum	Maximum	Mean	Std. Deviation
Factor 1: Entrepreneurial Intuition					
Extrovert	32	1.00	5.00	2.8750	1.56060
Risk Taker	35	1.00	5.00	2.6000	1.49902
Creative	34	1.00	5.00	2.7353	1.62012
Flexible to change	29	1.00	5.00	2.5517	1.78458
Sense of independence	33	1.00	5.00	3.0909	1.66515
High value of time	32	1.00	5.00	2.5000	1.62640
Factor 2 - Management Skills					
Effective cash flow management	30	1.00	5.00	2.0667	1.43679
Niche Strategy	35	1.00	5.00	2.3143	1.25491
Pre ownership experience	35	1.00	5.00	2.3429	1.45406
Education	35	1.00	5.00	2.3143	1.56753
Delegation	34	1.00	5.00	2.2647	1.65710
Factor 3 - Interpersonal Skills					
Good customer and employee relations	35	1.00	5.00	2.0000	1.35038
Good relations with a credit officer	35	1.00	5.00	2.8000	1.67683
Good interpersonal skills	35	1.00	5.00	2.2571	1.50182
Factor 4 - Environmental Values (Less Important)					
Interest Rates	35	1.00	5.00	2.9429	1.45406
Taxes	34	1.00	5.00	2.3529	1.29994
Government assistance	35	1.00	5.00	2.5429	1.46213

From the table the specific causes of success that contributed to business performance were found to be the nature of entrepreneurs, effective cash flow management and good customer and employee relations.

4:11.5 The Management Organizing Function in MSMEs

The respondents were asked to indicate the extent of use of the activities related to the management's way of allocating resources, assigning tasks, and the way it goes about

accomplishing its goals with respect to current business processes, and the results are in the table 4.8.

Table 4.8: Management organizing function in MSMEs

The Management Organizing Function	N	Minimum	Maximum	Mean	Std. Deviation
Managers arrange a framework (organizational structure) that links all workers, tasks, and resources together so that business goals can be achieved	36	1.00	4.00	1.8056	1.09073
The business emphasizes on its organizational structure usually shown by an organizational chart available to all employees	36	1.00	5.00	3.1667	1.57661
The business has an organizational chart that depicts the structure of the business showing the positions in the business	36	1.00	5.00	3.0833	1.48083
The choice of structure is important for the type of the business, its clientele, and the products or services it provides	36	1.00	5.00	2.3333	1.45406

From the table, the activities relating to the management's way of allocating resources, assigning tasks, and the way it goes about accomplishing its goals with respect to current business processes are: Managers arrange a framework (organisational structure) that links all workers, tasks, and resources together so that business goals can be achieved, and they believe that the choice of structure is important for the type of the business, its clientele, and the products or services it provides.

4.11.6: The Management Planning Function in MSMEs

The respondents were asked to indicate the extent of use of the activities related to the management's planning function with respect to current business planning process, and the results are in the table below.

Table 4.9: Management planning function in MSMEs

The Management Planning Function	N	Minimum	Maximum	Mean	Std. Deviation
The current business venture prepares a sequence of action steps to achieve some of its specific goal	36	1.00	4.00	2.3056	1.21466
The current business's effective planning can reduce the necessary time and effort of achieving a goal	36	1.00	5.00	2.6389	1.31264
It is much easier to adjust the current business plan to avoid or smoothen a coming crisis, rather than to deal with the crisis when it comes unexpected	32	1.00	4.00	1.7813	1.15659
Planning in the business occurs in different ways and at all levels	30	1.00	5.00	2.0667	1.25762
The business plan has given the business its goals and the procedures to reach them	32	1.00	5.00	1.9375	1.18967
Planning in the business is usually done by higher-level managers in the business venture	32	1.00	5.00	2.4063	1.29164
The managers in the business venture develops strategies for achieving the goals of the business	30	1.00	4.00	2.4667	1.33218
Resources are needed and must be acquired in order to implement the business strategies	32	1.00	5.00	2.1875	1.49056
The managers/planners determine the standards, or levels of quality, that need to be met in completing the business tasks	32	1.00	5.00	2.2188	1.23744
Tactical planning is done for the benefit of lower-level managers in the business	32	1.00	4.00	2.4688	1.16354
Contingency planning allows for alternative courses of action when the primary plans that have been developed don't achieve the goals of the Business	32	1.00	5.00	2.5313	1.31944

From table 4.9, the activities relating to the management's planning function with respect to current business planning process were found to be: the ease to adjust the current business plan to avoid or smoothen a coming crisis, rather than to deal with the crisis when it comes unexpected; and the business plan that gives the business their goals and the procedures to reach them.

4.11.7: The Management Controlling Function in MSMEs

The respondents were asked to indicate the extent of application of a set of activities that ensure that the activities of business members are leading the organisation towards its

goals with respect to current business controlling process, and the results are in the table below.

Table 4.10: The Management Controlling Function

The Management Controlling Function	N	Minimum	Maximum	Mean	Std. Deviation
The management performance	33	1.00	11.00	2.3030	2.11372
Evaluating management	33	1.00	5.00	2.3939	1.32144
Determining the business' goals and objectives	32	1.00	5.00	2.0938	1.46704
The management corrects situations in which the goals and objectives are not being met.	33	1.00	5.00	2.3939	1.29758
Managers must first set standards of performance for workers in the business	33	1.00	4.00	2.1818	1.15798
The standards set by the managers	33	1.00	5.00	2.6667	1.40683
Business manager's responsibility to monitor performance to see that the standards are being met	33	1.00	5.00	2.3636	1.19421
Once the problems are analyzed and compared to expectations, then managers do something to correct the results	33	1.00	5.00	1.8788	1.34065
The business managers take corrective action by working with the employees who are causing the problem	32	1.00	5.00	2.9063	1.25362
Top management expects to control everything, making all decisions, while middle and lower managers implement decisions, and production workers operate only as instructed	33	1.00	5.00	2.6364	1.53741
Top management does not decide the "right" way to do something, and lower-level staff becomes involved in decision-making processes	33	1.00	5.00	2.3636	1.27029
The business managers use "slopey should syndrome" style management.	33	1.00	11.00	2.3030	2.11372

From the table, application of a set of activities that ensure that the activities of business members are leading the organization towards its goals with respect to current business controlling process were found to be top management expects to control everything, making all decisions, while middle and lower managers implement decisions, and production workers operate only as instructed. Once the problems are analyzed and compared to expectations, then managers do something to correct the results.

4.11.8: The Management Skills/Roles in MSMEs

The respondents were asked to indicate the extent to which the business management plays the skills and Roles required by managers in their businesses, and the results are in the table below.

Table 4.11: Management skills/roles in MSMEs

The Management Skills/Roles	N	Min	Max	Mean	Std. Deviation
The current business manager can orally explain processes and give direction to workers	31	1.00	4.00	1.9677	1.07963
The current business manager can give verbal praise to workers	31	1.00	5.00	3.2581	1.63233
The current business manager can conduct meetings and give talks to groups of people	33	1.00	5.00	3.1212	1.45253
The current business managers are good listeners in oral communication process	29	1.00	5.00	3.2414	1.52726
The current business managers can listen to their supervisors <i>and</i> to their workers	33	1.00	5.00	3.1212	1.47389
The current business managers can hear recommendations and complaints on a regular basis	29	1.00	5.00	3.2414	1.45541
The current business managers are willing to follow through on what is heard	33	1.00	4.00	2.7879	1.29319
The current business manager can write reports, letters, memos, and policy statements	33	1.00	5.00	3.1515	1.52318
The workers in the business come in about every temperament that can be imagined	28	1.00	5.00	2.9643	1.34666
The current business manager can understand different personality types and cultures	31	1.00	5.00	3.0968	1.46867
The current business managers are very busy persons, but they also understand time should be managed effectively	29	1.00	5.00	2.5517	1.27016
The current business managers can allocate time to different projects and activities	31	1.00	5.00	3.0645	1.63168
The current business managers understand that good time-management skills can be learned	33	1.00	5.00	3.0909	1.42223
The manager keeps the organization running smoothly	29	1.00	5.00	2.6897	1.51430
Manager as a figure-head	24				
The current business manager acts as a leader and a liaison officer	31	1.00	4.00	1.9677	1.07963
The current business representative manager	31	1.00	5.00	3.2581	1.63233
Managers are both receivers and disseminators of information.	33	1.00	5.00	3.1212	1.45253
Business managers collect information and then distribute to appropriate decision points	29	1.00	5.00	3.2414	1.52726
The current business managers are regarded as decision makers	33	1.00	5.00	3.1212	1.47389
The current business managers make decisions continuously	29	1.00	5.00	3.2414	1.45541
The current business managers acts as entrepreneurs	33	1.00	4.00	2.7879	1.29319

Table 4.11 continued

The current business managers acts as disturbance handlers	33	1.00	5.00	3.1515	1.52318
The current business managers acts as a resource a locators and a negotiators	28	1.00	5.00	2.9643	1.34666
Maintaining good relations	31	1.00	5.00	3.0968	1.46867

From table 4.11, the business management skills and roles played by the managers include: The current business managers are very busy persons, but they also understand time should be managed effectively; the current business manager act as a leader and a liaison officer; The current business manager can orally explain processes and give direction to workers; and The current business managers acts as entrepreneurs.

4.11.9: The Strategic Management Factors in MSMEs

The respondents were asked to indicate the extent to which strategic management factors had contributed to the performance of their businesses among the many micro, small and medium business enterprises in Kenya, and the results are in the table below.

Table 4.12: Strategic management factors

Strategic Management Factors	N	Minimum	Maximum	Mean	Std. Deviation
The top management strategies	31	1.00	4.00	1.6774	1.10716
Strategy formulation in business	33	1.00	5.00	2.0000	1.39194
Strategy implementation in business	33	1.00	5.00	2.1818	1.30993
Strategy evaluation in the business	32	1.00	5.00	2.3750	1.49731
Strategic position of the firm	32	1.00	5.00	2.0312	1.42522
The business direction and scope within a changing environment	30	1.00	5.00	1.7333	1.33735
Consistency and focus in decision-making in the business venture	33	1.00	5.00	2.4545	1.62194
Rational analysis of business opportunities	33	1.00	5.00	2.7879	1.43086
There are systems for sound management of change	30	1.00	5.00	2.9000	1.56139
Conducive corporate culture for multidisciplinary strategic advisors	33	1.00	5.00	2.8788	1.57634

Table 4.12 continued

Systems thinking in business	33	1.00	5.00	2.7576	1.58174
Clarifying and deepening ones' personal vision is highly focused on in the business	33	1.00	11.00	3.0000	2.07666
Pictures by employees about how the world work	32	1.00	5.00	2.2500	1.24434
Results of business learning	33	1.00	5.00	2.5455	1.52256

From table 4.12, strategic management factors that have contributed to the performance of micro small, and medium business enterprises in Kenya were found to be as follows; There are deeply held pictures by employees about how the world, work, families, and so on work in the business; The business has direction and scope over the long-term which will enable it to achieve advantage for the business through its configuration of resources within a changing environment; and lastly the top management/strategic management focuses on integrating management, marketing, finance/accounting, production and operations, research and development, and information systems aspects of a business to achieve organizational success.

4.11.10: The Finances/Capitalisation Factors In MSMES

The respondents were asked to indicate the extent to which capitalisation factors had contributed to the performance of their business among the many small, micro and medium business enterprises in Kenya, and the results are in the table below.

Table 4.13: Finances / Capitalisation Strategies

Finances/Capitalisation Strategies	N	Minimum	Maximum	Mean	Std. Deviation
Success and failure due to poor cash flow	33	1.00	11.00	2.2727	2.03520

Table 4.13 continued

Success and failure due to lack of a simple accounting process	33	1.00	5.00	2.2727	1.46357
Management Accounting and Cash Control skills	33	1.00	5.00	2.6970	1.44665
Accounting procedures to manage cash	33	1.00	5.00	2.5455	1.39398
Cash management for a better handling of financial problems	33	1.00	5.00	2.5758	1.32359
Strong constraints to business growth	32	1.00	5.00	2.9688	1.42522
Own savings and reinvested profits	33	1.00	5.00	2.5152	1.43878
Reception of formal institutions	33	1.00	5.00	2.4545	1.30122
Capacity of banks to lend to the business	33	1.00	5.00	2.7273	1.30558
Difficulty of enforcing contracts due to legal inefficiency	33	1.00	5.00	2.6667	1.45057
Restrictive banking laws	33	1.00	4.00	2.2424	1.34699
Lack of proper records	33	1.00	5.00	2.5455	1.41622
The business entrepreneurs do not pay themselves a salary, only withdrawals as need arises	33	1.00	5.00	2.8788	1.57634
The withdrawals made by the business entrepreneurs	31	1.00	5.00	2.3548	1.58216

From table 4.13, capitalisation factors that have contributed to the performance of micro, small and medium business enterprises in Kenya were found to be: most business do not keep proper records; The banking laws and regulations do not currently differentiate the market segments served by micro-finance institutions; success and failure are often determined by poor cash flow management; and lastly, success and failure are often determined by lack of a simple accounting process.

4.11.11: The Marketing Management Factors In MSMEs

The respondents were asked to indicate the extent to which Marketing management factors had contributed to the performance of their businesses among the many small, micro and medium business enterprises in Kenya, and the results are in the table below.

Table 4.14: Marketing Strategies in MSMEs

Marketing Management Factors	N	Minimum	Maximum	Mean	Std. Deviation
Marketing information on what customers need and want	33	1.00	4.00	2.1212	1.13901
Concepts of marketing communications and relationships	33	1.00	5.00	2.6364	1.53741
Strategize marketing	33	1.00	5.00	2.8485	1.39466
Resource application within a changing environment	33	1.00	5.00	2.0909	1.30776
Marketing skills in business communication models and public relations activities	32	1.00	5.00	2.3438	1.45046
Marketing strategies	33	1.00	5.00	2.3030	1.55090
Marketing plans	33	1.00	5.00	2.3636	1.45384
The business' reputation and prestige	32	1.00	5.00	2.2500	1.43684
Sufficient experience which forms an entrepreneurial perspective	30	1.00	4.00	2.7333	1.25762
Access to markets and lack of market information	32	1.00	5.00	2.8437	1.60863
The depressed state of economic activity in Kenya	32	1.00	4.00	2.3125	1.20315
Competition of consumer goods	33	1.00	5.00	2.1515	1.20211
Competition between domestic and foreign-made products	33	1.00	5.00	3.0606	1.53987
The shifts from import controls to import liberalization	31	1.00	5.00	2.4839	1.28766

From the table above, the marketing management factors that have contributed to the performance of micro, small and medium business enterprises in Kenya were found to be: information on what customers need and want by identifying value, providing it, communicating it and delivering it; A wide range of consumer goods competes for the buyer's money and preference is often oriented to the cheapest product; and lastly marketing in the business is strategically concerned with the direction and scope of the long-term activities performed by the business to obtain a competitive advantage.

4.11.12: The Entrepreneurial Management Factors In MSMEs

The respondents were asked to indicate the extent to which entrepreneurial management factors had contributed to the performance of their businesses among the many small, micro and medium business enterprises in Kenya, and the results are in the table below.

Table 4.15: Entrepreneurial management strategies

Entrepreneurial management Factors	N	Minimum	Maximum	Mean	Std Deviation
The business entrepreneurs have identified an opportunity in the form of a vision, validating and conceptualizing a business concept and strategy that help attain the vision	33	1.00	5.00	3.1515	1.27772
The business entrepreneurs have marshaled the required resources to implement the business concept	33	1.00	5.00	3.0909	1.35471
The business concept or venture has captured the full opportunity through the growth of the enterprise, extending the growth of the enterprise through sustained entrepreneurial activity	33	1.00	5.00	2.5455	1.39398
The business entrepreneur is a key factor to understanding how and why new businesses are established	30	1.00	5.00	2.7333	1.36289
The personal characteristics of the entrepreneur has influenced the business success	33	1.00	5.00	2.7273	1.42023
The business entrepreneurs have ‘the preference for working as self-employed’	33	1.00	5.00	2.1212	1.21854
The business entrepreneurs have the desire for independence, and an aversion to the hierarchical structures of many organizations	33	1.00	5.00	2.9091	1.33144
The business entrepreneurs have the ambition or capacity to grow	33	1.00	11.00	3.6364	2.34278
The business entrepreneurs have the capacity to innovate	33	1.00	5.00	3.0606	1.39058
The business entrepreneurs have collaborated with other businesses and individuals in order to promote higher enterprise growth	33	1.00	5.00	3.2424	1.54172
The business entrepreneurs have a ‘venturesome spirit’ to planning, budgeting, and training employees	33	1.00	5.00	3.1212	1.43086
The business entrepreneurs have the capacity to identify new products and opportunities	33	1.00	5.00	2.8182	1.64800
The business entrepreneurs know how to evaluate business opportunities and to think critically	33	1.00	5.00	3.1515	1.27772
The business entrepreneurs have a persuasive communication and/or negotiation skills, and problem solving	33	1.00	5.00	3.0909	1.35471
The business entrepreneurs have a formal education, professional experience in the sector he/she operates in	33	1.00	5.00	2.5455	1.39398
The business entrepreneurs have a positive influence from the family level	30	1.00	5.00	2.7333	1.36289

From the table 4.15, entrepreneurial management characteristics that have contributed to the performance of MSMEs in Kenya were found to be: The business concept or ventures that captured the full opportunity through the growth of the enterprise, extending the growth of the enterprise through sustained entrepreneurial activity; The business entrepreneurs having ‘the preference for working as self-employed; the business entrepreneurs have a formal education, professional experience in the sector he/she operates in; the business entrepreneurs has the desire for independence, and an aversion to the hierarchical structures of many organisations; and lastly and the personal characteristics of the entrepreneur that has influenced the business success.

4.11.13: The Technological Factors in MSMEs

The respondents were asked to indicate the extent to which technological factors had contributed to the performance of their business among the many small, micro and medium business enterprises in Kenya, and the results are in the table below.

Table 4.16: Technological Strategies in MSMEs

Technological Factors	N	Minimum	Maximum	Mean	Std. Deviation
The business venture has set aside more money for technological expansion	30	1.00	5.00	2.3333	1.47001
The business “is more interested in solving business problems that help it maintain competitiveness and generate profit growth than with implementing technology for technology’s sake”	30	1.00	5.00	2.7000	1.53466
The business is interested in solutions to their everyday business problems that will allow it to better succeed in its industry	30	1.00	44.00	5.7000	10.51157

Table 4.16 continued

The use of technology in the business venture is widespread	30	1.00	5.00	2.3333	1.47001
The business has fully integrated the technology that it has or it is trying to obtain with its business	30	1.00	5.00	2.7000	1.53466
The competitive advantages brought by the technologies bring to the business are extremely important	30	1.00	44.00	5.7000	10.51157
The current business venture recognizes the need for expanding its current operations technologically	30	1.00	5.00	2.3333	1.47001
The business does not believe that adapting new technologies will further benefit its current business model	30	1.00	5.00	2.7000	1.53466
The business managers are reluctant to enter the technology scene because they are uncertain of the security and privacy concerns that are almost certain to occur	30	1.00	44.00	5.7000	10.51157
The business does not have IT professionals, because technology industry seems to be so complicated,	30	1.00	5.00	2.3333	1.47001
The business sometimes outsources its Technological needs in order to focus more of its attention on doing what it does best rather than diverting it to another area.	30	1.00	44.00	5.7000	10.51157
The budget for technology is quite expensive and also lack of proper infrastructure for the business	30	1.00	5.00	2.7000	1.53466

From the table, technological factors that have contributed to the performance of micro, small and medium business enterprises in Kenya were found to be: The business ventures have set aside more money for technological expansion; The business does not have IT professionals, because technology industry seems to be so complicated; The use of technology in the business ventures is widespread; The business “is more interested in solving business problems that help it maintain competitiveness and generate profit growth than with implementing technology for technology’s sake” , and lastly, the business has fully integrated the technology that it has or it is trying to obtain with its business.

4.11.14: The Macroeconomic Environment Factors in MSMEs

The respondents were asked to indicate the extent to which macroeconomic environment had contributed to the performance of their business among the many small, micro and medium business enterprises in Kenya and the results are in the table below.

Table 4.17 Microeconomic Factors

Macroeconomic Environment	N	Minimum	Maximum	Mean	Std. Deviation
The effect of deregulation of markets on business	30	1.00	5.00	2.3333	30
The increased macroeconomic instability characterized by high inflation rate	30	1.00	5.00	2.7000	30
The current account deficits and policy uncertainty	30	1.00	44.00	5.7000	30
The fewer options to ride over instabilities expensive and also lack of proper infrastructure for the business	30	1.00	5.00	2.3333	30

From the table 4.17, the Macroeconomic Factors that have contributed to the performance of Micro, Small and Medium Business Enterprises in Kenya were found to be: The effect of deregulation of markets on business; the fewer options to ride over instabilities; and lastly, the increased macroeconomic instability characterized by high inflation rate.

4.11.15: The Realization of the Policies Stipulated in the Sessional Paper of 2005 in MSMEs in Kenya

The respondents were asked to indicate the extent to which their businesses had enjoyed the measures or policies as stipulated in the Kenyan Sessional paper of 2005, which was geared towards encouraging the entire small, micro and medium business sector. The results are in the table below.

Table 4.18: Realization of stipulated policies on MSMEs

Measures or Policies Stipulated in the Sessional Paper of 2005	N	Minimum	Maximum	Mean	Std. Deviation
The emphasis of the role of markets, making markets work by reducing the cost of doing business	33	1.00	5.00	3.0909	1.54846
The integration of the small, micro and medium business sector into the national economic grid	33	1.00	5.00	3.5758	1.37000
The improvement of the effectiveness of the existing institutions by strengthening the department of MSEs and establishing the National Council for Small enterprises and legislating an MSEs Act	33	1.00	5.00	3.4848	1.41689
The partnership between key stakeholders including the citizenry. Small, Micro and Medium Business entrepreneurs, community. Private sector, civil society, NGO'S and development partners	33	1.00	5.00	3.6970	1.13150
The incorporation of a plan of action for policy implementation and a mechanism for monitoring and evaluation of the policies and their impacts	31	1.00	5.00	3.2258	1.56439

From the table above, Measures or Policies Stipulated in the Sessional Paper of 2005 that have contributed to the performance of Micro Small, and Medium Business Enterprises in Kenya were found to be: The incorporation of a plan of action for policy implementation and a mechanism for monitoring and evaluation of the policies and their impacts; and the integration of the small, micro and medium business sector into the national economic grid.

4.11.16: The Contribution of Regulation and Policy Issues in the Performance of MSMEs in Kenya

The respondents were asked to indicate the extent to which Regulation and Policy Issues had contributed to the performance of their business among the many Micro, Small and Medium Business Enterprises in Kenya, and the results are in the table below.

Table 4.19: Contribution and regulation and policy issues in performance of MSMEs in Kenya

Regulation and Policy Issues	N	Minimum	Maximum	Mean	Std. Deviation
State actions relating to contract enforcement	32	1.00	5.00	3.1875	1.35450
State actions relating to property rights	33	1.00	5.00	3.2121	1.19262
State actions relating to intellectual property	32	1.00	5.00	3.0625	1.04534
State actions relating to corporate governance	33	1.00	5.00	2.9091	1.25906
State actions relating to taxation and financial reporting	33	1.00	5.00	2.9697	1.35750
State actions relating to employment and health and safety	32	1.00	5.00	3.4375	.98169
State actions relating to trading standards and consumer rights	33	2.00	5.00	3.3939	1.14399
State actions relating to environmental protection	33	1.00	5.00	3.5455	1.17502
State actions relating to premises and planning rules	33	1.00	4.00	2.9697	1.13150
State actions relating to data protection	33	1.00	5.00	3.3636	1.34206
State actions relating to transport	33	1.00	5.00	2.6667	1.33853
State actions relating to inspection and enforcement practices	32	1.00	4.00	3.2187	1.12836
State actions relating to inspection and enforcement practices	19	1.00	5.00	3.5789	1.07061
State actions relating to sanctions for non-compliance	32	1.00	5.00	3.1875	1.35450

From the table above, Regulation and Policy Issues that have contributed to the performance of Micro, Small and Medium Business Enterprises in Kenya were found to be: State actions relating to premises and planning rules; State actions relating to corporate governance; State actions relating to transport; and lastly, state actions relating to taxation and financial reporting

4.11.17: The Contribution of Incentive Policies in the Performance of MSMES in Kenya

The respondents were asked to indicate the extent to which Incentive Policies had contributed to the performance of their business among the many MSMES in Kenya, and the results are in the table below.

Table 4:20: Incentive policies contributing to performance of MSMEs in Kenya

Incentive Policies	N	Minimum	Maximum	Mean	Std. Deviation
The increased imports and greater competition for their goods in the local market	30	1.00	5.00	2.2000	1.37465
Trade liberalization detrimental to small business in Kenya	30	1.00	4.00	2.3667	1.35146
Incentives geared to promoting competitiveness in world markets	30	1.00	5.00	2.5667	1.38174
Providing some protection for “infant industries”	30	1.00	4.00	2.6667	1.32179
Building up indigenous capabilities	30	1.00	5.00	2.6000	1.42877
Capabilities developed through education, training and technological effort	30	1.00	5.00	2.4000	1.54474

From the table above, Incentive Policies that have contributed to the performance of Micro, Small, and Medium Business Enterprises in Kenya were found to be: The increased imports and greater competition for their goods in the local market; Trade liberalization detrimental to small business in Kenya; Incentives geared to promoting competitiveness in world markets; and lastly, Capabilities developed through education, training and technological effort.

4.11.18: Institutional Policies and Infrastructural Factors Contributed to the Performance of MSMEs

The respondents were asked to indicate the extent to which institutional policies and infrastructural factors had contributed to the performance of their business among the many micro small, and medium business enterprises in Kenya, and the results are in the table below.

Table 4.21 Institutional Policies contributing to performance of MSMEs in Kenya

Institutional Policies	N	Minimum	Maximum	Mean	Std. Deviation
The cost of registering business	30	1.00	5.00	2.4000	1.58875
The need to use external accountants to satisfy regulatory requirements	30	1.00	5.00	2.8667	1.33218
The time spent dealing with disputes with regulatory agencies	30	1.00	5.00	2.9667	1.51960
The high costs in the form of harassment for non-compliance	30	1.00	5.00	3.1667	1.41624
The risk of being permanently being put out of business	30	1.00	5.00	2.5333	1.40770
Lack of policies that provide a central location where micro-enterprises can share facilities	30	1.00	5.00	2.9000	1.34805
Lack of policies entailing orderly urban development that accommodate the needs of micro-enterprises	30	1.00	4.00	2.5667	1.19434
Institutional foundations of property rights	30	1.00	5.00	2.8333	1.23409
Allowing legal recourse to be cost-effective so that contracts can be enforced	30	1.00	5.00	2.8667	1.45586
Good protection from arbitrary rules of governments	30	1.00	5.00	2.8000	1.44795
Instability of property rights, which undermines the effectiveness of contracts	26	1.00	5.00	2.8077	1.44275
Extortionist officials who levy taxes on informal enterprises	28	1.00	4.00	2.4286	1.25988
Provision of access roads	30	1.00	5.00	2.4333	1.40647
Provision of adequate power	30	1.00	4.00	2.3000	1.29055
Availability of reliable water supply that allows compliance with health and environmental requirements	30	1.00	5.00	2.4333	1.43078
Provision of sewage services	30	1.00	4.00	2.2667	1.28475
Provision of telecommunication infrastructure	30	1.00	5.00	2.3333	1.39786

From the table above, policies and infrastructural factors that have contributed to the performance of micro, small and medium business enterprises in Kenya were found to be: high cost of registering business; the risk of being permanently being put out of business, lack of policies entailing orderly urban development that accommodate the needs of micro-enterprises; extortionist officials who levy taxes on informal enterprises; provision of access roads; provision of adequate power availability of reliable water supply that allows compliance with health and environmental requirements; provision of sewage services; and lastly, provision of telecommunication infrastructure.

4.12 Conclusion

From the pilot test indicated that the research instruments were both reliable and produced valid results. The reliability was ascertained by splitting the instruments into two, placing all odd numbers in one sub-set and all even number items in another sub-set and then finding the coefficient of internal consistency. The results in section 4.11 shows results obtained were valid and the Cronbach's Alpha obtained for all the items used was 0.944 indicating that the instruments would be more reliable.

CHAPTER FIVE

DATA ANALYSIS AND INTERPRETATION

5.0 Introduction

In this chapter, the descriptive and inferences on the data analysis and procedures are presented. The data analysis followed the phases discussed in chapters one (under research design) and chapter four (under the analysis techniques). The first phase involved editing, coding and the tabulation of data. This assisted in identifying any anomalies in the responses and the assignment of numerical values to the responses in order to continue with the analysis. The data was then checked for possible erroneous entries and corrections made appropriately. The data were entered by using SPSS version 15.

5.1 Respondents and Organisation Profile

This study targeted 350 MSMEs around the country as specified in chapter 4. After coding and checking for accuracy in the data, 180 questionnaires were found useful for the study. This gave a response rate of 51%. The following result was obtained.

5.1.1 Category of Business Venture in Terms of Employees

The aim of the researcher was to collect data from micro, small and medium enterprises. The results show that this was successfully achieved. Micro-enterprises though, were 84%, small enterprises were 49% and medium enterprises were 37%. Ten large firms filled up the questionnaire and were not discarded for comparative purposes. These large firms had appeared in the record as MSMEs.

5.1.2 Location of the Business

MSMEs from 14 towns in Kenya were contacted for responses within the 45 days before the start of the analysis. The coverage results were obtained were from 180 respondents. Six towns gave no responses. Some addresses were outdated so that posted questionnaires were not returned while in other towns like Nakuru there was no one in the office to handle the questionnaires. This, therefore, implies that comparison of performances between towns was quite impaired and only some towns with reasonable responses would be compared. However, this did not adversely affect the sample because the required differentiations of the enterprise sizes were obtained nationally.

5.1.3 Highest Level of Education

Town profile of respondents was as follows: 24 respondents were '0' level graduates, 17 were 'A' level graduates, 51 were diploma holders, 60 were university graduates while 10 were post graduates. Eighteen respondents did not report their level of education. From the results, it can be observed that most of the respondents understood the contents of the questionnaires and their responses can be taken seriously, most of those interviewed operated their own business for at least five years.

Table 5.1: Number of Years in Operation, Business position and Lifecycle.

No. of years	Frequency	Percent	Business position	Product lifecycle		Cycle level of business	
Below 5	41	22.8		Frequency	Percent	Frequency	Percent
5-8 years	80	44.4	Introduction	7	5	2.8	3.9
9-12	36	20.0	Growth	27	24	13.3	15.0
Above 12 years	20	11.1	Maturity	55	50	27.8	30.6
Total	177	98.3	Decline	51	56	31.1	28.3

From Table 5.1, it was observed that majority (75%) of respondents were in businesses that had operated for over 5 years. They reported that their product or services were at maturity stage or near decline and the businesses were either near decline or at maturity stages. The business cycle and the product cycle were reported to be very close.

5.1.4 Gender Distribution

Gender issues featured prominently in business issues. Men were 105 (65.2%) and females were 56 (34.8%). Suggesting that from the sample, more males were in businesses. The effect of respondent and organisation profile on performance (profitability) was calculated and different tests revealed the profiles in section A had any impact on performance of the MSMEs in question. The computed value using t-test was found to be 1.388 on 179 degrees of freedom with a p-value of 0.167, showing that the differences in the means were not statistically significant.

5.1.5 Gender and Profitability

Pearson Chi-square was used to test the relationship between gender and profitability for the two periods (2005 to 2006 and 2004 to 2005). Between genders, it was found that most enterprise made profits ranging between 0 and 10%. Slightly higher females (94%) compared to 91.3% fell in that range. It is to be noted that male performance spread out quite normally, with 1.9% making losses, scoring less than 0% while females do not appear there. This reflection concurs with what is generally observed with women. It is not surprising that most females take less risk and therefore, will not be expected to incur much loss. Further more, I observed that above 30% profit appeared to be the male domain.

5.1.6 Years of Operation and the Profitability

Chi-square was also utilized in testing the relationship between the years of operation and the profit percentage. The results indicate

Table 5.2: Percentage Category Change for 2004-2005

Number of years in operation	Less than Zero	0-10%	11%-20%	31%-100%	Total
Below 5	0	36	0	5	41
	.0%	87.8%	.0%	12.2%	100.0%
5-8 years	1	76	0	3	80
	1.3%	95.0%	.0%	3.8%	100.0%
9-12	0	36	0	0	36
	.0%	100.0%	.0%	.0%	100.0%
Above 12 years	1	15	1	2	19
	5.3%	78.9%	5.3%	10.5%	100.0%
Total	2	163	1	10	176
Grand total	1.1%	92.6%	.6%	5.7%	100%

The Chi-square statistic was 19.159, with 9 degrees of freedom and p-value of 0.024 for the 2005-2004 period while for the period 2006-2005, chi square was 14.518, with 9 degrees of freedom and p-value of 0.105. Here, the relationship between number of years in operations and percentage growth in profitability was significant for the period 2004-2005 (p-value 0.024) but not significant for 2005-2006(p- value 0.105).

5.1.7 The Highest Education Level and Profitability

The next set of variables analysed was the highest education level and the percentage profitability. Once again, the Chi-square test was used.

Table 5.3a: Level of Education and Profitability Change 2004-2005

Highest level of education	Less profit	0-10%	11%-20%	31%-100%	Total
O' level	0	21	0	3	24
	.0%	87.5%	.0%	12.5%	100.0%
A' level	0	16	0	1	17
	.0%	94.1%	.0%	5.9%	100.0%
Diploma	0	50	0	1	51
	.0%	98.0%	.0%	2.0%	100.0%
University graduate	1	56	1	2	60
	1.7%	93.3%	1.7%	3.3%	100.0%
Post-graduate	1	6	0	2	9
	11.1%	66.7%	.0%	22.2%	100.0%
Total	2	149	1	9	161
	1.2%	92.5%	.6%	5.6%	100.0%

The relationship between level of education and profitability change for years 2004 -2005 was significant (p-value is 0.086).

Table 5.3b: Level of Education and Profitability Change 2005-2006

Highest level of education	Less profit	0-10%	11%-20%	30%-100%	Total
O' level	0	18	2	4	24
	.0%	75.0%	8.3%	16.7%	100.0%
A' level	0	13	2	1	16
	.0%	81.3%	12.5%	6.3%	100.0%
Diploma	1	45	1	4	51
	2.0%	88.2%	2.0%	7.8%	100.0%
university graduate	0	52	3	5	60
	.0%	86.7%	5.0%	8.3%	100.0%
post graduate	1	6	1	2	10
	10.0%	60.0%	10.0%	20.0%	100.0%
Total	2	134	9	16	161
	1.2%	83.2%	5.6%	9.9%	100.0%

There was no significant statistically relationship between the highest education level and the percentage profit change for the period 2005-2006. The Chi-square statistic was 14.707, with 12 degrees of freedom and p-value of 0.258.

5.1.8 Business Venture in Terms of Category

Business venture in terms of category was tested whether it was statistically significant in relation to percentage profitability. The following results were obtained.

Table 5.4: Business Venture In Terms Of Category

Category of business venture in terms of employees	Less than zero	0-10%	11%-20%	31%-100%	Total
Micro:1-9	0	76	0	8	84
	.0%	90.5%	.0%	9.5%	100.0%
Small:10-49	0	47	0	2	49
	.0%	95.9%	.0%	4.1%	100.0%
Medium:50-99	1	35	1	0	37
	2.7%	94.6%	2.7%	.0%	100.0%
Large: above 100	1	8	0	0	9
	11.1%	88.9%	.0%	.0%	100.0%
Total	2	166	1	10	179
	1.1%	92.7%	.6%	5.6%	100.0%

The Chi-square statistic was 19.428, with 9 degrees of freedom and p-value of 0.022 for the 2004-2005 period while for the period 2005-2006, chi square was 16.604, with 9 degrees of freedom and a p-value of 0.055. From the respective statistics, it is observed that the size of business was statistically significant for the period between 2004-2005 but not significant for the period 2006-2005.

Table 5.5: Percentage Profit Change for 2005-2006

Category of business venture in terms of employees	Less profit	0-10%	11%-20%	30%-100%	Total
micro:1-9	1	63	7	12	83
	1.2%	75.9%	8.4%	14.5%	100.0%
small:10-49	0	46	2	1	49
	.0%	93.9%	4.1%	2.0%	100.0%
medium:50-99	0	31	1	5	37
	.0%	83.8%	2.7%	13.5%	100.0%
large: above 100	1	8	0	1	10
	10.0%	80.0%	.0%	10.0%	100.0%
Total	2	148	10	19	179
	1.1%	82.7%	5.6%	10.6%	100.0%

Section B: General Information on Business Performance

In this section, the respondents were asked to give their views concerning some elements of management within the MSMEs they operate in Kenya .The results and inferences are reported below.

5.1.9 The Results from Rating of Management within the MSMEs in Kenya

The respondents were asked to indicate the extent within which they agreed with the statements given. Table 5.6 shows the mean responses.

Table 5.6: MSMEs management in Kenya

Management indicators	N	Mean	Std. Deviation
Management actions are very important	174	4.36	.752
The way management tackles organisational problem determines the long-term outcome	176	4.14	.934
Senior management has a major influence in the management of MSMEs in Kenya	177	4.02	.977

Table 5.6 continued

The chief executive is a key appointment in Kenya MSMEs	171	3.91	.999
There is a positive culture, where people are working hard to overcome difficulties	176	3.76	1.032
Many managers in Kenya believe that their job is to resolve problems that arise	177	3.50	1.023
The Kenya MSMEs manager's job is to prevent problems	176	3.19	1.315
The Kenya MSMEs manager makes effective use of resources to achieve organisational goals	178	3.77	.990
The Kenya MSMEs coordinate and implement all aspects of an organisation's operation in a manner which fulfils the organisation's aims	178	3.68	.994
Management is an important activity in that it helps lead MSMEs towards their goals	176	4.05	.915
Managers and management in the Kenyan MSMEs are essential in the modern business organisations and society	178	4.11	.895
The activities undertaken in the management of Kenyan MSMEs determines whether the business fails or succeeds	178	4.05	.958
Management experience in Kenya is a significant factor in achieving success or successful performance in the small business environment	174	4.01	.890
The functions of management in the Kenyan business environment differ in different business settings	174	3.75	1.103
The Kenyan MSMEs management has a responsibility to innovate and improve the functioning of the organisation	174	3.90	.978
The Kenyan MSMEs especially, the smallest organisations (micro), are highly involved in division of management labour	175	3.45	1.043
Successful entrepreneurs in Kenya tend to purchase rather than start businesses	176	3.49	1.106
Successful entrepreneurs in Kenya tend to apply industry experience, rather than managerial experience	176	3.34	1.139

Out of the descriptions of management given, the respondents felt that management actions are very important to a large extent with a mean score of 4.36 out of 5. Other descriptions that scored high were that the way management tackles problems of

organisations determines the long-term outcome with a mean score of 4.14, that management is an important activity in that it helps lead MSMEs towards their goals with 4.05 and that senior management has a major influence in the management of MSMEs in Kenya with 4.02. Managers and management in the Kenyan MSMEs are essential in the modern business organisations and society at level 4.11. Management experience in Kenya is a significant factor in achieving success or successful performance in the small business environment at the level 4.01. The level selected (4.0 and above) showed the highest rating otherwise all the other variables rated 3.00 or above, which reflects the average rating.

Table 5.7: Emphasis on Different Levels of Performance.

Performance levels	N	Mean	Std. Deviation
Financial performance	178	3.88	1.015
Business performance	178	3.90	.943
Organisation effectiveness	178	3.95	1.016
Organisational performance	177	3.89	.980

Generally, the MSMEs emphasis of performance at different levels was found to be very high. Organisation effectiveness was rated highest, followed by business performance then organisation performance and finally the financial performance. This is unlike expectations where it is generally believed that enterprises will put more emphasis on financial issues.

Further, the researcher sought to find out causes of failure amidst the MSMEs respondents were asked to rate management issues that threatened their success thus causing failure. Failure was taken to either reflect closer of business, closer of a certain branch or failure of a product or service in the market. The results are shown below.

Table 5.8: Categories Showing Failure versus Categories of Businesses.

Management issues	Micro	Small	Medium
The management function within the control of management	3.21	3.77	3.76
Disasters within the control of management	2.98	3.57	3.51
Fraud within the control of management	2.89	3.67	3.49
Economic factors within the control of management	3.17	3.61	3.35
Management's experience	3.24	3.98	3.78
Sales expenses within the control of management	3.11	3.83	3.57
A competitive advantage based upon customer and product specialization	3.41	3.84	3.75
Specialization	3.37	3.86	3.86
Assets base within the control of Management	3.17	3.54	3.77
Capital base within he control of Management	3.26	3.64	3.89
Negligence within the control of Management	2.96	3.70	3.72
Inability of Entrepreneurs to combine resources	3.32	3.75	4.03

From table 5.8, the respondents reported that the general causes of failure presented fairly contributed to the threat of business failure. Most of the scores were above average. Concerning the function within the control of management, the small and medium enterprises reported a higher rating than the micro business. This means issues within managements control may not cause failure at the same rate and magnitude as in small firms, similarly within the larger firms. Three issues namely, management experience, specialisation and the entrepreneurial factors are notably higher causes within the larger firms according to the mean scores in this table.

The respondents were asked to specify some conditions of failure that they had experienced in their respective firms (inability to pay creditors in full). From the interviews, the respondents said that micro-enterprises had been unable to meet their credit payments in full. It is observed that 29.4% to 37% of MSMEs had closed up a non-productive branch or production line. Whereas almost double (53%) of Micro businesses had never closed up, 23% of Small businesses and 16.4% of Medium enterprises. Closing up a non-productive line or branch is prudent to stop overburdening the firm. The practice is less practised in the micro businesses.

Table 5.9a: Reported a loss and category of business venture in terms of employees

	Category of business venture in terms of employees				Total
	Micro: 1-9	Small: 10-49	Medium: 50-99	Large: above 100	
Yes	38 (55.9%)	14(20.6%)	12(17.6%)	4 (5.9%)	68 (100%)
No	45 (40.9)	35 (31.8%)	24 (21.8%)	6 (5.5%)	110 (100)
N	83 (46.6%)	49 (27.5%)	36 (20.2%)	10 (5.6%)	178 (100%)

A very high percentage (55.9%) of micro had reported a loss as compared to those which did not. Higher percentages of larger firms had not reported losses. The smaller firms seemed to have made more losses relatively.

Table 5.9b: Unable to continue for more than 6 months and category of business venture in terms of employees

	Category of business venture in terms of employees				Total
	Micro: 1-9	Small: 10-49	Medium: 50-99	Large: above 100	
Yes	9 (64.3%)	2 (14.3%)	3 (21.4%)	0 (0%)	14 (1000%)
No	75 (45.5%)	47(28.5%)	33 (20.0%)	10 (6.1%)	165 (100.0%)
N	84 (46.9%)	49 (27.4%)	36(20.1%)	10 (5.6%)	179 (100.0%)

Within the businesses that had stalled for at least 6 months, the micros reported the highest percentage of 64.3% as compared to 14.3 % Small and 21.4% Medium. Survival seems to favour large organizations.

5.1.10 Specific Causes of Success

The respondents were asked to distinguish issues that contributed to success and gave the following responses.

Table 5.10: Comparative means for categories of business in the areas defined.

Entrepreneurial intuition	Micro: 1-9	Small: 10-49	Medium : 50-99
Extrovert	3.62	4.00	3.71
Risk taker	3.69	3.84	3.64
Creative	3.95	3.98	4.21
Flexible to change	4.01	4.11	4.26
Sense of independence	3.97	4.00	4.33
High value of time	3.96	3.91	4.26
Management Skills			
Effective cash flow management	3.77	4.16	4.42
Niche strategy	3.81	4.16	4.05
Pre ownership experience	4.05	4.02	4.40
Education	3.88	3.96	4.06
Delegation	3.68	4.04	4.00
Interpersonal Skills			
Good customer and employee relations	3.92	4.30	4.40
Good relations with a credit officer	4.06	4.05	4.38
Good interpersonal skills	4.05	3.80	4.36
Environmental issues			
Interest rates	4.13	4.31	4.47
Taxes	3.94	4.19	4.24
Government assistance	3.97	4.33	4.57

There were four categories of questions. The first required to establish the entrepreneurial factors that contribute to success within the three categories of businesses. The medium firms rated the sense of independence highest (4.33), followed by flexibility to change

and high value of time both at 4.26, this was followed by creativity at 4.21. The small businesses rated sense of flexibility to change highest with a mean of 4.11 followed by independence and extroversion with 4.00 mean. The micro rated flexibility to change highest with a mean of 4.01. The three categories of businesses seemed to agree that flexibility to change was key to success. As the businesses grow it seems independence is most important to success.

