GENERIC COMPETITIVE BUSINESS STRATEGIES AND PERFORMANCE OF MICRO AND SMALL ENTERPRISES IN NAIROBI: AN EMPIRICAL VALIDATION OF THE MSE TYPOLOGY

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A THESIS SUBMITTED FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

November 2014

Declaration

I, the undersigned, declare that this thesis is my original work and has not been submitted to any other college, institution or university other than the University of Nairobi for academic credit.

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ABBREVIATIONS AND ACRONYMS

ANOVA : Analysis of Variance

CBS : Competitive Business Strategies

GDP : Gross Domestic Product

ICT : Information and Communication Technology

ILO : International Labour Organization

KNBS : Kenya National Bureau of Statistics

MSEs : Micro and Small Enterprises

IS/MSEs : Informal Sector Micro and Small Enterprises

MSEs : Micro and Small Enterprises

OECD : Organisation for Economic Cooperation and Development

RBV : Resource-Based View

ROSCAs : Rotating Savings and Credit Associations

SCA : Sustainable Competitive Advantage

SMSE : Small and Medium Enterprise

SSA : Sub-Saharan Africa

SACCO : Savings and Credit Cooperative Societies

UNIDO : United Nations Industrial Development Organization

ABSTRACT

Competitive business stategy typologies classify business strategies based on common elements and provide a framework for gaining competitive advantage in the market. In Sub-Saharan Africa, it is estimated that the informal sector, mainly consisting of micro and small enterprises (MSEs) accounts for approximately 90% of all new jobs and up to 85% of total employment. In Kenya, the significance is evident in that the sector employs approximately 8.8 million people or 81.1% of those employed. In Nairobi, informal manufacturing MSEs have sprung up in clusters in areas that have combinations of high vehicular and human traffic, high populations densities, as well as transport arteries. Despite the significant role informal sector MSEs play in Sub-Saharan Africa national economies, few transition to formal medium or large size enterprises due to a wide array of challenges that include lack of access to markets; information on and access to finance; low ability to acquire necessary technical and managerial skills, and limited access to technology. The MSE competitive business strategies typology posits that combining Porter's theory of competency and strategic alliance theory is better suited to MSEs than use of competency theory alone as has traditionally been the case. Using manufacturing and agro-food processing MSEs in Nairobi as the study population, the research objective of this study was to empirically determine if the use of competitive business strategies based on a combination of competency and strategic alliance theories by informal sector MSEs lead to better business performance, as compared to those who employ competency-based theories only. The results from the study established the following. First, from the study population, adoption of Broad Hybrid, Hybrid Differentiation, Hybrid Mentor and Peer differentiation strategies corresponded to better performance, providing support to the proposition that collaboration may provide MSEs with access to additional resources that they may have lacked due to their small size, allowing them to better address threats and take advantage of opportunities available to them. Adoption of Mentor Differentiation, Peer Low Cost, Mentor Low Cost, Hybrid Peer and Hybrid Low cost strategies, however did not correspond to better performance. Businesses adopting these strategies were statistically neither better nor worse than those businesses that adopted none. Lack of support for Hybrid Peer, Hybrid Low Cost and Peer Low Cost may have been due to the low numbers of business that were within these categories which may have affected the validity of the statistics tests. Third, the study compared the business performance of those adopting Porter's strategies (competency-based) with those adopting strategies in the MSE typology. From the results, MSEs adopting strategies defined within the Peer Differentiation, Hybrid Differentiation, Hybrid Mentor or Broad Hybrid ideal types performed better than those adopting low cost, differentiation or mixed strategies under Porter typology. These results suggest that strategies that incorporate collaboration both with peers and mentors, should lead to superior business performance of MSEs.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Competitive business strategy typologies classify business strategies based on common elements and provide a framework for gaining competitive advantage over ones business rivals. Typologies can be defined as conceptually derived sets of ideal types that are interrelated. Typologies contain quantifiable constructs that are explicitly defined, have articulated relationships among the constructs, and the predictions associated with them are testable and subject to disconfirmation (Doty and Glick, 1994; Snow and Ketchen, 2014). Business strategy typologies typically seek to achieve improved business performance through a combination of measures that include increase in market share, market penetration, revenues, profits and number of employees. Although mainly developed for and tested on formal medium and large enterprises, there is increased interest in their applicability to informal sector enterprises, due to the recognised importance of the sector. Special attention is paid to enterprises in the manufacturing sector that have the greatest potential for value addition, and therefore greater returns in a bid to meet developing nations' development and poverty alleviation agendas.