The second factor was managerial skills where the medium firms rated all the indicators very highly (above 4) with the pre-experience being the highest. The small firms rated all indicators above 4.00 with the exception of education and tended to lay much importance on cash management and niche strategy. This is a realistic approach for small businesses that have to compete with large and medium firms. Niche strategy gives the small businesses a competitive edge. The micro enterprises rated pre- ownership experience the highest with a mean score of 4.05.

Interpersonal skills factor was third. The medium businesses rated the indicator very high above 4.00 with good customer relations having a mean of 4.40. The small businesses rated the customer relations very high too with a mean score of 4.30 followed by good relations with the credit officer with mean score of 4.05. The micro enterprises differed by rating the relationship with credit officer highest and the interpersonal relationships. This may be caused by the fact that many micro businesses lack strong capital base and therefore credit issues are of very great concern while networking and social capital remains very important to them. Lastly, environmental factors were all rated very highly by both medium and small businesses while the micro rated only the interest rates highly.

Table 5.11: The Extent of Exploitation of Global Opportunities per Business Category

	Micro:1-9			Small 10-49			Medium50-99		
	Std.			Std.			Std		
	N	Mean	Deviation	N	Mean	Deviation	N	Mean	Deviation
Improving technologies, such as transportation and communications	84	3.17	1.170	49	3.86	.764	35	4.20	.964
Expansion of the business into global or worldwide markets	82	2.13	1.331	49	3.16	.943	36	3.53	1.055
effective interaction with multiple cultures and	82	2.13	1.331	49	3.16	.943	36	3.53	1.055
Political systems	82	2.74	1.368	49	3.39	1.017	36	3.89	1.166
Development o0f a vision and competencies at all levels in teh business	83	3.27	1.060	49	3.80	.816	36	4.31	.889

From the table, the mean score within the micro businesses reflects that development of a vision and competencies at all levels has been well achieved having a mean of 3.17 followed by a mean of 3.17 for improving technologies such as transportation and communications. The small businesses compliance of globalisation was their on improvement of technologies such as transportation and communications at 3.86 followed by 3.80 for the development of a vision and competencies at all levels.

Within the medium enterprises, the development of a vision and competencies at all levels of business had a men of 4.31, the highest compared to all the other business categories. This was followed by improving technologies, such as transportation and

communications. It is notable from the table that the ratings by the four indicators of the extent at which the three levels of businesses have exploited the opportunities resulting from globalisation had highest means by the medium organization followed by small businesses and finally the micro enterprises.

5.1.11 The Management Roles and Responsibilities

The management roles and responsibilities were explored with special emphasis on the roles of the Chief Executive Officers (CEO). The study revealed that provision of strategic management decisions on what products to market and provision of strategic management decisions on which business model to employ had the highest mean (4.08) within the medium organizations. These are followed by provision of overall strategic direction for the firm, often with the assistance of a team of vice presidents with a mean of 4.03 and third, provision of strategic management decisions on which market segments to target with a mean of 4.00 within the same category. Overall, the strategic practices by CEOs have a higher mean within medium enterprises, followed by the small businesses and lastly the micro businesses. Non-theless, the CEOs within all the categories of business generally were reported to have fulfilled their respective duties in the areas of strategic management. According to the managers' assessment, the medium enterprises gave higher means implying good marketing practices. They were followed by the small businesses while the micro enterprises scored the least. Overall, on average, all the business magers in their respective categories rated their CEOs highly (over 3.50 out of 5.00). Directing overall marketing strategies (with 4.49), developing the firm's detailed marketing plans and procedures (with 4.43), monitoring the trends that indicate the need for new products and services and oversee product development(with 4.30) were the three characteristics best rated within the medium enterprises. ensuring that the customers

are satisfied and developing the firm's detailed marketing plans and procedures (with 4.28) and leading and give direction on sales and leading and giving directions on product management (with 4.15) were highest rated within the small businesses. In the micro enterprises, developing the firm's detailed marketing plans and procedures had a mean of 3.93 ensuring that the customers are satisfied a mean of 3.85 and determining the demand for products and services offered by the firm and its competitors a mean of 3.82. The smaller firms seemed to be keen on customer care and services whereas the larger firms were more careful about strategic direction and planning.

Section C: Management Strategies Affecting Business Performance

In the following section, the respondents were required to indicate the extent to which organizational processes affected the following exercises within the businesses that they managed.

Table 5.12: Management Exercises within the Enterprises and Record Keeping

Exercises	N	Mean	Std. Deviation
Strategic planning	99	3.48	1.173
Setting objectives	168	3.48	1.271
Managing resources	174	3.28	1.242
Deploying the human and financial assets	174	3.37	1.322
Business data records	173	4.08	.911

Table 5.12 shows that, the management exercises were affected by the organizational processes within the businesses. The mean obtained for the effect on strategic planning and setting of objectives was 3.48 with standard deviation of above one in both situations. The mean for managing resources was 3.28 and that for deploying the human and

financial assets was 3.37. The question on the extent of record keeping and storage of facts for later use in the organization was unanimously answered and had a mean of 4.08 with a standard deviation of 0.911.

5.1.12 The Management Functions

In question 19 the researcher sought to find out the extent to which the respective businesses applied the variables below in getting activities completed efficiently with and through other people. The results in the table 6.26 below shows that staffing had a mean of 4.20, controlling 4.16 and directing 4.13 w. organizing had a mean of 4.08 and planning a mean of 3.99. The standard deviation for staffing was rather too high but generally from the results, the managers applied the functions of management quite well.

Table 5.13: The Management Functions

	N	Mean	Std. Deviation
Planning	173	3.99	.976
Organizing	173	4.08	.892
Staffing	175	4.20	2.324
Directing	176	4.13	.926
Controlling Human, financial, and material resources	177	4.16	.940

5.1.13 The Management Functions and Business Categories

The researcher further sought to establish whether there was a difference between the applications of the management functions within the business categories. The results from table 6.27 below show that the larger organizations applied the management functions more followed by the small businesses and finally the micro enterprises.

Table 5.14: .The Management Functions in Business Categories

	N	Mean	SD	N	Mean	SD	N	Mean	SD
Planning	82	3.83	1.174	45	4.07	.780	36	4.28	.566
Organizing	82	3.98	1.006	45	4.13	.815	36	4.25	.649
Staffing	83	4.25	3.253	46	4.04	.868	36	4.25	.937
Directing	83	3.86	1.072	47	4.32	.755	36	4.50	.655
Financial control	83	3.99	1.099	47	4.13	.824	37	4.57	.603

Below, each management function is explored. Several indicators were given and the respondents asked to tick from a likert scale ranging from ‘no extent’ to ‘very large extent’. The functions explored are organizing, planning. Staffing, directing and controlling. The results are given in the tables below.

5.1.14. The Management Organizing Function

The respondents were asked to indicate the extent to which the following activities related to the management’s way of allocating resources, assigning tasks, and the way they went about accomplishing goals with respect to current business processes. The responses are as follows: most respondents (175) said that managers arrange a framework (organizational structure) that links all workers, tasks, and resources together so that business goals can be achieved. The mean was 4.05 with a standard deviation of .970 while the business emphasizes on its organizational structure usually shown by an organizational chart available to all employees was mentioned by 176 respondents with a mean of 3.96 and standard deviation of .970. The business has an organizational chart that depicts the structure of the business showing the positions in the business, the choice of structure is important for the type of business, its clientele, and the products or services it provides.

The respondents mean score for ‘managers arrange a framework (organizational structure) that links all workers, tasks, and resources together so that business goals can be achieved’ and ‘the choice of structure is important for the type of business, its clientele, and the products or services it provides was 4.05. The mean score for ‘the business has an organizational chart that depicts the structure of the business showing the positions in the business was 4.03 and that for ‘the business emphasizes on its organizational structure usually shown by an organizational chart available to all employees was 3.96. The mean score out 5.00 was quite high indicating that the organization function was well applied.

The planning function of management was well-applied in the MSMEs in Kenya with a mean score of 3.51 to 3.79. The highest mean indicators referred to the statements mentioned below. 3.79 referred to ‘resources are needed and must be acquired in order to implement the business strategies’, 3.78 to ‘the business plan has given the business its goals and the procedures to reach them’, 3.77 to ‘the current business venture prepares a sequence of action steps to achieve some of its specific goals’ but a high standard deviation of 1.064, 3.76 to ‘contingency planning allows for alternative courses of action when the primary plans that have been developed don’t achieve the goals of the business’ and 3.75 to ‘the managers in the business venture develops strategies for achieving the goals of the business’. Overall, the planning function was well-applied.

Table 5.15: The Management Planning Functions

Planning functions	N	Mean	Std. Deviation
The current business venture prepares a sequence of action steps to achieve some of its specific goals	175	3.77	1.064
The current business's effective planning can reduce the necessary time and effort of achieving a goal	177	3.59	1.047
It is much easier to adjust the current business plan to avoid or smoothen a coming crisis, rather than to deal with the crisis when it comes unexpected	176	3.57	1.119
Planning in the business occurs in different ways and at all levels	177	3.67	.997
The business plan has given the business its goals and the procedures to reach them	177	3.78	1.001
planning in the business is usually done by higher level managers in the business venture	177	3.51	.966
The managers in the business venture develops strategies for achieving the goals of the business	177	3.75	.908
resources are needed and must be acquired in order to implement the business strategies	175	3.79	.930
the managers/planners must determine the standards, or levels of quality, that need to be met in completing the business tasks	176	3.66	1.013
Tactical planning is done for the benefit of lower level managers in the business	178	3.58	.978
Contingency planning allows for alternative courses of action when the primary plans that have been developed don't achieve the goals of the business.	178	3.76	.951

5.1.15 Management Directing and Staffing Functions

The mean score for all the indicator statements ‘range between 3.50 and 3.77. The highest mean score (3.77) was in respect of ‘supervising, or leading having enabled workers to accomplish the goals of the current business venture’. This was followed by the statement that ‘empowered workers in the business have the support of managers who assist them to make sure that goals of the organization are being met with 3.74. The third statement with a score of 3.72 was ‘there is a prevailing climate conducive in the business for work and a culture compatible with the nature of the business's objective’ but it had a

standard deviation of 1.046. The forth score was 3.71 which stated that ‘directing in the current business venture involves making assignments, assisting workers to carry out assignments, interpreting organizational policies, and informing workers of how well they are performing’. On average the managers indicated that the directing and staffing functions are well applied in the MSMEs.

Table 5.16: The Management Directing and Staffing Functions

Staffing & directing functions	Mean	N	Mean	
Supervising, or leading has enabled workers to accomplish the goals of the current business venture	3.77	179	3.77	.966
Directing in the current business venture involves making assignments, assisting workers to carry out assignments, interpreting organizational policies, and informing workers of how well they are performing	3.71	178	3.71	.935
All managers in the business have leadership skills which get the workers to perform their tasks effectively	3.50	175	3.50	1.022
Some workers in the business direct by empowering managers	3.62	177	3.62	.940
Empowered workers in the business usually work in teams and are given the authority to make decisions about what plans will be carried out and how	3.69	177	3.69	.993
Empowered workers in the business have the support of managers who assist them to make sure that goals of the organization are being met	3.74	176	3.74	.924
Workers who are involved with the decision making process in the current business venture feel more of a sense of ownership in their work, take more pride in their work, and are better performers in their work	3.66	177	3.66	1.049
There is a prevailing climate conducive in the business for work and a culture compatible with the nature of the business's objective	3.72	172		1.046

In Table 5.19 an exploration of the managements controlling function is done. The researcher separated the results into the three categories under study for comparison purposes. The mean score for micro enterprises range from 3.33 to 3.62, then score for the small businesses range from 3.63 to 3.90 and those for medium enterprises range from 3.81 to 4.11. Incidentally the statement rated lowest by the micro enterprises is rated highest by the medium enterprises (i.e. after the standards have been set and communicated, it is the business managers responsibility to monitor performance to see

that the standards are being met). In general, from the table it can be inferred that the medium enterprises are better at controlling than either small or micro enterprises. Similarly, the small businesses are better than the micro enterprises.

Table 5.17: The Management Controlling Function

	N	Mean	N	Mean	N	Mean
The management sets performance and takes corrective action whenever actual performance deviates from expected performance	82	3.52	49	3.90	36	4.06
There are evaluation activities that managers must perform in the business	81	3.49	49	3.59	36	3.03
The managers have systems of determining if the business goals and objectives are being met	82	4.60	49	3.63	36	3.81
The managers correct situations in which the goals and objectives are not met	82	3.56	49	3.76	36	3.86
Managers must first set standards of performance for workers in the business	83	3.60	45	3.78	36	3.97
The standards set by the managers are the level of performance that should be met; that must then be communicated to managers who are supervising workers, and then to the workers	82	3.44	49	3.76	37	3.97
After the standards have been set and communicated, it is the business managers responsibility to monitor performance to see that the standards are being met	80	3.33	48	3.81	36	4.11
Once the problems are analyzed and compared to expectations, then managers do something to correct the results	82	3.48	48	3.79	37	4.24
The business managers take corrective action by working with the employees who are causing the problem	81	3.59	49	3.86	36	3.81
Top management expects to control everything, making all decisions, while middle and lower managers implement decisions, and production workers operate only as instructed	83	3.57	48	3.65	37	3.86
Top management does not decide the "right" way to do something, and lower level staff becomes involved in decision making processes	82	3.62	49	3.61	36	3.89
The business managers use "slopey should syndrome" style management, where people will take credit for when things go right	83	3.43	48	3.81	36	3.83

5.1.16 Human Resource Management Factors

The following observations are made from table 5.17. The lowest score within the micro was a statement ‘the current business manager can give verbal praise to workers’ at 2.95. the managers in the micro businesses were poorest at giving praise to their workers. The highest score within the micro enterprises was 3.60 referring to the statement ‘the current business managers make decisions continuously’. The managers in micro businesses many seem to be the main decision makers. Many micro businesses are managed by owner managers as opposed to the larger firms. The lowest mean score for small businesses is 3.33 referring to the statement ‘the current business managers make decisions continuously’ whereas the highest score in the same category is 3.89 referring to the statement ‘the current business manager acts as a leader and a liaison officer’. In the small businesses, it appears that decision-making is not for managers only as observed in the micro businesses. It is also observed from the highest score that the manager is more of a liaison officer and a leader.

In medium enterprises, the lowest mean score is 3.38 referring to the statement ‘the current business manager acts as a leader and a liaison officer’, whereas the highest is 4.17 which refers to the statement ‘the current business managers are both receivers and disseminators of information and the current business managers are aware that information is needed for decision-making purposes’. What was rated high in the small enterprises about the manager being a liaison officer was rated lowest among the medium enterprises. It appears the medium enterprises focus and approach is different emphasizing more on participatory management. This is derived from the highest score where the managers are sharing information for decision-making. The second score ,4.11

within the medium enterprises referred to the statement ‘the current business manager can understand different personality types and cultures’ and the third score on the same is 4.08 referring to the statement ‘the current business managers represent the organization and generally keeps it on course’. The difference in the interpersonal and human relationships differs between the categories.

Table 5.19: Human Resources Skills and Roles as per in Categories

Skills & roles	N	Mean	N	Mean	N	Mean
The current business manager can orally explain processes and give direction to workers	83	3.05	48	3.69	36	3.86
The current business manager can give verbal praise to workers	83	2.95	49	3.47	37	3.70
The current business manager can conduct meetings and give talks to groups of people	83	3.10	49	3.53	37	3.38
The current business managers can listen to their supervisors and to their workers	83	3.27	48	3.33	37	3.41
The current business managers can listen to their supervisors and to their workers	82	3.39	47	3.77	37	3.54
The current business managers can hear recommendations and complaints on a regular basis	80	3.45	48	3.40	36	3.75
The current business managers are willing to follow through on what is heard	83	3.46	46	3.50	36	3.97
The current business manager can write reports, letters, memos, and policy statements	80	3.33	47	3.47	36	3.72
The workers in the business come in about every temperament that can be imagined	83	3.31	48	3.71	35	3.77
The current business manager can understand different personality types and cultures	81	3.41	48	3.73	37	4.11
The current business managers are very busy persons, but they also understand time should be managed effectively	83	3.52	47	3.43	36	3.69
The current business managers can allocate time to different projects and activities	82	3.21	48	3.65	37	3.86
The current business managers understand that good time management skills can be learned	82	3.23	47	3.66	37	3.51
The manager keeps the organization running smoothly	82	3.32	46	3.63	37	3.59
The current business managers acts as a figure-head	83	3.46	47	3.57	36	3.67
the current business manager acts as a leader and a liaison officer	83	3.49	47	3.89	37	3.81
The current business managers represent the organization and generally keeps it on course	83	3.45	47	3.87	37	4.08
The current business managers are both receivers and disseminators of information and they are aware that information is needed for decision-making purposes	82	3.45	47	3.81	36	4.17
The current business managers collect information and then distribute to appropriate decision points	82	3.37	45	3.62	37	4.00

Table 5.19 continued

The current business managers are regarded as decision makers	81	3.32	49	3.43	37	3.78
The current business managers make decisions continuously	83	3.60	48	3.75	37	3.73
The current business managers acts as entrepreneurs	82	3.57	48	3.54	37	3.68
The current business managers acts as disturbance handlers	83	3.59	47	3.55	37	3.81
The current business managers acts as a resource a locators and a negotiators	78	3.53	48	3.75	37	3.92
The current business managers have improved the organization, contain and maintains good relations within the organization and also with other outside parties	80	3.46	48	3.63	36	4.06

5.1.17 Strategic Management Factors

An attempt was made to find out the extent at which the strategic factors had contributed to the performance of business. From table 5.19 the highest mean score for the micro businesses was 3.73. This referred to the statement ‘there is rational analysis of the opportunities and threats confronting the business through the use of more external information and analytical techniques’ this was followed by a score of 3.63 referring to ‘there are systems for sound management change’. The lowest score was for the statement ‘there is sound strategy evaluation in the business’ at 2.89.

In the small enterprises the highest score was 3.81 and it refers to the statement ‘there are systems for sound management change’ this is closely followed by 3.80 referring to ‘the business strategist always seek to understand the strategic position of the firm, which has to do with the formulation of possible courses of action’. The lowest score which was 2.94 referred to ‘there is sound strategy evaluation in the businesses.

The highest mean score within the medium enterprises was 4.03 referring to ‘there are systems ensuring consistency and focus in decision -making in the business venture’ .The second highest score was ‘the concept of systems thinking is highly emphasized in the

business ‘ with a score of 4.00. The lowest score within the medium enterprises was 3.24 .this refers to statement’ there is sound strategy evaluation in the business’. Within all the business categories, the lowest rated statement was based on evaluation of strategy.

Table 5.20: Strategic Management Factors

Strategic management factors	N	Mean	N	Mean	N	Mean
The top management/strategic management focuses on integrating management, marketing, finance/accounting, production/ operations, research and development, and information systems aspects of business to achieve organizational success.	83	3.18	48	3.58	37	3.46
There is sound strategy formulation in the business	83	3.34	47	3.55	37	3.65
There is sound strategy implementation in the business	81	3.17	47	3.47	37	3.59
There is sound strategy evaluation in the business	79	2.89	47	2.94	37	3.24
The business strategist always seek to understand the strategic position of the firm, which has to do with the formulation of possible courses of action	78	3.49	44	3.80	37	3.65
The business has direction and scope over the long -term which will enable it achieve advantage for the business through its configuration of resources within a changing environment	80	3.48	46	3.59	37	3.92
There are systems ensuring consistency and focus in decision -making in the business venture	80	3.51	48	3.75	36	4.03
There is rational analysis of the opportunities and threats confronting the business through the use of more external information and analytical techniques	78	3.73	49	3.71	37	3.92
There are systems for sound management change	81	3.63	48	3.81	36	3.81
There is conducive corporate culture for multidisciplinary teams of strategic advisors	82	3.52	48	3.73	37	3.84
The concept of systems thinking is highly emphasized in the business	82	3.48	48	3.69	37	4.00
The discipline of continually clarifying and deepening ones personal vision is highly focused on in the business	81	3.32	47	3.72	37	3.65
There are deeply held pictures by employees about how the world, work, families, and so on work in business	82	3.27	47	3.70	37	3.70
There is team learning in the business venture resulting in stretching the ability of the organization to grow and develop	79	3.30	48	3.48	37	3.73

On table 5.21 below, the researcher sought to find the cycle level of the business as well as the products within the enterprises according to size of business. Based on five-point scale, it appears all the businesses on average were between growth and maturity stage.

Table 5.21: Product/service lifecycle and the cycle level of business

category of business venture in terms of employees		N	Mean	Std. Deviation
micro:1-9	product/service lifecycle	80	3.30	1.163
	cycle level of business	80	3.25	1.037
small:10-49	product/service lifecycle	47	3.53	.929
	cycle level of business	48	3.90	1.016
medium:50-99	product/service lifecycle	37	3.51	1.146
	cycle level of business	37	3.73	1.097

Table 5.22: Finances/capitalisation Strategies

Enterprises	MICRO		SMALL		MEDIUM	
	N	Mean	N	Mean	N	Mean
Finances / Capitalisation Strategies						
Success and failure are often determined by poor cash flow management	78	3.21	48	3.38	34	3.38
Success and failure are often determined by lack of a simple accounting process	74	3.00	46	3.37	36	3.53
Management accounting and cash control skills are used as performance measures in the business	79	2.80	46	2.74	35	3.31
There are well established accounting procedures to manage cash	75	3.23	46	3.20	31	3.52
Cash management has helped the business to get a better handle on the source of financial problems	82	3.63	47	3.53	32	3.75
Lack of capital is a strong constraint to business growth	80	3.60	47	3.77	37	4.03
The business mainly rely on own savings and reinvested profits to finance the business	81	3.65	49	3.82	37	3.97
Formal financial institutions perceive the high risks and transaction costs as impediments to lending to the business	81	3.72	47	3.77	37	4.30
There is limited capacity of banks to lend to the business	79	3.78	49	4.12	37	4.03
There is difficulty of enforcing contracts due to an inadequate legal framework and inefficient court systems in Kenya	80	3.81	49	3.76	37	4.14
The banking laws and regulations do not currently differentiate the market segments served by micro-finance institutions	81	3.54	49	3.71	37	3.89
The business does not keep proper records	80	3.46	49	3.67	37	3.46
The business entrepreneurs do not pay themselves a salary, but instead, they make withdrawals as need arises	79	3.59	49	3.49	37	3.51
The withdrawals made by the business entrepreneurs exceed earned income, therefore eating into the working capital	80	3.30	49	3.59	37	3.32

The table 5.22 above refers to issues concerning capitalisation and financial factors within the organization. The medium enterprises reported very high mean scores in the following areas; ‘formal financial institutions perceive the high risks and transaction

costs an impediment to lending to the business' with 4.30 (out 5.00), there is difficulty of enforcing contracts due to an inadequate legal framework and inefficient court systems in Kenya' with 4.14 and a tie of 4.03 in the statements that 'there is limited capacity of banks to lend to the business and' lack of capital is a strong constraint to business growth'. The lowest mean score was 3.31 referring to 'management accounting and cash control skills are used as performance measures in the business

The small businesses reported a high score of 4.12 in the statement' there is limited capacity of banks to lend to the business' followed by 3.82 in the statement 'the business mainly rely on own savings and reinvested profits to finance the business'. The lowest mean score was 2.74 referring to 'management accounting and cash control skills are used as performance measures in the businesses

The micro enterprises reported a high of 3.81 (there is difficulty of enforcing contracts due to an inadequate legal framework and inefficient court systems in Kenya) followed by 3.78 referring to 'there is limited capacity of banks to lend to the businesses. The lowest score was 2.80 (management accounting and cash control skills are used as performance measures in the business). Noticeably all the categories reported that the least used measure of performance in the businesses was management accounting and cash control skills.

5.1.18 Marketing Management Factors

The respondents were asked to indicate the extent to which the Marketing Management Factors contributed to the performance of their businesses among the many MSMEs in Kenya. The responses are in the table 5.23 below.

Table 5.23: Marketing Management Factors

Enterprises	Micro	Small	Medium
	N Mean	N Mean	N Mean
Marketing management Strategies			
Marketing obtains information on what customers need and want by identifying value, providing it, communicating it and delivering it	80 3.41	47 3.36	37 3.62
The core concepts of marketing in the business are customers needs, wants and values; products, exchange, communications and relationships	78 3.12	48 3.46	37 3.22
Marketing in the business is strategically concerned with the direction and scope of the long term activities performed by the business to obtain a competitive advantage	80 3.31	48 3.42	36 3.44
The business applies its resources within a changing environment to satisfy customers needs while meeting stakeholder expectations	79 3.22	48 3.69	37 3.51
There are sufficient marketing skills in the business ranging from proper definition of marketing, preparation of a marketing plan (concept paper), setting the communication models and public relations activities	80 3.69	48 3.88	37 4.03
Overall marketing strategies intended to deliver value to the customers through marketing research	80 3.55	49 3.69	37 4.11
The business has marketing plan developed along with identifying promotional activities, sales support material and advertising	80 3.60	49 3.86	37 3.97
The business' reputation and prestige affect the consumer choice, the competitor activity and the price of substitutes	80 3.53	48 3.60	37 3.92
There is sufficient experience which forms an entrepreneurial perspective good judgment	80 3.39	48 3.71	37 3.78
Access to market and lack of market information is one of the most critical constraints to the growth of the business	80 3.55	49 3.82	37 3.84
The depressed state of economic activity in Kenya, market have been characterized by limited purchasing power of the average consumer	79 3.23	49 3.61	37 4.08
A wide range of consumer goods compete for the buyer's money and preference is often oriented to the cheapest product	80 3.60	47 3.79	36 3.83

Table 5.23 continued

The business competes in a market that views domestic products as vastly inferior to foreign-made products	78	3.47	48	3.65	37	3.76
The shifts from import controls to import liberalization has intensified competition leading to closure of many businesses in Kenya	80	3.43	46	3.78	37	3.62

From the table, the medium enterprises reported higher means in general. The highest two were that ‘overall marketing strategies intended to deliver value to the customers through marketing research’ at 4.11 and ‘the depressed state of economic activity in Kenya, market have been characterized by limited purchasing power of the average consumer’ at 4.08. The lowest score was 3.22referring to indicator that ‘the core concepts of marketing in the business are customers needs, wants and values; products, exchange, communications and relationships’.

Within the small businesses, the lowest score of the marketing indicators is 3.36 (marketing obtains information on what customers need and want by identifying value, providing it, communicating it and delivering it). The highest score in this category is 3.88 (there are sufficient marketing skills in the business raging from proper definition of marketing, preparation of a marketing plan (concept paper), setting the communication models and public relations activities) which is closely followed by 3.86 (the business has marketing plan developed along with identifying promotional activities, sales support material and advertising)

The micro enterprises have their highest indicators scoring 3.69 (there are sufficient marketing skills in the business raging from proper definition of marketing, preparation of a marketing plan (concept paper), setting the communication models and public

relations activities) followed by 3.60 (a wide range of consumer goods compete for the buyer's money and preference is often oriented to the cheapest product). It is observed that the lowest and the highest scoring marketing indicators are common within the business categories.

5.1.19 Entrepreneurial Management Strategies

Respondents were asked to indicate the extent the following entrepreneurial management factors contributed to the performance of their businesses among the many MSMEs in Kenya. Eight respondents said that business entrepreneurs are visionary and strategic with a mean score of 3.5 for micro, 47 (3.72) for small and (3.51) for medium.

Table 5.24: Entrepreneurial Management Strategies

Enterprises	Micro	Small		Medium		
Management Strategies	N	Mean	N	Mean	N	Mean
The business entrepreneurs are visionary and strategic	80	3.50	47	3.72	37	3.51
The business entrepreneurs have marshaled the required resources to implement the business concept	80	3.86	49	3.80	37	3.57
The business concept or venture has captured the full opportunity through the growth of the enterprise.	80	3.64	48	3.85	36	3.56
The business entrepreneur understands how and why new businesses are established.	80	3.56	49	3.86	36	3.78
The characteristics of the entrepreneur has influence the business success.	79	3.56	49	3.59	35	3.69
The business entrepreneurs prefer self- employment.	80	3.53	49	3.55	36	3.53
The business entrepreneurs have the desire for independence and an aversion to the hierarchical structures of many organizations	79	3.65	48	3.60	35	3.54
The business entrepreneurs have the ambition and innovative	80	3.69	48	3.48	36	3.75
The business entrepreneurs have a 'venturesome spirit' to planning, budgeting, and training employees	80	3.69	49	3.76	35	3.63
The business entrepreneurs have the capacity to identify new products and opportunities	79	3.66	48	3.65	35	3.86
The businesses entrepreneurs have evaluative know-how.	79	3.72	49	3.82	36	4.03
The business entrepreneurs are persuasive in communication.	79	3.65	48	3.75	36	3.81
The business entrepreneurs have formal education, and professional experience.	79	3.51	49	3.61	35	3.86

Table 5.24 continued

The business entrepreneurs have a positive influence from the family level	80	3.49	48	3.52	36	3.64
The business entrepreneurs have a formal education, professional experience in the sector, he/she operates in	78	3.53	48	3.88	35	3.37
The business entrepreneurs have a positive influence from the family level	80	3.63	49	3.67	36	3.69

Amongst the Micro enterprises, the lowest mean score as 3.50 referring to 'the business entrepreneurs having identified an opportunity in the form of a vision, validating and conceptualizing a business concept and strategy that help attain the vision'. Though lower than other scores it is quite high out of 5.00. The highest score is 3.86 (the business entrepreneurs have marshaled the required resources to implement the business concept), which is closely followed by 3.72 (the business entrepreneurs have a 'venturesome spirit' to planning, budgeting, and training employees).

The small enterprises lowest mean score (3.48) is lower than that of the micro enterprises. It refers to the indicator stating that 'the business entrepreneurs have the ambition or capacity to grow'. The highest scores are 3.88(the business entrepreneurs have a formal education, professional experience in the sector he/she operates in) and 3.86 (the business entrepreneur is a key factor to understanding how and why new businesses are established).

The overall lowest mean score (3.37) for entrepreneurial factors is within the medium enterprises referring to 'the business entrepreneurs have a formal education, professional experience in the sector he/she operates in'. This category also has the highest indicator 4.03 (the business entrepreneurs have a 'venturesome spirit' to planning, budgeting, and training employees).

From observation the entrepreneurial factor is a contributor to all categories and seems stronger within the micro enterprises.

5.1.20 Technological Strategies

The extent that the following Technological Factors contributed to the business performance among the many MSMEs in Kenya is shown in table 5.25 below.

Table 5.25: Technological Factors

Technological factors	MICRO		SMALL		MEDIUM	
	N	Mean	N	Mean	N	Mean
The business venture has set aside more money for technological expansion	80	3.50	48	3.52	36	3.44
The business "is more interested in solving business problems that help it maintain competitiveness and generate profit growth than with implementing technology for technology's sake"	80	3.40	49	3.39	36	3.56
The business is interested in solutions to their everyday business problems that will allow it to better succeed in its industry	80	3.31	48	3.21	36	3.47
The use of technology in the business venture is widespread	79	3.38	49	3.84	35	3.20
The business has fully integrated the technology that it has or it is trying to obtain with its business	79	3.20	48	3.42	36	3.67
The competitive advantages brought by the technologies to the business are extremely important	80	3.74	48	3.60	36	3.83
The current business venture recognizes the need for expanding its current operations technologically	80	3.25	49	3.49	35	3.83
The business does not believe adapting new technologies will further benefit its current business model	80	3.14	48	3.44	36	3.97
The business managers are reluctant to enter the technology scene because they are uncertain of the security and privacy concerns that are almost certain to occur	79	3.22	48	3.31	34	3.65
The business does have IT professionals, because technology industry seems to be so complicated	78	3.28	48	3.67	36	3.67
The budget for technology is quite expensive and also lack of proper infrastructure for the business	78	3.18	47	3.53	36	3.72
The business sometimes outsource its technological needs in order to focus more of its attention on doing what it does best rather than diverting it to another area.	78	2.97	49	3.49	35	3.49

From the table, the micro enterprises report that 2.97 is the least adopted indicator which states ‘the business sometimes outsource its technological needs in order to focus more of its attention on doing what it does best rather than diverting it to another area’. The highest indicator was 3.74, which state that ‘the competitive advantages brought by the technologies to the business are extremely important.

The small businesses reported the effects of technology on performance to be lowest at 3.21 in the indicator ‘the business is interested in solutions to their everyday business problems that will allow it to better succeed in its industry’ and highest where ‘the use of technology in the business venture is widespread’ at 3.84.

On the medium enterprises, the highest effect was 3.97 in indicator ‘the business does not believe adapting new technologies will further benefit its current business model’ and the lowest was 3.20 where ‘the use of technology in the business venture is widespread’.

The results show that the means range between 2.97 and 3.97. This shows that technology has been moderately embraced by all the three different sizes or categories of businesses. The large businesses reported to have the least spread of technology use and do not believe that technology would bring further benefit to the business model. This was contrary to the small businesses who have a wide spread of technology and had a high level of professionals. The micro businesses are quite positive that technology would be beneficial while reflecting lower compliance due to financial constraints.

5.1.21 Macroeconomic Environment Factors

Macroeconomic environment factors that contribute to the performance of business among the many MSMEs in Kenya. The mean scores for the macro environment factors ranged between 2.82 and 3.16 amongst the micro enterprises. 3.47 and 3.83 within the small businesses and 3.47 and 3.60 within the medium enterprises. Overall performance within the small businesses seems to be affected most, followed by large businesses. The effect is least on micro enterprises but still high enough for concern (ratings are out of 5.00). Table 5.27 below.

Table 5.26 Macroeconomic Environment Factors

Enterprises	MICRO		SMALL		MEDIUM	
	N	Mean	N	Mean	N	Mean
the effects of deregulation of markets on business	78	2.82	49	3.47	36	3.47
the increased macro economic instability characterized by high inflation rate	80	2.96	49	3.51	35	3.57
the current account deficits and policy uncertainty	80	3.16	49	3.80	35	3.60
the fewer options to ride over instabilities	80	3.16	47	3.83	35	3.37

5.1.22 Policies Stipulated in the Sessional Paper of 2005

The respondents were asked to indicate the extent their businesses had enjoyed the following measures or policies as stipulated in the Kenyan Sessional paper of 2005 which was geared towards encouraging the entire MSMEs business sector. The results are shown on table 5.27 below.

In general, the small businesses reported to have enjoyed the most. The average score was between 3.65 and 3.77. The medium enterprises followed with a mean score between

3.37 and 3.94 and lastly the micro enterprises with a mean score of 3.03 and 3.44. All the categories of businesses enjoyed the measures. (The highest possible score is 5.00)

Table 5.27: Policies Stipulated in the Sessional Paper of 2008

Enterprises	MICRO	SMALL	MEDIUM
Stipulated Policies	N Mean	N Mean	N Mean
The emphasis of the role of markets, making markets work by reducing the cost of doing business	78 3.44	47 3.77	35 3.37
The integration of the small, micro and medium business sector into the national economic grid	78 3.44	48 3.65	36 3.69
The improvement of the effectiveness of the existing institutions by strengthening the department of MSMEs and establishing the national council for small enterprises and legislating an MSMEs act	80 3.03	46 3.70	36 3.69
The partnership between key stakeholders including the citizenry. Small, micro and medium business entrepreneurs, community, private sector, civil society, NGOs and development partners	77 3.23	46 3.74	36 3.64
The incorporation of a plan of action for policy implementation and a mechanism for monitoring and evaluation of the policies and their impacts	74 3.24	45 3.71	36 3.94

5.1.23 Regulation and Policy Issues

The managers were required to show the extent the following regulation and policy issues contributed to the performance of their businesses among the many MSMEs in Kenya.

The responses were reported on a five point scale, the mean scores are shown below.

Table 5.28: Regulation and Policy Issues

Enterprises	MICRO		SMALL		MEDIUM	
	N	Mean	N	Mean	N	Mean
Stipulated Policies						
State actions relating to contract enforcement	74	3.24	46	3.65	36	3.92
State actions relating to property rights	74	3.24	47	3.64	35	3.80
State actions relating to intellectual property	75	3.16	45	3.62	35	3.97
State actions relating to corporate governance	75	3.09	45	3.47	35	3.91
State actions relating to taxation and financial reporting	75	2.89	43	3.44	35	3.54
State actions relating to employment and health and safety	74	2.99	44	3.48	34	3.53
State actions relating to trading standards and consumer rights	74	3.07	41	3.49	33	3.52
State actions relating to environmental protection	75	3.01	43	3.91	34	3.50
State actions relating to premises and planning rules	76	3.24	44	3.50	34	3.65
State actions relating to data protection	76	3.33	44	3.73	34	3.85
State actions relating to transport	74	3.07	45	3.80	32	3.78
State actions relating to inspection and enforcement practices	77	3.01	45	3.82	34	4.03
State actions relating to sanctions for non compliance	77	3.12	45	4.00	34	4.15

According to the table 5.28 above, the effect of regulation and policy issues of performance on micro enterprises ranged between 2.89 and 3.33. The lower score referred to indicator ‘state actions relating to taxation and financial reporting’ while the higher was ‘state actions relating to data protection’.

Among the small businesses, the range was between 3.44 and 4.00. This was in reference to indicators ‘state actions relating to taxation and financial reporting’ and ‘state actions relating to sanctions for non compliance’ respectively.

Within the medium enterprises the lowest average score was 3.50 referring to ‘state actions relating to environmental protection’ and the highest was 4.15 referring to ‘state actions relating to sanctions for non compliance’.

The lower score in micro and small business was these same and financially related. While the higher score in small and medium is similar and was about state actions relating to sanctions and non compliance.

5.1.2 Incentive Policies

The Kenyan government has been offering incentives to MSMEs. The researcher sought to find out the extent to which the Incentive Policies contributed to the performance of your business among the many MSMEs. Results are reported on table 5.29 below.

Table 5.29: Incentive Policies

Enterprises Incentive Policies	MICRO		SMALL		MEDIUM	
	N	Mean	N	Mean	N	Mean
The increased imports ands greater competition for their goods in the local market	77	3.12	44	3.80	34	4.00
Trade liberalization supportive to small business in Kenya	76	3.14	45	3.82	32	3.75
Incentives geared to promoting competitiveness in world markets	76	3.11	45	3.44	33	3.70
Providing some protection for "infant industries"	75	3.08	45	3.71	34	3.59
building up indigenous capabilities	77	3.26	45	3.62	34	4.12
Capabilities developed through education, training and technological effort	77	3.18	46	3.63	34	3.85

The table above shows that the highest average score within the micro and medium enterprises was the incentive policy relating to 'building up indigenous capabilities'. The increase of imports and trade liberalization also tended to affect performance in medium firms and small firms.

5.1.25 Institutional Policies

In Table 5.29 below the managers show the extent that the following Institutional Policies & Infrastructural Factors contributed to the performance of business among the many MSMEs in Kenya

Table 5.30: Institutional policies

Institutional policies indicators	MICRO		SMALL		MEDIUM	
	N	Mean	N	Mean	N	Mean
The cost of registering business	78	3.18	46	3.54	34	3.82
The need to use external accountants to satisfy regulatory requirements	77	3.29	46	3.76	33	3.67
The time spent dealing with disputes with regulatory agencies	78	3.19	45	3.64	34	3.53
The high costs in form of harassment for non compliance	78	3.38	44	3.80	34	3.91
The risk of being permanently being put out of business	77	3.01	44	3.77	33	3.61
Lack of policies that provide a central location where micro enterprises can share facilities	77	3.03	46	3.78	35	3.69
Lack of policies entailing orderly urban development that accommodate the needs of micro enterprises	78	3.04	44	3.39	34	3.41
Institutional foundation of property rights	75	3.13	45	3.44	34	3.47
Allowing legal recourse to be cost effective so that contracts can be enforced	75	3.25	46	3.63	32	3.41
Good protection arbitrary rules of governments	73	3.22	47	3.49	34	3.41
Instability of property rights, which undermines the effectiveness of contracts	74	3.11	46	3.52	34	3.68
Extortionist officials who levy taxes on informal enterprises	74	3.22	47	3.64	34	3.68
Provision of access roads	74	3.16	45	3.44	34	3.53
Provision of adequate power	72	3.10	47	3.77	34	3.56
Availability of reliable water supply that allows compliance with health and environmental requirement	73	3.10	44	3.43	33	3.70
Provision of sewage services	72	3.26	46	3.57	33	3.64
Provision of telecommunication infrastructure	69	3.32	44	3.80	34	4.09

Results from Table 5.31 above show that the institutional policies affected the medium firms most with the average score ratings between 3.55 and 4.09, followed by small businesses at 3.39 and 3.80 and least on micro businesses at 3.01 and 3.38. The provision

of telecommunication infrastructure was well rated by all. The cost of registering business was an issue in small businesses scoring 3.54 and micro rating 3.18 and medium at 3.82. Second, the cost of non-compliance was rated very highly by all the business categories as affecting their performance.

5.2 Conclusion

The results from the descriptive statistics clearly show that the practices in different categories of business differ. Each category has its own challenges and particular emphasis on some management practices. The result creates a window for further tests in chapter six.

CHAPTER SIX

TEST OF HYPOTHESES AND CONCEPTUAL MODEL RESULTS

6.1 Introduction

In this chapter, the researcher performed several tests to achieve the objectives of the study. These tests were guided by the relationships in the conceptual model which were the basis for the entire hypotheses. The tests include cross tabulations, simple (bivariate) logistic regressions, multiple logistic linear regressions, simple linear regressions, and multiple linear regressions, Pearson's correlations, ANOVA/MANOVA and discriminant analysis. Composite means (indices) were computed for various variables (factors/strategies), and used in the analysis. The respective indices were calculated from the respective indicators of a given element. Table 6.1 presents the descriptive statistics for the various indices.

Table 6.1 Performance Composite Means and the Factor Indices (means).

Strategies (factors)	Mean	Std. Deviation	N
Performance	3.9129	0.78641	175
CEO/Manager's	3.9875	.63875	114
Human Resource	3.5295	.63604	143
Information Technology	3.4188	.68645	154
Marketing Management Factors	3.6049	.58673	158
Strategic Management Factors	3.5794	.64331	143
Finances/Capitalisation	3.5551	.47884	127
Entrepreneurial Management Factors	3.6445	.60694	157

Table 6.1 continues

Macroeconomic Environment			
Factors	3.2882	.84134	170
Regulation and Policy	3.4142	.75639	143
Management Processes	3.7211	.58110	134
Management Factors	3.5659	.50826	33
External Environmental Factors	3.4534	.59870	97
General Organizational Profile	3.8277	.55910	139
Globalisation Factors	3.3214	.92919	175
Management Skills	3.9484	.67648	62
Institutional Policy	3.4025	.75168	134
The Whole Management	3.7211	.58110	134

The mean score for the CEO/Managers factor was the highest with 3.99 followed by the management skills with 3.95. This suggests that these two elements tend to influence the performance of MSMEs most. Pearson's correlation coefficient to measure the relationship between different management strategies and performance was utilised (Appendix 4 and 5). Table 6.2 reports the summary of the results obtained in relation to the hypotheses formulated in this study. The integer values in the H (Hypothesis) column represents the hypothesis number, in this case there were 18 null hypotheses tested.