Use of generic strategy typologies gained dominance in the late 1970s and early 1980s. In the mid to late 1980s, research shifted towards the resource-based view (RBV), thereby placing a greater emphasis on organisational factors. Resources can be viewed as anything that could be thought of as a strength or a weakness of a given firm (Wernerfelt, 1984). According to Parnell (2006), however, the usefulness and applicability of generic strategies still remain. Differences between generic strategy perspectives and RBV may not be empirically very different as they are conceptually due to the assumption of level resource consistency across firms, an assumption that is the basis for strategic group perspectives found in generic strategy typologies. Further and especially for small firms, the focus of this study, RBV may not be generally applicable, but better suited for larger firms who can exercise better control over their resources (Ogot and Mungai, 2012). In addition, Snow and Ketchen (2014) state that a great value can be found in typologies that have ideal types (referred to as strategic groups for busi-

ness typologies) are comprehensive and mutually exclusive, the strategic groups can be validly and reliably measured, and the typology has a clearly articulated theoretical foundation. The theoretical framework for this study is therefore grounded on generic strategy typology theory.

In Sub-Saharan Africa (SSA), it is estimated that the informal sector accounts for approximately 90% of all new jobs and up to 85% of total employment. The sector consists mainly of micro-enterprises (MSEs) that 'typically operate at a low level of organisation, with little or no division between labour and capital, and on a small scale.' (ILO 2000). The importance of the informal sector in the development of these economies is backed by empirical evidence supporting countries' development, employment, wealth creation and poverty reduction objectives (Akpalu and Bhasin, 2001). In Kenya, for example, informal sector employment was estimated at 80% of total recorded employment in 2011 (KNBS, 2012), mainly in the areas of manufacturing, building and construction; wholesale and retail trade; hotels and restaurants; transport and communications (mainly support services to transport activity); and community, social and personal services. This study will therefore focus on informal sector micro and small enterprises (IS/MSEs) in manufacturing and agro-food processing.

Despite the significant role informal sector micro and small enterprises (IS/MSEs) play in SSA national economies, few transition to formal medium or large size enterprises. This may be due to a wide array of challenges faced by MSEs that include lack of access to markets; information on and access to finance; low ability to acquire necessary technical and managerial skills, and limited access to technology (Stevenson and St-Onge, 2006). These challenges are further compounded for IS/MSE entrepreneurs by low education levels of the entrepreneurs; lack of managerial, marketing and production skills; use of rudimentary technology; low-skilled work-base; lack of access to credit; very low purchasing power of their consumers/clients; and regulatory constraints emanating from difficulties of obtaining legal status (Stevenson and St-Onge, 2005a, 2005b). It is worth noting, however, that the limited growth may at times be voluntary. Applicability and adoption of successful strategies typically applicable to large and medium enterprises may start to address and overcome the myriad of challenges faced by IS/MSEs. This may allow them to transition to formal small and medium enterprises, thereby strengthening their countries economies. Registration has been

shown to be positively correlated with profitability. Registered firms may have better access to rationed resources, as well as lower transaction costs when dealing with other firms (Sleuwagen and Goedhuys, 2002; Masakure, Henson and Cranfield, 2009). Although the focus of this study is on manufacturing and agro-food processing IS/MSEs in Kenya, the results may find broader applicability to other MSEs in both developing, transition and developed countries.

In the strategic management literature, two theories dominate for improving the competitive advantage of a firm: resource-based theories and activity-based theories embodied in competitive business strategy typologies. Resource-based theories place an emphasis on rent-producing resources to determine profit levels of a firm, and on the firm's internal dynamic competencies and external environments (Masakure, Hensen and Cranfield 2009). Resource-based theorists view a resource as anything that could be thought of as a strength or a weakness of a given firm. These could be in the form of tangible and intangible assets that are attached to the firm. Barney (1991) proposed a resource-based framework based on four criteria: value, rareness, imitability and substitutability. The resource-based view theories are generally not readily applicable to IS/MSEs, but more to larger firms who better can exercise control over resources to their advantage.

Competitive business strategy typologies aim to gain competitive advantage over ones rivals. The importance of generic strategy typologies in the running of firms is emphasized by Herbert and Deresky (1987) who state that, 'the utility of generic strategies takes several forms. ... they highlight the essential features of separate, situation-specific strategies, capturing their major commonalities in such ways that they facilitate understanding of broad strategic patterns' (p. 136).