Table 6.2: Summary of the Relationships between Performance and Management Strategies

H	Factors	Analysis and Findings	REMARKS
1	Performance and the CEO/ Manager's factor	The correlation between the performance indices and the CEO/Manager's Indices was highly positive and significant. This implies the more the CEO/Manager provides leadership to his/her team the higher the performance and vice versa.	There was a positive relationship between the way CEO/Manager provides leadership to his/her team and its performance
2	Performance and Human Resource strategies	The relationship between the performance indices and the human resource indices was positive though weak but significant. This indicates that the more the manager was concerned with the employees, their performance was better	Human resource strategies were moderately and positively associated with performance
3	Performance and Information Technology Strategies	There was a significant and weak positive relationship between the Performance Indices and the information technology indices. This means that the companies that invested in IT to a large extent tend to perform better.	Company performance was positively correlated to investment in information technology.
4	Performance and Marketing Management Strategies	There was a weak positive and statistically significant relationship between the Performance Indices and the marketing management factors indices. This indicates that businesses/companies which practiced marketing exhibited slightly better performance.	Performance depends on marketing management strategies

Table 6.2 Continues

5 Performance and Strategic Management	The relationship between the performance indices and the strategic management strategies of 0.30 was significant though a weak positive. It shows that businesses that engaged in strategic management practices scored slightly higher in performance, which means that MSMEs are better off engaging in strategic management practices.	Performance was positively related to the practice of strategic management
6. Performance and Finances/ Capitalisation Strategies	The large p-value indicates there was no relationship between the performance indices and the finances/capitalisation indices of 0.19.	Performance and Finances/Capitalisation strategies were not related
7 Performance Indices and Entrepreneurial Strategies	There exists a significantly weak positive relationship between the performance indices and the Entrepreneurial strategies Indices of 0.24. This implies that MSMEs with entrepreneurial skills performed slightly better.	MSMEs with entrepreneurial skills performed better
9 Performance and macroeconomic Environment Factors	There exists a significantly weak positive relationship between the performance indices and the macroeconomic factors indices.	Performance and environmental factors were associated
10 Performance and Regulation and Policy Issues	There was a significantly positive relationship between the performance indices and the macroeconomic factors indices.	Performance and the regulation and policy issues were positively related
11 Performance and Management Processes	There exists a significant weak positive relationship between the performance indices and the macroeconomic factors indices.	performance and management processes were positively associated

Table 6.2 continued

12	Performance and the External Environmental Factors	There exists a significant moderate positive relationship between the performance indices and the macroeconomic factors indices.	External environmental factors can slightly improve performance
13	Performance Indices and General Organizational Profile Index	There exists a significant moderate positive relationship between the performance indices and the Macroeconomic factors indices.	General organization profile had some little positive effect on performance.
14	Performance and Globalisation Factors	There exists a significant moderate positive association between the performance indices and the Macroeconomic factors indices.	Globalisation factors had slight positive effect on performance
15	Performance and Management Skills	There exists a significant moderate positive association between the performance indices and the macroeconomic factors indices.	Management skills have an effect on performance
16	Performance and Institutional Policy	There exists a significant weak positive relationship between the performance indices and the macroeconomic factors indices.	Institutional policies have slight positive effect on performance
17	Performance and Macroeconomic factors indices	There exists no relationship between the performance indices and the macroeconomic factors indices.	Macroeconomic factors do not affect performance.
18	Performance and Whole Management	There exists a significantly positive association between the performance index and the macroeconomic factors indices.	Whole management affects performance positively

6.2 Model Inferences and Checking

Several procedures were used to test for the contribution of independent variables to the dependent variables. This helped to obtain a solution to the research objectives by testing the associated hypotheses. For example, the chi-square tests of independence only indicated the degree of evidence for an association. The response variables were nominal with only two categories. These categories represented either “Yes” or “No” responses from the respondents (managers) who had been presented with several statements in which they were required to answer with a yes or no. The purpose in asking the questions was to estimate effects on performance using different parameters. The performance could be measured through efficiency, effectiveness and reliability in addition to the more common quantitative measures (Pearce and Robinson, 2007).

This study requested the managers to give their responses to each the following statements:

- Unable to meet its creditors in full
- Closed up a non-productive branch
- Reported a loss
- Unable to continue for more than 6 months

The responses to these statements were the dependent variables and management factors (strategies) as the independent variables. The analysis was done by coding dependent variables with value 1 for “Yes” and 2 for “No” responses. The respondents’ highest level of education (a2) and their category of business venture in terms of employees (a6) were explanatory variables with ordered categories.

6.2.1 Testing Association between Dependent and Independent Variables

In this section, the results from the chi-square tests of independence to establish whether an association existed between each response variables and the respondent's highest level of education were first presented. These were followed by the same tests of independence between each of the response variables and the category of business venture in terms of employees (a6) as the independent variable. In addition, the Odds Ratio (OR) was computed to help quantify the strength of the association.

The results in Table 6.3 show how many times ("Count") the different combinations of the categories of the two variables highest level of education and inability to meet creditors in full as (a2 and b10a) occurred for this sample. The observations are a mixture of small and moderately large counts. Table 6.3 lists of percentage of managers who had been unable to meet their creditors in full at each level of the highest level of education that they attained. The percentages do not indicate a trend in the sampled data.

Table 6.3: Highest Level of Education and Inability to Meet Creditors in Full

Highest Level of Education	Unable to meet creditors in full			Percentage Yes	Adjusted Residual
	Yes	No	Total		
O' level	11	13	24	45.8	2.0
A' level	7	9	16	43.8	1.4
Diploma	11	36	47	23.4	-1.0
University graduate	12	46	58	20.7	-1.8
Post graduate	4	6	10	40.0	0.8

Table 6.3 also reports the adjusted residuals for the “Yes” category in this table. Though most of these adjusted residuals are small, they change substantially with slight changes in the data. From these residuals, it is observed that a large positive residual for managers with O’Level as their highest level of education whose business had been unable to meet its creditors in full. Thus, suggesting there were more O’level business managers whose business had never met its creditors in full than the hypothesis of independence predicts.

There were two cells whose expected frequencies were less than 5, and so the researcher employed the Fisher's Exact Test in testing the null hypothesis of whether the business inability to meet its creditors in full was independent of the respondent's highest level of education at significance level of 0.05. The test yielded a value of 8.259 with p-value 0.076, suggesting that there was no association between the business inability to meet its creditors in full and the respondent's highest level of education.

The result in Table 6.4 represents a logistic regression model of the business managers' inability to meet its creditors in full on their highest level of education.

Table 6.4 Logistic Parameter Estimates Relating Inability to Meet Creditors to Highest Level of Education

	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
							Lower	Upper
A' level	-.238	.765	.097	1	.755	.788	.176	3.526
Diploma	-.154	.819	.035	1	.851	.857	.172	4.267
University graduate	.780	.732	1.137	1	.286	2.182	.520	9.154
Post graduate	.938	.722	1.687	1	.194	2.556	.620	10.527
Constant	.405	.645	.395	1	.530	1.500		

It is observed in Table 6.4 estimates of highest level of education indicates that, in this sample, business managers with an O' level, were less likely than University graduates and post graduate to have met creditors in full. At the same time it is noticed that the O'level business managers were (about 17%) more likely to meet their creditors in full than those businesses managed by A 'level and Diploma holders. This further suggests that the inability of business managers to meet creditors in full was independent of their highest level of education.

Table 6.5 records the observations on whether or not the respondents had ever closed up a non-productive branch. It contains a mixture of small and moderately large counts. The list of percentage of managers who had ever closed a non-productive branch at each level of the highest level of education they attained does not indicate a clear trend in the sampled data in Table 6.5.

Table 6.5: Highest Level of Education and Closing up Non-productive Branch

Highest Level of Education	Closed up a non-productive branch			Percentage Yes	Adjusted Residual
	Yes	No	Total		
O' level	5	19	24	20.8	-1.0
A' level	6	11	17	35.3	0.5
Diploma	21	29	50	42.0	2.3
University graduate	14	46	60	23.3	-1.4
Post graduate	2	8	10	20.0	-0.7

Table 6.5 also reports the adjusted residuals for 'Yes' category in this table. They include positive and negative values at different levels of the highest level of education attained

by the respondents; however, there seem to be substantial change in the residual with a slight change in the data. It is observed that a large positive residual for respondents with diploma as their highest level of education had to close up a non-productive branch. Thus, suggesting there were more diploma holder managers who had to close up a non-productive branch than the hypothesis of independence predicts.

The researcher performed a chi-square test to find out whether the condition of closing up a non-productive branch was independent of the highest level of education. Since there was a cell with the expected frequency less than 5, The Fisher's Exact Test was selected. It yielded a value of 6.070 with p-value as 0.190, showing that condition of the organization closing up a non-productive branch was not associated with the respondent's level of education.

Table 6.6 refers to observations of whether the managers had ever reported a loss or not. This table has a mixture of very small and moderate counts. Table 6.6 lists the percentage of managers who reported a loss at each of their highest level of education. These percentages do not show a clear trend.

Table 6.6: Highest Level of Education and Reported Loss

Highest Level of Education	Reported a loss			Percentage Yes	Adjusted Residual
	Yes	No	Total		
O' level	10	14	24	41.7	0.3
A' level	4	13	17	23.5	-1.4
Diploma	22	28	50	44.0	0.8
University graduate	22	38	60	36.7	-0.5
Post graduate	5	5	10	50.0	0.7

Table 6.6 also reports adjusted residuals for the “Yes” category in this table. They are a mixture of negative and positive at different levels of the highest level of education attained by the respondents. Though the adjusted residuals are small, they change substantially with slight changes in the data. The sample percentages and the adjusted residuals both suggest a possible tendency of reported loss to be less likely associated with the highest level of education of the respondents.

The Fisher's Exact Test on whether reporting a loss was independent of the highest level of education yielded a value of 2.986 with p-value as 0.564. This indicates a little evidence of a nonzero correlation between respondent reporting a loss and their highest level of education attained.

Table 6.7 refers to observations of whether the managers had been unable continue for more than six months or not. Very small counts in the “Yes” category were observed as compared to the “No” category. This suggests that most of the managers in this sample had never failed to continue with the business in less than six months. The percentage in Table 6.7 are relatively small, indicating that very few managers irrespective of their highest level of education were never unable to continue with the business for more than six months. Table 6.7 also reports adjusted residuals, which were relatively small, but do not show a clear trend across the various categories of the highest level of education.

Table 6.7: Highest Level of Education and Inability to Continue for More Than 6 Months

Highest Level of Education	Unable to Continue for More Than 6 Months			Percentage Yes	Adjusted Residual
	Yes	No	Total		
O' level	3	21	24	12.5	1.0
A' level	1	16	17	5.9	-0.3
Diploma	4	46	50	8.0	0.2
University graduate	3	57	60	5.0	-0.9
Post graduate	1	9	10	10.0	0.3

Some cells had expected frequencies less than 5, the Fisher's Exact Test is chosen to assess the evidence of a nonzero correlation between the respondents (managers) highest level of education and their inability to continue with the business for more than 6 months. This yielded a value of 2.172 with p-value as 0.699, indicating there was lack of evidence to show an association between the respondents' highest level of education and the inability to continue with the business for more than 6 months.

The following results on chi-square tests of independence between each of the response variables and the category of business venture in terms of number of employees (a6) as the independent (explanatory) variable. This explanatory variable had four ordered categories to represent the business size managed by the respondent in terms of the number of employees.

The results in Table 6.8 shows the observed cell counts, percentage in the “Yes” category for each business category, and their corresponding adjusted residuals. They both indicate

a decreasing trend in the inability of business managers to meet their creditors in full as one move from small size businesses to medium size ones.

Table 6.8: Business Category and Inability to Meet Creditors in Full

Business Category	Unable to meet creditors in full			Percentage Yes	Adjusted Residual
	Yes	No	Total		
Micro (1-9 Employees)	36	44	80	45.0	4.3
Small (10-49 Employees)	9	38	47	19.1	-1.8
Medium (50-99 Employees)	2	33	35	5.7	-3.4
Large (Above 100 Employees)	3	7	10	30.0	0.1

The researcher conducted a chi-square test to confirm whether there is a trend between the size of business (micro, small or medium) and the inability to meet the creditors in full. The Fisher's exact test and the Cochran-Armitage trend test both yielded a significant result (p-value as 0.0001), showing that there was strong evidence for a nonzero correlation between the manager's highest level of education and the inability of their business to meet the creditors in full.

Table 6.9 reports the observed cell counts, percentages of the response in the "Yes" category for each business category, and their corresponding adjusted residuals. From these values, it is observed that an increasing trend to close up a nonproductive branch as one moves from small size business to medium size businesses. The large adjusted residual in small size business (micro), indicating there were more such businesses that closed up non-productive branches than the null hypothesis of independence predicts.

Table 6.9: Business Category and Closing up Non-productive Branch

Business Category	Closed-up Nonproductive Branch			Percentage Yes	Adjusted Residual
	Yes	No	Total		
Micro (1-9 Employees)	16	68	84	19.0	-2.6
Small (10-49 Employees)	19	30	49	38.8	1.9
Medium (50-99 Employees)	15	21	36	41.7	2.0
Large (Above 100 Employees)	1	9	10	10	-1.3

The Fisher's Exact Test is used to check whether there exists a relationship between closing up a non-productive branch and the size of business (micro, small or medium). This yielded a value of 10.706 with p-value as 0.011, indicating there was strong evidence to show an association between the closing up a non-productive branch and the category of business venture.

The results in Table 6.10 do not indicate any clear trend in the data. The adjusted residuals were reasonably small.

Table 6.10: Business Category and Reporting a Loss

Business Category	Report a Loss			Percentage Yes	Adjusted Residual
	Yes	No	Total		
Micro (1-9 Employees)	38	45	83	45.8	1.9
Small (10-49 Employees)	14	35	49	28.6	-1.6
Medium (50-99 Employees)	12	24	36	33.3	-0.7
Large (Above 100 Employees)	4	6	10	40.0	0.1

The Fisher's Exact Test performed on the data in Table 6.10 checked whether reporting a loss related with the size of business (micro, small or medium). This yielded a value of 4.311 with p-value as 0.232, suggesting little evidence to show an association between the between reporting a loss and the category of business venture.

Table 6.11 records the observed cell counts, percentages of the response in the “Yes” category for each business category, and the corresponding adjusted residuals. From the values observed, it is noted there was no pattern to describe an association between the business categories and the inability to continue for more than six months.

Table 6.11: Business Category and Inability to Continue for More Than 6 Months

Business Category	Unable to continue for more than 6 months			Percentage	Adjusted
	Yes	No	Total	Yes	Residual
Micro (1-9 Employees)	9	75	84	10.7	1.4
Small (10-49 Employees)	2	47	49	4.1	-1.1
Medium (50-99 Employees)	3	33	36	8.3	0.1
Large (Above 100 Employees)	0	10	10	0	-0.9

The Fisher's Exact Test performed on the data in Table 6.11 checked whether being unable to continue with business for more than six month related with the size of business (micro, small or medium). This test yielded a value of 2.025 with p-value as 0.557, suggesting little or no relationship between being unable to continue with business for more than 6 month and the business category. A nonparametric test is conducted to measure if correlation for ordinal variables that are considered ties. The Kendall's tau

was 0.306 with a p-value of 0.0001. This indicated a weak positive relationship between the category of business venture in terms of number of employees and the likelihood of engaging in the management.

6.2.2 Multiple Logistic Regressions

In this subsection, the researcher considered multiple logistic regression model to analyze each of the four binary responses with a set of explanatory (predictor) variables in order to obtain a solution to research objective 3. For the binary response Y (whether or not the business was unable to meet creditors in full), the logit of the probability π that the business was unable to meet its creditors in full ($Y=1$) is modelled. The following complex model is considered:

$$\text{Logit}(\pi)=\alpha+\beta_1(b15.3)+\beta_2(b14)+\beta_3(c8)+\beta_4(c17)+\beta_5(c19)+\beta_6(c20)+\beta_7(c21)+\beta_8(c22)+\beta_9(c23)+\beta_{10}(c24)+\beta_{11}(c25b)+\beta_{12}(c26)+\beta_{13}(c27)+\beta_{14}(c28)+\beta_{15}(c29)+\beta_{16}(c30)+\beta_{17}(c32)+\beta_{18}(c33)+\beta_{19}(c34) \quad 6.1$$

where the explanatory variables (in the parenthesis) in the model 6.1 represents composite means of strategies (factors) b14 (CEOs strategies), b15.3 (Interpersonal skills), c8 (globalisation factors), c17 (organizational processes), c19 (Management functions), c20 (organizing functions), c21 (planning functions), c22 (HR&Directin function), c23 (Controlling function), c24 (Human resource strategies), c25b (Strategic management strategies), c26 (Finances/capitalisation strategies), c27 (marketing management strategies), c28 (Entrepreneurial strategies), c29 (Technological Factors), c29 (Technological), c30 (Microenvironment factors), c32 (Regulation and policy issues) c33 (incentives policies) and c34 (Institutional issues), respectively.

The final is selected using backward elimination, starting with the complex model 6.1 and successively taking out terms. At each stage, the researcher eliminated the term in model 6.1 that had the largest p-value when testing its parameters to be zero. Only the highest-order terms for each variable is tested. Table 6.12 reports the parameter estimates standard error (S.E), odds ratio (OR), and the 95% confidence interval (C.I) for odds ratio.

Table 6.12 Parameter Estimates Logistic Regression Model for inability to meet creditors

Parameter	Estimate	S.E	Wald	df	Sig.	95% C.I for OR	
						OR	
Intercept	-6.494	1.769	13.473	1	0.000	0.002	
C19mean	0.586	0.297	3.901	1	0.048	1.797	1.004 3.215
C26mean	0.959	0.481	3.983	1	0.046	2.610	1.017 6.694
C33mean	0.455	0.272	2.784	1	0.095	1.575	0.924 2.687

The prediction model was

$$\text{Logit}(\hat{\pi}) = -6.494 + 0.586(c19) + 0.959(c26) + 0.455(c33) \quad \textbf{6.2}$$

where the explanatory variables (in the parenthesis) are as defined in the model 6.1.

Model 6.2 had the Nagelkerke R² value as 0.192, which was comparatively lower than the benchmark value of about 0.6, indicating that the independent (factor/predictor) variables describe 19.2% of whether or not the business organization was able to meet its creditors in full.

The “Hosmer and Lemeshow” test is a “goodness-of-fit” assess how well the estimates of the logistic regression model 6.2 fitted the data. If the value of this chi-square statistic has

p-value of above 0.05, then the model is plausible. In this case, the Chi-square statistic was 4.337 with p-value of 0.825, indicating a decent fit.

As a final step, diagnostic measures to check further the fit of this model was performed. The standardized residuals comparing observed and fitted counts were used for this purpose. None of which had an absolute value greater than 2 supporting the evidence that model 6.2 fits the data well.

From model 6.2, we found that, for example, variable c19 (Management functions) whose coefficient was 0.586 had OR value of 2.990. This shows that, if the management functions (C20 mean) increases by a unit, then the odds of the MSME to be unable to meet its creditors in full increases by 199%. The Classification Table 6.13 shows us that this rule allows us to correctly classify 16 out of 49 (32.7%) of the managers where the predicted event (unable to meet creditors in full) was observed.

Table 6.13b Classification for Inability to Meet its Creditors in Full

Observed	Predicted		Percentage Correct	
	unable to meet its creditors in full			
	yes	no		
unable to meet its creditors in full	yes	16	32.7	
	no	9	92.1	
Overall Percentage			74.2	

We also see that this rule allows us to correctly classify 105 out of 114 (92.1%) of the subjects where the predicted event was not observed. Overall, model 6.2 prediction success rate was 74.2%. This indicates that model 6.2 adequately fits the data.

The researcher replaced the dependent variable with “closed up a non-productive branch” to analyze the data using model 6.1. This action would reflect two issues. One is that at some point the organization failed in some market or with a certain product. Second is that the action would show the managers awareness on taking strategic actions where necessary.

Table 6.13 Parameter Estimates Logistic Regression Model for closure of non-productive branch

Parameter	Estimate	S.E.	Wald	df	Sig.	Odds Ratio	95% C.I. for Odds
						Ratio	
Intercept	2.611	1.580	2.729	1	0.099	13.612	
B15.3mean	-0.510	0.298	2.929	1	0.087	0.600	0.334 1.077
C20mean	1.301	0.411	9.995	1	0.002	3.671	1.639 8.222
C21mean	1.189	0.616	3.727	1	0.054	3.285	0.982 10.988
C25bmean	-0.944	0.564	2.807	1	0.094	0.389	0.129 1.174
C30mean	-0.653	0.282	5.367	1	0.021	0.521	0.300 0.904
C32mean	-0.997	0.402	6.143	1	0.013	0.369	0.168 0.812

Table 6.13 represents the parameter estimates of the resulting logistic regression model:

$$\text{Logit}(\hat{\pi}) = 2.611 - 0.510(b15.3) + 1.301(c20) + 1.189(c21) - 0.944(c25b) - 0.653(c30)$$

$$- 0.997(c32) \quad \mathbf{6.3}$$

where the explanatory variables (in the parenthesis) in the model 6.3 represents composite means of strategies (factors) b15.3 (Interpersonal skills), c20 (Organizing functions), c21 (Planning functions), c25b (Strategic management strategies), c30 (Microenvironment factors), and c32 (Regulation and policy issues), respectively.

The Nagelkerke R² was 0.25. This shows that 25% of the whether or not the MSME closed up a non-productive branch was explained by the independent (or predictor) variables in this model. The “Hosmer and Lemeshow” test yielded a chi-square value of 11.624 with p-value of 0.169, suggesting the logistic model 6.3 fits the data reasonably well. From Table 6.13, several deductions are made. For example, for variable C20 (organizing function) where the value of Exp (B) = 3.671, it would mean that, if C20 mean increases by three, then the odds of the MSME to close up a branch increases by 67%. The observation of the Wald value shows that the C22 (directing), b14 (CEO) and C33 (Incentive policies) have a significant effect on the outcome of whether a branch is closed up.

Table 6.14: Classification for Closing up a Non-Productive Branch

Observed		Predicted		Percentage
		closed up a non-productive branch	no	
Closed up a non-productive branch	Yes	15	30	33.3
	No	11	101	90.2
Overall Percentage				73.9

The results show that the model correctly predicted 15 ‘yes’ cases out of 45 (33.3%) and 101 ‘no’ cases out of 122 (90.2%). Overall model 6.3 predictions were correct 116 out of 167 times, for an overall success rate of 73.9%.

In model 6.1 the dependent variable was replaced with “whether the MSMES reported a loss” to help analyze the data. Table 6.14 reports the parameter estimates of the resulting model.

Table 6.14 Parameter Estimates Logistic Regression Model for reporting a loss

Parameter	Estimate	S.E.	Wald	df	Sig.	Odds Ratio	95% C.I. for Odds	
						Ratio		
Intercept	-1.659	1.227	1.828	1	0.176	0.190		
C20mean	-0.914	0.299	9.354	1	0.002	0.401	0.223	0.720
C25b_mean	1.170	0.360	10.574	1	0.001	3.223	1.592	6.525
C32mean	0.493	0.282	3.062	1	0.080	1.637	0.943	2.844

The Nagelkerke R² was 0.166, but low compared to the benchmark of 0.6. This is approximated to the R² of ordinary least squares regression. It means 16.6% of the outcome (whether the MSMES reported a loss) is explained by the independent variables.

The “Hosmer and Lemeshow” test of ‘goodness of fit’ estimated how the logistic regression model fitted the data. It was found a chi-square value of 12.787 with p-value of 0.119, indicating that model 6.4 adequately fits the data.

$$\text{Logit}(\hat{\pi}) = -1.659 - 0.914(c20) + 1.170(c25b) - 0.4493(c32) \quad \text{6.4}$$

where the explanatory variables (in the parenthesis) in the model 6.3 represents composite means of strategies (factors) c20 (Organizing functions), c25b (Strategic management strategies), and c32 (Regulation and policy issues), respectively.

The most effective Exp (B) = 1.637 where an increase in one of c32 (regulation and policy), increases the odds of MSMEs to report a loss by 63.7%. The other notable values

for $\text{Exp}(B) = 3.222$ for C25b (strategic management factors) it mean increases by 3 then the odds of the MSME to ‘report a loss’ increases by 22.2%, c32 (Regulation and policy issues).

Table 6.15: Classification of Loss Reported

		Predicted		Percentage
		reported a loss		
		yes	no	
reported a loss	yes	27	32	45.8
	no	12	86	87.8
Overall Percentage				72.0

The classification table shows that the model correctly predicted 27 “yes” cases out of 59 (45.8%) and 86 ‘no’ cases out of 98(87.8%). Overall, the model thus predicted $(27+86) = 113$ cases correctly out of 155 (72%). This is a relatively high prediction.

Next the response variable in model 6.1 was replaced with “whether an MSME was unable to continue for more 6 months” to fit the data. The parameter values of the resulting model were reported in Table 6.16.

The fitted model was

$$\text{Logit}(\hat{\pi}) = 2.106 - 1.136(c8) - 1.253(c17) + 1.274(c19) - 1.498(c26) + 1.763(c27) + 0.918(c34)$$

6.5

where the independent variables were c8 (globalisation factors), c17 (organizational processes), c19 (Management functions), c26 (Finances/capitalisation strategies), c27 (marketing management strategies), and c34 (institutional policies), respectively.

Table 6.16 Parameter Estimates Logistic Regression Model inability to continue for over 6 months

Parameter	Estimate	S.E.	Wald	df	Sig.	Odds Ratio	95% C.I. for Odds	
							Ratio	
Intercept	2.106	2.948	0.510	1	0.475	8.211		
C8mean	-1.136	0.541	4.412	1	0.036	0.321	0.111	0.927
C17mean	-1.253	0.664	3.564	1	0.059	0.286	0.078	1.049
C19mean	1.274	0.633	4.056	1	0.044	3.576	1.035	12.361
C26mean	-1.498	0.841	3.172	1	0.075	0.224	0.043	1.162
C27mean	1.763	0.757	5.421	1	0.020	5.831	1.322	25.724
C34mean	0.918	0.623	2.173	1	0.140	2.504	0.739	8.486

The Nagelkerke R² was 0.225 which is quite low compared to the benchmark of 0.6. This means 22.5% of the outcome (whether an MSME was unable to continue for more 6 months) is explained by the independent variables. The Chi-square goodness of fit statistic was 78.40 with p-value of 0.449 indicating model fits well.

6.3 Multiple logistic regression models with biographic variables included

The researcher further used the multiple logistic regression analysis to test the contribution of the following independent variables b14 (CEOs strategies), b15.3 (Interpersonal skills), c8 (Globalisation factors), c17 (Organizational processes), c19 (Management functions), c20 (Organizing functions), c20 (Organizing functions), c21 (Planning functions), c22 (HR&Directing function), c23 (Controlling function), c24 (human resource strategies), c25b (Strategic management strategies), c26 (Finances/capitalisation strategies), c27 (Marketing management strategies), c28 (Entrepreneurial strategies), c29 (Technological Factors), c29 (Technological factors) together with the biographical variables A1 (gender), A2 (Highest level of education), A4 (number of years in operation), A6 (Business category), A7 (Level of management) to each of the four dependent variables tested in section 6.2.2

The results in Table 6.17 show how different management strategies and biographical factors contribute to the inability of the business to meet its creditors in full.

The Nagelkerke R² was 0.543, which means 54.3% of the outcome (MSME would be unable to meet its creditors in full) was explained by the independent variables. The test of ‘goodness-of-fit’ yielded the chi-square value of 4.607 with a p-value of 0.799 indicating that model 6.6 reasonably fits the data well.

Table 6.17: Inability to Meet Creditors in Full versus Management and Biographical Factors

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)
b14	-.158	.572	.077	1	.782	.853
b15.3	-.073	.404	.033	1	.857	.930
c24	.473	.806	.344	1	.558	1.604
c25b	1.198	.794	2.275	1	.131	3.313
c26	2.193	.903	5.898	1	.015	8.964
c27	-.943	.838	1.265	1	.261	.390
c28	-1.124	.981	1.312	1	.252	.325
c29	.258	.605	.181	1	.671	1.294
c30	-.302	.394	.587	1	.444	.739
c32	-.271	.606	.199	1	.655	.763
c33	-.286	.570	.252	1	.616	.751
c34	1.256	.635	3.910	1	.048	3.512
a1(1)	.712	.682	1.090	1	.296	2.038
a2		5.072	4		.280	.588
a2(1)	-.531	1.292	.169	1	.681	.088
a2(2)	-2.426	1.655	2.149	1	.143	1.379
a2(3)	.321	1.233	.068	1	.795	1.375
a2(4)	.318	1.183	.072	1	.788	
a4		2.941	3		.401	.401
a4(1)	-.914	1.652	.306	1	.580	.242
a4(2)	-1.418	1.575	.811	1	.368	1.943
a4(3)	.664	1.815	.134	1	.714	
a6		4.697	3		.195	1.447
a6(1)	.369	1.473	.063	1	.802	6.031
a6(2)	1.797	1.490	1.453	1	.228	6.063

Table 6.17 continued

a6(3)	1.802	1.605	1.262	1	.261	
a7			2.548	2	.280	2.237
a7(1)	.805	1.268	.403	1	.525	5.308
a7(2)	1.669	1.271	1.725	1	.189	.000
Constant	-7.976	3.292	5.869	1	.015	

The fitted model was:

$$\begin{aligned}
 \text{Logit}(\hat{\pi}) = & -7.976 - 0.158(\text{b14 mean}) - 0.158(\text{b14}) - 0.073(\text{b15.3}) + 0.473(\text{c24}) + 1.198(\text{c25b}) \\
 & + 2.193 (\text{c26}) - 0.943 (\text{c27}) - 1.124 (\text{c28}) + 0.258 (\text{c29}) - 0.302 (\text{c30}) - .271 (\text{c32}) - .286 \\
 & (\text{c33}) + 1.256 (\text{c34}) + 0.712 [\text{a1 (1)}] - .531 [\text{a2(1)}] - 2.426 [\text{a2(2)}] + 0+.321 [\text{a2(3)}] + 0.318 \\
 & [\text{a2(4)}] - .914 [\text{a4(1)}] - 1.418[\text{ a4(2)}] + 0.664 [\text{a4(3)}] + 0.369 [\text{a6(1)}] + 1.797 [\text{a6(2)}] + \\
 & 1.802 [\text{a6(3)}] + 0.805 [\text{a7(1)}] + 1.669 [\text{a7(2)}]
 \end{aligned}$$

6.6

The Wald statistic below or equal to 0.05 refers to parameter B15.3 (interpersonal skills) only. This was the parameter that had a significant effect on the outcome of the dependent variable (unable to meet creditors in full). The interpretation for categorical variables are different from that for continuous variables. For example, for the categorical variable a2 (1), there is $\text{Exp} (B) = 0.588$. This means that the odds of a respondent with an O'Level of education (category 1 of a2, "highest level of education") to indicate [unable to meet its creditors in full is 'No'] is 0.588 times the odds of a respondent with a post graduate degree (reference category 5 of a2, "highest level of education") to indicate [unable to meet its creditors in full being ' No']. In this case, category 3 of a2 (diploma level) had an $\text{Exp} (B) = 1.379$ times and category 4 (university graduate level)) had $\text{Exp} (B) = 1.375$ times the odds of a respondent with postgraduate levels of education to indicate [unable to meet its creditors in full is No]. The results of the test showed that 25

'Yes' cases out 37 (67.6%) were correctly predicted. 76 'No" cases out of 84 (90.5) cases were correctly predicted. The total of correctly predicted cases was 101 out of 121(83.5%).

The results in Table 6.18 show how different management strategies and biographical factors determine whether or not the MSME closed up a non-productive branch. The R^2 for using model 6.7 was 0.378. This implies that 37.8% of the outcome (whether the MSME closed up a non-productive branch) was explained by the independent variables (Management factors and categorical variables). The chi-square statistic was 5.051 with p-value of 00752, suggesting that model 6.7 provides an adequate fit for this data set.

Table 6.18 Closed up a non-productive branch, Management Strategies and Biographical Variables

Equation	Variables in the		Wald	df	Sig.	Exp(B)
	B	S.E.				
b14	.904	.636	2.019	1	.155	2.468
b15.3_	-.165	.422	.153	1	.696	.848
c24	-.740	.693	1.141	1	.285	.477
c25b	-.704	.729	.933	1	.334	.495
c26	.580	.811	.511	1	.475	1.786
c27	-.115	.748	.023	1	.878	.892
c28	.052	.828	.004	1	.950	1.053
c29	.157	.550	.081	1	.775	1.170
c30	-.585	.435	1.805	1	.179	.557
c32	-.986	.588	2.815	1	.093	.373
c33	.199	.518	.148	1	.700	1.221
c34	.236	.615	.147	1	.702	1.266
a1(1)	-.158	.599	.070	1	.791	.853

Table 6.18 continues

A2			4.368	4	.359	
a2(1)	-1.079	1.548	.486	1	.486	.340
a2(2)	-.184	1.674	.012	1	.913	.832
a2(3)	-1.132	1.466	.596	1	.440	.322
a2(4)	.211	1.433	.022	1	.883	1.235
a4			2.050	3	.562	
a4(1)	-.540	1.498	.130	1	.718	.583
a4(2)	-1.333	1.383	.928	1	.335	.264
a4(3)	-1.150	1.449	.630	1	.427	.317
a6			6.469	3	.091	
a6(1)	-.289	1.538	.035	1	.851	.749
a6(2)	-1.824	1.427	1.633	1	.201	.161
a6(3)	-1.785	1.454	1.506	1	.220	.168
a7			1.544	2	.462	
a7(1)	1.111	.985	1.272	1	.259	3.037
a7(2)	.570	.953	.358	1	.549	1.769
Constant	6.521	3.207	4.135	1	.042	679.502

The estimated logistic regression was

$$\text{Logit}(\hat{\pi}) = 6.521 + 0.904(b14) - 0.165(b15.3) - .740(c24) - .704 + (c25b) + .580(c26) - 0.115(c27) + 0.052(c28).211 + (c28) + .157(c29) - .585(c30) - .986(c32) + 0.199(c33) + 0.236(c34) - 0.158[a1(1)] - 1.079[a2(1)] - .184[a2(2)] - 1.132[a2(3)] + 0.211[a2(4)] - .540[a4(1)] - 1.333[a4(2)] - 1.150[a4(3)] - .289[a6(1)] - 1.824[a6(2)] - 1.785[a6(3)] + 1.111[a7(1)] + 0.570[a7(2)]$$

6.7

where C27 (marketing strategies), c28 (Entrepreneurial strategies), a2 (2) the A level managers and a6 (1) the micro enterprises had a significant effect on the outcome of the dependent variable (the MSME closed up a production line/branch).

Twenty-two 'Yes' cases out 39(58.4%) were correctly predicted and 81 'no" cases out of 86(94.2%). This represents 103 out of 125 (82.4%).

The results in Table 6.19 reports how different management strategies and biographical factors determine whether or not the MSME reported a loss. The fitted logistic regression model was

$$\text{Logit}(\hat{\pi}) = -4.752 - 1.140(b14) + 114(b15.3) + 1.287(c24) + 1.968(c25b) - 0.508(c26) + 0.049(c27) + 0.073(c28) - 0.650(c29) - 0.045(c30) + 0.356(c32) + 0.568(c33) - 1.339(c34) - 0.056[a1(1)] + 1.511[a2(1)] + 1.990[a2(2)] + 0.740[a2(3)] + 0.854[a2(4)] - 0.245[a4(1)] + 1.383[a4(2)] + 1.330[a4(3)] + 0.569[a6(1)] + 1.849[a6(2)] + 0.407[a6(3)] + 0.677[a7(1)] + 0.468[a7(2)]$$

6.8

Table 6.19 **Reported a Loss versus Biographical and Other Factors**

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)
b14	-1.140	.578	3.893	1	.048	.320
b15.3_	.114	.358	.101	1	.751	1.120
c24	1.287	.736	3.060	1	.080	3.623
c25b	1.968	.703	7.836	1	.005	7.154
c26	-.508	.685	.550	1	.458	.602
c27	.049	.634	.006	1	.938	1.050
c28	.073	.723	.010	1	.919	1.076
c29	-.650	.514	1.603	1	.205	.522
c30	-.045	.337	.018	1	.894	.956
c32	.356	.506	.497	1	.481	1.428
c33	.568	.486	1.367	1	.242	1.765
c34	-1.339	.520	6.640	1	.010	.262
a1(1)	-.056	.556	.010	1	.919	.945
a2			2.434	4	.656	
a2(1)	1.511	1.267	1.422	1	.233	4.532
a2(2)	1.990	1.544	1.661	1	.197	7.313
a2(3)	.740	1.179	.394	1	.530	2.096
a2(4)	.854	1.114	.588	1	.443	2.349
a4			7.701	3	.053	
a4(1)	-.245	1.144	.046	1	.830	.782

Table 6.19 continued

a4(2)	1.383	1.063	1.694	1	.193	3.988
a4(3)	1.330	1.131	1.384	1	.239	3.783
a6			4.203	3	.240	
a6(1)	.569	1.264	.203	1	.652	1.767
a6(2)	1.849	1.252	2.180	1	.140	6.353
a6(3)	.407	1.188	.117	1	.732	1.502
a7			.517	2	.772	
a7(1)	.677	.960	.498	1	.480	1.969
a7(2)	.468	.939	.248	1	.618	1.597
Constant	-4.752	2.652	3.211	1	.073	.009

The Nagelkerke R² for using model 6.8 was 0.372 which means that 37.2% of the outcome (whether the MSME reported a loss) was explained by the independent variables. The test of “goodness-of-fit” yields the chi-square value of 3.068 with a p-value of 0.930, indicating that model 6.8 provides a decent fit.

The significant parameters in model 6.8 were C27 (marketing management strategies), C28 (entrepreneurial management strategies), and C30 (macro environment factors) and a1 (1) males in gender (a1). These were the factors that significantly affected the outcome (whether MSME reported a loss) when all the factors were combined. Overall, the model correctly predicted 92 cases out of 125 (73.6%), suggesting further that model 6.8 fits the data well. The results in Table 6.20 show how different management strategies and biographical factors determine whether MSME was unable to continue for more than 6 months. The fitted logistic regression equation was;

$$\begin{aligned}
\text{Logit}(\hat{\pi}) = & -16.671 + 36.112(b14) - 47.306(b15.3) - 25.974 (c24) + 63.292 (c25b) - \\
& 66.822(c26) + 26.322 (c27) + 80.179(c28) - 34.286(c29) - 13.919 (c30) + 38.086 (c32) - 26.873 \\
& (c33) + 2.528 (c34) - 31.778 [a1(1)] - 108.134[a2(1)] - 75.762 [a2 (2)] - 47.073[a2(3)] - 105.796 \\
& [a2(4)] + 18.117 [a4(1)] + 46.379[a4(2)] + 15.701 [a4(3)] + 45.576 [a6(1)] + 35.008 [a6(2)] \\
& + 13.556 [a6 (3)] + 101.100[a7(1)] + 45.380 [a7(2)]
\end{aligned}$$

6.9

The Nagelkerke R² for using model 6.9 was 1, which means that 100% of the outcome (unable to continue for 6 months) can be explained by the independent variables.

Table 6.20: unable to continue for 6 Months verses Biographical and Other Factors

Variables in equation	B	S.E.	Wald	df	Exp(B)	Sig.
b14	36.112	7448.907	.000	1	4.8E+15	.996
b15.3_	-47.306	11767.763	.000	1	2.9E-21	.997
c24	-25.974	31051.446	.000	1	5.2E-12	.999
c25b	63.292	17512.982	.000	1	3.1E+27	.997
c26	-66.822	8694.794	.000	1	9.5E-30	.994
c27	26.322	19018.469	.000	1	2.7E+11	.999
c28	80.179	10296.585	.000	1	6.6E+34	.994
c29	-34.286	21186.822	.000	1	1.3E-15	.999
c30	-13.919	11752.064	.000	1	9.0E-07	.999
c32	38.086	12589.408	.000	1	3.5E+16	.998
c33	-26.873	9704.701	.000	1	2.1E-12	.998
c34	2.528	20262.861	.000	1	1.3E+01	1.000
a1(1)	-31.778	7825.160	.000	1	1.6E-14	.997
a2		.000	4			1.000
a2(1)	-108.134	46318.061	.000	1	1.1E-47	.998
a2(2)	-75.762	37372.058	.000	1	1.3E-33	.998
a2(3)	-47.073	34566.975	.000	1	3.6E-21	.999
a2(4)	-105.796	18718.518	.000	1	1.1E-46	.995
a4		.000	3			1.000
a4(1)	18.117	23934.024	.000	1	7.4E+07	.999
a4(2)	46.379	31471.394	.000	1	1.4E+20	.999
a4(3)	15.701	33746.067	.000	1	6.6E+06	1.000
a6		.000	3			1.000
a6(1)	45.576	25592.356	.000	1	6.2E+19	.999
a6(2)	35.008	25493.000	.000	1	1.6E+15	.999
a6(3)	13.556	24663.770	.000	1	7.7E+05	1.000
a7		.000	2			1.000

Table 6.20 continued

a7(1)	101.100	10313.429	.000	1	8.1E+43	.992
a7(2)	45.380	7736.469	.000	1	5.1E+19	.995
Constant	-16.671	42003.836	.000	1	5.8E-08	1.000

The goodness-of-fit chi-square value was 0.001 with p-value of 1, indicating that model 6.9 provides a good fit. Table 6.20 shows that all the independent variables had parameters that significantly affects the outcome of the dependent variable (unable to continue for 6 months). Model 6.9 correctly predicted 7 ‘Yes’ out of 7 (100%) and 118 ‘No’ cases out of 118. Overall, the model predicted 125 cases out of 125 (100%), suggesting that model 6.9 fits this data reasonably well.

6.2.1 Management factors and external factors impact on performance

In this section, the researcher tested the management factors and the external factors to get their effects and contributions on performance. The measure of performance was based on responses given to statements B10 a to d. In the regression models, the independent variables comprised the indices of B14 (CEOs strategic intent), B15.3 (Interpersonal skill), C24 (human resource skill), C25b (Strategic management factors), C26 (Finances and capitalisation factors), c27 (Marketing management strategies), C28 (Entrepreneurial management factors), C29 (Technological factors), C30 (microenvironment factors), C32 (Regulation and policy issues), C33 (Incentive policies), C34 (institutional issues) and the dependent variables were B10a (Unable to meet its creditors in full), B10b (Closed up a non-productive branch), B10c (Reported a loss), B10d (Unable to continue for more than 6 months). Note that I considered each of these response variables against the set of independent variables.

From the Wald statistics in Table 6.21, C24 (human resources skills), C29 (technological factors) and C32 (regulation and policy factors) were the only parameters that significantly affect the outcome of the dependent variable. The fitted logistic regression model was

$$\text{Logit}(\hat{\pi}) = -6.841 + 0.312(b14) - 0.480(34) + 0.312(b14) + 0.348(b15.3) - 0.055(c24) + 0.658(c25b) + 1.600(c26) - 0.781(c27) - 0.698(c28) + 0.087(c29) - 0.066(c30) - 0.085(c32) + 0.365(c33) + 0.480(c34) \quad \mathbf{6.10}$$

Table 6.21: Unable to meet its Creditors in full versus Internal and External Factors

Equation	Variables in the					
	B	S.E.	Wald	df	Sig.	Exp(B)
	Lower	Upper	Lower	Upper	Lower	
b14	.312	.407	.589	1	.443	1.366
b15.3	.348	.262	1.761	1	.184	1.416
c24	-.055	.549	.010	1	.920	.946
c25b	.658	.580	1.284	1	.257	1.930
c26	1.600	.629	6.475	1	.011	4.954
c27	-.781	.632	1.526	1	.217	.458
c28	-.698	.545	1.640	1	.200	.498
c29	.087	.421	.042	1	.837	1.091
c30	-.066	.282	.055	1	.815	.936
c32	-.085	.411	.043	1	.836	.918
c33	.365	.397	.848	1	.357	1.441
c34	.480	.404	1.409	1	.235	1.616
Constant	-6.841	1.894	13.046	1	.000	.001

R^2 was found to be 0.240, indicating that 24% of the outcome (unable to meet creditors in full) was explained by the independent variables. The chi-square was 11.379 with p-value of 0.181, showing that the model 6.10 provides a good fit to this data. This is not surprising, since the model correctly predicted 16 ‘Yes’ cases out of 47 (37%) and 96

'No" cases out of 105 (90.5%). Overall, the model predicted 112 cases out of 152 (73%), indicating too that model 6.10 provides a decent fit.

Table 6.22 reports how different management strategies and biographical factors determine whether MSME closed up a non-productive branch. The fitted logistic regression equation was

$$\text{Logit}(\hat{\pi}) = 2.583 + 0.964(b14) - 0.313(b15.3) - .671(c24) - .447(c25b) + 0.502(c26) + 0.366(c27) - 0.059(c28) + 0.108(c29) - 0.691(c30) - 0.572(c32) - 0.131(c33) + 0.408(c34) \quad \mathbf{6.11}$$

Table 6.22: **Closed up Non-productive Branch versus External and Internal Factors**

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)
b14mean	.964	.459	4.404	1	.036	2.621
b15.3_mean	-.313	.302	1.075	1	.300	.732
c24mean	-.671	.574	1.368	1	.242	.511
c25bmean	-.447	.577	.599	1	.439	.640
c26mean	.502	.603	.694	1	.405	1.653
c27mean	.366	.581	.397	1	.528	1.443
c28mean	-.059	.569	.011	1	.918	.943
c29mean	.108	.403	.071	1	.790	1.114
c30mean	-.691	.306	5.112	1	.024	.501
c32mean	-.572	.432	1.756	1	.185	.564
c33mean	-.131	.388	.115	1	.735	.877
c34mean	.408	.439	.862	1	.353	1.504
Constant	2.583	1.761	2.151	1	.143	13.241

Model 6.11 yields the R^2 of 0.131, indicating that 13.1% of the variations in the dependent variable can be explained by the independent variables. The chi-square goodness-of-fit was 7.547 with p-value of 0.479, showing that model 6.11 had a good fit.

From Table 6.22, only C28 (Entrepreneurship management strategies) significantly affects the outcome of the dependent variable (closed up a non-productive branch). The model correctly predicted 4 ‘Yes’ cases out of 46(8.7%) and 106 ‘No’ cases out of 112(94.6). Overall, the model predicted 110 cases out 158(69.6%).

Table 6.23 reports the parameter estimates of the fitted logistic regression model
 $\text{Logit}(\hat{\pi}) = -0.378 - 0.799(b14) - 0.179(b15.3) + 0.508(c24) + 1.610(c25b) - 0.596(c26) + 0.249(c27) - 0.354(c28) - 0.367(c29) + 0.279(c30) + 0.376(c32) + 0.512(c33) - 0.866(c34)$

6.12

Table 6.23: Reported a Loss verses Internal and External Factors

Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
b14	-.799	.401	3.973	1	.046	.450
b15.3	-.179	.249	.517	1	.472	.836
c24	.508	.505	1.013	1	.314	1.662
c25b	1.610	.536	9.009	1	.003	5.001
c26	-.596	.527	1.279	1	.258	.551
c27	.249	.553	.202	1	.653	1.282
c28	-.354	.510	.482	1	.487	.702
c29	-.367	.382	.926	1	.336	.693
c30	.279	.266	1.100	1	.294	1.321
c32	.376	.382	.970	1	.325	1.457
c33	.512	.364	1.980	1	.159	1.668
c34	-.866	.400	4.689	1	.030	.421
Constant	-.378	1.572	.058	1	.810	.685

Model 6.12 yielded R^2 value of 0.194 showing that only 19.4% of the outcome (reported a loss) can be explained by the model. The chi-square statistic was 5.588 with p-value of 0.693 suggesting that model 6.12 provides a good fit. None of the parameters significantly affects the outcome.

The model correctly predicted 23 ‘Yes’ cases out of 60 (38.3%) and 89 “No” cases out of 98 (90.8%) so the model correctly predicted a total of 112 cases out of 158 (70.9%).

Table 6.24 reports the parameter estimates for the following logistic regression equation:

$$\text{Logit}(\hat{\pi}) = 3.813 + 0.392(b14) - 0.204(b15.3) - 0.375(c24) + 0.407(c25b) - 1.803(c26) + 0.953(c27) + 0.649 (c28) - 0.164(c29) - 0.310(c30) - 0.365(c32) - 0.239 (c33) + 0.716(c34) \quad \mathbf{6.13}$$

Table 6.24: Unable to Continue for More than 6 Months and Internal and External Factors

Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)
b14	.392	.672	.340	1	.560	1.480
b15.3	-.204	.457	.199	1	.656	.816
c24	-.375	.912	.168	1	.681	.688
c25b	.407	.829	.242	1	.623	1.503
c26	-1.803	.906	3.961	1	.047	.165
c27	.953	.908	1.102	1	.294	2.593
c28	.649	.982	.437	1	.509	1.913
c29	-.164	.719	.052	1	.820	.849
c30	-.310	.464	.447	1	.504	.733
c32	-.365	.718	.258	1	.611	.694
c33	-.239	.647	.137	1	.711	.787
c34	.716	.728	.965	1	.326	2.045
Constant	3.813	3.004	1.611	1	.204	45.299

Model 6.13 yields R^2 of 0.125 showing that 12.5% of the outcome in the model can be explained by the independent variables. The chi-square goodness-of-fit statistic was 14.256 with p-value of 0.05, suggesting further that this model fits the data well.

From 6.24, the Wald statistic for C29 (technological factors) had a significant p-value of 0.052.

Model 6.13 yields a classification in which only 1 ‘Yes’ case out 12(8.3%) was correctly predicted and 146 ‘No’ cases out of 146(100%). Total of correctly predicted cases was 147 out 156 (93%). This shows that model 6.13 predicts the data well.

6.4 Factors that contributed to Financial Growth

The researcher, in the following section carried out tests to establish the factors that contributed to financial growth within the MSMEs. Growth was calculated at 10 percent. Any business whose growth in profit was above 10 percent was a performer. Whereas a business whose growth was 10 percent or below was a non-performer. This is done for the two periods 2004-2005 and 2005-2006. Performance or non-performance (growth) within the two periods was chosen to be the dependent variable and the independent variables were still the internal and external factors i.e. B14 (CEOs strategic intent), B15.3 (interpersonal skill), C24 (Human resource skill), C25b (Strategic management factors), C26 (Finances and capitalisation factors), c27 (Marketing management strategies), C28 (Entrepreneurial management factors), C29 (Technological factors), C30 (Macroenvironment factors), C32 (Regulation and policy issues), C33 (incentive policies), and C34 (Institutional issues).

The performance for 2005-2006 was measured using the following logistic equation:

$$\text{Logit}(\hat{\pi}) = -2.917 - 0.176(b14) - 0.047(b15.3) - 0.404(c24) - 0.091(c25b) - 0.248(c26) + 1.192(c27) + 0.488(c28) + 0.469(c29) - 0.511(c30) + 0.014(c32) + 0.239(c33) + 0.707(c34).$$

6.14

Dependent Variable: Performance/Non-performance1: 2006-2005

Model 6.14 below, yields R^2 of 0.176 showing that 17.6% of the outcome can be explained by the independent variables. The Chi-square goodness of fit statistic was 4.809 with a P-value of 0.778. The model fits the data well.

Table 6.25: Performance/Non-performance1: 2006-2005

Model Summary				Nagelkerke R Square	R	
				.176		
Hosmer and Lemeshow Test				Chi-square	df	Sig.
				4.809	8	.778
Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)
b14	-.176	.602	.086	1	.770	.839
b15.3	-.047	.369	.016	1	.899	.954
c24	-.404	.920	.193	1	.661	.668
c25b	-.091	.837	.012	1	.913	.913
c26	-.248	.846	.086	1	.769	.780
c27	1.192	.862	1.912	1	.167	3.294
c28	.488	.859	.323	1	.570	1.629
c29	.469	.876	.286	1	.593	1.598
c30	-.511	.476	1.150	1	.283	.600
c32	.014	.652	.000	1	.983	1.014
c33	.239	.581	.169	1	.681	1.270
c34	.707	.620	1.302	1	.254	2.028
Constant	-2.917	2.567	1.291	1	.256	.054

The Wald statistic indicates that b15.3 (interpersonal skills), c25b (strategic management factors), and c32 (regulation and policy issues) significantly influence the outcome of the independent variable.

The model predicted zero performance cases out of 13, (0%) and 146 non-performance cases out 146(100%). In total, 146 cases were predicted correctly out of 159(91.8%). This implies that the model was good.

Table 6.26: Performance/Non-performance2: 2005-2004 and Internal / External Variables

Model Summary		-2 Log likelihood	Cox & Snell R Square	Nagelkerke Square	R
Step		52.640(a)	.066	.199	
Hosmer and Lemeshow Test					
Step		Chi-square	df	Sig.	
1		5.941	8	.654	
Variables in the Equation		B	S.E.	Wald df	Sig.
		Lower	Upper	Lower	Upper
b14		-1.070	.892	1.439	1 .230
b15.3		.689	.420	2.688	1 .101
c24		.880	1.291	.465	1 .495
c25b		-1.248	1.162	1.153	1 .283
c26		1.213	1.243	.953	1 .329
c27		1.167	1.157	1.018	1 .313
c28		.219	1.114	.039	1 .844
c29		-.362	.763	.225	1 .636
c30		.004	.596	.000	1 .995
c32		-.015	.923	.000	1 .987
c33		-.093	.769	.015	1 .904
c34		.758	.801	.895	1 .344
Constant		-4.050	3.304	1.502	1 .220

The Logistic regression equation is

$$\text{Logit}(\hat{\pi}) = -4.050 - 1.07(b14) + 0.689(b15.3) + 0.880(c24) - 1.248(c25b) + 1.213(c26) + 1.167(c27) + 0.219(c28) - 0.362(c29) + 0.004(c30) - 0.015(c32) - 0.093(c33) + 0.758(c34). \quad \text{6.15}$$

The parameters that have significant effect on the outcome (performance/Non performance) are C28 (Entrepreneurial strategies), C32 (Regulation and policy issues) and C33 (incentive policies).

Out of 8 cases, the Model predicted no case of performance in (2005-2004) but 151 non-performance cases out of 151(100%) were correctly predicted. The model was correct on 151 cases out of 159(95%). The same test is repeated where the management factors, the external factors and the biographical variables are tested together as the independent variables. This is meant to investigate the impact the combination of biographic factors and internal / external factors may have on financial performance.

Dependent variable: Performance/Nonperformance1: 2006-2005

From Table 6.27 below, R^2 is 0.573 showing 57.3% of the outcome (performance/non-performance (2006-2005) is explained by the model. The Chi-square statistic is 0.756 with a P-value of 0.999, which shows the model has a good fit. Logistic regression equation : $\text{Logit}(\hat{\pi}) = 11.733 + 0.194(b14) + 0.193(b15.3) - 1.633(c24) + 0.608(c25b) + 0.683(c26) + 3.691(c27) + 0.124(c28) + 0.482(c29) - 1.651(c30) - 0.787(c32) + 0.794(c33) - 0.383(c34) - 1.541[a1(1)] + 0.935[a2(1)] + 21.344[a2(2)] + 2.283[a2(3)] + 2.082[a2(4)] + 1.941[a4(1)] - .864[a4(2)] + 2.297[a4(3)] - 20.186[a6(1)] - 3.295[a6(2)] - 23.049[a6(3)] + 2.605[a7(1)] + 4.788[a7(2)].$

6.16

Table 6.27: 2006-2005 with internal /external factors and the biographical variables

Model Summary		-2 likelihood	Log Cox & Snell R Square	Nagelkerke R Square		
	Step 1	31.848(a)	.230	.573		
Hosmer and Lemeshow Test	Step 1	Chi-square	df	Sig.		
Step 1(a)	b14	.194	1.663	.014	1	.907
	b15.3	.193	1.115	.030	1	.863
	c24	-1.633	2.068	.623	1	.430
	c25b	.608	1.736	.122	1	.726
	c26	.683	2.074	.108	1	.742
	c27	3.691	2.409	2.348	1	.125
	c28	.124	1.992	.004	1	.951
	c29	.482	2.080	.054	1	.817
	c30	-1.651	1.084	2.322	1	.128
	c32	-.787	1.845	.182	1	.670
	c33	.794	1.264	.394	1	.530
	c34	-.383	1.464	.068	1	.794
	a1(1)	-1.541	1.699	.823	1	.364
	a2			.782	4	.941
	a2(1)	.935	4.440	.044	1	.833
	a2(2)	21.344	10260.4	.000	1	.998
	a2(3)	2.283	4.234	.291	1	.590
	a2(4)	2.082	3.800	.300	1	.584
	a4			2.436	3	.487
	a4(1)	1.941	3.951	.241	1	.623
	a4(2)	-.864	3.639	.056	1	.812
	a4(3)	2.297	4.042	.323	1	.570
	a6			2.320	3	.509
	a6(1)	-20.186	11049.896	.000	1	.999
	a6(2)	-3.295	12731.219	.000	1	1.000
	a6(3)	-23.049	11049.896	.000	1	.998
	a7			5.049	2	.080
	a7(1)	2.605	2.055	1.607	1	.205
	a7(2)	4.788	2.131	5.045	1	.025
	Constant	11.733	11049.896	.000	1	.999
						124607.145

The parameters that significantly affect the outcome of the model are from by the Wald statistic. From the table, these are b14(The CEOs strategic intents), b15.3 (Interpersonal skills), c28(Entrepreneurship management strategies), a2(1) O Level education, a2(2) A level education , a6(1) Micro enterprises category, a6(2) Small enterprises category, a6(3) Medium enterprises category and the constant. `

Out of nine cases the model predicted correctly 4 (44.4%) performance cases where out of 117(98.3%) the model predicted 115 cases. In total, the model predicted 119 cases of 126(96.4%) cases. It fitted the data well.

Table 6.28: Performance/Non-performance2: 2005-2004 and Internal/External Factors and the Biographical Variables

Model Summary	-2	Log	Cox &	Snell R				
	likelihood	Square		Nagelkerke R Square				
	.000(a)	.377	1.000					
Hosmer and Lemeshow Test	Chi-square		df	Sig.				
	.000	2		1.000				
Variables in the Equation	B	S.E.	Wald	df	Sig.	Exp(B)		
b14	-51.101	4985.288	.000	1	.992	6.41E-23		
b15.3	-35.127	4040.715	.000	1	.993	5.55E-16		
c24	88.956	11017.899	.000	1	.994	4.3E+38		
c25b	-85.061	8046.783	.000	1	.992	1.14E-37		
c26	-45.260	7942.089	.000	1	.995	2.21E-20		
c27	90.638	5567.329	.000	1	.987	2.31E+39		
c28	107.867	8720.844	.000	1	.990	7.01E+46		
c29	-88.256	16722.209	.000	1	.996	4.69E-39		
c30	-1.126	5740.346	.000	1	1.000	0.3243		
c32	-4.682	10087.021	.000	1	1.000	0.00926		

Table 6.28 continues

c33	-62.153	7577.876	.000	1	.993	1.02E-27
c34	42.025	7224.412	.000	1	.995	1.78E+18
a1(1)	-92.153	9988.890	.000	1	.993	9.52E-41
a2			.001	4	1.000	
a2(1)	-.255	12942.663	.000	1	1.000	0.775108
a2(2)	286.444	53054.978	.000	1	.996	2.5E+124
a2(3)	147.806	13925.254	.000	1	.992	1.55E+64
a2(4)	206.735	15657.946	.000	1	.989	6.08E+89
a4			.000	3	1.000	
a4(1)	-100.114	5658.004	.000	1	.986	3.32E-44
a4(2)	-39.215	14359.202	.000	1	.998	9.32E-18
a4(3)	92.740	26357.536	.000	1	.997	1.89E+40
a6			.000	3	1.000	
a6(1)	-52.229	16817.792	.000	1	.998	2.08E-23
a6(2)	-118.623	9191.645	.000	1	.990	3.04E-52
a6(3)	46.865	29923.376	.000	1	.999	2.26E+20
a7			.000	2	1.000	
a7(1)	104.552	13185.200	.000	1	.994	2.55E+45
a7(2)	94.792	6845.449	.000	1	.989	1.47E+41

Logistic model equation is $\text{Logit}(\hat{\pi}) = 236.29 - 51.101[\text{b14}] - 35.27[\text{b15.3}] + 88.95[\text{c24}] - 85.061[\text{c25b}] - 45.260[\text{c2690.638}] + 27107.867[\text{c28}] - 88.256[\text{c29}] - 1.126[\text{c30}] - 4.682[\text{c32}] - 62.153[\text{c33}] + 42.025[\text{c34}] - 92.1[\text{a1(1)}] - .255[\text{a2(1)}] + 286.4[\text{a2(2)}] + 147.8[\text{a2(3)}] + 206.7[\text{a2(4)}] - 100.1[\text{a4(1)}] - 39.2[\text{a4(2)}] + 92.7[\text{a4(3)}] - 52.2[\text{a6(1)}] - 118.6[\text{a6(2)}] + 46.8[\text{a6(3)}] + 104.5[\text{a7(1)}] + 94.8[\text{a7(2)}]$.

6.17

The Wald statistics indicates that all the factors are highly significant.

The model correctly predicted 8 performance cases out of 8 and 118 non performance cases. The model was 100 per cent accurate.

Table 6.29 below has gross profit for year 2006 as the dependent variable. The values of gross profits used are those obtained from the businesses.

Table 6.29: Gross Profit 2006 and the Internal/External Factors

Model Summary		Change Statistics				Durbin-Watson		
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	Sig. F Change
	.244	.060	-.018	57.83	.060	.773	12	.677
ANOVA		Sum of Squares		df	Mean Square		F	Sig.
		31034.562		12	2586.213		.773	.677(a)
		488371.543		146	3345.011			
		519406.105		158				
		Unstandardized Coefficients				Standardized Coefficients	t	Sig.
Coefficients		B	Std. Error	Beta				
(Constant)		-29.757	40.940			-.727	.468	
Management Role/responsibility		-10.279	10.163	-.122		-1.011	.313	
Interpersonal skills		.387	6.460	.006		.060	.952	
The human resources skills		7.379	13.199	.079		.559	.577	
Strategic management factors		-.567	13.199	-.006		-.043	.966	
Finances/capitalisation factors		1.677	13.919	.014		.120	.904	
Marketing management factors		11.763	14.004	.118		.840	.402	
Entrepreneurial management factors		-15.386	12.853	-.164		-1.197	.233	
Technological factors		6.098	10.203	.077		.598	.551	
Macroeconomic environment factors		6.297	6.851	.090		.919	.360	
Regulation and policy issues		3.914	9.619	.051		.407	.685	
Incentive policies		6.584	9.367	.088		.703	.483	
Institutional policies		-2.520	9.831	-.031		-.256	.798	

The most important result from the “model summary” table is the R square statistic, which is an indication of how well the multiple regression model fits the data. The benchmark is approximately 0.6, and any value above indicates a good fit. In this case, we have R^2 as 0.06, or $R^2 = 100(0.06) = 6\%$. This means that 6% of the variation in the dependent variable is explained by the independent variables.

The ANOVA table shows the result of testing the null hypothesis that all regression coefficients (the B's in the table below) are zero. If the p-value of the F statistic (“Sig.”) is smaller than or equal to 0.05, then this null hypothesis is rejected, meaning that the regression is significant. In this case, “Sig.” = 0.677, which shows that the regression is not significant. The “Coefficients” – table shows the estimated regression coefficients. The “B” coefficients is the estimated regression coefficients which appears in the regression equation, in this case,

$$\text{Logit}(\hat{\pi}) = -29.757 - 10.279(\text{c14mean}) + 0.387(\text{b15.3}) + 7.379(\text{c24}) - 0.567(\text{c25b}) + 1.677(\text{c26}) + 11.763(\text{c27}) - 15.386(\text{c28}) + 6.098(\text{c26}) + 0.2979(\text{c30}) + 3.914(\text{c32}) + 6.584(\text{c33}) - 2.520(\text{c34mean}). \quad \text{6.18}$$

The largest coefficients are -15.386 (Entrepreneurial factors), 11.763 (marketing strategies) -10.279 (management roles) and an average of 6 for (.incentives and technology, macroeconomic factors).The negative sign means that the factors affect the gross profit negatively. This will be true for entrepreneurship that consumes profits as opposed to marketing strategies which invests into future profit flows.

6.5 Impact of the External Environment on the Management Factors

In section 6.4, individual variables (B15.3, C14, C24, C25b, C26-30, C32-34) earlier tested against other measures of performance are regressed against the external factors. These variables represent the internal business environment. They were tested individually as the dependent variables. This concurs with objective five where the researcher sought to establish the effect of external environment on management factors/strategies.

The independent variables used below were external environmental factors such as C8 (globalisation factors), C29(Technological factors), C30(Macro environmental factors), C32(regulation and policy), C33(Incentives) and C34(Institutional policies). It is understood that such variables must be monitored closely though they are beyond the control of managers (Johnson and Scholes 2006). The dependent variables are the internal management factors.

The “Coefficients” – table shows the estimated regression coefficients. The “B” coefficients is the estimated regression coefficients which appears in the regression equation, in this case, the “Beta” coefficient is used to compare the magnitude of the coefficients with each other. The “Sig.” column shows whether the “B” coefficients are significant. If “Sig.” is smaller than or equal to 0.05, then the coefficient is significant. For the variable c14 (Management roles and responsibility), we have “Sig.” = 0.313. This means that the variable c 14mean does not significantly affect the dependent variable.

Table 6.30: Dependent Variable: C14 (Management roles and responsibility)

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson	
	.54 1 ^a	.293	.266	.58545	.293	R Square Change	F Change	df 1	df2	Sig. Change	
						10.64 4		6	154	.000	2.206
ANOVA											
				Sum of Squares		df	Mean Square		F	Sig.	
			Regression	21.889		6	3.648		10.6 44	.000(a)	
			Residual	52.784		154	.343				
			Total	74.673		160					
Coefficients	Unstandardized Coefficients			Standardized Coefficients			t	Sig.			
	B	Std.	Beta								
(Constant)	1.934	.278					6.961			.000	
c8mean	.160	.066	.209				2.426			.016	
Technological factors	.174	.081	.183				2.148			.033	
Macroeconomic environment factors	.015	.068	.018				.213			.831	
Incentive policies	-.169	.091	-.195				-1.860			.065	
Institutional policies	.064	.095	.066				.673			.502	
Regulation and policy issues	.332	.092	.362				3.590			.000	

$R^2=0.266$ or 26.6%. This implies 26.6% of the variation in the dependent variable is explained by the independent variables. The p-value of the F statistic is 0.001, which means the regression is significant.

The estimated equation:

$$\bar{Y} = 1.934 + 0.160(C8) + 0.174(C29) - 0.015(C30) - 0.169(C33) - 0.064(C34) + 0.332(C32). \quad 6.19$$

The constant, C8 (Globalisation) and C34 (institutional policies) and C29 (technological factors) significantly affect the outcome of the dependent variable Y (management roles and responsibility).

Table 6.31: Dependent Variable: C19 (The management functions)

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	F
	.357 ^a	.127	.094	.73644	.127	3.835	6	158	.001	2.206
ANOVA	Sum of Squares		df		Mean Square		F	Sig.		
	12.480		6		2.080		3.835	.001(a)		
	85.691		158		.542					
	98.171		164							
Coefficients					Unstandardized Coefficients			Standardized Coefficients		
	(Constant)		B	Std. Error	Beta			t	Sig.	
	Opportunities in globalisation		2.883	.338				8.524	.000	
	Technological factors		.202	.078	.238			2.580	.011	
	Macroeconomic environment factors		.162	.101	.152			1.612	.109	
	Incentive policies		-.107	.084	-.116			-1.272	.205	
	Institutional policies		-.142	.110	-.147			-1.289	.199	
	Regulation and policy issues		.078	.117	.073			.665	.507	
			.171	.114	.166			1.499	.136	

R^2 is 0.127 or 12.7%. Only 12.7% of the variations in the independent variable are determined by the independent variables. Sig = 0.001 which implies the regression is significant.

$$\bar{Y} = 2.883 + 0.202(C8) + 0.162(C29) - 0.107(C30) - 0.142(C33) + 0.078(C34) + 0.171(C32).$$

6.20

The constant and C8 (globalisation factors) are significant variables that affect the management functions (dependent variable).

Table 6 .32: Dependent Variable: C20 Organising function

Model summar	R	R Square	Adjusted Square	R Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. Change
y	.473 ^a	.224	.194	.66535	.224	7.597	6	158	.000 1.75 7
ANOVA									
			Sum of Squares	df	Mean Square	F			Sig.
			20.178	6	3.363	7.597			.000(a)
			69.944	158	.443				
			90.122	164					
Coefficients									
					Unstandardized Coefficients		Standardized Coefficients		
					B	Std. Error	Beta	t	Sig.
			(Constant)	2.325	.305			7.629	.000
			Opportunities in globalisation	.093	.071	.114		1.308	.193
			Technological factors	.120	.091	.118		1.312	.191
			Macroeconomic environment factors	-.029	.077	-.032		-.378	.706
			Incentive policies	-.204	.100	-.220		-2.041	.043
			Institutional policies	.096	.106	.094		.904	.367
			Regulation and policy issues	.423	.103	.427		4.106	.000

R^2 is 0.224 or 22.4%. This means 22.4% of the dependent variable(organising factor) is explained by the independent variables (external factors). Sig =0.001 which shows the regression is significant.

The regression equation is:

$$\bar{Y} = 2.325 + 0.093(C8) + 0.120(c29) - 0.029(30) - 0.204(c33) + 0.096(c34) + 0.423 (C32)$$

6.21

The variables that significantly affect the outcome of the dependent variables are the constant; incentive polices (c33) and Regulation and policy issues (c32).

Table 6 .33: Dependent Variable: C21 (planning function)

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics						F	Durbin-Watson
				R Square Change	F Change	df1	df2	Sig. Change			
.634 ^a	.402	.379	.47578	.402	17.778	6	15 9	.000		1.713	
Regression			Sum of Squares	df	Mean Square		F	Sig.			
			24.146	6	4.024		17.778	.000(a)			
Residual			35.993	159	.226						
Total			60.139	165							
				Unstandardized Coefficients				Standardized Coefficients		t	Sig.
				B	Std. Error		Beta				
(Constant)			1.556		.218					7.142	.000
Opportunities in globalisation			.126		.051		.189			2.485	.014
Technological factors			.312		.065		.375			4.811	.000
Macroeconomic environment factors			.061		.055		.083			1.111	.268
Incentive policies			-.076		.071		-.101			-1.067	.287
Institutional policies			.064		.076		.077			.844	.400
Regulation and policy issues			.140		.074		.174			1.908	.058

The value for R^2 was 0.402 or 40.2%. This means that 40.2% of the outcome in the dependent variable (planning) is explained by the independent variables (external environmental factors). Sig = 001 which shows that the regression is significant.

The equation is:

$$\bar{Y} = 1.556 + 0.126(C8) + .312(c29) + 0.061(c30) - 0.076(c33) + 0.064(c34) + 0.140(c32). \textbf{6.22}$$

C8 (opportunities from globalisation), the constant and C29 (Technological issues factors) significantly affect the outcome of the dependent variable. (The management planning function)

Table 6.34: Dependent Variable: C22 the management directing function

Model	R	R	Adjust	Std. Error	Change Statistics					Sig.	F	Durbin-Watson
	Square	Square	ed R Squar	of the Estimate	R Change	Square	F Chan	df 1	df2			
	.606 ^a	.367	.343	.48775	.367		15.377	6	159		.000	2.174
ANOVA					Sum of Squares	df	Mean Square			F		Sig.
	Regression			21.949		6	3.658			15.377		.000(a)
	Residual			37.827		159	.238					
	Total			59.776		165						
Coefficients					Unstandardized Coefficients		Standardized Coefficients			t		Sig.
					B	Std. Error	Beta					
	(Constant)			1.733		.223				7.757		.000
	Opportunities globalisation(c8)	in		.041		.052	.062			.794		.428
	Technological factors(c29)			.317		.066	.382			4.767		.000
	Macroeconomic environment factors(c30)			.087		.056	.119			1.550		.123
	Incentive policies(c33)			-.193		.073	-.256			-2.638		.009
	Institutional policies(c34)			.109		.078	.132			1.411		.160
	Regulation and policy issues(c32)			.213		.075	.264			2.821		.005

$R^2 = 0.367\%$. That means 36.7% of the dependent variable determined by the independent variables. Sig = 0.001 which shows the regression is significant.

$$\bar{Y} = 1.733 + 0.041(C8) + 0.317(C29) + 0.087(C30) - 0.193(C33) + 0.109(C34) + 0.213(C32)$$

6.23

The constant, incentive policies (c33), Technological factors (c29), regulation, and policy (c32) significantly affect the outcome of the variable, which is the directing function.

Table 6.35 Dependent Variable: C23 the management controlling function

Model Summary	R	R Square	Adjusted Square	R Std. Error of the Estimate	Change Statistics						Durbin-Watson	
					R Square Change	F Change	df 1	df 2	Sig. F Change			
	.621	.385	.362	.50140	.385	16.604	6	15 9	.000	1.960		
ANOVA												
Sum of Squares				df			Mean Square		F		Sig.	
25.046				6			4.174		16.604		.000(a)	
39.974				159			.251					
65.020				165								
Coefficients												
				Unstandardized Coefficients			Standardized Coefficients		t		Sig.	
				B			Std. Error		Beta			
(Constant)				1.729			.230		7.530		.000	
Opportunities in globalisation(c8)				.081			.053		.117		1.512	
Technological factors(c29)				.430			.068		.497		6.286	
Macroeconomic environment factors(c30)				-.042			.057		-.056		-.738	
Incentive policies(c33)				-.195			.075		-.249		-2.602	
Institutional policies(c34)				.176			.080		.204		2.205	
Regulation and policy issues(c32)				.129			.078		.153		1.659	

R^2 is 0.385 or 38.5%. The variations on the dependent variable (controlling function) are explained by the independent variable (external factors) to the level of 38.5%. Sig is 001, which implies the regression is significant.

$$\bar{Y} = 1.729 + 0.061(C8) + 0.430(c29) - 0.042(c30) - 0.195(c33) + 0.176(c34) + 0.129(C32)$$

Parameters that significantly affect the outcome of dependent variables (The management controlling function) are the constant, technological factors, incentive polices and Institutional policies.

Table 6.36 **the human resources skills (C24)**

Model Summary		Change Statistics											
R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson				
.712 ^a	.507	.488	.450	.507	27.241	6	159	.000	2.069				
ANOVA													
		Sum of Squares		df		Mean Square		F		Sig.			
		Regression		33.116		6		5.519		27.241			
		Residual		32.215		159		.203					
		Total		65.331		165							
Coefficient													
					Unstandardized Coefficients		Standardized Coefficients		t				
					B	Std. Error	Beta						
(Constant)					1.080	.206		5.237		.000			
Opportunities in globalisation(c8)					.048	.048	.070	1.012		.313			
Technological factors(c29)					.394	.061	.455	6.430		.000			
Macroeconomic environment factors(c30)					.118	.052	.156	2.294		.023			
Incentive policies(c33)					-.109	.067	-.139	-1.617		.108			
Institutional policies(c34)					.164	.072	.190	2.297		.023			
Regulation and policy issues(c32)					.111	.070	.132	1.591		.114			

R^2 is 0.507 or 50.7% of the variations in the human resources skills is determined by the external environmental factors. Sig is 0.0001, which shows the regression is significant.

The estimated regression is

$$\bar{Y} = 1.080 + 0.048(C8) + .394(c29) + 0.118(c30) - 0.109(c33) + 0.164(c34) + 0.111(C32)$$

6.25

The variables that significantly affect the outcome of the dependent variable (The human resources skills) are the constant, technological factors, macroeconomic environment factors and institutional policies.

Table 6.37: Dependent Variable: C25b strategic management factors

Model Summary		Change Statistics							Durbin-Watson		
R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change			
.619 ^a	.383	.360	.49158	.383	16.467	6	159	.000	1.908		
ANOVA											
		Sum of Squares		df	Mean Square		F	Sig.			
Regression		23.875		6	3.979		16.46	.000			
Residual		38.422		159	.242		7				
Total		62.297		165							
Coefficient											
				Unstandardized Coefficients		Standardized Coefficients		t	Sig.		
				B	Std. Error	Beta					
(Constant)				1.464	.225		6.503				
Opportunities in globalisation(c8)				.128	.052	.189	2.449				
Technological factors(c29)				.348	.067	.411	5.192				
Macroeconomic environment factors(c30)				.044	.056	.059	.776				
Incentive policies(c33)				-.045	.074	-.058	-.605				
Institutional policies(c34)				.060	.078	.071	.772				
Regulation and policy issues(c32)				.080	.076	.097	1.047				

R^2 is 0.383. Therefore 38.3% of variations in strategic management factors are determined by external variables. Sig = 0.001 which means the regression is significant.

The estimated regression equation is

$$\bar{Y} = 1.464 + 0.128(C8) + 0.348(c29) + .044(c30) - 0.045(c33) + 0.060(c34) + 0.060(C34)$$

6.26

Significant parameters in the equation are the constant, Opportunities in globalisation (c8), technological factors (c29). They are the factors that contribute to the outcome of the dependent variable (Strategic management factors).

Table 6.38 **Dependent Variable: C26 Finances/Capitalisation factors**

Model Summary	R	R ²	Adjusted Square	R	Std. Error of the Estimate	Change Statistics			Durbin-Watson					
	.517 ^a	.267	.240	.40977	.267	R Square Change	F Change	df 1	df2	Sig. F Change	2.21			
ANOVA														
			Sum of Squares			Mean Square			F					
			Regression 9.740			6 1.623			9.667 .000					
			Residual 26.698			159 .168								
			Total 36.438			165								
Coefficients														
						Unstandardized Coefficients			Standardized Coefficients					
						B	Std. Error	Beta	t	Sig.				
						2.195	.188		11.69					
						(Constant)			4	.000				
						Opportunities in globalisation(c8)	.059	.044	.113	1.342	.181			
						Technological factors(c29)	.200	.056	.309	3.581	.000			
						Macroeconomic environment factors(c30)	.059	.047	.104	1.254	.212			
						Incentive policies(c33)	.028	.061	.047	.450	.653			
						Institutional policies(c34)	.047	.065	.073	.722	.471			
						Regulation and policy issues(c32)	.008	.063	.012	.118	.906			

$R^2 = 0.267$. Therefore, 26.7% of the variations in the dependent variable are determined by external factors (independent variables). $Sig = 0.001$ which means the regression is significant.

The estimated regression equation is

$$\check{Y} = 2.195 + 0.059(C8) + .200(c29) + 0.059(c30) + 0.008(C32) + 0.028(c33) + 0.047(c34)$$

6.27

Significant parameters in the equation are the constant, Opportunities in globalisation (c8) C8mean, technological factors (c29). They affect the outcome of the dependent variable (Finances/Capitalisation factors).

Table 6.39: Dependent Variable: C27 Marketing management factors

Model Summary	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			Durbin-Watson		
					R Square Change	F Change	df1	df2	Sig.	F Change
	.684 ^a	.467	.447	.42940	.467	23.255	6	159	.000	2.252
ANOVA										
		Sum of Squares	df		Mean Square		F		Sig.	
Regressi		25.728	6		4.288		23.2		.000(a)	
Residual		29.317	159		.184					
Total		55.045	165							
Coefficients										
					Unstandardized Coefficients		Standardized Coefficients		t	Sig.
					B	Std. Error	Beta			
(Constant)				1.387	.197				7.053	.000
Opportunities in globalisation(c8)				.046	.046	.073			1.016	.311
Technological factors(c29)				.309	.059	.389			5.283	.000
Macroeconomic environment factors(c30)				.119	.049	.171			2.414	.017
Incentive policies(c33)				.014	.064	.019			.215	.830
Institutional policies(c34)				.164	.068	.206			2.398	.018
Regulation and policy issues(c32)				-.005	.066	-.006			-.069	.945

Table 6.39 shows that $R^2 = 0.467$. This implies that 46.7% of the variations in the dependent variable (Marketing management strategies) are explained by the independent variables (external factors). $Sig = 0.001$, which shows the regression, is significant. The regression equation is:

$$\tilde{Y} = 1.387 + 0.046(C8) + .309(c29) + 0.119(c30) + 0.014(c33) + 0.164(c34) - 0.005(C32)$$

6.28

Several factors significantly affect the outcome of the dependent variable (Marketing management factors). These are the constant, technological factors (c29), macro economic factors (c30) and the institutional policies (c34).

Table 6.40 : Dépendent Variable : C28 Entrepreneurial management factors

Model Summary	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics				Durbin-Watson						
					R Square Change	F Change	df1	df2	F Change						
	.652 ^a	.425	.403	.47334	.425	19.555	6	15 9	.000	1.893					
ANOVA															
				Sum of Squares		df	Mean Square		F	Sig.					
Regression		26.288		6		4.381	19. 55		.000(a)						
Residual		35.624		159		.224									
Total		61.912		165											
Coefficients															
		Unstandardized Coefficients				Standardized Coefficients		t							
				B		Std. Error	Beta								
(Constant)		1.758		.217			8.10 7		.000						
Opportunities in globalisation(c8)		-.022		.050		-.033	-.445		.657						
Technological factors(c29)		.519		.065		.615	8.04 0		.000						
Macroeconomic environment factors(c30)		.075		.054		.102	1.38 8		.167						

Table 6.40 continued

Incentive policies(c33)	.067	.071	.087	.940	.349
Institutional policies(c34)	-.053	.075	-.063	-.699	.486
Regulation and policy issues(c32)	-.029	.073	-.036	-.402	.688

R^2 is 0.425 or 42.5%. Therefore, the variations in the dependent variable (Entrepreneurial management factors) are determined by the independent variables. Sig = 0.001 which shows the regression is significant. The regression equation is

$$\tilde{Y} = 1.758 - 0.022(C8) - 0.022(c8) + 0.519(c29) + 0.075(c30) + 0.067(c33) - 0.053 (c34) - 0.029(C32) \quad 6.30$$

The constant and the technological factors (c29) significantly affect the outcome of the dependent variables (Entrepreneurial management factors).

Table 6. 41: **Dependent variable: C29 Technological factors**

Model Summary	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics					Sig. Change	F	Durbin-Watson
				R ² Change	F Change	df 1	df2				
	.382	.362	.58003	.382	19.762	5	160	.000			2.034
ANOVA											
				Sum of Squares	df	Mean Square		F			
			Regression	33.244	5	6.649		19.762			.000
			Residual	53.830	160	.336					
			Total	87.074	165						
Coefficients											
				Unstandardized Coefficients		Standardized Coefficients		t			
				B	Std. Error	Beta					
			(Constant)	1.019	.253			4.027			.000
			Opportunities in globalisation(c8)	.004	.062	.005		.062			.951
			Technological factors(c29)	.231	.064	.263		3.608			.000
			Macroeconomic environment factors(c30)	.133	.086	.147		1.546			.124
			Incentive policies(c33)	.228	.090	.228		2.519			.013
			Institutional policies(c34)	.128	.089	.131		1.431			.154
			Regulation and policy issues(c32)	1.019	.253			4.027			.000

R^2 is 0.382. Thus 38.2% of the variations in the dependent variables (Technological factors) are influenced by the independent variables (external factors). Sig = 0.001 which shows the regression is significant. The regression equation is:

$$\tilde{Y} = 1.019 + 0.004(C8) + 0.231(c29) + 0.133(c30) + 0.228(c33) + 0.128(c34) + 0.128(C32)$$

6.31

The constant, macroeconomic factor and institutional policies significantly affect the outcome of the dependent variable.

Table 6.42 **Dependent Variable: B15.3 Interpersonal skills**

Model Summary	R	R^2	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Durbin-Watson			
					R Square Change	F Change	df 1	df2 1	Sig. F Chang	1.706		
	.381 ^a	.145	.112	.77656	.145	4.432	6	5	.000			
ANOVA												
				Sum of Squares		df	Mean Square		F	Sig.		
		Regression		16.035		6	2.672		4.43	.000(a)		
		Residual		94.677		157	.603					
		Total		110.712		163						
Coefficients												
					Unstandardized Coefficients		Standardized Coefficients		t			
					B	Std. Error	Beta		Sig.			

R^2 is 0.112 or 11.2%. That implies 11.2% of the variation in the dependent variable (Interpersonal skills) are determined by the independent variables (external factors). Sig = 0.0001 which mean the regression is significant. The regression model is:

$$\bar{Y} = 3.600 + 0.237(C8) - 0.082(c29) - 0.194(c30) + 0.311(c33) + 0.080(c34) - 0.175(c32).$$

6.32

The constant, Opportunities in globalisation (c8) and incentive policies (c33) significantly affect the outcome of the dependent variable.

6.6 Establishing Critical Management Factors That Contribute To Performance

The first research objective was to establish the critical management factors affecting performance. In this section, Simple Linear Regressions tests were done between the factors and gross profit to establish the management factors that determine financial performance in MSMEs in Kenya. It is commonly accepted that the ultimate aim of any business is to make a profit. Based on that experience and knowledge the profit is taken to be a measure of performance. Each factor is separately regressed with the gross profit to enable clear observation of the factors that are critical to performance.

In table 6.43, Strategic management composite mean was regressed with the gross profit. The most important result from the “model summary” table is the R Square statistic, which is an indication of how much the independent variable affects the dependent variable. A benchmark of approximately 0.6 was adopted, so that any value above it indicates a good fit. In this case we have R^2 as 0.04, or $R^2 = 100(0.04) = 4\%$. This means that 4% of the variation in the dependent variable (profitability) can be explained by the independent variables,

The ANOVA table shows the result of testing the null hypothesis that all regression coefficients (the B's in the table below) are zero. If the p-value of the F statistic ("Sig.") is smaller than or equal to 0.05, then this null hypothesis is rejected, meaning that the regression is significant. In this case, "Sig." = 0.414, which shows that the regression is not significant.

Table 6.43: Independent Variable: C25b (Strategic management factors) and Gross Profit

Model Summary		R	R Square	Adjusted R Square	Std. Error of the Estimate		
		.061(a)	.004	-.002	56.2022645		
ANOVA							
			Sum of Squares	df	Mean Square	F	Sig.
	Regression	2115.079		1	2115.079	.670	.414
	Residual	559088.933		177	3158.695		
	Total	561204.012		178			
Coefficients			Unstandardized Coefficients	Standardized Coefficients	t	Sig.	
			B	Std. Error	Beta	B	Std. Error
	(Constant)	-1.286	23.314			-.055	.956
	Mean Strategic management factors	5.317	6.498	.061		.818	.414

The "Coefficients" – table shows the estimated regression coefficients. The "B" coefficients is the estimated regression coefficients which will appear in the estimated regression equation, in this case, $\hat{y} = -1.286 + 5.317(c25b)$.

6.33

The "Beta" coefficients are used to compare the magnitude of the coefficients with each other. The "Sig." column shows whether the "B" coefficient is significant. If "Sig." is smaller than or equal to 0.05, then the coefficient is significant. For example, for the variable c25bmean we have "Sig." = 0.414. This means that the variable c14 (Strategic

management factors) does not significantly affect the dependent variable: C35 – (gross profit 2006)

Table 6.44: Independent Variable: C26 Finances/Capitalisation Factors

Model Summary	R .102(a)	R Square .010	Adjusted R Square .005	Std. Error of the Estimate 56.1595638
ANOVA				
		Sum of Squares	df	Mean Square
Regression		5861.420	1	5861.420
Residual		555085.803	176	3153.897
Total		560947.224	177	
Coefficients				
		Unstandardized Coefficients	Standardized Coefficients	t
		Std. Error	Beta	B
(Constant)	-23.271	30.253		-.769
:				.443
Finances/C apitalisation factors	11.497	8.433	.102	1.363
				.175

R^2 statistic is 0.010 OR 1%. This means that 1% of the variation in the dependent variable (gp 2006) is explained by the independent variable (C26-Finances/Capitalisation Factors). This is very low. The P-value of the F statistic is 1.858 with a Sig of 0.175 which is larger than 0.05. This shows that the regression is not significant.

The estimated regression is $\hat{y} = -23.271 + 11.497(C26)$.

6.34

Sig = 0.175 of the B coefficient which is not significant, it is bigger than 0.05. This implies that the Finance/capitalisation factors do not significantly contribute to the dependent variable.

Table 6.45 Independent Variable: C27 Marketing Management Factors

Model Summary				Std. Error of the Estimate	
R	R Square	Adjusted R Square			
.127(a)	.016	.010		56.2881066	
ANOVA(b)					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	9039.634	1	9039.634	2.853	.093
Residual	551293.064	174	3168.351		
Total	560332.698	175			
Coefficients(a)					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	B	Std. Error
(Constant)	-25.909	26.204		-.989	.324
: Marketing management factors	12.173	7.207	.127	1.689	.093

$R^2 = 0.016$ or 1.6%. This means that 1.6% of the variation in the dependent variable is explained by independent variable C27. P-value of the F statistic is 2.853 with Sig = 0.093 which is bigger than 0.05 so the regression is not significant (Table 6.39)

The estimated regression equation is $\hat{y} = 5.317(C27) - 25.909$. **6.35**

This implies that marketing management strategies contributed 1.6% to the gross profit.

Table 6.46: Independent Variable: C28 Entrepreneurial Management Factors

Model Summary				Std. Error of the Estimate	
R	R Square	Adjusted R Square			
.018	.000	-.005		56.7385382	
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	181.160	1	181.160	.056	.813(a)
Residual	560151.538	174	3219.262		
Total	560332.698	175			
Coefficients					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	B	Std. Error
(Constant)	12.007	24.658		.487	.627

Table 6. 46 continued

Entrepreneurial management factors	1.583	6.674	.018	.237	.813
------------------------------------	-------	-------	------	------	------

$R^2 = 0.000$. This means that the outcome of the dependent variable (gp 2006) has nothing to do with the independent variable (C28, the Entrepreneurial strategies). The P-value of the F statistic “Sig” is larger than 0.05 it is 0.813, which shows regression is not significant.

$$\hat{y} = 12.007 + 1.583 \text{ (C28).}$$

6.36

None of the coefficients is significant (the ‘Sig’ in both cases is larger than 0.05. That shows the entrepreneurial factors do not affect the dependent variable (gross profit)

Table 6.47: **Independent Variable: C29 Technological Factors**

Model Summary				Adjusted R Square	R	Std. Error of the Estimate
	R .146(a)		R Square .021		.016	54.4019573
ANOVA(b)						
		Sum of Squares	df	Mean Square	F	Sig.
	Regression	11162.138	1	11162.138	3.772	.054(a)
	Residual	512006.122	173	2959.573		
	Total	523168.260	174			
Coefficients(a)		Unstandardized Coefficients		Standardized Coefficients	t	Sig. Std.
	(Constant)	B -20.614	Std. Error 19.633	Beta	B -1.050	Error .295
	Mean Technological factors	10.806	5.564	.146	1.942	.054

$R^2 = 0.021$ OR 2.1%. This means 2.1% of the variation in the dependent variable is explained by the independent variable. The P-value of the F statistic Sig = 0.054 which is higher than 0.05. This shows that the regression is not significant. From the table none of

the coefficient in the equation is significant though technology is just at the borderline.