1.1.1 Generic Strategies and Competitive Business Strategy Typologies

Development and validation of generic strategy typologies has emerged as an important area in strategic management research (Porter, 1980; Kim, Nam and Stimpert, 2004; Spanos, Zaralis and Lioukas, 2004). Porter's (1980) three generic strategies can be defined within a typology characterised along the two dimensions of competency (cost or differentiation) and market scope (focused or broad). Each dimension represents

two independent decisions an enterprise can make: (1) how they would like to compete (through cost or differentiation), and (2) where to compete (market scope). Porter-based typologies include those of Minztberg's (1987), Beal and Yasai-Ardekani (2000), Pertusa-Ortega, Claver-Cortes and Molina-Azorin (2009) and Ogot (2012).

Minztberg's (1987) developed a typology based on the dimensions of cost leadership; marketing image differentiation; product design differentiation; quality differentiation; support differentiation; and undifferentiation. Beal and Yasai-Ardekani (2000) typology is based on cost leadership; innovation differentiation; marketing differentiation; quality differentiation; and service differentiation. Pertusa-Ortega, Claver-Cortes and Molina-Azorin (2009) typology is based on Cost leadership; Marketing-based differentiation; Innovation-based differentiation. Finally, Ogot (2012) developed a typology anchored on competency and strategic alliance theories. Specifically targeting MSEs typology is based on the two dimensions of competency and collaboration. For each of the generic strategies defined by the combination of dimensions within the typologies, there is a corresponding set of competitive business activities that characterise them. Firms that practice the various activities, are therefore said to be members of the corresponding strategic group. This study will use activity-based competitive business strategies as its theoretical framework.

1.1.2 Competitive Business Activities and Generic Strategies

A generic strategy is a broad categorization of strategic choice, generally applicable regardless of industry, organisation type or size. For competitive business based activity-based theories, those of or based on Porter (1980, 1985) dominate the strategic management literature. Porter settled on three key generic strategies that a business can adopt: cost leadership, product differentiation or market focus. Each of the generic strategies is characterised by a range of competitive business activities that the firm would engage in. For example, Dess and Davis (1984) sought to determine which competitive business activities would constitute each of Porter's generic strategies. Surveying managers and holding panel discussions with experts, they were able to propose competitive business activities as presented in Table 1.1. It is worth noting that the suggested activities under differentiation tend to have a market orientation, that is tending towards brand image. Suggested activities under low cost, on the other hand, coalesce on a production orientation, for example operating efficiency.

Table 1.1: Competitive Business Activities Aligned to the
Porter's Generic Strategies

Generic Strategy/Competitive Methods

Differentiation

- New product development
- Brand identification
- Innovation in marketing techniques and methods
- Advertising
- Control of channels of distribution
- Procurement of raw materials
- Forecasting market growth

Overall Low Cost

- Operating efficiency
- Competitive pricing
- Procurement of raw materials
- Innovation in manufacturing process
- Product quality control
- Experienced/trained personnel
- Developing/refining existing products
- Reputation within industry
- Forecasting market growth

Table 1.1 – Continued

Generic Strategy/Competitive Methods

Focus

- Customer service
- Brand identification
- Serving special geographic markets
- Capability to manufacture speciality products
- New product development
- Products in high price market segments

Source: Dess and Davis (1984)

Finally, the activities in the focus strategies suggest an emphasis on specific market segments and concentration on a particular niche. Typologies may be defined as conceptually derived interrelated sets of ideal types. According to Doty and Glick (1994), "typologies identify multiple ideal types, each of which represents a unique combination of the organisational attributes that are believed to determine the relevant outcome(s)". Further, properly developed typologies are not classification systems, but are theories in that they must meet the three primary criteria required of theories, namely identification of constructs, specification of relationships between constructs, and these relationships must be falsifiable (Bacharach, 1989; Whetten, 1989). Constructs in typologies are in the form of ideal types that represent "holistic configurations of multiple unidimensional constructs" (Doty and Glick, 1994).

1.1.3 Strategic Alliances

A close review of the literature on MSEs seems to suggest that strategic alliances, also referred to as inter-firm cooperation, is a key ingredient on those which are successful (Lange, Ottens and Taylor, 2000; De Propis, 2002; Wattanapruttipaisan, 2002; Kula et al, 2005; Makombe, 2006; Kabukuru, 2011). Inter-firm cooperation is formed by at least two businesses who remain legally independent, share benefits and managerial oversight on agreed and assigned tasks, and make contributions in agreed upon strategic

areas (Yoshino and Rangan, 1995). From a resource-based view, strategic alliances are typically formed when when both firms are in need of resources and/or posses valuable resources to share (Eisenhardt and Schoonhoven, 1996). Alliances serve as a vehicle for obtaining otherwise unattainable competitive advantages and values to the firm (Das and Teng, 2000). This may be even more important for small businesses who may lack their own resources to allow them to adequately respond to threats and to take advantage of available opportunities (Palakshappa and Gordon, 2007).