Equation is:

$$\hat{y} = 10.806 (\text{c29mean}) - 20.614.$$

6.37

Table 6.48: Independent Variable: C30 Macroeconomic Environment Factors

Model Summary	R 0.161(a)	R Square 0.026	Adjusted Square 0.020	R Std. Error of the Estimate 54.2741130
ANOVA(b)				
		Sum of Squares	df	Mean Square F Sig.
Regression	13565.734	1	13565.734	4.605 .033(a)
Residual	509602.526	173	2945.679	
Total	523168.260	174		
Coefficients (a)				
		Unstandardized Coefficients	Standardized Coefficients	t Sig.
		B Std. Error	Beta	B Std. Error
(Constant)	-18.072	16.701		-1.082 .281
Mean : Macroeconomic environment factors	10.537	4.910	.161	2.146 .033

$R^2 = 0.026$ or 2.6%. This implies that 2.6% of the variation in the dependent variable can be explained by the independent variable. The P-value of the F statistic $Sig = 0.033$ that is below 0.05 so it shows the regression is significant.

The estimated regression equation $\hat{y} = 10.537(C30) - 18.072$

6.38

The coefficient or ‘Sig’ for macroeconomic environment factors = 0.033 which shows the variable significantly affects the outcome of the dependent variable.

Table 6.49 Independent Variable: C32 Regulation and Policy Issues

Model Summary				Adjusted Square	R	Std. Error of the Estimate
	R	R Square				
	.136(a)	.018		.013	55.0753133	
ANOVA		Sum squares	of df	Mean square	f	sig
		Regression	9609.281	1	9609.281	3.168
		Residual Total	512626.0	169	3933.290	.077
			522235.3	170		
Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
(Constant)		-16.557	19.263		-.860	.391
Regulation and policy issues		9.805	5.509	.136	1.780	.077

$R^2 = 0.018$ or 1.8%. Therefore 1.8% of the variability in the dependent variable can be explained by the independent variable. The p-value of the F –statistic is 0.077 which is higher than 0.05 so the regression is not significant.

The estimated model $\hat{y} = -16.557 + 9.805(C32\text{mean})$.

6.39

None of the coefficients in the Model significantly affects the outcome of the dependent variables.

Table 6.50: Independent Variable: C33 Incentive Policies

Model Summary				Adjusted Square	R	Std. Error of the Estimate
	R	R Square				
	.162(a)	.026		.020	54.7041727	
ANOVA		Sum of Squares	df	Mean Square	F	Sig.
		Regression	13635.435	1	13635.435	4.556
		Residual	508732.90	170	2992.547	.034(a)
		6				
Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
(Constant)		-20.414	17.995		-1.134	.258
Incentive policies		10.759	5.040	.162	2.135	.034

R^2 is 0.026 or 2.6%. This implies that 2.6% of the variability in the dependent variable (gross profit) can be explained by the independent variable (incentive policies). The p-value of the F statistic is 0.034 below 0.05, so the regression is significant.

The estimated equation: $\hat{y} = 10.759(C33\text{mean}) - 20.414$.

6.40

The coefficient for incentive policies is 0.034, which means it has a significant effect on the outcomes of the dependent variables (gross profit).

Table 6.51: **Independent Variable: C34 Institutional Policies**

Model Summary	R .142(a)	R Square .020	Adjusted R Square .014	Std. Error of the Estimate 55.0264015		
ANOVA		Sum of Squares Regression 10590.5 73 Residual 511715. 922 Total 522306. 495	df 1 169 170	Mean Square 10590.573 3027.905	F 3.498	Sig. .063(a)
Coefficients		Unstandardized Coefficients (Constant) -18.563 Institutional policies 10.449	Standardized Coefficients Beta 19.471 5.587 .142	t -.953 1.870	Sig. .342 .063	

$R^2 = 0.020$ or 2%. Therefore 2% of the variations in the dependent variable is explained by the independent variable. The p – value of the F statistic $Sig = 0.063$. This shows the regression is not significant. The regression equation: $\hat{y} = 10.449C34\text{mean} - 18.563$.

6.41

None of the coefficients is significant. Therefore, the institutional policies do not significantly affect the gross profit.

Table 6.52: Independent variable: C24 the Human Resources Skills

Model Summary	R .120(a)	R Square .014	Adjusted R Square .009	Std. Error of the Estimate 55.9028190
ANOVA				
Regression	Sum of Squares 8056.857	df 1	Mean Square 8056.857	F 2.578
Residual	553147.156	177	3125.125	Sig. .110(a)
Total	561204.012	178		
Coefficients				
	Unstandardized Coefficients		Standardized Coefficients	t
(Constant)	B -19.287	Std. Error 23.277	Beta	B -.829
The human resources skills	10.367	6.457	.120	1.606
				Sig. .408
				.110

$R^2 = 0.014$ or 1.4%. This means only 1.4% of the variation in the dependent variable can be explained by the independent variable. The p – value of the f – statistic is 0.110, which shows the regression is not significant.

The regression equation: $\hat{y} = 10.367 (\text{C24mean}) - 19.287$.

6.42

None of the coefficients is significant implying the human resource factors do not significantly affect the dependent variable.

Table 6.53: Independent Variable: C14 Management Role/Responsibility

Model Summary	R .029(a)	R Square .001	Adjusted R Square -.005	R 57.1702048	Std. Error of the Estimate
ANOVA					
Regression	Sum of Squares 454.620	df 1	Mean Square 454.620	F .139	Sig. .710(a)
Residual	558901.925	171	3268.432		
Total	559356.545	172			

Table 6.53 continued

Coefficients	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	8.927	24.918		.358	.721
Management					
Role/Responsibility	2.350	6.300	.029	.373	.710
y					

$R^2 = 0.001$. This implies that 0.1% of the variations in the dependent variable are determined by the management roles/ responsibility. The p – value of the F statistic is 0.710, which shows that regression is not significant.

The regression equation is $\hat{y} = 8.927 + 2.350 C14$

6.43

This implies that, management role/responsibility contributed very little (0.1%) to the gross profit of the MSMEs.

Table 6.54: **Independent Variable: B15.3 Interpersonal Skills**

Model Summary		R Square		Adjusted Square	R	Std. Error	of the Estimate
R .002(a)		.000		-.006	56.6196809		
ANOVA		Sum of Squares		df	Mean Square	F	Sig.
Regression		1.779		1	1.779	.001	.981(a)
Residual		561012.946		175	3205.788		
Total		561014.725		176			
Coefficients		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
		B	Std. Error	Beta	B	Std. Error	
(Constant)		18.060	21.704		.832	.406	
: Interpersonal skills		-.121	5.125	-.002	-.024	.981	

$R^2 = 0.000$. This implies that the independent variable had no effect on the dependent variable. The p-value of the f statistic is 0.981 which implies that the regression is not significant.

The equation is $\hat{y} = 18.060 - 0.121(B15.3)$.

6.44

Interpersonal skills (B15.3) appeared to have nothing to do with the gross profit.

6.7 Verification and confirmatory tests

The main objective of this study was to investigate the critical management factors affecting MSMEs in Kenya. In answering the question the researcher found it necessary to differentiate between factors affecting the different sizes of enterprises (the micro, Small and Medium sizes). Further, from the review in chapter two it was observed that the terminology ‘management’ has many implications such that it refers to persons occupying management positions, the activities carried out by managers, the skills, roles and functions. In this section, further tests were done to verify, confirm and compliment the previous tests to ensure the conclusions made are well

6.7.1 T tests and Mann Whitney U tests between groups

a) Mann-Whitney U-tests are used when the normality assumption is violated for one or more groups. In the Table 6.49 below, the Independent variable is A1 (Gender) and dependent variables are gp06new (Gross profit for 2006), gp05new (Gross profit for 2005), gp04new (Gross profit for 2004) separately.

Table 6.55: Gender and the Gross Profit for 2004-2006

	gp06new	gp05new	gp04new
Mann-Whitney U	2384.500	2366.000	2356.500
Wilcoxon W	7949.500	7931.000	7921.500
Z	-1.972	-2.037	-2.071
Asymp. Sig. (2-tailed)	.049	.042	.038

Mann-Whitney U-test of the null hypothesis that there is no significant difference between males and females in terms of the organization’s gross profit. It is done

separately for each of the years 2004, 2005 and 2006. If the p-value of the Z-statistic, called “Asymp. Sig. (2-tailed)” is less than or equal to 0.05, then the null hypothesis is rejected. For example, for gp06new it shows “Asymp. Sig. (2-tailed)” = 0.049. It was then concluded with 95% certainty that there is a significant difference between the 2006 gross profit for males and females. The Sig for gross profit 2005 is 0.042 and that for gross profit 2004 is 0.038 in all instances there is a significant difference in the gross profit for males and females.

Table 6.56: Gender and Sales Turnover 2004-2006

	st04new	st05new	st06new
Mann-Whitney U	2385.000	2394.000	2409.000
Wilcoxon W	7950.000	7959.000	7974.000
Z	-1.970	-1.938	-1.885
Asymp. Sig. (2-tailed)	.049	.053	.059

Asymp. Sig = 0.049 less than 0.05. It is concluded with 95% certainty that there is a significant difference between the 2004 sales turnover for males and females. The same is not true for 2005 and 2006 which Asymp. Sig are 0.530 and 0.059 respectfully but all were quite at the margin..

Table 6.57: Gender and Net Assets for 2004-2006

	na04new	na05new
Mann-Whitney U	5.000	7.000
Wilcoxon W	60.000	85.000
Z	-1.690	-1.588
Asymp. Sig. (2-tailed)	.091	.112
Exact Sig. [2*(1-tailed Sig.)]	.112(a)	.136(a)

Asymp. ‘Sig’ for both 2004 and 2005 are higher than 0.05 therefore no significant difference for males and females

Table 6.58: Gender and Capital Employed

	ce04new	ce05new	ce06new
Mann-Whitney U	17.500	23.000	21.000
Wilcoxon W	95.500	128.000	157.000
Z	-.790	-.531	-1.570
Asymp. Sig. (2-tailed)	.430	.595	.116
Exact Sig. [2*(1-tailed Sig.)]	.446(a)	.645(a)	.130(a)

The Sig for 2004, 2005 and 2006 are 0.446, 0.645 and 0.139 respectfully. There is no significant difference for capital employed in the three consecutive years for both males and females.

Table 6.59: Gender and Net Assets 2004-2006

	Net assets for 2004 in	Net assets for 2005 in	Net assets for 2006 in
Mann-Whitney U	3.000	2.000	.500
Wilcoxon W	18.000	17.000	15.500
Z	-2.355	-2.517	-2.766
Asymp. Sig. (2-tailed)	.019	.012	.006
Exact Sig. [2*(1-tailed Sig.)]	.018(a)	.010(a)	.003(a)

The net assets in the MSMEs at different locations show the Asymp. Sig (2 tailed) is 0.019 for 2004, 0.012 for 2005 and 0.006 for 2006. In all the years, there is significant difference at 95% certainty from location to location.

Table 6.60: Gender and Capital Employed 2004-2006

	Capital employed for 2004 in	Capital employed for 2005 in	Capital employed for 2006 in
Mann-Whitney U	.000	.000	1.000
Wilcoxon W	28.000	28.000	29.000
Z	-3.141	-3.134	-3.006
Asymp. Sig. (2-tailed)	.002	.002	.003
Exact Sig. [2*(1-tailed Sig.)]	.001(a)	.001(a)	.001(a)

The Assymp. Sig (2 tailed) for 2004 was 0.002 and the z statistic was -3.141, 2005 was 0.002 and z statistic was -3.134, 2006 was 0.003 and z statistic of -3.006. All Sigs are

below 0.05. It can be concluded at 95% confidence level that there is a significant difference between capitals employed in different locations over the three consecutive years.

Table 6.61: Levels of Management and Net Assets 2004-2006

	Net assets for 2004 in	Net assets for 2005 in	Net assets for 2006 in
Mann-Whitney U	11.000	10.000	12.000
Wilcoxon W	26.000	25.000	27.000
Z	-.313	-.522	-.104
Asymp. Sig. (2-tailed)	.754	.602	.917
Exact Sig. [2*(1-tailed Sig.)]	.841(a)	.690(a)	1.000(a)

The Asymp. Sig (2 tailed) for the 2004 was 0.754, 2005 was 0.602 and 2006 was 0.917 with p- values of 0.841, 0.690 and 1.000 respectively for the net assets. There is no significant difference on net assets based on level of management.

Table 6.62: Level of Management and Net Assets 2004-2006

	Capital employed for 2004 in	Capital employed for 2005 in	Capital employed for 2006 in
Mann-Whitney U	15.000	17.500	18.000
Wilcoxon W	51.000	53.500	54.000
Z	-.734	-.366	-.293
Asymp. Sig. (2-tailed)	.463	.714	.770
Exact Sig. [2*(1-tailed Sig.)]	.524(a)	.724(a)	.833(a)

The Asymp. Sig (2tailed) for capital employed. 2004 = 0.463, 2005=0.714 and 2006=0.776 where grouping variable is level of Management. It can be concluded that there is no significant difference on net assets based on level of management.

T-tests were used for both groups (male and female). This is because they came from normal populations. The normality assumption is not violated. The dependent variable: Management process (mgt) and independent variable: A6 (size of business).

Table 6.63: Management Process in Micro and Small Businesses

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mgt_process	Equal variances assumed	11.432	.001	-2.156	131	.033	-.22140	.10270
	Equal variances not assumed			-2.437	130.755	.016	-.22140	.09083

A t-test of the null hypothesis that there is no significant difference between micro- and small business in terms of the implementation of the management process is carried out.

One looks at the Levene's test for Equality of Variance in the first two columns. This is a test to see whether or not the variance of the two groups (micro-and small business) is significantly different or not. If the p-value of the F-statistic ("Sig.") is less than or equal to 0.05, then the variances for the two groups differ significantly ("equal variances not assumed"). Otherwise, the variances for the two groups do not differ significantly, ("equal variances assumed"). In this case, we have $F = 11.432$ with p-value ("Sig.") = 0.001, meaning that the variances for the two groups differ significantly ("equal variances not assumed"). Then observe the bottom line corresponding to "equal variances not assumed". Since the observed T-statistic is $t = -2.437$ with a P-value of 0.016, the null hypothesis is rejected. It is concluded with 95% certainty that there is a significant difference between micro-and small businesses in terms of the implementation of the management process.

Table 6.64: Management Process and Micro and Medium Enterprises

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mgt_process	Equal variances assumed	20.300	.000	-4.269	119	.000	-.47823	.11203
	Equal variances not assumed			-5.561	118.890	.000	-.47823	.08600

$F = 20.300$ with p-value of 0.001 meaning the variances for the two groups differ significantly. $T=-5.561$ with p- value of 0.001. It can be concluded that there is significant difference between micro and medium enterprises in terms of implementation of the management process.

Table 6.65: Management Process and Small and Medium Businesses

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Mgt_process	Equal variances assumed	5.176	.025	-3.314	84	.001	-.25683	.07749
	Equal variances not assumed			-3.452	83.989	.001	-.25683	.07440

$F=5.176$ with p-value of 0.001 meaning the variances for the two groups differ significantly. $T =-3.452$ with P-value of 0.001. It can be concluded with 95% certainty

that there is a significant difference between small and medium enterprises in terms of implementation of the management process.

Table 6.66: Gender and Net Assets 2006

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Net assets for 2006 in	Equal variances assumed	.001	0.975	-.473	17	.642	-4.0979933	8.6681966
	Equal variances not assumed			-.528	5.565	.618	-4.0979933	7.7669889

F=0.001 with a p-value of 0.975 which is above 0.05. It can be concluded that the variances of the two groups do not differ significantly. The t=-0.528 with p-value of 0.618. It can be concluded that there is no significant difference between the net assets for 2006 for males and females.

6.7.2 ANOVA / Kruskal-Wallis / MANOVA – tests

The ANOVA tests are used when all groups come from a normal population. The normality assumption is not violated. The dependent variable in this case was Management process and independent variable was the Category of business.

Table 6.67: Management Process and Category of Business

Test of Homogeneity of Variances						
	Levene Statistic	df1	df2	Sig.		
	10.041	3	176	.000		
ANOVA	Mgt-process	Sum Squares	of df	Mean Square	F	Sig.
Between Groups	6.295	3	2.098	7.753	.000	
Within Groups	47.632	176	.271			
Total	53.926	179				
Robust Tests of Equality of Means						
		Statistic(a)	df1	df2	Sig.	
	Welch	10.734	3	39.588	.000	

Descriptive statistics for management process, separately for each level of the factor, A6 (business category - micro, small, medium and large) included in the ANOVA test. Here, one can see the sample means of management process for each business category and this is usually an indication whether or not the population mean of Mgt-process is the same for each business category.

One of the assumptions in doing the ANOVA test is that the population variances for each level of the independent variable (factor) must be the same. The “Test of Homogeneity of Variances” above is Levene’s test. It is a test of the null hypothesis that the population variances for the levels micro, small, medium and large do not differ significantly from each other. If the p-value for the Levene - statistic (“Sig.”) is less than or equal to 0.05, then the null hypothesis is rejected and this means that the population variances are not the same. If this is the case, a more robust test must be used instead of the usual ANOVA to make provision for this violation. Otherwise, if “Sig.” is larger than 0.05, then the null hypothesis is not rejected, meaning that the population variances do not differ significantly from each other, and the usual ANOVA test can be used. In this

case, there is a Levene-statistic of 10.041 with p-value of “Sig.” = 0.0001, from which it can be concluded that the population variances for micro, small, medium and large businesses differ significantly from each other.

The ANOVA test is testing the null hypothesis that the population means for micro, small, medium and large business do not differ significantly from each other. If the P-value for the F-statistic (“Sig.”) is less than or equal to 0.05, then the null hypothesis is rejected, otherwise, if “Sig.” is larger than 0.05, then the null hypothesis cannot be rejected and therefore, it can be concluded that the population means for all business categories may not differ significantly from each other. The result of the ANOVA test above shows a F-statistic of 7.753 with a P-value (“Sig.”) of 0.0001. From this it can be concluded with 95% certainty that the population means of management process for micro, small, medium and large businesses differ significantly from each other.

In the above result of Levene’s test for the equality of population variance it was found that the population variances for the micro, small, medium and large businesses differ significantly from each other. As mentioned, this is violating one of the assumptions when applying the ANOVA, and therefore a more robust test, the Welch test, must be used to make provision for unequal population variances among the business categories. The Welch test is testing the exact same null hypothesis as the ANOVA test. The Welch-statistic is 10.734 with a p-value of 0.0001, meaning that the population means of management process for micro, small, medium and large businesses differ significantly from each other.

Kruskal – Wallis Test is used as an alternative to ANOVA when the normality assumption is violated for one or more groups. The One-Sample Kolmogorov-Smirnov Test is used to test whether or not the data (gross profit figures) for the different levels of the independent variable A2 (Highest level of education – O'level, A'level, diploma, university graduate, post graduate) are normally distributed.

One-Sample Kolmogorov-Smirnov Test

Table 6.68: One-Sample Kolmogorov-Smirnov Test for Highest Level of Education

highest level of education			Gross profit for 2004 in		Gross profit for 2005 in	Gross profit for 2006 in
O' level	N		24		24	24
	Normal Parameters (a,b)	Mean	1.551300		1.683538	1.876726
		Std. Deviation	3.5188796		3.7787846	4.1470649
	Kolmogorov-Smirnov Z		1.813		1.821	1.810
	Asymp. Sig. (2-tailed)		.003		.003	.003
A' level	N		17		17	17
	Normal Parameters(a,b)		Mean	14.378733	15.557904	18.179412
			Std. Deviation	44.1023127	47.4133017	55.7112749
	Kolmogorov-Smirnov Z		1.714		1.686	1.700
	Asymp. Sig. (2-tailed)		.006		.007	.006
Diploma	N		51		51	51
	Normal Parameters(a,b)		Mean	14.167281	15.235849	16.808442
			Std. Deviation	48.5998123	52.2572916	56.9717856
	Kolmogorov-Smirnov Z		2.864		2.864	2.921
	Asymp. Sig. (2-tailed)		.000		.000	.000
university graduate	N		60		60	60
	Normal Parameters(a,b)		Mean	25.641029	25.523564	27.586086
			Std. Deviation	65.7091360	68.9700696	72.0315420
	Kolmogorov-Smirnov Z		2.698		2.756	2.719
	Asymp. Sig. (2-tailed)		.000		.000	.000

Table 6.68 continues

post graduate	N	10		10	10
	Normal Parameters(a,b)	Mean	2.932458	3.296558	3.654930
		Std. Deviation	5.1416697	5.5277167	6.0723234
	Kolmogorov-Smirnov Z	1.118		1.052	1.012
	Asymp. Sig. (2-tailed)	.164		.218	.257

The One-Sample Kolmogorov-Smirnov Test is a test of the null hypothesis that the data for a level of the independent variable (e.g. Diploma) are normally distributed. If the p-value of the Kolmogorov-Smirnov Z statistic, called “Asymp. Sig. (2-tailed)”, is less than or equal to 0.05, then the null hypothesis is rejected, meaning that the data are not normally distributed. Otherwise, if the p-value is larger than 0.05, the null hypothesis is not rejected, which means that the data are indeed normally distributed. For example, for “Diploma” we have Kolmogorov-Smirnov Z = 2.864 with a p-value of 0.0001, meaning that the data for this population group are not normally distributed. Therefore, a non-parametric alternative test, the Kruskal-Wallis test must be used.

Table 6.69: Highest Level of Education and the Gross Profit 2004-2006

	gp06new	gp05new	gp04new
Chi-Square	9.764	9.962	10.876
df	4	4	4
Asymp. Sig.	.045	.041	.028

Table 6.70: Highest Level of Education and the Sales Turnover 2004-2006

	st04new	st05new	st06new
Chi-Square	10.478	10.759	10.992
df	4	4	4
Asymp. Sig.	.033	.029	.027

The Kruskal-Wallis test is testing the null hypothesis that the population mean sales turnover for the different levels of education do not differ significantly from each other. If the p-value for the Chi-Square statistic (“Asymp. Sig.”) is less than or equal to 0.05, then the null hypothesis is rejected, otherwise, if “Sig.” is larger than 0.05, then the null hypothesis can not be rejected and therefore it can be concluded that the population mean, sales turnover for all levels of education do not differ significantly from each other. The result of the Kruskal-Wallis test for dependent variable “st04new” above shows a Chi-Square statistic of 10.478 with a p-value (“Sig.”) of 0.033, which is less than 0.05. From this, it can be concluded with 95% certainty that the population mean sales turnover for 2004 differ significantly between the levels of education. It can be said that the highest level of education has an influence on the sales turnover figures for 2004.

Table6.71: Highest Level of Education and Net Assets 2004-2006

	Net assets for 2004 in	Net assets for 2005 in	Net assets for 2006 in
Chi-Square	.635	1.438	1.885
df	3	3	4
Asymp. Sig.	.888	.697	.757

The Chi-square statistic in 2004(for the net assets) is 0.635, with a p-value of 0.888. In 2005 chi-square is 1.438 and p-value of 0.697 and in 2006 the chi-square is 1.885 with a p-value of 0.757. In all the years, it can be conducted that the level of education has no effect on the net assets.

Table 6.72: Highest Level of Education and Capital Employed

	Capital employed for 2004	Capital employed for 2005	Capital employed for 2006
Chi-Square	.282	.451	.407
df	4	4	4
Asymp. Sig.	.991	.978	.982

Kruskal Wallis test was conducted for capital employed in years 2004, 2005 and 2006 and the level of education. The Wallis Test results on Education obtained in Table 6.72 shows that,

Capital employed	chi-square	P-value.
2004	0.282	0.991
2005	0.451	0.978
2006	0.407	0.982

It can be concluded that the level of education had no effect on capital employed.

Table 6.73: Number of Years in Operation and Gross Profit 2004-2006

	Gross profit for 2004 in	Gross profit for 2005 in	Gross profit for 2006 in
Chi-Square	26.789	26.799	26.147
df	3	3	3
Asymp. Sig.	.000	.000	.000

The Kruskal Wallis test obtained for the means of Gross Profit within 2004, 2005 and 2006 and number of years in operation are as follows,

Year	Chi-square	P-value
2004	26.789	0.0001
2005	26.799	0.0001
2006	26.147	0.0001

From this, it can be concluded with 95% certainty that the population means gross profit for year 2004, 2005 and 2006 differ significantly over the years in operation. The Age of the business has an influence on the gross profit.

Table 6.74: Number of Years in Operation and Sales Turnover for 2004-2006

Test Statistics	Sales turnover for 2004 in	Sales turnover for 2005 in	Sales turnover for 2006 in
Chi-Square	25.289	25.762	26.898
df	3	3	3
Asymp. Sig.	.000	.000	.000

The results from the Kuskal Wallis test on mean sales turn over for the different number of years in operation shows that .Sales turnover year for the different number of years in operation shows that:

Sales turnover year	Chi square	P-value
2004	25.289	0.0001
2005	25.762	0.0001
2006	26.898	0.0001

It can be concluded with 95% confidence that the mean sale differ significantly within the years in operation. Therefore, the years in operation influence the sales turnover over the years

Independent variable: A5_KW (Location – Eldoret, Meru, Nairobi)

Table 6.75: Location and the Gross Profit 2004- 2006

	Gross profit for 2004 in	Gross profit for 2005 in	Gross profit for 2006 in
Chi-Square	4.022	3.685	3.164
df	2	2	2
Asymp. Sig.	.134	.158	.206

A Kruskal Wallis Test on the population mean of gross profit on location (table 6.75) gave the following results.

Gross Profit in	Chi-square statistic	p-value
2004	4.022	0.134
2005	3.682	0.158
2006	3.164	0.206

The results show that the location of the business has no significant influence on the gross profit of the businesses (MSMEs).

- (a) **Dependent variable : st06new (Sales turnover for 2006)**
- st05new (Sales turnover for 2005)**
- st04new (Sales turnover for 2004)**

Figure 6. 75b: Sales Turnover and Location of Business.

Sales turnover 2004-2006 and location of business			
	Sales turnover for 2004	Sales turnover for 2005	Sales turnover for 2006
Chi square	3.515	3.598	3.379
df	2	2	2
Asymp. Sig	.172	.165	.185

From the table of Kruskal Wallis test, the Chi-square statistic for the years 2004, 2005 and 2006 are 3.515, 3.598, and 3.379 with P-values of 0.172, 0.165 and 0.185 respectively. It can be concluded that within the years 2004, 2005 and 2006, there is no significant relationships between the sales turnover and the location of the business.

Independent variable: A6 (Category of business venture in terms of employees)

A test conducted for the population mean of the gross profit and sales turnover for the business category is shown on table 6.76 below. Over the years 2004-2006, there is a significant difference of the gross profit within the business category.

Table 6.76: Category of Business Venture in Terms of Employees

	Gross profit for 2004 in	Gross profit for 2005 in	Gross profit for 2006 in
Chi-Square	58.849	59.026	57.098
df	3	3	3
Asymp. Sig.	.000	.000	.000

A similar observation can be derived from a test on the sales turnover versus the business category below (table 6.77), that there existed a significance difference in all the business categories.

Table 6.77: Category of Business Venture in Terms of Employees

	Sales turnover for 2004 in	Sales turnover for 2005 in	Sales turnover for 2006 in
Chi-Square	56.909	57.646	58.960
df	3	3	3
Asymp. Sig.	.000	.000	.000

In table 6.78, for the gross profit over the years and the level of management were tested.

Table 6.78: Independent variable: A7 (Level of management)

	Gross profit for 2004 in	Gross profit for 2005 in	Gross profit for 2006 in
Chi-Square	.431	.391	.304
df	2	2	2
Asymp. Sig.	.806	.822	.859

A Kruskal Wallis test for population mean of gross profit and sales turnover (table 6.79) for different levels of management shows that, the gross profit and sales turnover over the years do not differ significantly based on level of management. Therefore, the level of management had no effect on gross profit or sales turnover in the MSMEs.

Table 6.79: Level of Management

	Sales turnover for 2004 in	Sales turnover for 2005 in	Sales turnover for 2006 in
Chi-Square	.411	.378	.343
df	2	2	2
Asymp. Sig.	.814	.828	.842

The MANOVA is a test of the null hypothesis that the population mean vector [gp04new na04new ce04new] for each level of education (O'level, A'level, Diploma, Univ degree, Post grad degree) do not differ significantly from each other. There are 4 test statistics used to test the null hypothesis: Pillai's Trace, Wilk's Lambda, Hotelling's Trace and Roy's Largest Root, as indicated in the table above. To decide which statistic to use, one needs to take in to consideration the power of the test when using the statistic. This is the last column "Observed Power". The power of a test is the probability to correctly reject

the null hypothesis when it is false. Therefore, we want the power of the test to be as high as possible.

In this case, we will use Roy's largest Root as our test statistic, since the power of the test is then 0.970, which is the highest among all the other test statistics.

The test statistic is transformed so that it has a F-distribution, as can be seen in the “F” column. If the P-value of the F-statistic (“Sig.”) is less than or equal to 0.05, then the null hypothesis is rejected.

From the above results we have that Roy's Largest Root = 3.403 with corresponding F = 10.208 and p-value of 0.003. This means that the null hypothesis is rejected, i.e. there is a significant difference between the population mean vector [gp04new na04new ce04new] for each level of education (O'level, A'level, Diploma, Univ degree, Post grad degree).

Table 6.80: gp04new, na04new, ce04newb and a4

Multivariate Tests		Value	F	Hypothesis df	Error df	Sig.	Observed Power(a)
Intercept	Pillai's Trace	.443	1.856(b)	3.000	7.000	.225	.299
	Wilks' Lambda	.557	1.856(b)	3.000	7.000	.225	.299
	Hotelling's Trace	.796	1.856(b)	3.000	7.000	.225	.299
	Roy's Largest Root	.796	1.856(b)	3.000	7.000	.225	.299
	Pillai's Trace	.609	.764	9.000	27.000	.650	.292
	Wilks' Lambda	.496	.639	9.000	17.187	.750	.173
	Hotelling's Trace	.820	.516	9.000	17.000	.843	.176
	Roy's Largest Root	.492	1.476(c)	3.000	9.000	.286	.269

Pillai's trace has the highest power=0.292. F statistic=0.794 and a P-value of 0.650.

There no significant differences between population vector (gp04, na04 & CE04) for each category of age (years in operation).

Table 6.81: gp04new, na04new, ce04new and a5

Multivariate Tests		Value	F	Hypothesis df	Error df	Sig.	Observed Power(a)
a5	Pillai's Trace	.488	2.857(b)	3.000	9.000	.097	.488
	Wilks' Lambda	.512	2.857(b)	3.000	9.000	.097	.488
	Hotelling's Trace	.952	2.857(b)	3.000	9.000	.097	.488
	Roy's Largest Root	.952	2.857(b)	3.000	9.000	.097	.488
	Pillai's Trace	.470	2.662(b)	3.000	9.000	.111	.459
	Wilks' Lambda	.530	2.662(b)	3.000	9.000	.111	.459
	Hotelling's Trace	.887	2.662(b)	3.000	9.000	.111	.459
	Roy's Largest Root	.887	2.662(b)	3.000	9.000	.111	.459

All tests gave the same observed power 0.459 and the same F statistic=2.662 and same p-value of 0.111 which was higher than 0.05 showing no significance difference between location and the population mean vector (gp04, na04 and CE04).

Table 6.82: gp04new, na04new, ce04new and a6

Multivariate Tests		Value	F	Hypothesis df	Error df	Sig.	Observed Power (a)
a6	Pillai's Trace	1.000	223150.859(b)	3.000	7.000	.000	1.000
	Wilks' Lambda	.000	223150.859(b)	3.000	7.000	.000	1.000
	Hotelling's Trace	95636.082	223150.859(b)	3.000	7.000	.000	1.000
	Roy's Largest Root	95636.082	223150.859(b)	3.000	7.000	.000	1.000
	Pillai's Trace	1.176	1.935	9.000	27.000	.089	.706
	Wilks' Lambda	.000	282.749	9.000	17.187	.000	1.000
	Hotelling's Trace	161835.887	101896.669	9.000	17.000	.000	1.000
	Roy's Largest Root	161835.692	485507.077(c)	3.000	9.000	.000	1.000

The highest observed power was 1.000 for three tests (are Wilks Lambda, Hotelling's Trace and Roy's Largest Root). Roy's Largest root is selected. The F statistic is 485507.1 with a P-value of 0.0001. This shows there is a significant difference between the mean vector (gp04 new, Na04 new CE04) and the size of business (micro, small or medium)

Table 6.83: gp04new, na04new, ce04new and a7 (Level of Management).

Multivariate Tests(d)		Value	F	Hypothesis df	Error df	Sig.	Observed Power(a)
Intercept	Pillai's Trace	.564	3.443(b)	3.000	8.000	.072	.547
	Wilks' Lambda	.436	3.443(b)	3.000	8.000	.072	.547
	Hotelling's Trace	1.291	3.443(b)	3.000	8.000	.072	.547
	Roy's Largest Root	1.291	3.443(b)	3.000	8.000	.072	.547
	Pillai's Trace	.548	1.132	6.000	18.000	.384	.332
	Wilks' Lambda	.493	1.131(b)	6.000	16.000	.389	.320
	Hotelling's Trace	.945	1.103	6.000	14.000	.408	.298
	Roy's Largest Root	.847	2.541(c)	3.000	9.000	.122	.441

The highest observed power is Roy's largest root that is 0.441. The F statistic is 2.541 with a P-value of 0.122. This shows that there is no significance difference between the population mean vector (gp04 new, Na04 new, CF04 new) and the level of management.

6.8 Log-linear analysis

The tests below complement the cross tabulation tests done in the previous section

The log-linear model applicable to the frequencies of the cross tabulated data of factors A

(e.g. b10a) and B (e.g. a2) is $\ln(f_{ij}) = \mu + \lambda_i^A + \lambda_j^B + \lambda_{ij}^{AB}$ for the saturated model, or

$\ln(f_{ij}) = \mu + \lambda_i^A + \lambda_j^B$ for the independence model, where

$\ln(f_{ij})$ is the natural logarithm of the expected frequency in cell (i, j) of the crosstabulation table.

The parameters of the model are as follows:

μ is the mean effect;

λ_i^A is the main effect of level i of factor A on the cell frequencies;

λ_j^B is the main effect of level j of factor B on the cell frequencies;

λ_{ij}^{AB} is the effect of the interaction between level i of factor A and level j of factor B on the cell frequencies.

The estimates of these parameters have been calculated using SAS version 9.1.

Log-linear analysis deals with association of categorical or grouped data, looking at all levels of possible main – and interaction effects. There are two basic types of models, saturated models and reduced models, which include the independence model. The saturated model includes all possible main – and interaction effects, while reduced models contain only some of the effects. The independence models do not have any interaction effects. The primary purpose of log-linear analysis is to find the most parsimonious model which can account for cell frequencies in a cross tabulation table.

Saturated models always have perfect goodness of fit to the data, but this is a trivial finding. The purpose of log-linear modelling is to eliminate some of the effects while still being able to achieve goodness of fit. A parsimonious model is the most incomplete model which still achieves a satisfactory level of goodness of fit. To put it another way, the researcher tests to see if a restricted model does not significantly differ from the

saturated model. If there is no significant difference, then the researcher concludes that the effects dropped from the saturated model were not needed to explain the observed distribution of data in the table. The researcher explores in this manner until the most parsimonious model that still has acceptable fit is found.

In log-linear analysis there is no dependent variable, it is a procedure to account for the distribution of cases in a cross tabulation of categorical variables. Log-linear analysis is, therefore, a technique to analyze the interaction structure between the factors of an observed contingency table in detail. Log-linear analysis can be used to analyse cross tabulation tables with more than two categorical variables present.

In the Chi-square tests, it was determined whether two categorical variables, for example a6 and b10a, were independent or not. If it is found that the two variables are dependent on each other, it may be important to determine which of the category combinations (i.e. cells of the cross tabulation table) are largely responsible for this dependence. For example, a6 and b10a were found to be dependent according to the Chi-Square test. By using log-linear analysis, it may now be found that the category combination (micro: 1-9, yes), i.e. cell (1, 1) of the cross tabulation table, is responsible for the dependence between a6 and b10a.

Table 6.84: b10a (inability to pay creditors in full) and a2 (highest level of education)

Maximum Likelihood Analysis of Variance

Source	DF	Chi-Square	Pr > ChiSq
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b10a	1	25.51	0.0001
a2	4	47.27	0.0001
Likelihood Ratio	4	7.98	0.0924

The Likelihood Ratio statistic is used to test the null hypothesis that the interaction effects of the log-linear model are zero. If the p-value (“Pr > ChiSq”) is less than or equal to 0.01, then the null hypothesis is rejected, otherwise it is not. (In log-linear analysis we use a significance level of 0.01 and not 0.05, because the significance of an estimated parameter in the log-linear model is measured at the 0.01 level of significance.) If the null hypothesis is rejected, then the saturated model best fits the data, otherwise the independence model will provide the best fit. The Likelihood Ratio statistic is, therefore, also used as a “goodness-of-fit” test statistic. If it is not significant, i.e. the p-value is larger than 0.01, then the model in use fits the data well, otherwise it does not fit the data well.

Table 6.85: Analysis of Maximum Likelihood Estimate

Parameter		Estimate	Error	Square	Pr > ChiSq
b10a	1	-0.4469	0.0885	25.51	0.0001
	2	0.4469	0.1085	0.00	0.0001
a2	1	-0.0547	0.1863	0.09	0.7690
	2	-0.4602	0.2173	4.49	0.0342
a2	3	0.6174	0.1499	16.96	0.0001
	5	-0.9302	0.2908	0.00	0.0001
	4	0.8277	0.1416	34.17	0.0001

Table 6.85 is the parameter estimates for the log-linear model. Previously, the Chi-square test indicated that the variables b10a and a2 are independent. In addition, the likelihood ratio test above indicated that the independence model provides the best fit for the data. Therefore, there are no estimates for the interaction effects, only for the main effects.

The more positive (if significant) the parameter estimate for an effect, the more cases are predicted to be in a cell over and beyond those predicted by the constant and other effects. On the other hand, the more negative (if significant), the fewer the cases predicted. If the parameter estimate is non-significant, the effect is not associated with any change in cell frequencies which are predicted by the constant and other effects of the log-linear model.

In the SAS output above, the estimates for the main effects λ_i^A and λ_j^B are labeled “b10a” and “a2” respectively, and their levels are numbered next to them. For example, the estimate for λ_2^B is the effect of factor B - level 2 (i.e. “highest level of education - A’level) and is read from the Table 6.85 above.

The estimates for the main effects are indications of the total number of responses that are expected to occur in that row or column of the cross tabulation table. If the estimate is positive and significant, then a large total number of responses are expected in the corresponding row or column of the cross tabulation table. The opposite is true if the estimate is negative and significant, indicating that only a few responses are expected in the corresponding row or column of the cross tabulation table.

Table 6.86: Maximum Likelihood Predicted Values for Frequencies

b10a	a2	-----Observed-----		-----Predicted-----			Residual	
		Standard		Standard				
		Frequency	Error	Frequency	Error			
1	1	11	3.196773	6.967742	1.573324	4.032258		
1	2	7	2.585318	4.645161	1.244867	2.354839		
1	3	11	3.196773	13.64516	2.386767	-2.64516		
1	4	12	3.327306	16.83871	2.74427	-4.83871		
1	5	4	1.974025	2.903226	0.959766	1.096774		
2	1	13	3.45104	17.03226	3.31385	-4.03226		
2	2	9	2.911601	11.35484	2.750791	-2.35484		
2	3	36	5.257253	33.35484	4.407957	2.645161		
2	4	46	5.687564	41.16129	4.769949	4.83871		
2	5	6	2.401612	7.096775	2.200638	-1.09677		

The Figure 6.85 and the Table 6.87 shows the predicted frequencies when the null hypothesis, that the interaction effects of the model is zero, is true. It is the frequencies as predicted by the log-linear model with no interaction effects (i.e. the independence model). This is the frequencies expected for every other similar sample of the same size, under the condition of independence. For example, the expected frequency for cell (2 , 4)

is 41.16129, meaning, every time a similar sample of 155 respondents is drawn, it is expected that 41 respondents will indicate that they are university graduates and their company has never been in the situation where it is unable to meet its creditors in full.

Table 6.87: Highest Education Level and the Ability to Creditors in Full (b10a * a2)

		Highest Education Level					
		O' Level	A' Level	Diploma	University Graduate	Postgraduate	Total
Yes:	Observed	11	7	11	12	4	45
	Freq. Predicted	6.9677	4.6451	13.6451	16.83871	2.9032	
	Freq.	1.5733	1.244	2.3867	2.7442	0.9597	
	Std. Error	4.0322	2.3548	-2.64516	-4.8387	1.0968	
	Residual						
No:	Observed	13	9	36	46	6	110
	Freq. Predicted	17.0322	11.35484	33.35484	41.16129	7.0968	
	Freq.	3.3139	2.7508	4.4079	4.7699	2.2006	
	Std. Error	-4.0323	-2.3548	2.64516	4.8387	-1.0967	
	Residual						
TOTAL		24	16	47	58		155

The log linear model

6.45

$$\text{Ln } (f \ i \ j) = 0 - 0.4469_1 + 0.4469_2 - 0.0547_1 - 0.4602_2 + 0.6174_3 + 0.8277_4 - 0.9302_5$$

In this case, the parameter estimates for λ_1^A (b10a - 1), λ_3^B (a2 - 3) and λ_4^B (a2 - 4) were found to be significant. This means that the total number of responses occurring in row 1, column 3 and column 4 in the cross tabulation between b10a and a2 is expected to be significantly large. The fact that both the estimates for λ_1^B and λ_2^B (a2-1, p-value 0.769 and a2-2, p-value 0.0342) are not significant, indicates that the totals for column 1 and column 2 do not differ significantly.

**Table 6.89: Highest Level of Education and Closing up Non-productive Branch
(b10b * a2)**

Maximum Likelihood Analysis of Variance

Source	DF	Chi Square	Pr > ChiSq
b10b	1	24.70	0.0001
a2	4	50.12	0.0001
Likelihood Ratio	4	6.32	0.1765

The likelihood ratio statistics shows the p-value is 0.1765, which is greater than 0.01. The interaction effects of the linear model are zero.

Figure 6.9: Analysis of Maximum Likelihood Estimates

Parameter	Estimate	Standard Error	Chi-	
			Square	Pr > Chi Square
b10b	-0.4281	0.0861	24.70	0.0001
	0.4281	0.1065	0.00	0.0001
	0.4281	0.1065	0.00	0.0001
a2	-0.0860	0.1857	0.21	0.6433
	-0.4308	0.2116	4.15	0.0418
	0.6480	0.1466	19.54	0.0001
	0.8303	0.1396	35.38	0.0001
	-0.9615	0.2881	0.00	0.0001

Chi-square test indicated that variables b10b and a2 are independent of each other. All are significant except λ^B (a2-1) and λ^B (a2 – 2, which are 0.6433 and 0.0418 respectively). Figure 6.8 indicated that the highest level of education and closure of unproductive branch were independent of each other (the interactions are Zero).

Table 6.91: Highest Level of Education versus Closure of Unproductive Branch

Maximum Likelihood Predicted Values for Frequencies							
-----Observed-----				-----Predicted-----			
b10b	a2	Standard		Standard		Residual	
		Frequency	Error	Frequency	Error		
1	1	5	2.201073	7.155279	1.601225	-2.15528	
1	2	6	2.403414	5.068323	1.31421	0.931677	
1	3	21	4.273274	14.90683	2.512643	6.09316	
1	4	14	3.575277	17.8882	2.83277	-3.8882	
1	5	2	1.405402	2.981367	0.981428	-0.98137	
2	1	19	4.093625	16.84472	3.28773	2.15528	
2	2	11	3.20132	11.93168	2.804632	-0.93168	
2	3	29	4.876105	35.09317	4.497884	-6.09317	
2	4	46	5.732115	42.1118	4.818815	3.888199	
2	5	8	2.75726	7.018634	2.178949	0.981366	

$$\ln(f_{ij}) = 0.4281_1^A + 0.4281_2^A + 0.0860_1^B - 0.4308_2^B + 0.6480_3^B + 0.8303_4^B - 0.9615_5^B$$

6.46

The highest level of education and closing up a non-productive branch were found to be independent of each other. The diploma holders (1, 3) who had closed up a non-productive branch were 21 and those predicted were 15 showing that in a similar sample they were likely to reduce. In cell (2, 3) the diploma holders who answered 'No' to the same question were 29 but the expected were 35 showing that they were likely to increase in a similar sample. Similarly, the university graduates who answered 'No' in cell (2, 4) reduced in the expected frequency while those who answered 'yes' increased.