1.1.4 Business Performance

Myers (1991) noted that in the field of strategic management, research questions may be seen as uninteresting or trivial unless they provide a direct linkage to performance. He further went onto state that, 'the field of strategy has consistently used firm-level performance as the definitive dependent variable.' (p. 824) In the strategic management research literature business performance has been viewed from two perspectives, objective and subjective. From an objective perspective, Venkatraman and Ramaujam (1986) treat 'business performance' as a subset of the organisational effectiveness. In their view, the narrowest conception of business performance centers on the use of outcome-based financial indicators assumed to reflect the meeting of the economic goals of the firm. Typical of this approach would be indicators such as sales growth, profitability ratios (for example, return on investment, return on sale, and return on equity) and earnings per share.

A broader conceptualization of business performance may also include emphasis on indicators of operational performance, in addition to indicators of financial performance (Venkatraman and Ramaujam 1986). These would include measures such as market-share, market-share position (seen as a determinant of profitability), new product introduction, product quality, marketing effectiveness, and manufacturing value-added. Business performance (sometimes referred to as business success) measures that have been used in the literature for MSEs in Africa include nominal or increase in annual revenues, nominal or increase in annual profit, investment expenditures or nominal or increase in number of employees, and perceived level of success (Ntseane 2004; Liedholm 2002; McCormick 2001; Roy and Wheeler 2006). This information was used to inform this study.

1.1.5   Generic Strategies and Business Performance

Competitive business strategy typologies provide classifications of business strategies according to common elements. They are typically used in deriving business strategy from competitive industry analysis in the formal economy with a view to to gaining competitive advantage over ones rivals. In the context of Porter's typology, for example, Hambrick (1983) found all three generic strategies of low cost leadership, differentiation and focus among higher performing firms producing capital goods. His study found the presence of single strategies and absence of mixed strategies (where a single firm used more than one of the generic strategies). Similar conclusions were drawn by Dess and Davis (1984) in the paint industry and Hooley, Lynch and Jobber (1992) in a study of single business companies.

On the other hand, the literature also has studies in support of combining the generic strategies to achieve higher business performance. Recall that firms who adopt particular generic strategies are said to be members of that strategic group. For example, Hill (1988) states that within emergent industries or mature industries undergoing technological change, differentiation may be a means to overall low cost leadership. Other studies in support of hybrid, mixed, integrated or combination strategies include Kim, Nam and Stimpert (2004), Spanos, Zaralis and Lioukas (2004), Gopalakrishna and Subramanian (2001), and Proff (2000), all arguing that the pursuit of a single generic strategy may lead to lower performance. Other authors who have shown that combination of low cost and differentiation strategies can be effective in tackling competitive forces, resulting in superior performance include Liao and Greenfield (1997) and Beal and Yasai-Ardekani (2000). In addition, Spanos, Zaralis and Lioukas (2004) found that firms that combined cost leadership with other dimensions from Porter's typology performed better than those that did not.

Other researchers have developed Porter-based typologies of their own, and shown that firms adoption of the generic strategies contained therein, leads to better performance. For example, Pertusa-Ortega, Molina-Azorin and Claver-Cortes, (2009) carried out an empirical study of large firms in Spain, and concluded that firms that engage in more generic strategies defined within the typology perform better. Their study was based on a three dimensional typology of innovation differentiation, marketing differentiation and low cost.

1.1.6   The Informal Sector in Kenyan Economy

The informal sector has frequently been associated with low profits, low productivity, limited access to credit, and lack of employment contracts and social security for workers (Rand and Torm, 2012). A key characteristic of the sector is that employment is mainly casual or based on kinship, personal or social arrangements and less on formal contract arrangements (ILO, 1993).