Table 6.92: Highest Level of Education and Loss Reported (b10c * a2)

Maximum Likelihood Analysis of Variance

Source	DF	Chi-Square	Pr > ChiSq
b10c	1	7.49	0.0062
a2	4	50.12	0.0001
Likelihood Ratio	4	3.06	0.5483

Likelihood ratio is 0.5483 which is greater than 0.01. The interactions effects of the log linear model are zero.

Table 6.93: Analysis of Maximum Likelihood Estimates

Parameter	Estimate	Standard	Chi-	Pr > Chi Sq
		Error	Square	
b10c	-0.2209	0.0807	7.49	0.0062
	0.2209	0.0998	0.900	0.200
a2	-0.0860	0.1857	0.21	0.6433
	-0.4308	0.2116	4.15	0.0418
	0.6480	0.1466	19.54	0.0001
	0.8303	0.1396	35.38	0.0001
	-0.9615	0.2701	0.00	0.0001

The Chi-square test indicated that b10c and a2 are independent of each other.

λ_1^A (b10c - 2), λ_1^B (a2-1), λ^B (a2 - 2) are not significant. The rest are significant at 99%

confidence level.

The log linear model is

6.47

$$\text{Ln } (f_{ij}) = -0.2209_1 + 0.2209_2 - 0.0860_1 - 0.4308_3 + 0.6480_4 + 0.8303_4 - 0.9615_5$$

The table 6.94 below represents results obtained from an analysis between responses to the question on reporting loss. The observed results compared to the predicted results reflect a few discrepancies. For example, at A level more is predicted for the ‘yes’ results and less is predicted for the ,’No’ responses. In the column for the diploma responses, less is predicted for ‘yes’ and more for the ‘no’ responses. This shows the position should a similar sample of 161 respondents be interviewed.

Table 6.94: Highest Level of Education Versus Loss Reported.

		O' Level	A' Level	Diploma	University	Post graduate	Total
Yes:	Observed	10	4	22	22	5	63
	Predicted Freq.	9.3193	6.6521	19.565	23.4783	3.9130	
	Std. Error	1.9948	1.6600	2.9962	3.33001	1.2583	
	Residual	0.6087	2.6522	2.4383	1.4783	1.0869	
No:	Observed	14	13	28	38	5	98
	Predicted Freq.	14.6087	10.3478	30.4348	36.5217	1.0869	
	Std. Error	2.9016	2.4620	4.0585	4.3899	1.9029	
	Residue	0.6087	2.6522	2.4348	1.4783	1.0869	
TOTAL		24	17	50	60	10	161

Table 6.95: Highest Level of Education versus closed up for over 6 months

(b10d * a2)

Maximum Likelihood Analysis of Variance

Source	DF	Chi Square	Pr > ChiSq
b10d	1	70.48	0.0001
a2	4	50.11	0.0001
Likelihood Ratio	4	1.51	0.8255

The likelihood ratio is greater than 0.01. The interaction effects of the log linear model are zero. The model fits the data well.

Table 6.96: Analysis of Maximum Likelihood Estimates

		Standard	Chi-		
Parameter		Estimate	Error	Square	Pr > Chi Sq
b10d	1	-1.259	0.1500	70.48	<0.0001
	2	1.2595	0.1854	0.00	<0.0001
a2	1	-0.0860	0.1857	0.21	0.6433
	2	-0.4308	0.2116	4.15	0.0418
	3	0.6480	0.1466	19.54	<0.0001
	4	0.8303	0.1396	35.38	<0.0001
	5	-0.9615	0.5018	0.200	0.4000

The Chi-square had indicated that the variables b10d and a2 are independent of each other. From the above results,

A A B B
 $\lambda(b10d - 1)$, $\lambda(bl0d-2)$, $\lambda(a2 - 3)$, $\lambda(a2 - 4)$ estimates are all significant.

The log linear model is as follow

$$\text{Ln } (f_{i,j}) = -1.2595_1 + 1.2595_2 - 0.0860_1 - 0.4308_2 + 0.6480_3 - 0.8303_4 - 0.9615_5$$

648

The table 6.80 below shows the actual frequencies and the expected frequencies. The observation is that for all levels of education, the expected and the actual frequencies are very similar.

Table 6.97: Highest Level of Education versus closed up for over 6 months

		O' Level	A' Level	Diploma	University	Postgraduate	Total
Yes:	Observed.	3	1	4	3	1	12
	Predicted	1.7888	1.2671	3.7267	4.4720	0.7453	
	Std. Error	0.6002	0.4563	1.1236	1.3233	0.3081	
	Residual	1.2112	0.2671	0.2723	1.4721	0.2547	
No:	Observed	21	16	46	57	9	149
	Predicted	22.112	15.7329	46.2733	55.5279	9.2546	
	Std. Error	4.2117	3.6258	5.5314	5.8121	2.8418	
	Residual	1.2112	0.2671	0.2733	1.4721	0.2547	
TOTAL		24	17	50	60	10	161

The following are analysis between the business same statements (section 6.1.1) and the size of business, the micro, small and medium enterprises (**b10a * a6**)

Table 6.98: Maximum Likelihood Analysis of Variance

Source	DF	Chi Square	Pr > ChiSq
b10a	1	28.22	<.0001
a6	3	47.99	<.0001
Likelihood Ratio	3	23.80	<.0001

The interaction effect of the model is not zero because the likelihood ratio is 0.0001, so less than 0.01.

Table 6.99: Analysis of Maximum Likelihood Estimates

Parameter		Estimate	Standard Error	Chi-Square	Pr > Chi Sq
b10	1	-0.6615	0.1366	0.00	0.0001
	2	0.6615	0.1366	0.00	0.0001
a6	1	1.1293	0.1580	51.06	0.0001
	2	0.3628	0.1893	3.67	0.0553
b10a*a6	3	-0.4598	0.2915	2.49	0.1147
	4	-1.0323	0.2796	0.00	0.1147
b10a*a6	1 1	0.5611	0.1580	12.61	0.0004
	1 2	-0.0587	0.1893	0.10	0.7564
	1 3	-0.7402	0.2915	6.45	0.0111
	1 4	0.2378	0.2796	0.200	0.2001
	2 1	-0.5611	0.1580	0.0001	0.0001
	2 2	0.0587	0.1893	0.250	0.2500
	2 3	0.7402	0.2915	0.210	0.2100
	2 4	-0.2378	0.2796	0.230	0.2301

In the SAS output above, the estimates for the interaction effects λ_{ij}^{AB} are labelled “b10a*a6” and the different combinations are numbered next to them. For example, the

estimate for λ_{12}^{AB} is the effect of the interaction between factor A - level 1 and factor B – level 2 (i.e. between category of business venture in terms of employees – micro:1-9 and unable to meet its creditors in full – ‘No’). The model below was derived from the output in figure 6.17.

$$\begin{aligned} \ln f(1,2) = & 0.6615_1^A + 0.6615_2^A + 1.1293_1^B + 0.3628_2^B - 0.4598_3^B - 1.0323_4^B + \\ & 0.5611_{11}^{AB} - 0.0587_{12}^{AB} - 0.7402_{13}^{AB} + 0.2378_{14}^{AB} - 0.5611_{21}^{AB} + 0.0587_{22}^{AB} + \\ & 0.7402_{23}^{AB} - 0.2378_{24}^{AB} \end{aligned}$$

6.49

The estimates for the interaction effects are an indication of the relative number of responses that are expected to occur in a specific cell, eg. (1 , 1), of the cross tabulation table. If an estimate is positive and significant, then the relative number of respondents in the corresponding cell of the cross tabulation table is expected to be above the average. If an estimate is negative and significant, then the relative number of respondents in the corresponding cell of the cross tabulation table is expected to be below the average.

In this case, the estimate for the interaction effect λ_{11}^{AB} ($b10a*a6 - 1 1$) were found to be significant ($p\text{-value} = 0.0004$). It can be concluded that cell (1, 1) of the cross tabulation table is responsible for the significant interaction between factors A and B ($b10a$ and $a6$). Likewise, it is observed that significantly more micro businesses have been in the situation where they were unable to meet creditors in full.

Below are results of an analysis between the category of business and the condition of business closure of a Non productive branch

Table 6.100: Category of Business versus Closure of Non-Productive Branch (b10b * a6)

Maximum Likelihood Analysis of Variance

Source	DF	Chi Square	Pr > ChiSq
		88	<0.0001
a6	3	51.21	<0.0001
Likelihood Ratio	3	11.28	0.0103

The likelihood ratio is equal to 0.0103. This means the independence model is adequate. The goodness of fit of the model is at the borderline.

Table 6.101: Analysis of Maximum Likelihood Estimates

Parameter		Standard Estimate	Error	Chi-Square	Pr > ChiSq
b10b	1	-0.4601	0.0828	30.88	<.0001
	2	0.4601	0.1108	0.00	<.0001
a6	1	0.8786	0.1263	48.38	<.0001
	2	0.3396	0.1422	5.71	0.0169
	3	0.0313	0.1546	0.04	0.8394
	4	-1.2496	0.2713	0.02	0.2000

Only λ^B (a6 - 2) and λ^B (a6 - 3) are not significant. The log linear model is as follows;

$$\ln(f_j) = 0.4601_1 + 0.4601_2 + 0.8786_1 + 0.3396_2 + 0.0313_3 - 1.2496_4$$

6.50

Table 6.102 below shows the actual frequencies and the predicted frequencies for responses on the question whether a manager had closed up any non-productive branch. The predictions show that for a sample of 179 similar MSMEs, there is likelihood of

more Micro business who will answer ‘yes’ to this question. The actual frequency is 16 whereas the predicted value is 24.

Table 6.102: Category of Business versus Closure of Non-Productive Branch

		Micro (1-9)	Small (10-49)	Medium (50-99)	Large above 100	Total
Yes:	Observed	16	19	15	1	51
	Predicted	23.9329	13.9608	10.2569	2.8491	
	Std. Error	3.4132	2.37100	1.9519	0.9382	
	Residual	7.9329	5.0391	4.7430	1.8492	
No:	Observed.	68	30	21	9	128
	Predicted.	60.0670	35.0391	25.7430	7.1508	
	Std. Error	5.5525	4.5749	4.0226	2.2229	
	Residual	7.9329	5.0391	4.7430	1.8492	
	TOTAL	84	49	36	10	179

Table 103: Business Category and Reporting a Loss (b10c * a6)

Maximum Likelihood Analysis of Variance

Source	DF	Chi Square	Pr > ChiSq
b10c	1	9.72	0.0018
a6	3	50.16	<0.0001
Likelihood Ratio	3	4.37	0.2246

The likelihood ratio is 0.2246 above 0.01 therefore; the interaction effect of the variables is zero.

Table 104: Analysis of Maximum Likelihood Estimates

Parameter		Standard	Chi-	Pr > Chi Sq
		Estimate	Error	
b10c	1	-0.2405	0.0771	9.72 0.0018
	2	0.2405	0.1030	0.02 0.2000
a6	1	0.8696	0.1266	47.15 < 0.0001
	2	0.3426	0.1422	5.81 0.0160
	3	0.0343	0.1546	0.05 0.8243
	4	-0.2466	0.2521	0.00 0.0001

λ^B (a6 - 1) and λ^B (a6 - 4) are significant. The other estimates are not significant.

The Chi-square indicated that a6 and b10c were independent of each other.

The log linear model is

$$\ln(f_{i,j}) = -0.2405^A_1 + 0.2405^A_2 + 0.8696^B_1 + 0.3426^B_2 + 0.0343^B_3 - 0.2466^B_4$$

6.51

The table 6.82 below indicates that there were more respondents within the micro business category who said ‘yes’ to the question of having reported loss than what would be expected in a similar sample of 178. The same is observed among those who responded ‘No’ to the same question in the same category. Within the Small and medium business categories, less people responded ‘yes’ than would be expected in a similar sample.

Table 6.105: Category of Business versus Closure Condition of Reported Loss

		Micro (1-9)	Small (10-49)	Medium (50-99)	Large above 100	Total
Yes:	Observed	38	14	12	4	68
	Predicted	31.7079	18.7191	13.7528	3.8202	
	Std. Error	3.9499	2.8927	2.4311	1.2288	
	Residue	6.292	4.7191	1.7528	0.1798	
No:	Observed	45	35	24	6	110
	Predicted	51.2921	30.2809	22.2472	6.1797	
	Std. Error	5.1043	4.0922	3.5618	1.9331	
	Residue	6.2921	4.7191	1.7528	0.1798	
TOTAL		83	49	36	10	178

The following results refer to analysis of responses from MSMEs managers to the question of ‘inability to continue in business for over 6 months (b10d). The aim was to assess the difference between the three different categories (a6).

Table 6.106: Business Category and Inability to Continue for More Than 6 Months

Maximum Likelihood Analysis of Variance

Source	DF	Chi Square	Pr > ChiSq
b10d	1	80.32	<0.0001
a6	3	50.87	<0.0001
Likelihood Ratio	3	1.92	0.5886

Likelihood ratio is 0.5886 greater than 0.01. That means the interaction effects are zero.

Table 6.107 Analysis of Maximum Likelihood Estimates

Parameter		Standard Estimate	Error	Chi-Square	Pr > Chi Sq
b10d	1	-1.1727	0.1308	80.32	<0.0001
	2	1.1727	0.1712	0.00	0.0001
a6	1	0.8518	0.1234	47.61	<0.0001
	2	0.3212	0.1391	5.33	0.0210
	3	0.0200	0.1512	0.02	0.8945
	4	-1.1930	0.4144	0.00	0.0001

λ^B (a6 - 2) and λ^B (a6 - 3) are not significant.

Chi-square indicated that b10d and a6 were independent. So that ‘inability to continue for over 6 months is not necessarily influenced by the category of the business. The model is as follows

$$\ln(f_{ij}) = 1.1727^A_1 + 1.727^A_2 + 0.8518^B_1 + 0.3212^B_2 + 0.0200^B_3 + 1.1930^B_4 \quad 6.52$$

Table 6.108: Category of business enterprises (a6) and management process (mgt).

Maximum Likelihood Analysis of Variance

Source	DF	Chi-Square	Pr > Chi Sq
a6	3	49.18	<0.0001
Management process	3	127.89	<0.0001
Likelihood Ratio	9	30.03	0.0004

The interaction effect of the model is not zero because the likelihood ratio is less than 0.01. From the analysis there ought to be some variables that are not independent of each other.

Figure 6.109: Analysis of Maximum Likelihood Estimates

Parameter		Standard		Chi-	
		Estimate	Error	Square	Pr > Chi Sq
a6	1	1.1783	0.2267	27.01	<0.0001
	2	0.0933	0.3378	0.08	0.7823
	3	-0.5054	0.3770	1.80	0.1801
mgt_process	1	-1.5710	0.4811	10.66	0.0011
	2	0.0979	0.2908	0.11	0.7363
	3	1.8305	0.2088	76.82	<0.0001
a6*mgt_process	1 1	0.4696	0.5490	0.73	0.3924
	1 2	0.7143	0.3273	4.76	0.0291
	1 3	-0.6405	0.2522	6.45	0.0111
	2 1	-0.6426	0.8992	0.51	0.4748
	2 2	0.2534	0.4473	0.32	0.5711
	2 3	0.2997	0.3566	0.71	0.4007
	3 1	-0.0440	0.9146	0.00	0.9617
	3 2	-0.6143	0.5969	1.06	0.3034
	3 3	0.8172	0.3946	4.29	0.0384

Log linear model equation is

$$\begin{aligned} \ln(f_{ijk}) = & 1.1783_1^A + 0.0933_2^A - 0.5054_3^A - 1.5710_1^B + 0.0970_2^B + 1.8305_3^B + 0.4696_{11} \\ & + 0.7143_{12}^{AB} - 0.6405_{13}^{AB} - 0.6426_{21}^{AB} + 0.2534_{22}^{AB} + 0.2997_{23}^{AB} - 0.0440_{31}^{AB} - \\ & 0.6143_{32}^{AB} + 0.8172_{33}^{AB} \end{aligned}$$

6.53

This means that the size of business (a6) is not independent from the likelihood of engaging in the management process. In other words, one influences the other.

The log linear analysis therefore confirmed the results from cross tabulation but also clarified the particular elements that contributed to the interactions or dependency.

6.9 Discriminant Analysis

The purpose of discriminant analysis is to estimate the relationship between a categorical dependent variable and a set of continuous independent variables, called predictors. Differently stated, discriminant analysis is used to model the value of a dependent categorical variable based on its relationship to one or more predictors.

The population is subdivided into a number of non-overlapping subpopulations, or pre-defined groups (e.g. performance / nonperformance). In discriminant analysis, a discriminant function is developed to classify an item (e.g. organization) into a group based on a profile of measurements on the independent variables.

The test below was done for all businesses, did not differentiate the categories so it included all business categories.

Table 6.110: Management factors – B15.3, C14, C24, C25b, C26-30, C32-34 and ‘change in profit’ (Performance/Non-performance1: 2006-2005)

Variable	Wilks' Lambda	F	df1	df2	Sig.
Management role/responsibility	.993	1.033	1	157	.311
Interpersonal skills	1.000	.002	1	157	.963
The human resources skills	.980	3.282	1	157	.072
Strategic management factors	.974	4.175	1	157	.043
Finances/capitalisation factors	.982	2.810	1	157	.096
Marketing management factors	.952	7.977	1	157	.005
Entrepreneurial management factors	.968	5.219	1	157	.024
Technological factors	.966	5.555	1	157	.020
Macroeconomic environment factors	.995	.714	1	157	.399
Regulation and policy issues	.981	3.078	1	157	.081
Incentive policies	.966	5.467	1	157	.021
Institutional policies	.955	7.333	1	157	.008

The “tests of equality of group means” measure each independent variable’s potential before the model is created. It is a test to see which independents contribute significantly to the discriminant function. The smaller the Wilks’ lambda for an independent variable, the more that variable contributes to the discriminant function. Lambda varies from 0 to 1, with 0 meaning group means differ (thus the more the variable differentiates the groups), and 1 meaning all group means are the same. The F test of Wilks’s lambda shows which variables’ contributions are significant.

Each test displays the results of a one-way ANOVA for the independent variable using the grouping variable as the factor. If the significance value is greater than 0.01, the variable probably does not contribute to the model. Wilks’ lambda is another measure of a variable’s potential. The smaller the value, the better the variable is at discriminating between groups. We can order the variables according to their value of Wilk’s lambda:

Table 6.111: The Wilks lambda for prchang1new (Performance/Non-performance1: 2006-2005)

Variable	Wilks’ Lambda	Rank
Marketing management factors	0.952	1
Institutional policies	0.955	2
Incentive policies	0.966	3
Technological factors	0.966	3
Entrepreneurial management factors	0.968	5
Strategic management factors	0.974	6
The human resources skills	0.980	7
Regulation and policy issues	0.981	8
Finances/capitalisation factors	0.982	9
Management role/responsibility	0.993	10
Macroeconomic environment factors	0.995	11
Interpersonal skills	1.000	12

It can now be seen that “Marketing management factors” has the biggest potential to contribute to the model, followed by “Institutional policies,” “Incentive policies and “Technological factors. On the other hand, “Management role/responsibility, Macroeconomic environment factors” and “Interpersonal skills” will probably not contribute significantly to the discriminant model that will be developed.

The ranks and natural logarithms of determinants printed are those of the group covariance matrices. Where sample size is large (benchmark is approximately 50), even small differences in covariance matrices is found significant by Box's M, when in fact no substantial problem of violation of assumptions exists. Therefore, one also should look at the log determinants of the group covariance matrices. If the group log determinants are similar, then a significant Box's M for a large sample is ignored. Dissimilar log determinant indicates violation of the assumption of equal variance covariance matrices, leading to greater classification errors.

The Box's M test is a test of the null hypothesis that the population covariance matrices for the two groups (performance/nonperformance) do not differ significantly. The null hypothesis is rejected if the p-value (“Sig.”) of the F statistic is less than or equal to 0.05. This test is important, because it determines what type of discriminant function is developed. In the case of equal population covariance matrices, a linear discriminant function is developed, but in the case of unequal population covariance matrices, a quadratic discriminant function is developed.

In the above result shows that Box's M = 187.633, F (approx.) = 1.435 with a P-value of 0.009. This means that the population covariance matrices for the two groups differ significantly from each other, and therefore a quadratic discriminant function is developed.

Wilks' lambda is a measure of how well each function separates cases into groups. It is equal to the proportion of the total variance in the discriminant scores not explained by differences among the groups. Smaller values of Wilks' lambda therefore indicate greater discriminatory ability of the function. In the above table, Wilks' lambda is used to test the null hypothesis that the mean discriminant function scores for the two groups do not differ significantly. It is therefore, testing the significance of the discriminant function as a whole.

If the P-value of the associated Chi-square statistic ("Sig.") is less than or equal to 0.05, one can reject the null hypothesis and conclude that the model. The Wilks lambda is 0.434 thus is in fact discriminating between the two groups, i.e. the discriminant function does better than chance at separating the two groups.

Table 6.112: Standardized Canonical Discriminant Function Coefficients

Variable	Function
	1
Management Role/Responsibility	-.124
Interpersonal skills	-.136
The human resources skills	-.265
Strategic management factors	.110
Finances/Capitalisation factors	-.054
Marketing management factors	.625

Table 6.112 continued

Entrepreneurial management factors	.119
Technological factors	.209
Macroeconomic environment factors	-.397
Regulation and policy issues	-.017
Incentive policies	.226
Institutional policies	.517

The standardized coefficients allow you to compare variables measured on different scales and is an indication of the relative importance of the independent variables in predicting the outcome of the dependent variable. Coefficients with large absolute values (benchmark is approximately 0.5) correspond to variables with greater discriminating ability.

In this case, we have that “Marketing management factors” (0.625) and “Institutional policies” (0.517) have the largest standardized coefficients, meaning that they have the greatest ability to discriminate between “performance” and “non-performance”.

“Structure coefficients vs. standardized discriminant function coefficients.

The standardized discriminant function coefficients indicate the semi-partial contribution (the unique, controlled association) of each variable to the discriminant function, controlling the independent but not the dependent for other independents entered in the equation (just as regression coefficients are semi-partial coefficients).

In contrast, structure coefficients are whole (not partial) coefficients, similar to correlation coefficients, and reflect the uncontrolled association of the discriminant

scores with the criterion variable. That is, the structure coefficients indicate the simple correlations between the variables and the discriminant function or functions.

The structure coefficients should be used to assign meaningful labels to the discriminant functions. The standardized discriminant function coefficients should be used to assess the importance of each independent variable's unique contribution to the discriminant function.” (<http://www2.chass.ncsu.edu/garson/pa765/discrim.htm> June 2008)

“The ordering in the structure matrix is the same as that suggested by the tests of equality of group means and is different from that in the standardized coefficients table. This disagreement is likely due to collinearity between some of the independent variables.” (Tutorial in SPSS 15.0).

Table 6.113: Canonical Discriminant Function Coefficients

	Variable	Function
		1
X ₁	Management role/responsibility	-.182
X ₂	Interpersonal skills	-.164
X ₃	The human resources skills	-.433
X ₄	Strategic management factors	.185
X ₅	Finances/capitalisation factors	-.115
X ₆	Marketing management factors	1.116
X ₇	Entrepreneurial management factors	.198
X ₈	Technological factors	.293
X ₉	Macroeconomic environment factors	-.483
X ₁₀	Regulation and policy issues	-.023
X ₁₁	Incentive policies	.299
X ₁₂	Institutional policies	.744
	(Constant)	-5.020

The discriminant function is of the form $L = b_1x_1 + b_2x_2 + \dots + b_kx_k$, where L is the discriminant score and the b_i 's are the unstandardized discriminant function coefficients.

The above table displays these coefficients. The discriminant function coefficients reflect the unique contribution of each variable to the classification of the criterion variable (prchang1new). In this case we have.

$$L = -5.020 - 0.182X_1 - 0.164X_2 + 0.293X_3 + 0.433X_4 + 0.115X_5 + 1.116X_6 + 0.198X_7 - 0.483X_8 - 0.023X_9 + 0.0299X_{11} + 0.744X_{12}$$

6.54

This is the actual prediction equation, which can be used to classify new cases into either of the two groups “performance” or “non-performance”.

In the case of equal population covariance matrices, the classification rule is as follows :

If group 1 is the reference group, then the respondent is allocated to group 2 if and only if his discriminant score is larger than or equal to zero. If group 2 is the reference group, then the respondent is allocated to group 1 if and only if his discriminant score is larger than or equal to zero. This means that two respondents will be classified into different groups if the one respondent has a positive discriminant score and the other respondent has a negative discriminant score.

In the case of unequal population covariance matrices, the following general classification rule can be used:

If group sizes are equal, the cutoff point is the mean of the two group centroids.

If group sizes are unequal, the cutoff point is the weighted mean,

$$[n_1(\text{centroid}_1) + n_2(\text{centroid}_2)]/n, \text{ where}$$

n_i is the size of group i , centroid_i is the centroid for group i , and n is the sample size.

If the discriminant score for a case is less than or equal to the cut off point, the case is classified into group 1 or if above it, is classified into group. One discriminant score is calculated for each item (respondent) included in the analysis by making use of the discriminant function. The “group centroid” is the mean of all the discriminant scores within a group. If the two means are well apart, it means that the discriminant function is clearly discriminating between the two groups. The closer the means, the more errors of classification there likely will be.

In this case, the centroid for the “Performance” group is -0.964 and the centroid for the “Non-performance group” is 0.086. The difference between the two group centroids is therefore $0.086 - (-0.964) = 1.05$, which is satisfactory. It can be concluded that the discriminant function does a good job of classifying items into groups. The cut off point for classification is in this case $[13(-0.964) + 146(0.086)]/159 = -0.07125$

Since $L = -0.72986$ is smaller than -0.07125 , the case is classified into group 1 (Performance).

Table 6.114 Classification table (performance and predicted frequencies)

Performance/Nonperformance1 : 2006-2005			Predicted Group Membership		Total
			Performance	Non-performance	
Original	Count	Performance	0	14	14
		Non-performance	0	166	166
%		Performance	.0	100.0	100.0
		Non-performance	.0	100.0	100.0

The classification table shows the practical results of using the discriminant model, and is used to assess the performance of the discriminant analysis, i.e. the predictive ability of the derived discriminant function. The rows are the observed frequencies for the categories of the dependent variable and the columns are the predicted frequencies.

Correctly predicted cases lie on the diagonal, therefore, if all cases lie on the diagonal, the discriminant function has 100% predictive ability. The percentage of cases on the diagonal is the percentage of correct classifications, and is called the ‘hit ratio’.

The hit ratio must be compared to the percentage of cases that would have been correctly classified by chance alone, and must preferably be larger. For two-group discriminant analysis with groups of different sizes, this expected percentage is a weighted average of the prior probabilities for the two groups. The prior probabilities are found in the table above called “Prior Probabilities for Groups”. The calculation is as follows, $ep = (n_1 p_1 + n_2 p_2)/n$, where ep is the expected percentage, n_i is the sample size of group i and n is the total sample size. In this case, we have $ep = [(13)(0.082) + (146)(0.918)]/159 = 0.8496 = 84.96\%$.

From the results, it is evident that the hit ratio is 92.2 %, the percentage of cases that were correctly classified by the model. By chance alone, it is expected that 84.96 % of the cases will be correctly classified. Therefore, the hit ratio is larger than what is expected by chance alone. This suggests that the discriminant function has a good predictive ability and, overall, the model is in fact correct just more than nine times out of ten.

Table 6.115: prchang2new (Performance/Non-performance2: 2005-2004)

	Wilks' Lambda	F	df1	df2	Sig.
Management role/responsibility	.992	1.247	1	160	.266
Interpersonal skills	.973	4.390	1	160	.038
The human resources skills	.976	3.968	1	160	.048
Strategic management factors	.990	1.619	1	160	.205
Finances/capitalisation factors	.968	5.364	1	160	.022
Marketing management factors	.970	4.960	1	160	.027
Entrepreneurial management factors	.986	2.274	1	160	.134
Technological factors	.988	1.998	1	160	.159
Macroeconomic environment factors	.989	1.780	1	160	.184
Regulation and policy issues	.987	2.173	1	160	.142
Incentive policies	.976	3.946	1	160	.049

The interpersonal skills, the human resource skills and finances / capitalisation factors, marketing management factors and incentive policies showing the variables probably contribute to the model. The significance level is below 0.05. The finances / capitalisation followed by human resources skills and incentive polices contribute more significantly. The group log determinant does not differ. Non-performance is -15.186 while the pooled performance is 15.223. It is almost 50% therefore BOX's M test is ignored. The P-value of the Chi- square statistic is 0.3877 greater than 0.05

Table 6.116: Standardized Canonical Discriminant Function Coefficients

	Function
	1
Management Role/Responsibility	-.390
Interpersonal skills	.650
The human resources skills	.319
Strategic management factors	-.494
Finances/Capitalisation factors	.470
Marketing management factors	.415
Entrepreneurial management factors	-.046
Technological factors	.036
Macroeconomic environment factors	.020
Regulation and policy issues	-.078
Incentive policies	.357

The variables whose scales are higher than the benchmark of 0.650 are interpersonal skills. This had the greatest ability to discriminate between performance and non-performance.

Table 6.117: Canonical Discriminant Function Coefficients

		Function
X ₁	Management Role/Responsibility	-.565
X ₂	Interpersonal skills	.793
X ₃	The human resources skills	.519
X ₄	Strategic management factors	-.810
X ₅	Finances/Capitalisation factors	.990
X ₆	Marketing management factors	.727
X ₇	Entrepreneurial management factors	-.075
X ₈	Technological factors	.050
X ₉	Macroeconomic environment factors	.024
X ₁₀	Regulation and policy issues	-.104
X ₁₁	Incentive policies	.463
	(Constant)	-7.427

The discriminant function is

$$L = -7.427 - 0.565 X_1 + 0.793 X_2 + 0.519 X_3 - 0.810 X_4 + 0.990 X_5 + 0.727 X_6 - 0.075 X_7 + 0.050 X_8 + 0.024 X_9 - 0.104 X_{10} + 0.363 X_{11}$$

6.55

The centroid for performance is -1.149 and or non performance is 0.068. The difference is 1.217 which is satisfactory. Hence less classification errors.

The cut off point of the weighted mean will be equal to:

$[9(0.056) + 153 (0.944) / 162 = 89.47\%]$. The hit ratio is 93.2%. By chance 89.47% of the cases will be correctly classified. This suggests that the discriminant function has a good predictive ability.

Table 6.118: Cross validation for Performance/ Non-Performances

Performance/non-performance2 : 2005-2004			Predicted Group Membership		Total
			Performance	non-performance	
Original	Count	Performance	0	9	9
		Non-performance	2	151	153
	%	Performance	.0	100.0	100.0
		Non-performance	1.3	98.7	100.0
Cross-validated(a)	Count	Performance	0	9	9
		Non-performance	2	151	153
	%	Performance	.0	100.0	100.0
		Non-performance	1.3	98.7	100.0

The test is done separately for each business category so that the Independent variables are the Management factors B15.3, C14, C24, C25b, C26-30, C32-34 and the Dependent variable are the prchang1 (Performance/Non-performance1 : 2006-2005).

Table 6.119: Category of Business Venture in Terms of Employees = Micro: 1-9

Variable	Wilks' Lambda	F	df1	df2	Sig.
Management Role/Responsibility	.996	.252	1	69	.617
Interpersonal skills	.997	.210	1	69	.648
The human resources skills	.985	1.055	1	69	.308
Strategic management factors	.981	1.338	1	69	.251
Finances/Capitalisation factors	.943	4.137	1	69	.046
Marketing management factors	.937	4.602	1	69	.035
Entrepreneurial management factors	.954	3.358	1	69	.071
Technological factors	.971	2.037	1	69	.158
Macroeconomic environment factors	.999	.062	1	69	.804
Regulation and policy issues	.994	.430	1	69	.514
Incentive policies	.984	1.114	1	69	.295
Institutional policies	.958	3.052	1	69	.085

The finances / capitalisation factors, entrepreneurial management factors, marketing management factors and the institutional policies significantly contribute to the discriminant function.

The log determinant differs, thus may lead to classification errors. p-value is greater than 0.05, thus hypothesis cannot be rejected. The function may not be good at separating the two groups.

A category of business venture in terms of employees = micro:1-9L = $5.712 - 0.458X_1 + 0.048X_2 - 0.607X_3 - 0.912X_4 + 1.150X_5 + 1.195X_6 + 0.888X_7 - 0.041X_8 - 0.178X_9 + 0.280X_{10} - 0.512X_{11} - 0.741X_{12}$

6.56

The difference between the centroids is $0.135 - 1.063 = 1.198$ which is satisfactory. The discriminant function does a good job of classifying items into groups. The hit ratio is 89.3% compared with expected cases at 80%. The discriminant function therefore has a good predictive ability. The model is correct over 80% of the times.

Table 6.120: Category of Business Venture in Terms of Employees = Medium: 50-99

	Wilks' Lambda	F	df1	df2	Sig.
Management role/responsibility	.957	1.429	1	32	.241
Interpersonal skills	.973	.873	1	32	.357
The human resources skills	.926	2.551	1	32	.120
Strategic management factors	.878	4.445	1	32	.043
Finances/capitalisation factors	.997	.108	1	32	.745
Marketing management factors	.933	2.302	1	32	.139
Entrepreneurial management factors	.936	2.188	1	32	.149
Technological factors	.881	4.330	1	32	.046
Macroeconomic environment factors	.996	.126	1	32	.725
Regulation and policy issues	.933	2.283	1	32	.141
Incentive policies	.889	4.001	1	32	.054
Institutional policies	.926	2.539	1	32	.121

Strategic management and technological factors significantly contribute to the dependent variable. The difference in the log determinant is minimal because non-performance is - 24.127 and pooled performance is 22.554 and the Box's M is ignored. The wilks'

Lambda = 0.663 with a P-value of 0.556 higher than 0.05. The hypothesis is not rejected.

The model as a whole may not be discriminating significantly.

Table 6.121: Standardized Canonical Discriminant Function Coefficients (a)

	Function 1
Management role/responsibility	.370
Interpersonal skills	-.457
The human resources skills	.024
Strategic management factors	1.003
Finances/capitalisation factors	-1.070
Marketing management factors	.061
Entrepreneurial management factors	.097
Technological factors	.099
Macroeconomic environment factors	-.046
Regulation and policy issues	.283
Incentive policies	.195
Institutional policies	.073

Strategic management factors and finances / capitalisation factors have the highest standardized coefficient thus have the greater ability to discriminate between performance and non performance.

Table 6.122: Canonical Discriminant Function Coefficients (a)

		Function 1
X ₁	Management role/responsibility	.852
X ₂	Interpersonal skills	-.679
X ₃	The human resources skills	.044
X ₄	Strategic management factors	2.082
X ₅	Finances/capitalisation factors	-2.292
X ₆	Marketing management factors	.120
X ₇	Entrepreneurial management factors	.189
X ₈	Technological factors	.175
X ₉	Macroeconomic environment factors	-.056
X ₁₀	Regulation and policy issues	.435
X ₁₁	Incentive policies	.288
X ₁₂	Institutional policies	.115
	(Constant)	-4.819

$$L = -4.819x_1 + 0.852x_2 - 0.679x_3 + 0.044x_4 + 2.082x_5 - 2.292x_6 + 0.120x_7 + 0.175x_8 - 0.056x_9 + 0.435x_{10} + 0.288x_{11} + 0.115x_{12}$$

6.57

The difference between the two group centroid is $0.086 - 0.964 = 1.050$ which is satisfactory. The expected percentage. $Ep = [5(0.147) + 29(0.853)] / 34 \times 100 = 71.89$. The hit ratio is 89.2% while the expected percentage by chance is 71.89%. The discriminate function as a predictive ability of over 70%. The model is acceptably accurate.

The test is repeated for the first period where the Dependent variable is profit change (Performance/Non-performance1: 2005-2004)

Table 6.123: Category of Business Venture in Terms of Employees = Micro: 1-9

	Wilks' Lambda	F	df1	df2	Sig.
Management role/responsibility	.998	.134	1	70	.715
Interpersonal skills	.991	.608	1	70	.438
The human resources skills	.987	.945	1	70	.334
Strategic management factors	.991	.612	1	70	.437
Finances/capitalisation factors	.941	4.404	1	70	.039
Marketing management factors	.959	3.001	1	70	.088
Entrepreneurial management factors	.991	.655	1	70	.421
Technological factors	.987	.888	1	70	.349
Macroeconomic environment factors	.988	.864	1	70	.356
Regulation and policy issues	.990	.692	1	70	.408
Incentive policies	.973	1.943	1	70	.168

Only finances / capitalisation within the micro enterprise seem to significantly affect the defendant variable (Performance or non-performance).The log determinant shows a very small difference: non-performance is -13.534 and pooled performance is - 13.617,

therefore Box's M is ignored. Wilks Lambda is 0.894 with p-value is 0.778, thus the function may not be highly discriminating.

Table 6.124 Standardized Canonical Discriminant Function Coefficients

	Function
Management role/responsibility	-.644
Interpersonal skills	.212
The human resources skills	-.014
Strategic management factors	-.234
Finances/capitalisation factors	.825
Marketing management factors	.856
Entrepreneurial management factors	-.362
Technological factors	-.137
Macroeconomic environment factors	.075
Regulation and policy issues	.389
Incentive policies	-.022

The factors contributing most to the function are the finance capitalisation factors and the strategic management factors.

Table 6.125: Canonical Discriminant Function Coefficients

		Function
X ₁	Management role/responsibility	-.748
X ₂	Interpersonal skills	.218
X ₃	The human resources skills	-.021
X ₄	Strategic management factors	-.348
X ₅	Finances/capitalisation factors	1.610
X ₆	Marketing management factors	1.346
X ₇	Entrepreneurial management factors	-.534
X ₈	Technological factors	-.156
X ₉	Macroeconomic environment factors	.085
X ₁₀	Regulation and policy issues	.488
X ₁₁	Incentive policies	-.028
	(Constant)	-6.378

$$L = -6.378 - 0.748x_1 + 0.218x_2 - 0.021x_3 - 0.348x_4 + 1.610x_5 + 1.346x_6 - 0.534x_7 - 0.156x_8 + 0.85x_9 + 0.488x_{10} - 0.28x_{11}$$

6.58

The difference in the centroid of performance and non-performance is $0.103 - 1.129 = -1.026$ which is satisfactory. The expected percentage $= [6(0.083) + 66 (0.917)] / 72 \times 100 = 84.06\%$. The hit ratio is 91.7%, validated ratio is 88.9% and expected percentage is 84.06%. It can be concluded that the model has a good predictive ability.

Table 6. 126: Category of business venture in terms of employees = small: 10-49

	Wilks' Lambda	F	df1	df2	Sig.
Management role/responsibility	.998	.073	1	44	.788
Interpersonal skills	.998	.084	1	44	.773
The human resources skills	.982	.823	1	44	.369
Strategic management factors	1.000	.000	1	44	.987
Finances/capitalisation factors	.999	.032	1	44	.859
Marketing management factors	.996	.164	1	44	.687
Entrepreneurial management factors	.983	.759	1	44	.388
Technological factors	.999	.054	1	44	.818
Macroeconomic environment factors	.972	1.274	1	44	.265
Regulation and policy issues	.993	.324	1	44	.572
Incentive policies	.981	.842	1	44	.364

In the small enterprises category, none of the factors seems to significantly influence the dependent variable. The log determinant is almost similar so Box's M is ignored. The non-performance is -22.544 and the pooled performance is -22.676. The Wilks' Lambda shows that the P value is 0.762, so overall model / not significant.

Table 6.127: Standardized Canonical Discriminant Function Coefficients

	Function 1
Management role/responsibility	-.032
Interpersonal skills	.573
The human resources skills	.553
Strategic management factors	-.593
Finances/capitalisation factors	-.232
Marketing management factors	-.913
Entrepreneurial management factors	.276
Technological factors	-.437
Macroeconomic environment factors	1.005
Regulation and policy issues	.239
Incentive policies	.646

The macroeconomic environmental factors tend to influence the model most, followed by the incentive policies.

Table 6.128: Canonical Discriminant Function Coefficients

	Function 1
X ₁	Management role/responsibility
X ₂	Interpersonal skills
X ₃	The human resources skills
X ₄	Strategic management factors
X ₅	Finances/capitalisation factors
X ₆	Marketing management factors
X ₇	Entrepreneurial management factors
X ₈	Technological factors
X ₉	Macroeconomic environment factors
X ₁₀	Regulation and policy issues
X ₁₁	Incentive policies
X ₁₂	(Constant)

$$L = -5.782 - 0.073x_1 + 0.906x_2 + 0.995x_3 - 1.256x_4 - 0.565x_5 - 1.992x_6 + 0.595x_7 - 0.800x_8 + 1.977x_9 + 0.449x_{10} + 1.149x_{11}$$

6.59

The differences in the centroids are $0.096 - 2.119 = 2.023$. This is very good. So the discriminate function is good at classifying items into groups.

The percentage expected is:

$E_p = [2(0.043) + 44 (0.957)]/46 \times 100 = 91.4\%$. The hit ratio is 97.8 % and the cross validated ratio is 87.0 %. The expected percentage is 91.7 %. The hit ratio is larger than the expected ratio. This suggests that the discriminate function has a good predestine ability and overall the model is over 90% correct.

Table 6.129: Summary of Discriminant results

Dependent variable	Discriminant function	Expected percentage	Hit ratio	Comment
prchang1new (Performance/Non-performance1: 2006-2005)	$L = -5.020 - 0.182 X_1 - 0.164 X_2 - 0.433X_3 + 0.185X_4 + 0.115X_5 + 1.116X_6 + 0.198X_7 + 0.293X_8 - 0.483X_9 - 0.023X_{10} + 0.0299 X_{11} + 0.744 X_{12}$	84.96 %.	92.2 %,	The model is correct more than 9 times.
Dependent Variable: prchang2new (Performance/Nonperformance2: 2005-2004)	$L = -7.427 - 0.565 X_1 + 0.793 X_2 + 0.519 X_3 - 0.810 X_4 + 0.990 X_5 + 0.727 X_6 - 0.075 X_7 + 0.050 X_8 + 0.024 X_9 - 0.104 X_{10} + 0.363 X_{11}$	93.2%.	89.47%	The model is correct more than 9 times out 10 or over 90%.
Category of business venture in terms of employees = micro:1-9	$L = 5.712 - 0.458X_1 + 0.048X_2 - 0.607X_3 - 0.912X_4 + 1.150X_5 + 1.195X_6 + 0.888X_7 - 0.041X_8 - 0.178X_9 + 0.280X_{10} - 0.512X_{11} - 0.741X_{12}$	89.3%	80%..	The model is correct over 80% of the times.
Category of business venture in terms of employees = medium:50-99	$L = -4.819x_1 + 0.852x_2 - 0.679x_3 + 0.044x_4 + 2.082x_4 - 2.292x_5 + 0.120x_6 + 0.189x_7 + 0.175x_8 - 0.056x_9 + 0.435x_{10} + 0.288x_{11} + 0.115x_{12}$	89.2%	71.89%.	A predictive ability of over 70%.

Table 129 continues

prchang2new (Performance/non-performance1 : 2005-2004)	$L = -6.378 - 0.748x_1 + 0.218x_2 - 0.021x_3 - 0.348x_4 + 1.610x_5 + 1.346x_6 - 0.534x_7 - 0.156x_8 + 0.85x_9 + 0.488x_{10} - 0.28x_{11}$	91.7%,	84.06%.	The model has a good predictive ability.
Category of business venture in terms of employees = small:10-49	$L = -5.782 - 0.073x_1 + 0.906x_2 + 0.995x_3 - 1.256x_4 - 0.565x_5 - 1.992x_6 + 0.595x_7 - 0.800x_8 + 1.977x_9 + 0.449x_{10} + 1.149x_{11}$	97.8 % and	91.7 %.	Overall, the model is over 90% correct.

Table 6.102: above indicates that for the Micro enterprises, factors whose beta values are highest are marketing management strategies (1.195), fiancé/capitalisation strategies (1.150), and entrepreneurship management strategies (0.888). The strategic management factors (-0.912), the human resources (-0.607) and institutional policies (0.741) are negative.