Maloney (2004) argues that 'we should think of the informal sector as the unregulated, developing country analogue of the voluntary entrepreneurial small firm sector found in advanced countries, rather than a residual comprised of disadvantaged workers rationed out of good jobs.' Ng'ethe and Ndua (1988) operationalized the informal sector to small scale activities employing nine or less people. Alternatively, the informal sector may be defined as unregistered production units, or MSEs that are typically owned by one individual or a household (Roy and Wheeler, 2006). According to the International Labour Organization (ILO), enterprises in the informal sector 'typically operate at a low level of organisation, with little or no division between labour and capital, and on a small scale.' (ILO 2000). The Kenya Government (KNBS, 2012) defines the sector to 'cover all small-scale activities that are semi-organized, unregulated, and use low and simple technologies.' (p. 78).

The informal sector has been recognised as crucial to the national economies of developing countries. The World Bank estimates that the informal sector accounts for between one third and three quarters of the total employment in developing countries (Webster and Fidler, 1996). In Kenya, significance of the informal sector is evident from the analysis of its contribution to employment in the Country. The sector employed approximately 8.8 million people or 81.1% in 2010, up from 7 million (79.2%) in 2006, as summarised in Table 1.2 (KNBS, 2012). Within the sector, manufacturing has consistently had the second highest levels of employment, after 'Wholesale and retail trade, hotels and restaurants', as presented in Table 1.3.

Review of the literature suggest that links between youth exclusion and violence (where violence is viewed holistically in any form it takes) may coalesce around four primary risk factors: security, political, economic and social/cultural. Whereas all factors play a significant role, this study will focus on the economic risk factors that can further be

teased out to include rapid economic decline, high unemployment levels (real and perceived), high levels of inequality (especially if aligned with ethnic or regional divides), youth bulge, urbanization, and resource scarcity (e.g. land, water) (UNDP, 2003). All these factors are present in Kenya today. Further, it is argued that a rapidly growing youth population (youth bulge) combined with unemployment, urbanization and other factors may lead to violence.

Table 1.2 – Summary of employment in both the formal and informal sector (millions)

	2006	2007	2008	2009	2010
Wage Employment	1.857	1.909	1.943	2.000	2.060
Informal Sector	7.068	7.501	7.942	8.389	8.829
% IS of Total	79.2	79.7	80.3	80.7	81.0

Source: Compiled from KNBS (2012)

Table 1.3 – Summary of employment in informal sector by industry (millions)

Activity	2007		2008		2009		2010	
	No.	%	No.	%	No.	%	No.	%
Wholesale and Retail Trade, Hotels and Restaurants	4.446	59.2	4.719	59.4	5.004	59.7	5.267	59.7
Manufacturing	1.576	21.0	1.644	20.7	1.711	20.4	1.801	20.4
Community, Social and Personal Services	0.715	9.5	0.763	9.6	0.815	9.7	0.858	9.7
Transport and Communication	0.228	3.0	0.243	3.1	0.259	3.1	0.273	3.1
Building and Construction	0.202	2.7	0.211	2.7	0.218	2.6	0.228	2.6
Others	0.341	4.5	0.361	4.5	0.381	4.5	0.402	4.6

Source: Compiled from KNBS (2012)

There is no single universally accepted definition of "youth." Whereas it is often defined by age, 'youth is better understood as a transitional stage in life between childhood and adulthood rather than a rigid construct based on age (Hiker and Fraser 2009 p. 9). It is a stage in life when young people experiment with adult roles, but do not really fully commit to them. Further, "youth" is not a homogenous construct, but often encompasses different experiences and diversities including gender, class, disability, ethnicity, and education (Hiker and Fraser 2009).

According to data from the Kenya Youth Empowerment Project, youth unemployment/inactivity rate in Kenya is roughly twice the national average, standing at 38%. These include youth who are neither in school nor working.[1] Many are also employed in the informal sector, and may be viewed as under-employed, not being able to fully utilize the skills they may have acquired.

Hiker and Fraser (2009) advance the argument that large cohorts of unemployed and under-employed youth who lack political participation combined with urban crowding may become aggrieved, increasing their likelihood of engaging in violence. Under-employment often comes in the form of menial jobs that have little prospect for advancement, are seen as 'dead-end work', and can often be a cause for embarrassment. Kenya, like many countries in the Sub-Saharan Africa, has a significant 'youth bulge'. Combined with other contributors to fragility including high unemployment/under-employment, unequal distribution of resources, and marginalization the country may indeed be in a state of fragile stability. With all other factors being equal, therefore, reducing the unemployment and under-employment rate among the youth would reduce the likelihood of their engagement in violence, and thereby strengthening Kenya's fragile stability. Finally, a summary contrasting the key characteristics between the formal and informal sectors is presented in the Table 1.4.