Within the small businesses, macro environmental factors (1.977), incentives (1.149) and human resource strategies (0.995) were the highest positive factors while, marketing management strategies (-1.992) and strategic management factors (-1.256) are the highest factors from the discriminant function.

The medium enterprises test indicates that the highest positive influence is from the marketing management strategies (1.346), Regulation and policy issues (0.488). The negative effects are the management roles/responsibilities (-0.748) and entrepreneurship management strategies (-0.534). The effect on the profitability tested on the combined categories indicated that marketing management, finance /capitalisation, interpersonal and strategic management factors affected profitability most.

6.10 Focus Group Discussion (FGD)

The results from the focus group discussions complemented those obtained through the questionnaires. The groups had mixed feelings about the effects of liberalization and globalisation. While some were happy because of the variety of commodities resulting from globalisation, others felt some control was required due to junk, substandard and low quality items sneaked into the country. For example in clothing, there are ready-made clothes imported from Korea, Bangkok and United kingdom have given employment to very many Kenyans, while those retailing machinery connected to the same and those trained to be tailors have lost business . Otherwise they all participants appreciated the advent of technology in terms of increased efficiency and sometimes, savings.

The causes of business failure were cited as mainly disorganization, close competition(defined as too much duplication within the market so that very many businesses are similar and undifferentiated),poor marketing strategies and withdrawal of business capital due to unavoidable circumstances such as paying children's school fees. The problems can be so bad so that many business owners wind up, only to start a different type of business later, thereby affecting business growth.

It was a big surprise to discover that over 90% of the participants did not have formal business plans, nor vision or mission statements and, if any, neither clear and nor well communicated. Marketing especially in the micro enterprises was quite informal. This consisted of ‘word of mouth’ to neighbours and friends, a sign board and occasional gifts such as small calendars and diaries. The operations of banks and micro financing firms were highly appreciated as ready sources of finances as well as business advice.

‘

The groups felt that government policies in place needed to be revised. The micro enterprises claimed to be choked by multiple payments to the government and councils. These include tax (the highest in the region), licenses, rates and rent, it also includes 'handouts or handshakes' to those in authority if needing something in an office. It was argued that the government should exempt the small and micro businesses from tax and excessive payments as an incentive and a way to encourage those in the MSMEs sector. These results highly complement the data from the questionnaires and strengthen the summary and conclusions in the chapter that follows (source, FGD)

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

In this chapter, the summary, conclusions and recommendations are discussed. For clarity purposes, the discussions are based on the research objectives of the study. Each objective is discussed separately such that there is a summary, discussion of findings and conclusion for each objective. The researcher presents the limitations of the study and offers recommendations for further research as well as practice and policy.

7.2 Summary

This study is basically an investigation into the management strategies/factors affecting the performance of MSMEs in Kenya. It is based on five objectives each with some hypotheses based on that particular objective. A total of twenty hypotheses were formulated and subjected to statistical testing. The data collection instrument was applied to managers among the MSMEs. To validate the instruments, a pilot study was conducted and results analysed a head of the actual survey. Other than the results from the data instrument, a focus group discussion was conducted to enrich the findings.

The first objective of the thesis was to identify the critical management factors affecting the performance of MSMEs in Kenya. Several hypotheses were formulated-Performance indices used were based on efficiency and effectiveness of systems and processes within the firm (refer to chapter 1 hypotheses 1 to 14). Correlations between performances indices used were based on efficiency and effectiveness of systems and processes within the firm. From the results obtained, performance was found to be significantly related to the management factors and strategies within the MSMEs. The correlation range was 0.20 to 0.60 (table 6.2 and appendix 4). The chief

executive/ owner manager had the highest correlation to performance at 0.6, the combination of management processes followed with 0.50, organisational processes 0.45, management and human resources skills with 0.40. All the correlations were significant. The correlations were found to be rather weak or slightly above average thus necessitating the researcher to carry out further analysis. The study sought to establish the critical management factors in the first objective and therefore multiple linear regressions and discriminant analyses were selected to further identify the critical management factors. Results obtained from simple regression tests indicate that the most critical strategies or factors that affect performance are finances/capitalisation strategies, technological factors, Incentive policies, and macro-environmental factors and human resources factors. The least were interpersonal skills, management roles, entrepreneurial roles, strategic management factors, regulation, and policy.

The results from the discriminant tests summarized in table 6.102 indicated that the most discriminating factors to performance or non-performance (measured from the relative percentage change of profitability within the two periods) of the enterprises were the Marketing management strategies, Finance /capitalisation factors, interpersonal factors and strategic management factors, The human resources strategies and incentive and policies factors.

Further effects on different categories tested revealed that the discriminating factors differ from micro enterprises to medium enterprises. The micro enterprises rated marketing management as the highest discriminating contributor, finance and capitalisation and entrepreneurship factors followed. It was noted that strategic management factors and human resources discriminated the results but from a negative point of view. The small businesses rated macro-environmental factors, incentives and

human resources strategies as the highest positive discriminant while marketing management strategies and strategic management factors were the highest negative discriminants. The medium enterprises rated marketing management strategies and regulation and policy issues as the highest positive discriminants while the management roles and entrepreneurship strategies were the highest negative contributors.

The results obtained from the three tests show that similar strategies are consistent as affecting the performance of MSMEs. The same types of strategies or factors are very important either as positive or negative effects. The study has gone further in identifying those factors that are critical in respect to the size of business.

Research objective two sought to establish the process through which the processes affect performance. Hypotheses 1 to 14 were formulated based on the relationships depicted in the conceptual model (figure 2.1) and the tests were done in chapter 6. These tests include the Pearson's correlations and regressions (simple linear, multiple linear and multiple logistic linear), cross tabulations, chi-square, log linear, t-tests, Anova/Manova, Kruskal Walis tests and discriminant analysis. The results are discussed within the other four objectives.

Research objective three was formulated to determine the integrative effect of various management factors in the MSMEs in Kenya. To achieve this, four hypotheses were formulated and tested in chapter six. Using multiple linear logistic regressions and multiple regressions, the integrative effects of various factors/ strategies were determined and several models formulated. The results of the multiple linear logistic regressions and

the multiple regressions are shown in appendix 8. Several statements were coined to find some ‘failure’ situations in the enterprises. The situations of poor performance were:

- i. inability to meet creditors in full;
- ii. closure of non productive branch;
- iii. reported loss within a certain period;
- iv. and in ability to continue for over 6 months;

These conditions were regressed against the management factors and later against the management factors and demographic factors within the firms. With the situation of inability to meet creditors in full, strategic management and institutional policy, issues were found to be the highest contributors of the model formed. When the factors got combined with demographic factors, interpersonal factors and diploma and university levels of education were the highest contributors to the model. The next statement ‘Closure of a non-productive branch’ as the dependent variable , the highest contributors to the model were the CEO strategies, incentive policies and the directing function of management. When the biographical variables were included, the marketing management strategies, the entrepreneurship strategies, the diploma/ university level of education and the size (Micro) all became very high contributors to the model. The third statement was then regressed and tested. The condition that ‘loss was reported at some time’ showed the regulation and policy issues, incentives, human resources strategies, controlling function as the most effective contributors to the model before combining the demographics. After the combination, marketing management, entrepreneurship and macro- environmental factors were the most effective contributors. Finally, the statement, unable to continue for over 6 months’ as the dependent variable had the highest contributors as all the variables.

After combining with demographics, the highest contributors were interpersonal skills, strategic management factors and regulation and policy issues.

Gross profit obtained from secondary reports collected from the firms was used to differentiate between performing and non-performing firms. The performing firms were those whose change in profit was higher than the inflation rate and the cost of capital. The figure for inflation was rapidly moving upwards to 32% by June 2008. The economic review 2008 from the Central Bank of Kenya currently reports the inflation to be 27.5%. The researcher found 30% a comfortable benchmark to separate performing and non-performing. Those whose profits changed by 30% or less were classified as non-performing and those above 31% were classified as performing. The two categories were then modelled against the management strategies in combination with the biographic variables. Excluding biographic factors with highest effects by 2006 were the interpersonal skills, strategic management, and regulation and policy issues. Inclusive biographic factors were CEO strategies, interpersonal skills, and entrepreneurial strategies, O and A levels of education and the size of business.

From the two sets of results, it is noted that the most significant factors change when the demographics change. The change is such that there are additional factors or very new factors emerge. It, therefore, appears that the combination of factors is key to performance. It is also important to note that the magnitude of the effects seems to be highly dependent on the combined factors.

The effects of demographics and management factors on performance were the intent of objective four and are shown alongside research objective one results. The results clearly showed that the inclusion of the demographic variables altered the model such that the factors with the highest effect changed. Further tests were carried out to investigate the effect of demographics. Mann Whitney U-test showed a significant difference between the gross profits in three consecutive years; 2004-2006 for males and females. It was concluded with 95% certainty that performance within the MSMEs was significantly different between genders. This was accounted in respect to gross profit, net assets, capital employed, and sales turnover. Similar tests were done for the level of management of the respondents. It was established that there is no significant difference between gross profit, sales turnover or capital employed in the MSMEs based on the level of management of the respondent.

The size of the firms was then investigated. A Test for the differences in implementation of the management process was carried out. It was concluded with 95% confidence that there was a significant difference in the micro and small enterprises, micro and medium enterprises, small and medium enterprises in terms of the implementation of the management process. This was verified by use of the Welch test whose statistic is 10.734 with a P-value of 0.0001 meaning that the population means of management process for micro, small, and medium differed significantly. Kruskal Wallis test showed significant difference between highest levels of education and the sales turnover but no difference between capital employed and net assets. A similar test rendered the results that the Age of the business had an effect on the gross profit and sales turnover but location had no

significant effect on the gross profit and sales turnover within the examined MSMEs in Kenya.

A MANOVA test conducted between the mean vector (gross profit, net assets, capital employed) for each level of education (O' level, A level, university graduate, post graduate degree), established a significant difference for each level. Similarly, the test for size of business (micro, small, and medium) was significant for each size. However, the same test done for age of business, location and level of management reported no differences between the population means vectors.

To establish efficiency, the demographics carried out showed that the condition of 'inability to pay creditors, closing up business or branch, reporting a loss, and inability to continue in business for over 6 months were independent of the highest level of education.. The same conditions tabulated against the business category indicated that the size of business influences the ability to discharge creditors in time. Of the 29.1% enterprises that affirmed having been unable to pay creditors in time, 20.9% were the micro enterprises. The three categories affirmed having closed a non-productive branch. A chi-square test carried out indicates that size influenced the condition of 'closing up'. Further tests indicated that 'reporting loss' and 'inability to continue for over 6 months were independent of the size of business. The researcher used log-linear analysis to further explain/analyse the cross tabulation and chi-Square test results. Log-linear analysis was also used to obtain predicted cell counts of the cross-tabulation table.

Objective five was a test of effects of external environment on the internal management factors. Hypothesis number 12 was formulated and tested to answer the objective. A model was formed using multiple linear regressions and the following outcomes obtained. The management roles/responsibility factors as the dependent variable and the external environmental factors were found to contribute 26.6% variation with a very high significance. Globalisation, institutional policies and technological factors significantly affected the management roles and responsibilities in the firms. The management function was affected most by globalisation factors, the organising function was affected by incentives and regulation and policies. The planning function was affected by globalisation and technological factors, the directing function was affected by incentives, technological and regulation and policy factors. The controlling function was affected by technological factors, incentives and institutional policies. The human resources factor was affected by the technological factors, macro environment and institutional factors. Strategic management factors were affected by globalisation and technological factors. Finance and capitalisation strategies were affected by globalisation factors and technological factors. The marketing management factors were affected by macro environmental and institutional policies. The entrepreneurial factors were affected by technological factors. The interpersonal skills were affected by globalisation and incentives policies.

7.3 Conclusion

This research has identified the critical management factors/strategies prevalent in the MSMEs in Kenya. It has further identified the different impacts each of the strategies/factors under study has in different categories of the business. The research

clearly illustrates that those critical factors in micro enterprises differ from the factors that are critical to small enterprises and the medium enterprises too. It has been noted that the globalisation factors and other factors external to the businesses such as incentives, regulation and policy issues, infrastructure had very high effects on the management structures, systems and other internal factors of the firm.

Second, the relationships of the factors were investigated, the interrelationships as well as integrations and several models produced. From the models, it is noted that some factors contribute more to the performance of the enterprise. Some factors combined with other factors or strategies actually gave a negative contribution. This was easily observable where the factors, strategies and biographical data were tested together. This implies that the different combinations of factors, strategies and other inputs need to be at a certain level to produce optimum performance. The results of this research are based on survey covering the manufacturing and services sector, which is the largest sector of MSMEs in Kenya. These results can therefore, be generalized though this must apply to those enterprises with similar characteristics as those sampled.

7.4 Policy recommendations

Based on the findings of this study, the researcher found it important to make some recommendations to guide policy-makers and other researchers:

- i. Policy issues were mentioned earlier in connection with the sessional papers, development plans and the 2030 strategic vision. These documents have provided the issues needed within the MSMEs sector. After interviewing, the managers who are

the implementers, the results reflect great need to have policies that guide action at the business levels.

- ii. Some of the major issues obtained from the results of the study were government issues dealing with interventions. Issues to do with regulation and policy, incentives are the domain of the government. These came out strongly in the focus group discussion too where business managers felt that an enabling environment should be created so as to allow the micro and small businesses in particular to grow and perform.
- iii. The education profile of the respondents indicated that O and A level managers were about 40%. These are owner managers / executives that lack specialized education. There ought to be a policy to train these individual. Whereas such training is available in colleges and universities, it should be noted that those avenues are very expensive. A way of getting the business skills required scanning environment, keeping proper records, getting market for goods and produce standard products that compete globally should be established.
- iv. Chapter three the two ministries that host particular departments for MSE and SME were discussed. There ought to be proper definition and segregation of the issues of the three categories of enterprises with the aim of increasing efficiency without duplicating efforts. This implies that clearly the micro enterprises would be under ministry A, small businesses under ministry B and medium enterprises in ministry C or different departments within a ministry.

- v. Firms must maintain the right mix of practices in the areas of strategic management, human resources, marketing, interpersonal issues, entrepreneurial and others. This coupled with the nature of the firm and the management factors. The calibre of management in practice will dictate strategies undertaken to react to the environment.

- vi. The management should also be sensitized to the use of modelling that could help them predict the outcome of their practices given the resources that they have. This implies that firms can predict success or failure and take corrective action well in advance.

7.5 Limitations of the study

The researcher experienced a number of limitations worth mentioning. It is very important to note that these limitations did not have any significant interference with the outcome of the study. The first was the geographical spread of the MSMEs. These enterprises are found literally in every part of the country. This includes the very remote areas like Wajir and Marsabit where due to infrastructure it became impossible to reach there. Nevertheless, a meeting by Kenya National Chambers of commerce and Industry arranged in Nairobi made it possible for the researcher to get responses from those areas.

Second, there was a problem of definition of employees due to the diverse nature of MSMEs.

7.6 Recommendations for Further Research

In management decisions must be made but accurate decisions must be based on the right information. This can be achieved by having more research being conducted.

- i. The focus for this study was the manufacturing and service firms. Future research could therefore investigate the other sectors like retail, agriculture and come up with specific findings.
- ii. This study focused on the senior officers or owners of the firms. Further research could target other workers or the consumers.
- iii. This study dealt with management strategies and factors impacting on the performance of the firms. Further research could target the larger firms that have dominated the markets having graduated from the MSMEs status.
- iv. Finally, this study has brought new facets of specific issues affecting performance in a developing country like Kenya, specifically comparing how the same strategy affects the three categories of the enterprise. Research should be carried out more specifically to assist tailor-made solutions to each specific category.

The field of MSMEs is large and very diverse. It is an interesting area with many unresolved issues. It would be encouraging to get more solutions to the many issues arising. Many economies have survived by encouraging new firms. This may be the solution to the many ailing economies in this world.

BIBLIOGRAPHY

- Adams, J.,(2004). Small Business: Advanta Lets Fingers Do the Clicking: Its Alliance with Interland is Aimed at Making It Easier for Small Entrepreneurs to Build an Internet Presence, a Strategy That's Just as Important as a Yellow Page Listing. *Bank Technology News*. New York: November 1, 2004. Vol. 17, Iss. 11, p. 50.
- Aduda, K. and H. Kaane (2000). Technology policies and strategies.
In Andrew Mullei and A. Bokea (Eds). *Micro and small enterprises in Kenya: Agenda for Improving the Policy Environment*. Nairobi: ICEG.
- Aidis, R. (2004). *Laws and Customs: Entrepreneurship, Institutions and Gender during Transition, SSEES Occasional Papers*. London: London University.
- Aidis, R. and A. Sauka. (2005). Assessing Moving Targets: Analyzing the impact of transition stages on entrepreneurship development. *Ekonomika, No. 69, 1 – 21*.
- Allen, D. (2005). The easy guide to repertory grid Chichester: Wiley. *Personal Construct Theory & Practice*, p.2-15.
- Altman E (1993). Why Business fail. *Journal of Business strategy* (spring), 15-21.
- Ansoff, H. I. (1976), Corporate Strategy. New York: Mc Graw-Hill.
- Ansoff, H.I. and Mcdonell, E. (1990). Implanting Strategic Management, (2nd edition) Englewood Cliffs, NJ: Prentice Hall.
- Aosa (1993). *Strategic practices in manufacturing firms in Kenya*. Unpublished thesis. University of Nairobi.
- Astrachan, J.H. & Shanker, M.C. (1996). Myths and realities: Family businesses' contributing to U.S economy: A framework for assessing family business statistics. *Family Business Review, 9 (2), 107-119*.
- Astrachan, J.H., Bagchisen Klein S.B., & Smyrnios, K X.(2002). The F_PEC scale of family influence: a proposal for solving the family business definition. *Family Business Review, 15 (1), March, 45-57*.
- Baldwin, J.R., W. Chandler, C. Le and T. Papailiadis. (1994). Strategies for Success: Catalogue No.61-523 E. Ottawa, Canada.
- Barnes, D (2002). The complexities of the manufacturing strategy formation process in practice, *International Journal of Operations & Production Management*, Vol.21 No. 8, pp.1076-95.

Barr and Siems (1996:1). Bank Failure Prediction using DEA to Measure Management Quality. Dallas Texas : Southern Methodist University.

Bates T. (1995). Analysis of survival rates among franchise and independent small business startups. *Journal of Small Business Management*, 33(2), 26-36.

Blackburn R.A & Small bone D. (2008). Researching Small Firms and Entrepreneurship in U.K : Development and Distinctiveness, *Entrepreneurship Theory and Practices Baylor University Grunhagen M. & Mishra (2008)*.

Beaver, G. (2002). Small Business, Entrepreneurship and Enterprise Development, Pearson Education, Harlow, *International Small Business Journal*.

Beckman, J., and N. Marks. (1996). *Entrepreneurial success and previous business experience*. Southwestern Small Business Institute Association Proceedings, March, 82-84.

Berger, A. (2005). *Radio Frequency Identification. Interactive Marketing*. London: April-June Vol. 6, Iss. 4, p. 346.

Berry, A. (1996). Small and Medium Enterprise (SME) under trade and Foreign exchange liberation: Latin America and the Canadian experience and concerns. *Canadian journal of Development Studies*.

Best and Kahn (2003). *Research in education*. Boston: Library of Congress of Cataloguing.

Boissevian, 1974. *Friends of Friends*. London: Oxford Bassil Blackwell.

Bokeia, C., A. Dondo and J. Mutiso (2000). "Physical infrastructure". In Andrew Mullei and A. Bokeia (eds). *Micro and small enterprises in Kenya: Agenda for Improving the Policy Environment*. Nairobi: IECG.

Bolander, G.W., Snell, S.A., Sherman, A. (2001). *Managing Human Resources*, (12th ed.), Southwestern: Mason, OH.

Bovenzi, Marino and McFadden (1983). Commercial Bank Failure Prediction Models. *Economic Review November*. Pp14-26.

Bower, M. (1966). *Will to manage*. New York: McGraw Hill.

Boyle R. and H. Desai. (1991). Turnaround strategies for small firms. *Journal of Small Business Management*, 29(3), 33-42.

Brockhous, R.H. (1987), Entrepreneurial folklore. *Journal of Small Business Management*, Vol. 25 No.3, pp.1-6.

Bruno A, Joel L. and Harder J. (1987). Why Firms Fail. *Business Horizons*, March/April, pp. 50-58.

Bryman A. (1984). The debate about quantitative and qualitative research: A question of method or epistemology. *The British Journal of Sociology*. 35 (1) 19 4. pp 75-92.

Byrman A (1999). *Research methods and organizational studies*. London: Unwin and Hyman Ltd.

Carter, Brush, Greene, Gatewood, & Hart, (2003). Women entrepreneurs who break through to equity financing; the influence of human, social and financial capital. venture capital. *An International and Financial Journal of Entrepreneurial Finance* 5(1) pp 1-28.

Carter, N.M., Candida G.B., and Greene P.C., Gatewood E.and Myra M.H. (2003). Women entrepreneurs who break through to equity financing: The influence of human, social and financial capital, *Venture Capital Vol.5, no.1pp.1-28*.

Carter, S and Rosa P (1998): The financing of male- and female-owned businesses. *Entrepreneurship & Regional Development.Vol.10, pp 225-241*.

Carter, S. (2000). Gender and enterprise. In *Enterprise and Small Business: Principles, Practice, and Policy* London: Prentice Hall.

Castrogiovanni, G. (1996). Pre-startup planning and the survival of new small businesses: theoretical linkages. *Journal of Management*, 22(6), 801-823.

CBS, K-Rep, and ICEG (1999). *National MSE Baseline Survey* pp. 10-217.

Central Bank of Kenya (2008). *Economic Review*. Nairobi: Government Printer.

Chandler, C. (2005). Small companies gaining big benefits from new communications technology. *Alaska journal of commerce*. Anchorage: March 6, Vol. 29, Iss. 10, p. A3. pp. 32-68.

Chaston and Mangles (2002). Chasten, I. & Mangles, T. (2002). E-commerce in small UK Manufacturing firms: A pilot study on internal competencies. *Journal of Marketing Management*, 18, pp341-360.

Chell, E., Baines, S. (1998). Does gender effect business ‘performance? A study of microbusinesses in business services in the UK. *Entrepreneurship and Regional Development, Vol. 10 No.2, pp.117-35*.

- Chu-Hua, K., Madu, C.N. and Lin, C. (2001). The relationship between supply chain quality management practices and organizational performance. *International Journal of Quality & Reliability Management*, Vol. 18 No. 8, pp. 864-72.
- Cochran, A. (1981). Small business mortality rates: A review of the literature. *Journal of Small Business Management*, 19(4), pp.50-57.
- Combs JG Ketchen D.J, Perrymann AA & Donahue MS (2007). The moderating effect of CEO power on the board composition firm performance relationship: *Journal of Management Studies* 44. 8th Dec. 2007.
- Cooper A, William D and Carolyn W. (1990). *New Business in America. The firms and their Owners*. Washington D.C.: NFIB. 1990.
- Cooper, A., W. Dunkelberg, and C. Woo. (1989). Entrepreneurship and the initial size of firms. *Journal of Business Venturing*, 4, 317-332.
- Corbett, L.M. and Rastrick, K.N. (2000), Quality performance and organizational culture: a New Zealand study. *International Journal of Quality & Reliability Management*, Vol. 17 No. 1, pp. 14-26.
- Corman, J and Lussier R N (1991). Reasons why businesses fail in New England: A survey study. *Business Journal*, pgs. 21-27.
- Costa, S. (1994).100 years and counting. *Management Review*, 83(12), 32-34.
- Daroch and Clover (2005) .*The effects of entrepreneurial quality on the success of small, medium and micro agri-businesses in KwaZulu-Natal, South Africa*.
- David F. R. (1997). Strategic management. *Francis Marion University Book* . p. 239.
- Delmar F. & Wiklund J (2008). The effect of small business managers growth motivations on firm growth. A longitudinal study of entrepreneurship. *Theory and Practice*, Baylor University.
- Di Pofi, J. (2002). Organizational diagnostics: integrating qualitative and quantitative methodology, *Journal of Organizational Change Management*, Vol. 15 No.2, pp.156-8.
- Douglas, T. J. and Judge, W.Q. (2001). Total quality management implementation and competitive advantage: the role of structural control and exploration. *Academy of Management Journal*, Vol. 44 No. 1, pp. 158-69.
- Downing, J. (1991). Gender and the growth of micro enterprises. *Small Enterprise Development*, 3(2): 26-34.
- Duchesneau, D., and W. Gartner. (1990). A profile of new venture success and failure in an emerging industry. *Journal of Business Venturing*, 5, 297-312.

- Dun & Bradstreet. (1989). *Business Failure Record*. New York: Dun & Bradstreet. pp. 144-149.
- Dyke, L. E. Fischer, and A. Reuben. (1992). An inter-industry examination of the impact of owner experience on firm performance. *Journal of Small Business Management*, 30(4), 72-87.
- Erickson, B.H., Mostacci, L., Nosanchuk, T.A. and Dalrymple C. D (1978). The flow of crisis information as a probe of work relations. Canadian. *Journal of Sociology*, 3 (winter), 71-87.
- Falk & Kirkpatrick, (2000:8-110). A study of interaction in a rural community: *Sociological Ruralist*, Vol 40 pg 87-110.
- Federal Communications Commission (2005). *Voice over Internet Protocol*. <http://www.fcc.gov/voip>. July 29, 2005.
- Federal Trade Commission. (2005). Financial Privacy: *The Gramm-Leach-Bliley Act*. <http://www.ftc.gov/privacy/glbact/>. July 2005.
- Filley, A., and R. Pricer. (1991). *Growing companies: Tools for small business success*. Madison: Magna Publications, Inc.
- Fisher R (2007). Putting the 'team' in the fine Arts team: An application of business management team concepts. *Arts and Education Policy Review* .Vol.108:4th march/April p 25-32.
- Folop L, & Linstead S (1999). *Management: A critical text*. Macmillan. *Foreign exchange liberalization: Latin America and the Canadian*.
- Gaskill, L. H. VanAuken, and R. Manning. (1993). A factor analytic study of the perceived causes of small business failure. *Journal of Small Business Management*, 31(4), 18-31.
- Ginsbert, A. and Venkatraman, N. (1985). Contingency perspectives on organizational strategy: a critical review of the empirical research, *Academy of Management Review*, Vol. 5, pp. 25-39.
- Goleman (2000). Leadership that gets results. *Harrard Business Review 2000* 78-90.
- Granovetter, M. (1973). The Strength of weak ties; American Journal of Sociology, Vol.78.No.6., May 1973, pp1360-1380.
- Guzman, J., and Santos, F. (2001). The booster function and entrepreneurial quality: an application to the province of Seville. *Entrepreneurship and Regional Development*, 13:211-228.

- Guzman, J. (1994). Towards Taxonomy of Entrepreneurial Theories. *International Small Journal Business*, 12(4):77-88.
- Hagan, E R. (2004). *Entrepreneurship Education: A New Frontier for American Community colleges*. Unpublished Doctoral dissertation. Union Institute and University.
- Hales, C.P. (1986). What do managers do? A critical review of the evidence. *Journal of management*, pp. 88-115.
- Hamilton, B. (2000), Does entrepreneurship pay? An empirical analysis of the returns to self- employment. *Journal of Political Economy*, Vol. 108 No.3, pp.604-31.
- Hampton Review Report (2005). *Reducing administrative burdens effective inspection and enforcement*. March 2005.
- Hand, H., W. Sineath, and W. Howle. (1987). Small business concepts and their relationship to performance: A field study of retail service stations. *Journal of Small Business Management*.
- Harney, J (2005). Enterprise Content Management for SMBS. *AJIM E-Doc Magazine*. Silver Spring: May/June Vol.19, Iss. 3, p. 59-66.
- Hartshorn J and Wheeler D (2003). *Facilitating strategic business responses to sustainability*. Canada: Greenleaf Publishing.
- Hax, A.C. and Majiluf N.S (1988). *The strategy Concept and Process: A pragmatic Approach*, (2nd ed), Englewood Cliffs, and NJ: Prentice Hall.
- Hellsten, U. and Klefsjö, D. (2000). TQM as a management system consisting of values, techniques and tools. *The TQM Magazine*, Vol. 12 No. 4, pp. 238-44.
- Hendricks, K.B. and Singhal, V.R. (2001a). The long-run stock price performance of firms with effective TQM programs. *Management Science*, Vol. 47 No. 3, pp. 359-68.
- Hendricks, K.B. and Singhal, V.R. (2001b), Firm characteristics, total quality management, and financial performance. *Journal of Operations Management*, Vol. 19, pp. 269-85.
- Hoad, W and Peter R (1964). *Management Factors Contributing to the Success or Failure of Ann Arbor: 1964 New Small Manufactures*. Michigan: University of Michigan Press.
- Hofer C., and W. Sandberg. (1987). Improving new venture performance: Some guidelines for success. *American Journal of Small Business*, 12 (Summer), 11-25.

- Ibrahim A and J.Goodwin. (1986). Perceived causes of success in small business. *American Journal of Small Business*, 11 (Fall), 41-50.
- Johannesson, B (2000). *Networking and entrepreneurial growth*. In: D. Sexton and H. Landström, Editors, *Handbook of Entrepreneurship*. Oxford: Blackwell pp. 368–386.
- Johannesson, B. (2000). Global World modernising the industrial District – Rejuvenation or managerial Colonisation. In: Taylor, M und Vatne E (Eds): *The networked firm in a: Small Firms in new Environments*. Aldershot, 283-309.
- John R. F. (2007). *Predictive Management in Use, A strong proponent of Human Capital Value* (HCV). <http://www.PeopleAreCapital.com> site pp. 147-269.
- Johnson G & Scholes K. (1999). *Corporate strategy*. London Prentice Hall. Europe. Pp. 67-78.
- Johnson, G. & K. Scholes (1997). *Exploring corporate strategy*. (3rd ed). New York: Prentice Hall.
- Johnson, P. (1998). *Analytic induction, in qualitative methods and analysis in* Jorgenson and Hafs 1993:66-64.
- Justis R. and Chan P. (1993). An investigation of franchise failure rates. *Journal of Business and Entrepreneurship*, 5(2), pp. 61-90.
- Kaplan, R. & Norton, D. (1996). *The Balanced Scorecard Translating Strategy into Action* Harvard: Harvard Business School Press.
- Kaplan, R. & Norton, D. (1992). The Balanced Scorecard—measures that drive performance. *Harvard Business Review, January-February*, pp. 71-79.
- Keats, B. and Bracker, J. (1988). Toward a theory of small firm performance: A conceptual model. *American Journal of Small Business*, 12 (Summer), 41-58.
- Keggundu M and Jorgenson J and Hafs T. (1993). *Administrative Theory and Practice in Developing Countries: A Synthesis* March 1993. pp66-4.
- Kimenyi, S.M., Karingi, S.N., and Ndungu, N.S. (1999). *Beer taxation in Kenya: An assessment*. ISBN 9966 949 09 7.
- King, K. and S. McGrath (1998). *Rethinking small enterprise development between poverty and growth*. Paper presented at the conference on enterprise in Africa:

between poverty and growth: Centre for African Studies, University of Edinburgh, 29-27 May.

Kinyanjui, M. N. (1996). Small and medium manufacturing enterprise formation and development in Central Kenya: entrepreneurship or plodding along? In D. McCormick and P. O. Pedersen (eds). *Small enterprises: flexibility and networking in an African context*. Nairobi: Longhorn Kenya.

Kinyanjui, M. N. and K. Munguti (2000). *Gender equity*. In Andrew Mullei and A. Bokea (eds). Micro and small enterprises in Kenya: Agenda for improving the policy environment. Nairobi: ICEG.

Kirby, D.A. (2003). *Entrepreneurship*. Maidenhead: McGraw-Hill Education.

Koontz, H. and O Donnel, C. (2000). *Principles of Management: An analysis of managerial functions*. New York: McGraw Hill.

Koontz, H., Weihrich, H. (1990). *Essentials of Management*. New York: McGraw Hill.

Kotler P (2004). *Marketing Management: planning and analysis* Prentice Hall.

Latin America and in Canada', in A. Berry (ed.), *Labor Market Policies in Canada and Latin America: Challenges of the New Millennium*. Boston: Kluwer Academic Publishers.

Leavy, J.S Walsh, (1995). *Strategy and General Management*: University College, Dublin.

Lechner C & Dowling M, (2003). Firm networks: extend relationships as sources for the growth and competitiveness of entrepreneurial firms. *Entrepreneurship and Regional Development 1*, 1-16.

Li Yuan, Zbao Y, Tan J and Liu Y (2008). Moderating effects of Entrepreneurship orientation on Market Orientation – performance linking: Evidence from Chinese Small firms. *Journal of Small Business Management 46 (1)* pp 113 – 113.

Lichtenstein B.M.B and C.G Brush. (2001). How do resource bundles develop and change in new ventures? A dynamic model and longitudinal exploration. *Entrepreneurship theory and practice 25(3)*: 35-58.

Lin, N. and Dumin. M. (1986). Access to Occupations through Social Ties. *Social Networks 8*: 365-85.

Lindman M T., (2002). Open or closed strategy in developing new products? A case study of industrial NPD in SMEs. *European Journal of Innovation management*, Vol.5 No. 4, pp 224-36.

Looney, Wansley and Lane (1989). An examination of misclassification with Bank failure predictions Models. *Journal of Economics and Business* 41:327-336.

Lumpkin, J., and R. Ireland. (1988). Screening practices of new business incubators: The evaluation of critical success factors. *American Journal of Small Business*, 12 (Spring), 59-81.

Lussier, R., (1995). A nonfinancial business success versus failure prediction model for young firms. *Journal of Small Business Management*, 33(1), 8-20.

Lussier, R., (1996). A business success versus failure prediction model for service industries. *Journal of Business and Entrepreneurship*, 8(2), 23-37.

Lussier, R., and J. Corman. (1995). There are few differences between successful and failed small businesses. *Journal of Small Business Strategy*, 6(1), 21-33.

Lussier, Robert and Joel Corman, (1992). *Reasons Businesses Fail in Connecticut*. Proceedings of the 1992 SBIDA Regions I, II, III Conference, September pgs. 7-26.

Luthje, C., Franke, N. (2003). The making of an entrepreneur: Testing a model of entrepreneurial intent among engineering students at MIT, *R & D Management*, Vol. 33 No.2, pp.135-47.

Manno L. D, Lohuke FT, Hill JS, Weaver KM, Tambunari T. (2008). Environmental shock and SME alliance formation intentions in an emerging economy: evidence from the Asian Financial crisis in Indonesia. *Entrepreneurship theory and Practice*, Baylor University.

Manolova T.S , Eunni RV & Gyohev BS (2008). Institutional environments for Entrepreneurship evidence from Emerging economies in Eastern Europe; Entrepreneurship. *Theory and practice*, Baylor University.

Marlow, S., Carter, S. (2004). Accounting for Change: Professional Status, Gender Disadvantage and Self-Employment. *Women in Management Review*, Vol. 19 No.1, pp.5-16.

Marsden.P.V. and Campbell, K.E. (1984). *Social Forces*, Vol. 63, No. 2, 482-501.

Mason, C. (1991). Spatial variations in enterprise: the geography of new firm formation, in Burrows, R. (Eds). *Deciphering the Enterprise Culture*:

Entrepreneurship, Petty Capitalism and the Restructuring of Britain. London: Routledge, pp. 200-226.

Matlay, H., Westhead, P. (2004). *From e-innovation to e-entrepreneurship: European perspectives*, Paper presented at the 27th ISBA National Small Firms Policy and Research Conference, University of Teesside, Middlesbrough, November, pp. 234-327.

McNamara, Kevin and John G. Watson. (2005). The Development of a Team-Oriented Structure in a Small Business Enterprise. *Journal of American Academy of Business*. Cambridge Hollywood: March 2005. Vol. 6, Iss. 2, p, 184-190.

Meyanathan, S. D. and R. Munter (1994). Industrial structures and the development of small and medium enterprise structures: an overview. In *Meyanathan, S. D. (ed). Industrial structures and the development of small and medium enterprise linkages: examples from East Asia*. Dallas Texas: *Economic Development Institute Series*.

Meyer, G.D. (2001). Major Unresolved Issues and Opportunities in Entrepreneurship Education. *Coleman Foundation White Paper Series*, pp. 5-26.

Mihyo, B. P. (1994). *Technology policy and the future of small and micro enterprises in Kenya*. The Netherlands Government Mission on SED Programme.

Mintzberg, H., (1994): That's not turbulence, it's really opportunity. *Planning Review* 22(6), 7-9.

Mintzberg, H., (1994). The fall and rise of strategic planning, *Harvard business review*, Vol.72 No.1pp.21-30. Miller D, Breton – Miller I & Scholnick B (2008): Stewardship Vs Stagnation. An Empirical comparison of Small family and non-family. *Business Journal of Management Studies* 45 1 January 2008.

Montago, R., D. Kuratko, and Scarcella J. (1986). Perceptions of entrepreneurial success characteristics. *American Journal of Small Business*, 10(Winter), 25-43.

Morrel K. (2008).The Narrative of Evidence based, Management: A polemic. *Journal of Management studies* 45 – 3 may 2008.

Mugenda and Mugenda (1999). *Research methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.

- Mukhtar (2002). *Differences in Male and Female Management Characteristics: A Study of Owner-Manager Businesses*, *Journal Small Business Economics Publisher Springer Netherlands Issue Volume 18, Number 4 / June, 2002*.
- Murray, S.O., Rankin, J.H, and Magill, D. M. (1981). Strong Ties and Job Information. *Sociology of Work and Occupations: 119-36.*
- Nabi, G.R. (2003). Graduate employment and underemployment: opportunity for skill use and career experiences amongst recent business graduates, *Education + Training, Vol. 45 No.7, pp.371-82.*
- Nachmias C & Nachmias D (1991). *Research methods in the social sciences*. London: Edward Arnold Publishers Ltd. pp. 123-9.
- Namusonge G. (1999). *Determinants of growth-oriented Small and Medium enterprises in Nairobi*. Unpublished thesis, JKUAT.
- Namusonge G. (2004). *The role of development financial institutions in acquiring of technical capabilities by small and medium enterprises in Kenya*.
- National Baseline Survey (1999). *National micro and small enterprise baseline survey*. Nairobi: ICEG and K-REP. pp10-217.
- Nickels, W G., McHugh, J M., and McHugh, S. (1987). *Understanding Business*. Chicago: Irwin pp. 336-347.
- Nohria, N. (1992). Is a network perspective a useful way of studying organization? In: R. Eccles, Editor, *Networks and Organizations*. Harvard Business School Press, Boston, MA.
- Nutt P.C (2008). Investigating the success of decision making processes. *Journal of Management Studies* 45. 2nd March 2008
- Nyangito, H O. (1996). *Policy and legal framework for the coffee subsector and the impact of liberalization in Kenya*. ISBN 9966 949 06 2.
- Nyangito, H. O. (1995). *Policy and legal framework for the tea subsector and the impact of liberalization in Kenya*. ISBN 9966 949 05 4
- Oketch, H. O. (2000). Credit and finance. In Andrew Mullei and A. Bokea (eds). *Micro and small enterprises in Kenya: Agenda for improving the policy environment*. Nairobi: ICEG.
- O'Neill, Hugh and Jacob Duker (1986). Survival and Failure in Small Business. *Journal of Small Business Management, January*. pp. 24-37.

Pant a lone and Platt (1987). Predicting commercial bank failure since derelugnition. *New England Economic review Vol. 13 pp 37-47.*

Parker C (2003). Diversity in independent Retailing: barriers and benefits- The impact of gender. *International Journal of Retail Distribution management vol. 31.no.8.pp.428-439.*

Parker S.C. (1997). The effects of risk on self- employment. *Small Business Economics 9, 515-522.*

Parker, S. (2004). *The Economics of Self-Employment and Entrepreneurship*, Cambridge: University Press, Cambridge. pp. 10-178.

Pawson and Tilley (1997). *Realistic Evaluation* London: Sage Publications,.

Pawson, Ray and Tilley, Nick (1997). *Realistic evaluation*. London: Sage.-referred to in several studies--Ex-post" evaluation of future policy interventions –the real effects of interventions that do not exist. Petrus Kautto Finnish Environment Institute, Research Programme for Environmental Policy, P.O. Box 140, FIN-00251 Helsinki, Finland E-mail: Studies Branch. Ottawa: Statistics Canada.

Pearce A. J and Robinson R.B. (2007). *Strategic Management*. London: McGraw Hill.

Pearce J.A and Robinson R.B (1988). *Formulation and Implementation of Competitive strategy*. London: McGraw Hill.

Perrot B, E (2008). Managing strategy in turbulent environments. *Journal of General Management Vol. 33 No. 3 spring 2008.*

Peterman, N., Kennedy, J. (2003). Enterprise education: influencing students' perceptions of entrepreneurship. *Entrepreneurship, Theory and Practice, Vol. 28 No.1, pp.129-44.*

Pierce, J L., and Dunham, R B. (1990). *Managing*. Glenview, IL: Scott, Foresman/Little, Brown Higher Education.

Ponthieu, L., and R. Insley. (1996). Rethinking the effects of small business failure. *Journal of Business and Entrepreneurship, 8(1), 32-42.*

Porter, M E. (1998). *Competitive advantage: creating and sustaining superior performance*, (2nd ed). New York Free Press.

Porter, M.E. (1996). What is Strategy? *Harvard Business Review. November 61-78.*

Pralahad, C.K and Hamel, G, (1990). The core competence of the corporation. *Harvard Business Review, Vol.68 No.3, pp 79-91.*

- Reed R., Lemak D.J. and Mero N.P. (2000). Total quality management and sustainable competitive advantage. *Journal of Quality Management*, Vol. 5 No. 1, pp. 5-26.
- Reynolds, P (1987). New Firms: Societal Contribution versus Potential. *Journal of Business Venturing*. Summer 1987, pp. 231-246.
- Richard B. (2003). *Business & Economics Vocational Business: Training, Developing and Motivating People* - Page 51 in <http://www.answers.com/topic/management>. June 2007.
- Ronge E, Ndirangu L, Nyangito H (2002). Productive Sector Division, Kenya Institute for Public Policy, Research and Analysis, KIPPRA Discussion Paper No. 20, November 2002. *Journal of Business and Entrepreneurship*, 9(1), 47-58.
- Rosenzweig P. (2007). *The Halo Effect and the Eight Other Business Delusions That Deceive Managers*; Reed Business Information, a division of Reed Elsevier Inc. p.2.
- Rukunga, N. (1999). *Excelling in business: the entrepreneurs handbook*. Nairobi: R. N. Publishers.
- Schindehutte M, Morris MH and Kocak (2008). Understanding Market – Driving Behaviour; The Role of Entrepreneurship, *Journal of Small Business Management* 46(1) 4-26.
- Schmidt, R A and Parker C. (2003). Diversity in independent Retailing: Barriers and Benefits. The impact of gender, *International Journal of Retail & Distribution management* vol.32 no.8.pp 428-439.
- Schumpeter (1934). *The theory of Economic Development*. Cambridge, UK: Cambridge University Press.
- Seballos and Thomson (1990). Understanding causes of commercial bank failures in the 1980s economic commentary, Federal Reserve Board of Develand.
- Senge, P.M. (2006). *The fifth Discipline: The Art and Practice of the Learning Organization*. New York: Boubleday.
- Sendjaya S, James J.C & Santora J.C (2008). Defining and measuring servant Leadership Behaviour in Organizations. *Journal of Management Studies* 45. 2 March 2008.
- Sessional paper No. 1 of 1986 and the Sessional Paper No. 2 of 1996 on industrial transformation to the year 2020 and Eighth National Development Plan (1997 – 2001).
- Sessional Paper No. 2 of 2005 on Micro and Small Enterprises for wealth and Employment creation for poverty reduction. Nairobi: Government Printer.

Shane & Venkatraman, (2000). The preview of the entrepreneurship as a field of research. *Academy of management review*: 217-226.

Shane S (2005). *Finance Executives Struggle with Accounting Regulations*. Computing Canada. Willowdale: July 8, 2005. Vol. 31, Iss. 10, p. 4.

Shane S. (2005: 4). Control of Intellectual property (IP), and promotion by University administration among researchers and students.

Shane, S.and Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, Vol. 26 No.1, pp.13-17.

Shaw, E. (2001). Give women a chance: viewpoint Eleanor Shaw. *The Financial Times*, 16. Retrieved October 25,

Skinner, W. (1978). *Manufacturing in Corporate Strategy*. New York: Wiley.

Sommers, W and Aydin K (1987). Why Most New Ventures Fail (And How Others Don't). *Management Review*, September 1987, pp. 35-39.

Spilling, O.R. (1997). Research on entrepreneurship and small business in Norway. In Landström, H., Frank, H., Veciana, J.M. (Eds). *Entrepreneurship and Small Business Research in Europe*. Aldershot: Avebury Publishing Limited, pp.226-50

Spilling, O.R. (1999). *Multiple entrepreneurship and entrepreneurial roles: on the roles of portfolio entrepreneurs*. Proceedings of 29th European Small Business Seminar, 15-17 September 1999, IAPMEI, Cascais, pp.380-96.

Steiner, M. and D. Solem. (1988). Factors for success in small manufacturing firms. *Journal of Small Business Management*, 26(1), 51-56.

Stevenson, H.H. (2000). *Why Entrepreneurship Has Won*, February, USASBE National Conference, Coleman White Paper, pp. 34-416.

Stewart W H (2003). A proclivity for entrepreneurship: A comparison of entrepreneurs, small business owners, and WH Stewart, WE Watson, JC Carland, JW Carland - *Journal of Business Venturing*, 1999 – Elsevier.

Storey, D.A. (1994). New firm growth and bank finance. *Small Business Economics*, Vol. 6 No.4, pp.139-50.

Storey, D.A., Johnson, S. (1990). A review of small business employment data bases in the United Kingdom. *Small Business Economics*, Vol. 2 No.4, pp.279-99.

Storey, D.A., Watson, R., Wynarczyk, P. (1995). The remuneration of non-owner managers in UK unquoted and unlisted securities market enterprises: an empirical analysis of firm specific, human capital and job history influences. *Small Business Economics*, Vol. 7 No.1, pp.1-13.

Susbauer, J and R. Baker. (1989). Strategies for successful entrepreneurial ventures. *Journal of Business and Entrepreneurship*, 1 (October), 56-66.

Taylor, M and Murphy A (2004). SME's and e-Business. *Journal of Small Business and Enterprise Development*. Bradford: 2004. Vol. 11, Iss. 3, p. 280-289.

Terziovski, M. and Samson, D. (2000). The effect of company size on the relationship between TQM strategy and organizational performance. *The TQM Magazine*, Vol. 12 No. 2, pp. 144-9.

U S Small Business Administration (2005). <http://sba.gov/aboutsba/sbastats.html> and <http://www.sba.gov/size/sizetable2002.html>. July 30,

U.S Small Business Administration (1994). *The state of small business*. SBA Publication, Washington, DC, U.S. Government Printing Office.

Verheul I, Risseeuw, P. and Bartelse (2000). Gender Differences in strategy and Human resource Management. *International Small Business Journal*, 20 (94):443-476.

Vesper, K (1980). *New Venture Strategies*, (Englewood Cliffs, NJ: Prentice Hall), pp. 27-55.

Walker, D A, (1989). Financing the small firm, *Small Business Economy* I (4) 285-296.

Watson C.H. (2001). Small Business versus Entrepreneurship Revisited. *Entrepreneurship Education: A Global View*. Brockhaus. Burlington pp 46-47.

Walter J, Lechner C & Kellermans FW (2008). Disentangling Alliance management Processes. Decision making, politicality and alliance performance. *Journal of Management Studies* 45(3) May 2008.

Wellesley, MA, (2003). Success factors and marketing in highly successful firms. *Frontiers of Entrepreneurial Research*. Babson College, 69-80.

Westhead, P., Wright, M. (2000). Introduction. In Westhead, P., Wright, M. (eds), *Advance in Entrepreneurship*, Edward Elgar, Cheltenham, pp. 146-198.

Wood, D (1989). Why New Businesses Fail and How to Avoid Disaster. *Corporate Cash flow*. August 1989, pp. 26-27.

Woods A. J., (2003). Owner-managers and the practice of strategic management. *International Small Business Journal*, VC, 2192.18.

World Bank (1995). Priorities and strategies for education. *A World Bank Review*. Washington: World Bank.

Zetlin, M. (1994). Off the beaten path: What must new age entrepreneurs do to succeed. *Management Review*, 83(12), 28-31.

APPENDICES

Appendix 1 Letter of Introduction

Dear Sir/Madam, -----

RE: Request to participate in the research study

I am a doctoral candidate in the Department of Business Management, University of South Africa (UNISA). I am in my research year focusing on "**The Management Factors Affecting the Performance of Micro, Small and Medium Business Enterprises in Kenya**".

Please assist me in gathering enough information to present a representative finding on the current status of the critical management factors affecting the performance of Small Micro and Medium Business Enterprises in Kenya and the process through which managerial factors affect the success or failure of a Small Micro and Medium Business Enterprise in Kenya, by completing the attached questionnaire. Your participation is entirely voluntary and the questionnaire is completely anonymous.

If you are interested in the results from this study you are welcome to request a copy of the final report by supplying your name and email address. Any queries regarding the questionnaire or the overall study can be directed to the undersigned. Please be assured that this information is sought for research purposes only and your responses will be strictly confidential. **No individual's responses will be identified as such and the identity of persons responding will not be published or released to anyone. All information will be used for academic purposes only.**

Herein attached are a permit from Ministry of Education and a note from my supervisor (UNISA).

Thank you very much for helping with this important study.

Sincerely,

Njanja Lily W. Mobile: +254-722 635437

APPENDIX 2 QUESTIONNAIRE

Strictly confidential

SECTION A: RESPONDENT'S AND ORGANIZATIONAL PROFILE

1. (a) Gender

Male Female

2. Highest Level of education.

O' Level A' Level Diploma University graduate Post graduate

3. Name of the Business.....(optional)

4. Number of Years in Operation (select any by ticking)

Below 5 5 - 8 9 - 12 Above 12

5. Location (indicate where you are located by ticking)

Eldoret Garissa Kisumu Lamu Lodwar Machakos Malindi Marsabit Meru Mombasa Moyale

6. To which category can you classify your business venture in terms of employees?

Micro: 1 – 5 Small: 6 – 20 Medium: 21 – 50 Large: Above 50

7. Which level of management do you belong to?

Senior Middle Low

SECTION B: GENERAL INFORMATION ON BUSINESS PERFORMANCE

8. To what extent have you exploited the following opportunities for your business resulting from globalisation?

Opportunities Resulting from Globalisation	Tick one for each question					
	Very Extent	Large Extent	Large Extent	Fair extent	Small Extent	No extent
Improving technologies, such as transportation and						

communications				
Expansion of the business into global or worldwide markets				
Effective interaction with multiple cultures and political systems				
Development of a vision and competencies at all levels in the business				

9. Please indicate the extent to which you agree with the following statements concerning the MSMEs management in Kenya.

IMPORTANCE OF MANAGEMENT	Tick one for each question				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
Management actions are very important					
The way management tackles organizational problem determines the long-term outcome					
Senior management has a major influence in the management of MSMEs in Kenya.					
The chief executive is a key appointment in Kenyan MSMEs.					
There is a positive culture, where people are working hard to overcome difficulties					
Many managers in Kenya believe that their job is to resolve problems that arise					
The Kenyan MSMEs' manager's job is to prevent problems					
The Kenyan MSMEs' manager make effective use of resources to achieve organizational goals					
The Kenyan MSMEs' managers plan, coordinate and implement all aspects of an organization's operation in a manner which fulfils the organization's aims					
Management is an important activity in that it helps lead MSMEs towards their goals.					
Managers and management in the Kenyan MSMEs are essential in the modern business organizations and society					
The activities undertaken in the management of Kenyan MSMEs determine whether the business fails or succeeds.					

Management experience in Kenya is a significant factor in achieving success or successful performance in the small business environment					
The functions of Management in the Kenyan business environment differ in different business settings					
The Kenyan MSMEs' management has a responsibility to innovate and improve the functioning of the organization.					
The Kenyan MSMEs especially, the smallest organizations (micro), are highly involved in division of management labour.					
Successful entrepreneurs in Kenya tend to purchase rather than start businesses					
Successful entrepreneurs in Kenya tend to apply industry experience, rather than managerial experience					

10. Has your organization ever been in any of the following condition? (Tick the appropriate option(s))

- | | Yes | No |
|--|--------------------------|--------------------------|
| a) Unable to meet its creditors in full | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Closed up a non productive branch | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Reported a loss | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Unable to continue for more than 6 months | <input type="checkbox"/> | <input type="checkbox"/> |

11. What are some of the causes of failure amongst small firms that point to the importance of Management in Kenya?

- | | Yes | No |
|---------------------------------------|--------------------------|--------------------------|
| a) Deficiency in functional knowledge | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Deficiency in managerial skills | <input type="checkbox"/> | <input type="checkbox"/> |
| c) Managerial behaviour | <input type="checkbox"/> | <input type="checkbox"/> |

12. To what extent have you emphasized the following performance measures within your firm?

Performance	Tick one option for each				
	Very Large Extent	Large Extent	Fair extent	Small Extent	No extent
Financial Performance					
Business Performance					
Organization Effectiveness					
Organizational Performance					

13. To what extent have the following general causes of failure contributed to threats of your business Or businesses in general? (Failure may refer to a failed product, closed branch or making a loss)

General Causes of Failure	Tick one option for each question.				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
The Management function within the control of management					
Disasters within the control of management					
Fraud within the control of management					
Economic factors within the control of management					
Management's experience					
Sales expenses within the control of management					
A competitive advantage based upon customer and product specialization					
Assets base within the control of management					
Capital base within the control of management					
Negligence within the control of management					
The ability of entrepreneurs to combine resources effectively depending on educational policies that emphasize practical business skills					

14. To what extent have the following members of the management fulfilled their respective duties for the performance of your business? (Please tick)

	Tick one for each option				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
The Chief Executive Officer (CEO)/Owner Manager					
The Chief Executive Officer (CEO)					
Provision of overall strategic direction for the firm, often with the assistance of a team of vice presidents					
Provision of strategic management decisions on what products to market					
Provision of strategic management decisions on what market segments to target					
Provision of strategic management decisions on what functions to outsource					
Provision of strategic management decisions on what business model to employ					
Provision of strategic management decisions on what geographical areas to operate in					
In Leadership					
Directing overall marketing strategies					
Leading and give direction on advertising.					
Leading and give direction on promotions					
Leading and give direction on sales					
Leading and give direction on product management					
Leading and give direction on pricing					
Leading and give direction on public relations policies.					
Serving as a liaison between the firm and the advertising or promotion					
In Marketing Management					
Developing the firm's detailed marketing plans and procedures					

Determining the demand for products and services offered by the firm and its competitors					
Identifying the potential markets (business firms, wholesalers, retailers, government, or the general public)					
Developing pricing strategy with an eye towards maximizing the firm's share of the market and its profits					
Ensuring that the customers are satisfied					
Monitoring the trends that indicate the need for new products and services and oversee product development					
Promoting the firm's products and services and to attract potential users					

15. To what extent have the following specific causes of success contributed to the success of your business?

Factors Affecting Success	Tick one level of Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
Factor 1: Entrepreneurial Intuition					
Extrovert					
Risk Taker					
Creative					
Flexible to change					
Sense of independence					
High value of time					
Factor 2 - Management Skills					
Effective cash flow management					
Niche Strategy					
Pre ownership experience					
Education					
Delegation					
Factor 3 - Interpersonal Skills					
Good customer and employee relations					

Good relations with a credit officer					
Good interpersonal skills					
Factor 4 - Environmental Values (Less Important)					
Interest Rates					
Taxes					
Government assistance					

SECTION C: MANAGEMENT FACTORS AFFECTING BUSINESS PERFORMANCE

17. Indicate the extent to which organizational processes affect the following exercises.

organizational processes	Tick one option				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
Strategic planning					
Setting objectives					
Managing resources					
Deploying the human and financial assets?					

18.

	Tick one option				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
To what extent do your business record and store facts and information for later use or for others within the organization?					

19. To what extent has your business applied the following variables in its process of getting activities completed efficiently with and through other people?

The Management Functions	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
Planning					
Organizing					
Staffing					
Directing					
Controlling human, financial, and material resources					

20. Please indicate the extent to which the following activities related to the management's way of allocating resources, assigning tasks, and the way it goes about accomplishing its goals with respect to current business processes.

The Management Organizing Function	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
Managers arrange a framework (organizational structure) that links all workers, tasks, and resources together so that business goals can be achieved					
The business emphasizes on its organizational structure usually shown by an organizational chart available to all employees					
The business has an organizational chart that depicts the structure of the business showing the positions in the business					
The choice of structure is important for the type of the business, its clientele, and the products or services it provides					

21. Please indicate the extent to which the following activities related to the management's planning function with respect to current business planning process.

The Management Planning Function	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
The current business venture prepares a sequence of action steps to achieve some of its specific goal					
The current business's effective planning can reduce the necessary time and effort of achieving a goal					
It is much easier to adjust the current business plan to avoid or smoothen a coming crisis, rather than to deal with the crisis when it comes unexpected					
Planning in the business occurs in different ways and at all levels					
The business plan has given the business its goals and the procedures to reach them					
Planning in the business is usually done by higher-level managers in the business venture					
The managers in the business venture develops strategies for achieving the goals of the business					
Resources are needed and must be acquired in order to implement the business strategies					
The managers/planners determine the standards, or levels of quality, that need to be met in completing the business tasks					
Tactical planning is done for the benefit of lower-level managers in the business					
Contingency planning allows for alternative courses of action when the primary plans that have been developed don't achieve the goals of the business					

22. Please indicate the extent to which the following processes that many people would most relate to the management team in your business with respect to current business directing process.

The Management Directing Function	Tick the Extent					
	Very	Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
Supervising, or leading has enabled workers to accomplish the goals of the current business venture						
Directing in the current business venture involves making assignments, assisting workers to carry out assignments, interpreting organizational policies, and informing workers of how well they are performing						
All managers in the business have leadership skills which get the workers to perform their tasks effectively						
Some managers in the business direct by empowering workers						
Empowered workers in the business usually work in teams and are given the authority to make decisions about what plans will be carried out and how						
Empowered workers in the business have the support of managers who assist them to make sure the goals of the organization are being met						
Workers who are involved with the decision-making process in the current business venture feel more of a sense of ownership in their work, take more pride in their work, and are better performers on the job						
There is a prevailing climate conducive in the business for work and a culture compatible with the nature of the business's objectives.						

23. Please indicate the extent to which the following set of activities that ensure that the activities of business members are leading the organization towards its goals with respect to current business controlling process.

The Management Controlling Function	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
The management sets performance and takes corrective action whenever actual performance deviates from expected performance					
There are evaluation activities that managers must perform in the business					
The managers have systems of determining if the business' goals and objectives are being met					
The management corrects situations in which the goals and objectives are not being met.					
Managers must first set standards of performance for workers in the business					
The standards set by the managers are the levels of performance that should be met; that must then be communicated to managers who are supervising workers, and then to the workers know the expected .					
After the standards have been set and communicated, it is the business's manager's responsibility to monitor performance to see that the standards are being met					
Once the problems are analyzed and compared to expectations, then managers do something to correct the results					
The business managers take corrective action by working with the employees who are causing the problem					
Top management expects to control everything, making all decisions, while middle and lower managers implement decisions, and production workers operate only as instructed					
Top management does not decide the "right" way to					

do something, and lower-level staff becomes involved in decision-making processes					
The business managers use "slopey should syndrome" style management, where people will take credit for when things go right					

24. To what extent does your management play the following Human Resource Roles required by managers in your business?

The Human Resource Roles	Tick the Extent				
	Very Large Extent	Large Extent	Fair	Small Extent	No Extent
The current business manager can orally explain processes and give direction to workers					
The current business manager can give verbal praise to workers					
The current business manager can conduct meetings and give talks to groups of people					
The current business managers are good listeners in oral communication process					
The current business managers can listen to their supervisors <i>and</i> to their workers					
The current business managers can hear recommendations and complaints on a regular basis					
The current business managers are willing to follow through on what is heard					
The current business manager can write reports, letters, memos, and policy statements					
The workers in the business come in about every temperament that can be imagined					
The current business manager can understand different personality types and cultures					

The current business managers are very busy persons, but they also understand time should be managed effectively					
The current business managers can allocate time to different projects and activities					
The current business managers understand that good time-management skills can be learned					
The manager keeps the organization running smoothly					
The current business managers acts as a figure-head					
The current business manager acts as a leader and a liaison officer					
The current business managers represents the organization and generally keeps it on course					
The current business managers are both receivers and disseminators of information. The current business managers are aware that information is needed for decision-making purposes					
The current business managers collect information and then distribute to appropriate decision points					
The current business managers are regarded as decision makers					
The current business managers make decisions continuously					
The current business managers acts as entrepreneurs					
The current business managers acts as disturbance handlers					
The current business managers acts as a resource allocators and a negotiators					
The current business managers have improved the organization, contain and maintains good relations within the organization and also with other outside parties					

25 (a) Give the period within which your business plan falls. (Tick as appropriate)

Below 1 year	2-5 years	6 years and above
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b) To what extent have the following Strategic Management Factors contributed to the performance of your business?

Strategic Management Factors	Tick the Extent				
	Very Large Extent	Large	Fair extent	Small	No Extent
There is conducive corporate culture for multidisciplinary teams off strategic advisors					
There concept of Systems Thinking is highly emphasized in the business					
The top management/strategic management focuses on integrating management, marketing, finance/accounting, production/operations, research & development, and information systems aspects of a business to achieve organizational success.					
There is sound strategy formulation in the business					
There is sound strategy implementation in the business					
There is sound strategy evaluation in the business					
The business strategist always seek to understand the strategic position of the firm, which has to do with the formulation of possible courses of action					
The business has direction and scope over the long-term which will enable it achieve advantage for the business through its configuration of resources within a changing environment					
There are systems ensuring consistency and focus in decision-making in the business venture					
There is rational analysis of the opportunities and threats confronting the business through the use of more external information and analytical techniques.					

c) Tick the cycle level of your business and/or your product

Business Lifecycle	Product/service Lifecycle
Introduction <input type="checkbox"/>	<input type="checkbox"/>
Growth <input type="checkbox"/>	<input type="checkbox"/>
Maturity <input type="checkbox"/>	<input type="checkbox"/>
Decline <input type="checkbox"/>	<input type="checkbox"/>

26. To what extent have the following Capitalisation Factors contributed to the performance of your business among the many Micro, Small and Medium Business Enterprises in Kenya?

Finances/Capitalisation Factors	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
Success and failure are often determined by poor cash flow management					
Success and failure are often determined by lack of a simple accounting process					
Management Accounting and Cash Control skills are used as performance measures in the business					
There are well established accounting procedures to manage cash					
Cash management has helped the business to get a better handle on the source of financial problems					
Lack of capital is a strong constraint to business growth					
The business mainly rely on own savings and reinvested profits to finance the business					
Formal financial institutions perceive the high risks and transaction costs as impediments to lending to the business					
There is limited capacity of banks to lend to the business					
There is difficulty of enforcing contracts due to an inadequate legal framework and inefficient court systems in Kenya					

The banking laws and regulations do not currently differentiate the market segments served by micro-finance institutions					
The business does not keep proper records					
The business entrepreneurs do not pay themselves a salary, but instead, they make withdrawals as need arises					
The withdrawals made by the business entrepreneurs exceed earned income, therefore eating into the working capital					

27. To what extent have the following Marketing Management Factors contributed to the performance of your business among the many MSMEs

Marketing Management Factors	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
Marketing obtains information on what customers need and want by identifying value, providing it, communicating it and delivering it					
The core concepts of marketing in the business are customers' needs, wants and values; products, exchange, communications and relationships					
Marketing in the business is strategically concerned with the direction and scope of the long-term activities performed by the business to obtain a competitive advantage					
The business applies its resources within a changing environment to satisfy customer needs while meeting stakeholder expectations					
There are sufficient marketing skills in the business ranging from proper definition of marketing, preparation of a marketing plan (concept paper), setting the communication models and public relations activities					
Overall marketing strategies intended to deliver value to the customers through marketing research					
The business has a marketing plan developed along with					

identifying promotional activities, sales support material and advertising					
The business' reputation and prestige affect the consumer choice, the competitor activity and the price of substitutes					
There is sufficient experience which forms an entrepreneurial perspective good judgment					
Access to markets and lack of market information is one of the most critical constraints to the growth of the business					
The depressed state of economic activity in Kenya, markets have been characterized by limited purchasing power of the average consumer					
A wide range of consumer goods competes for the buyer's money and preference is often oriented to the cheapest product					
The business competes in a market that views domestic products as vastly inferior to foreign-made products					
The shifts from import controls to import liberalization has intensified competition leading to closure of many business in Kenya					

28. To what extent have the following Entrepreneurial Management Factors contributed to the performance of your business among the many MSMEs in Kenya?

Entrepreneurial management Factors	Tick the Extent				
	Very	Large Extent	Large Extent	Fair Extent	Small Extent
The business entrepreneurs have identified an opportunity in the form of a vision, validating and conceptualizing a business concept and strategy that help attain the vision					
The business entrepreneurs have marshalled the required resources to implement the business concept					
The business concept or venture has captured the full					

opportunity through the growth of the enterprise, extending the growth of the enterprise through sustained entrepreneurial activity				
The business entrepreneur is a key factor to understanding how and why new businesses are established				
The personal characteristics of the entrepreneur has influenced the business success				
The business entrepreneurs have ‘the preference for working as self-employed’				
The business entrepreneurs have the desire for independence, and an aversion to the hierarchical structures of many organizations				
The business entrepreneurs have the ambition or capacity to grow				
The business entrepreneurs have the capacity to innovate				
The business entrepreneurs have collaborated with other businesses and individuals in order to promote higher enterprise growth				
The business entrepreneurs have a ‘venturesome spirit’ to planning, budgeting, and training employees				
The business entrepreneurs have the capacity to identify new products and opportunities				
The business entrepreneurs know how to evaluate business opportunities and to think critically				
The business entrepreneurs have a persuasive communication and/or negotiation skills, and problem solving				
The business entrepreneurs have a formal education, professional experience in the sector he/she operates in				
The business entrepreneurs have a positive influence from the family level				

29. To what extent have the following Technological Factors contributed to the performance of your business among the many MSMES in Kenya?

Technological Factors	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
The business venture has set aside more money for technological expansion					
The business “is more interested in solving business problems that help it maintain competitiveness and generate profit growth than with implementing technology for technology’s sake”					
The business is interested in solutions to their everyday business problems that will allow it to better succeed in its industry					
The use of technology in the business venture is widespread					
The business has fully integrated the technology that it has or it is trying to obtain with its business					
The competitive advantages brought by the technologies bring to the business are extremely important					
The current business venture recognizes the need for expanding its current operations technologically					
The business does not believe that adapting new technologies will further or benefit its current business model					
The business managers are reluctant to enter the technology scene because they are uncertain of the security and privacy concerns that are almost certain to occur					
The business does not have IT professionals, because technology industry seems to be so complicated,					
The budget for technology is quite expensive and also lack of proper infrastructure for the business					
The business sometimes outsources its technological needs in order to focus more of its attention on doing what it does best rather than diverting it to another area.					

30. To what extent have the following Macroeconomic Environment Factors contributed to the performance of your business among the many MSMEs in Kenya?

Macroeconomic Environment Factors	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
The effect of deregulation of markets on business					
The increased macroeconomic instability characterized by high inflation rate					
The current account deficits and policy uncertainty					
The fewer options to ride over instabilities					

31. To what extent has your business enjoyed the following measures or policies as stipulated in the Kenyan Sessional paper of 2005 which was geared towards encouraging the entire MSMEs business sector?

Policies Stipulated in the Sessional Paper of 2005	Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
The emphasis of the role of markets, making markets work by reducing the cost of doing business					
The integration of the small, micro and medium business sector into the national economic grid					
The improvement of the effectiveness of the existing institutions by strengthening the department of MSMEs and establishing the National Council for Small enterprises and legislating an MSMEs Act					
The partnership between key stakeholders including the citizenry. Small, Micro and Medium Business entrepreneurs, community. Private sector, civil society, NGO'S and development partners					
The incorporation of a plan of action for policy implementation and a mechanism for monitoring and evaluation of the policies and their impacts					

32. To what extent have the following Regulation and Policy Issues contributed to the performance of your business among the many MSMEs in Kenya?

Regulation and Policy Issues	Tick the Extent				
	Very Large Extent	Large Extent	Fair Extent	Small Extent	No Extent
State actions relating to contract enforcement					
State actions relating to property rights					
State actions relating to intellectual property					
State actions relating to corporate governance					
State actions relating to taxation and financial reporting					
State actions relating to employment and health and safety					
State actions relating to trading standards and consumer rights					
State actions relating to environmental protection					
State actions relating to premises and planning rules					
State actions relating to data protection					
State actions relating to transport					
State actions relating to inspection and enforcement practices					
State actions relating to sanctions for non-compliance					

33. To what extent have the following Incentive Policies contributed to the performance of your business among the many MSMES in Kenya?

Incentive Policies	Tick the Extent				
	Very large Extent	Large Extent	Fair Extent	Small Extent	No Extent
The increased imports and greater competition for their goods in the local market					
Trade liberalization detrimental to small business in Kenya					
Incentives geared to promoting competitiveness in world					

markets					
Providing some protection for “infant industries”					
Building up indigenous capabilities					
Capabilities developed through education, training and technological effort					

34. To what extent have the following Institutional Policies & Infrastructural Factors contributed to the performance of your business among the many MSMEs in Kenya?

Institutional Policies	Tick the Extent				
	Very Large Extent	Large Extent	Fair extent	Small Extent	No Extent
The cost of registering business					
The need to use external accountants to satisfy regulatory requirements					
The time spent dealing with disputes with regulatory agencies					
The high costs in the form of harassment for non-compliance					
The risk of being permanently being put out of business					
Lack of policies that provide a central location where micro enterprises can share facilities					
Lack of policies entailing orderly urban development that accommodate the needs of micro enterprises					
Institutional foundations of property rights					
Allowing legal recourse to be cost effective so that contracts can be enforced					
Good protection from arbitrary rules of governments					
Instability of property rights, which undermines the effectiveness of contracts					
Extortionist officials who levy taxes on informal enterprises					
Provision of access roads					

Provision of adequate power					
Availability of reliable water supply that allows compliance with health and environmental requirements					
Provision of sewage services					
Provision of telecommunication infrastructure					

35. Please fill in this data that reflects on business performance results (loss can be presented in brackets):

	2006	% growth	2005	% growth	2004	% growth
Gross profit						
Sales Turnover						
Earnings/share						
Dividends/share						
Net Assets						
Capital employed						

THANK YOU FOR TAKING YOUR TIME OUT OF YOUR BUSY DUTIES FOR THIS STUDY

PAGE 2

THIS IS TO CERTIFY THAT:
Prof./Dr./Mr./Mrs./Miss. NJANJA LILY W.
of (Address) P.O. BOX 67947-00200
NAIROBI
has been permitted to conduct research in.....
ALL Location,
ALL District,
ALL Province,
on the topic THE MANAGEMENT FACTORS
AFFECTING THE PERFORMANCE OF SMALL
MICRO AND MEDIUM BUSINESS ENTERPRISES
IN KENYA
for a period ending 30th NOVEMBER 2007

PAGE 3

Research Permit No. MOST 13/001/37C 536
Date of issue 10-08-07
Fee received Ksh. 1,000



FOR PERMANENT SECRETARY
MINISTRY OF EDUCATION & LEARNIN
SCIENCE AND TECHNOLOGY

PERMANENT SECRETARY
MINISTRY OF EDUCATION & LEARNIN
SCIENCE AND TECHNOLOGY
Applicant's FOR: Permanent Secretary
Signature Ministry of
Science and Technology

Appendix 4 Pearson's correlations

		Mean : Performance	Mean : Management Role/ Responsibility	Mean : Interpersonal skills	Mean : The organisational process	Mean : The management functions	Mean : The management organizing function	Mean : The management planning function	Mean : The management directing function	Mean : The management controlling function	Mean : The human resources skills	Mean : Strategic management factors	Mean : Financial Capitalization factors
Mean : Performance	Pearson Correlation	1	.581** .000	.471** .000	.164* .029	.363* .000	.580* .000	.415* .000	.452* .000	.396* .000	.386* .000	.355* .000	.
	Sig. (2-tailed)		N 179	172	176	177	178	178	178	178	178	178	178
Mean : Management Role/Responsibility	Pearson Correlation	.581** .000	1	.468* .000	.323* .000	.450* .000	.700* .000	.638* .000	.673* .000	.603* .000	.633* .000	.586* .000	.
	Sig. (2-tailed)		N 172	173	171	172	172	172	172	172	172	172	172
Mean : Interpersonal skills	Pearson Correlation	.471** .000	.468* .000	1	.176* .020	.398* .000	.462* .000	.369* .000	.306* .000	.249* .001	.248* .001	.219* .004	.
	Sig. (2-tailed)		N 176	171	177	175	177	176	176	176	176	176	176
Mean : The organisational process	Pearson Correlation	.164* .029	.323* .000	.176* .020	1	.231* .002	.309* .000	.422* .000	.314* .000	.322* .000	.391* .000	.365* .000	.
	Sig. (2-tailed)		N 177	172	175	178	177	177	177	177	177	177	177
Mean : The management functions	Pearson Correlation	.363* .000	.450* .000	.398* .000	.231* .002	1	.538* .000	.455* .000	.349* .000	.396* .000	.329* .000	.385* .000	.
	Sig. (2-tailed)		N 178	172	177	177	179	178	178	178	178	178	178
Mean : The management organizing function	Pearson Correlation	.580* .000	.700* .000	.462* .000	.309* .000	.538* .000	1	.575* .000	.524* .000	.438* .000	.457* .000	.401* .000	.
	Sig. (2-tailed)		N 178	172	176	177	178	179	178	178	178	178	178
Mean : The management planning function	Pearson Correlation	.415* .000	.638* .000	.369* .000	.422* .000	.455* .000	.575* .000	1	.758* .000	.749* .000	.698* .000	.730* .000	.
	Sig. (2-tailed)		N 178	172	176	177	178	179	179	179	179	179	179
Mean : The management directing function	Pearson Correlation	.452* .000	.673* .000	.306* .000	.314* .000	.349* .000	.524* .000	.758* .000	1	.777* .000	.748* .000	.703* .000	.
	Sig. (2-tailed)		N 178	172	176	177	178	179	179	179	179	179	179
Mean : The management controlling function	Pearson Correlation	.396* .000	.603* .000	.249* .001	.322* .000	.396* .000	.438* .000	.749* .000	.777* .000	1	.729* .000	.757* .000	.
	Sig. (2-tailed)		N 178	172	176	177	178	179	179	179	179	179	179
Mean : The human resources skills	Pearson Correlation	.386* .000	.633* .000	.248* .001	.391* .000	.329* .000	.457* .000	.698* .000	.748* .000	.729* .000	1	.688* .000	.
	Sig. (2-tailed)		N 178	172	176	177	178	179	179	179	179	179	179
Mean : Strategic management factors	Pearson Correlation	.355* .000	.586* .000	.219* .004	.365* .000	.385* .000	.401* .000	.730* .000	.703* .000	.757* .000	.688* .000	1	.
	Sig. (2-tailed)		N 178	172	176	177	178	179	179	179	179	179	179
Mean : Finances/Capitalization factors	Pearson Correlation	.304* .000	.454* .000	.209* .006	.392* .000	.343* .000	.397* .000	.569* .000	.577* .000	.622* .000	.609* .000	.671* .000	.
	Sig. (2-tailed)		N 177	171	175	176	177	177	178	178	178	178	178
Mean : Marketing management factors	Pearson Correlation	.271* .000	.522* .000	.208* .006	.366* .000	.294* .000	.347* .000	.692* .000	.661* .000	.680* .000	.713* .000	.704* .000	.
	Sig. (2-tailed)		N 175	169	173	174	175	175	176	176	176	176	176
Mean : Entrepreneurial management factors	Pearson Correlation	.268* .000	.418* .000	.105 .170	.270* .001	.253* .000	.289* .000	.626* .000	.591* .000	.628* .000	.633* .000	.711* .000	.
	Sig. (2-tailed)		N 175	169	173	174	175	175	176	176	176	176	176
Mean : Technological factors	Pearson Correlation	.222* .003	.403* .000	-.015 .849	.320* .001	.246* .000	.295* .000	.525* .000	.555* .000	.598* .000	.662* .000	.601* .000	.
	Sig. (2-tailed)		N 174	168	172	173	174	174	175	175	175	175	175
Mean : Macroeconomic environment factors	Pearson Correlation	.080 .294	.274* .000	.035 .652	.284* .000	.114 .133	.188* .013	.398* .000	.364* .000	.293* .000	.488* .000	.369* .000	.
	Sig. (2-tailed)		N 174	168	172	173	174	174	175	175	175	175	175
Mean : Regulation and policy issues	Pearson Correlation	.350* .000	.484* .000	.213* .005	.516* .000	.284* .000	.457* .000	.468* .000	.427* .000	.400* .000	.474* .000	.405* .000	.
	Sig. (2-tailed)		N 170	165	169	169	170	170	171	171	171	171	171
Mean : Incentive policies	Pearson Correlation	.249* .001	.320* .000	.092 .233	.443* .006	.208* .000	.264* .000	.381* .000	.313* .000	.325* .000	.430* .000	.418* .000	.
	Sig. (2-tailed)		N 171	166	169	172	171	171	172	172	172	172	172
Mean : Institutional policies	Pearson Correlation	.179* .019	.362* .000	.130 .094	.495* .000	.227* .003	.309* .000	.480* .000	.404* .000	.441* .000	.541* .000	.423* .000	.
	Sig. (2-tailed)		N 170	164	168	169	170	170	171	171	171	171	171

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix 5

PERFORMANCE versus FACTORS

		Performance
CEO/Manager's	Pearson Correlation	0.60 (**)
	P value	0.001
	N	113
Human Resource	Pearson Correlation	0.40(**)
	P value	0.001
	N	142
Technology	Pearson Correlation	0.30(**)
	P value	0.001
	N	152
Marketing Management Factors	Pearson Correlation	0.20(**)
	P value	0.003
	N	156
Strategic Management Factors	Pearson Correlation	0.30(**)
	P value	0.001
	N	139
	P value	0.031
	N	124
Entrepreneurial Factors Management	Pearson Correlation	.24(**)
	P value	0.002
	N	156
Macroeconomic Environment Factors	Pearson Correlation	0.10
	P value	0.22
	N	166
Regulation and Policy	Pearson Correlation	0.33(**)
	P value	0.001
	N	141
Management Processes	Pearson Correlation	0.45(**)

	P value	0.001
	N	130
Management Factors	Pearson Correlation	0.35(*)
	P value	0.050
	N	33
External Environmental Factors	Pearson Correlation	0.32(**)
	P value	0.001
	N	97
General Organisational Profile	Pearson Correlation	0.45(**)
	P value	0.001
	N	138
Globalization Factors	Pearson Correlation	0.41(**)
	P value	.000
	N	171
Management Skills	Pearson Correlation	0.40(**)
	P value	0.003
	N	60
Institutional Policy	Pearson Correlation	0.3(**)
	P value	.003
	N	132
The Whole Management	Pearson Correlation	0.50(**)
	P value	0.001
	N	130

** Correlation is significant at the 0.01 level (2-tailed).

Correlation is significant at the 0.05 level (2-tailed).

Appendix 6: Summary of results of the multiple linear logistic regressions

Dependent variable	Independent variables	Nagelkerke R ²	Chi square	p-value (goodness of fit)	Highest or most effective contributor
Inability to meet creditors in full	Factors b14,15.3,c8,c17, c19-32, 32-34	29.4%	7.801	0.453 a good fit	Strategic management and the institutional policies
Closure of a non productive branch	Same as above	30.7%	10.592	0.226 thus good fit	Directing function, CEO strategies and incentive policies
Loss reported	As above	23.2%	7.184	0.517 thus a good fit	Regulation and policy, incentives, human resource strategies and controlling function
Inability to continue for over 6 months	As above	29%	29.5	0.001 not a good fit	Organizational function and institutional policies
Inability to meet creditors in full	The above plus the biographic variables	54.3%	4.607	0.799 a good fit	Interpersonal skills, Diploma and University graduate level s
Closure of a non productive branch	As above	37.8%	5.051	0.752 a good fit	Marketing management, Entrepreneurial strategies, A level managers in micro businesses
Loss reported	As above	37.2%	3.068	0.930	Marketing management , Entrepreneurial strategies, macro-environment factors, males
Inability to continue for over 6 months	As above	100%	0.0001	1, a good fit	All factors=management + biographical
Performance/ non performance 2005-2006	B14, b15.3, 24-30,32-34	17.6 %	4.809	0.778	Interpersonal skills, Strategic management, skills and regulation and policy issues.
Performance and nonperformance 2004-2005	As above	6.6%	5.941	0.199	Entrepreneurship strategies, Regulation and policy issues and incentive policies
Performance/non performance 2005-2006	B14, b15.3, 24 plus biographic variables	57.3 %	0.756	0.999 a good fit	CEOs strategies, interpersonal skills, entrepreneurship, O and A level education, all sizes of enterprises
Performance and nonperformance 2004-2005	B14, b15.3, 24 plus biographic variables	37.7 %	0.0001	1.0 a good fit	All factors =Management and biographical factors

Appendix 7 :The Study location



		Correlations																			
		Mean : Performance	Mean : Management Role/ Responsibility	Mean : Interpersonal skills	Mean : The organisational process	Mean : The management functions	Mean : The management organizing function	Mean : The management planning function	Mean : The management directing function	Mean : The management controlling function	Mean : The human resources skills	Mean : Strategic management factors	Mean : Finances/ Capitalization factors	Mean : Marketing management factors	Mean : Entrepreneurial management factors	Mean : Technological factors	Mean : Macroeconomic environment factors	Mean : Regulation and policy issues	Mean : Incentive policies	Mean : Institutional policies	
Mean : Performance	Pearson Correlation	1	.581**	.471**	.164*	.363**	.580**	.415**	.452**	.396**	.386**	.355**	.304**	.271**	.268**	.222**	.080	.350**	.2 3**		
	Sig. (2-tailed)		.000	.000	.029	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.294	.000	.C 1		
	N	179	172	176	177	178	178	178	178	178	178	178	178	175	175	174	174	170	1 1		
Mean : Management Role/Responsibility	Pearson Correlation	.581**	1	.468**	.323**	.450**	.700**	.638**	.673**	.603**	.633**	.586**	.454**	.522**	.418**	.403**	.274**	.484**	.3 3**		
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	172	173	171	172	172	172	172	172	172	172	172	172	171	169	168	165	1 6			
Mean : Interpersonal skills	Pearson Correlation	.471**	.468**	1	.176*	.398**	.462**	.369**	.306**	.249**	.248**	.219**	.209**	.208**	.105	-.015	.035	.213**	.C 2		
	Sig. (2-tailed)		.000	.000	.020	.000	.000	.000	.000	.001	.001	.004	.006	.006	.170	.849	.652	.005	.C 3		
	N	176	171	177	175	177	176	176	176	176	176	176	175	173	173	172	172	169	1 9		
Mean : The organisational process	Pearson Correlation	.164*	.323**	.176*	1	.231**	.309**	.422**	.314**	.322**	.391**	.365**	.392**	.366**	.270**	.320**	.284**	.516**	.4 3**		
	Sig. (2-tailed)		.029	.000	.020	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	177	172	175	178	177	177	177	177	177	177	177	176	174	174	173	173	169	1 2		
Mean : The management functions	Pearson Correlation	.363**	.450**	.398**	.231**	1	.538**	.455**	.349**	.396**	.329**	.385**	.343**	.294**	.253**	.246**	.114	.284**	.2 3**		
	Sig. (2-tailed)		.000	.000	.000	.002	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.133	.000	.C 3		
	N	178	172	177	177	179	178	178	178	178	178	178	177	175	175	174	174	170	1 1		
Mean : The management organizing function	Pearson Correlation	.580**	.700**	.462**	.309**	.538**	1	.575**	.524**	.438**	.457**	.401**	.397**	.347**	.289**	.295**	.188*	.457**	.2 4**		
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.013	.C 3		
	N	178	172	176	177	178	179	178	178	178	178	178	177	175	175	174	174	170	1 1		
Mean : The management planning function	Pearson Correlation	.415**	.638**	.369**	.422**	.455**	.575**	1	.758**	.749**	.698**	.730**	.569**	.692**	.626**	.525**	.398**	.468**	.3 1**		
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	178	172	176	177	178	178	179	179	179	179	179	178	176	176	175	175	171	1 2		
Mean : The management directing function	Pearson Correlation	.452**	.673**	.306**	.314**	.349**	.524**	.758**	1	.777**	.748**	.703**	.577**	.661**	.591**	.555**	.364**	.427**	.3 3**		
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	178	172	176	177	178	178	178	179	179	179	179	178	176	176	175	175	171	1 2		
Mean : The management controlling function	Pearson Correlation	.396**	.603**	.249**	.322**	.396**	.438**	.749**	.777**	1	.729**	.757**	.622**	.680**	.628**	.596**	.293**	.400**	.3 5**		
	Sig. (2-tailed)		.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	178	172	176	177	178	178	178	179	179	179	179	178	176	176	175	175	171	1 2		
Mean : The human resources skills	Pearson Correlation	.386**	.633**	.248**	.391**	.329**	.457**	.698**	.748**	.729**	1	.688**	.609**	.713**	.633**	.662**	.488**	.474**	.4 3**		
	Sig. (2-tailed)		.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	178	172	176	177	178	178	178	179	179	179	179	178	176	176	175	175	171	1 2		
Mean : Strategic management factors	Pearson Correlation	.355**	.586**	.219**	.365**	.385**	.401**	.730**	.703**	.757**	.688**	1	.671**	.704**	.711**	.601**	.369**	.405**	.4 3**		
	Sig. (2-tailed)		.000	.000	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	178	172	176	177	178	178	179	179	179	179	179	178	176	176	175	175	171	1 2		
Mean : Finances/Capitalization factors	Pearson Correlation	.304**	.454**	.209**	.392**	.343**	.397**	.569**	.577**	.622**	.609**	.671**	1	.646**	.588**	.510**	.340**	.366**	.4 2**		
	Sig. (2-tailed)		.000	.000	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	177	171	175	176	176	177	178	178	178	178	178	178	176	176	175	175	171	1 2		
Mean : Marketing management factors	Pearson Correlation	.271**	.522**	.208**	.366**	.294**	.347**	.692**	.661**	.680**	.713**	.704**	.646**	1	.678**	.616**	.474**	.453**	.4 1**		
	Sig. (2-tailed)		.000	.000	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	175	169	173	174	175	175	176	176	176	176	176	176	176	176	175	175	171	1 2		
Mean : Entrepreneurial management factors	Pearson Correlation	.268**	.418**	.105	.270**	.253**	.289**	.626**	.591**	.628**	.633**	.711**	.586**	.678**	1	.661**	.380**	.299**	.3 4**		
	Sig. (2-tailed)		.000	.000	.170	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	175	169	173	174	175	175	176	176	176	176	176	176	176	176	175	175	171	1 2		
Mean : Technological factors	Pearson Correlation	.222**	.403**	-.015	.320**	.246**	.295**	.525**	.555**	.596**	.662**	.601**	.510**	.616**	.661**	1	.454**	.466**	.4 2**		
	Sig. (2-tailed)		.003	.000	.849	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	174	168	172	173	174	174	175	175	175	175	175	175	175	175	175	175	171	1 2		
Mean : Macroeconomic environment factors	Pearson Correlation	.080	.274**	.035	.284**	.114	.188*	.398**	.364**	.293**	.488**	.369**	.340**	.474**	.380**	.454**	1	.384**	.3 3**		
	Sig. (2-tailed)		.294	.000	.652	.000	.133	.013	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	174	168	172	173	174	174	175	175	175	175	175	175	175	175	175	175	171	1 2		
Mean : Regulation and policy issues	Pearson Correlation	.350**	.484**	.213**	.516**	.284**	.457**	.468**	.427**	.400**	.474**	.405**	.366**	.453**	.299**	.466**	.384**	1	.7 2**		
	Sig. (2-tailed)		.000	.000	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	170	165	169	169	170	170	171	171	171	171	171	171	171	171	171	171	171	1 9		
Mean : Incentive policies	Pearson Correlation	.249**	.320**	.092	.443**	.208**	.264**	.381**	.313**	.325**	.430**	.418**	.422**	.471**	.374**	.522**	.373**	.702**	1		
	Sig. (2-tailed)		.001	.000	.233	.000	.006	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			
	N	171	166	169	172	171	171	172	172	172	172	172	172	172	172	172	172	172	169	1 2	
Mean : Institutional policies	Pearson Correlation	.179*	.362**	.130	.495**	.227**	.309**	.480**	.404**	.441**	.541**	.423**	.384**	.542**	.348**	.511**	.486**	.635**	.6 5**		
	Sig. (2-tailed)		.019	.000	.094	.000	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.C 3		
	N	170	164	168	169	170	170	171	171	171	171	171	171	171	171	171	171	171	168	1 9	

**: Correlation is significant at the 0.01 level (2-tailed).

*: Correlation is significant at the 0.05 level (2-tailed).