1.1.7 Manufacturing Micro and Small Enterprises in Nairobi

A consensus definitions of micro and small enterprises (MSEs) has been elusive. There is no uniform definition across all economies as the concern with scale or size is only meaningful in a relative or comparative context. Typologies vary widely from one country to the next. The Government of Kenya in the Micro and Small Enterprises Act

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[1]Kenya Youth Empowerment Project, http://www.kepsa.or.ke/kyep/index.php/about-kyep/background, viewed October 1, 2012.

Table 1.4 – Summary of business characteristics of formal- and informal-sector enterprises

Characteristics	Formal Sector	Informal Sector
Entry barriers	High	Low
Technology	Capital Intensive	Labour intensive
Management	Bureaucratic	Individual or family-based
Capital	Abundant, accessible	Scarce, not accessible
Working hours	Regular	Irregular
Wage labour	Normal	Limited
Inventories	Large	Small
Diversification	Often	Limited
Differentiation	Significant	Limited
Prices	Often fixed	Typically negotiable
Financial services	Banks	Personal, informal
Customer relations	Impersonal	Personal
Sales locations	Dispersed and multiple	Local (often close to home)
Fixed costs	Large	Negligible
Advertising	Necessary	Little to none
Barriers to exit	High	Low

Source: Roy and Wheeler (2006)

(2012) defines a micro enterprise as a firm, trade, service industry or business activity whose annual turnover does not exceed Kshs. 500,000, and which employs less than ten people. For those in the manufacturing sector, their investment in plant and machinery or its registered capital should not exceed Kshs 10 million. For the service sector and farming enterprises, the investment in equipment or its registered capital should not exceed Kshs. 5 million shillings. Small enterprises, on the other hand, are a firm, trade, service industry or business activity whose annual turnover ranges between Kshs. 500,000 and Kshs 5 million, and which employs between ten and fifty people. For those in the manufacturing sector, their investment in plant and machinery or its registered

capital should range between Kshs. 10-50 million. For the service sector and farming enterprises, the investment in equipment or its registered capital should range between Kshs 5-20 million. These definitions will be used to guide this study. The last survey done to estimate the size of the Micro and Small Enterprises (MSE) sector in Kenya was the National MSE Baseline Survey in 1999 (CBS/K-REP, 1999). From the survey it was estimated that there were over 204,280 MSEs in Nairobi and Mombasa, with the majority being in Nairobi. To date no accurate figure is available, as the majority operate in the informal sector. In Nairobi, the informal manufacturing MSEs have sprung up in clusters in areas that then to have combinations of high vehicular and human traffic, high populations densities, as well as transport arteries. These combinations provide the MSEs high visibility and therefore access customers as well as easy inflows of raw materials required.

The clusters are found all over the City, and will form the focus sampling areas for this study. The MSEs are restricted to manufacturing relatively simple items where creativity plays a more significant role than technology. Items include household furniture and appliances (jikos, water tanks, cooking utensils), tools, storage vessels, processed food items, and tailoring. The majority of the firms remain informal due to their not having a permanent address, with most premises having been informally put up on public land and road reserves.

1.2 Research Problem

Generic Competitive Business Strategies (CBS) typologies found in the literature have mainly been developed with the underlying assumption of applicability to medium and large firms. For example, Porter's (1980) typology is based on the two dimensions of competency (cost leadership vs differentiation) and market scope (board vs focussed). For MSEs, however, these typologies may have limited application (Wright 1987). Ogot (2012) developed a IS/MSE competitive business strategies typology posited to incorporate competitive business strategies better suited to IS/MSEs. The methods were compiled from a myriad of competitive business activities applicable to MSEs, scattered across the academic, development and government literature, all seeking to improve business performance with a view towards enterprise growth. The study was, however, entirely conceptual with no empirical validation.

Recognising the importance of MSEs in the informal sector, in particular those based on value addition such as manufacturing and agro-food processing, this study focusses on strategies that may lead to an increase in their business performance with a view to growth and formalisation into small and medium enterprises. Concentration was in Nairobi that has the largest and most diverse population of the targeted enterprises, found in informal clusters along the city's busy main arteries. Previous work by Ogot and Mungai (2012) sought to determine the suitability of competitive business strategies defined with Porter's typology to IS/MSEs by studying micro-enterprise furniture manufactures (metal and wood) in Nairobi, Kenya. From a review of the literature it became apparent that Porter's model may only be applicable along the focus dimension (that is, focus differentiation and/or focus low cost) as IS/MSEs cannot become industry leaders either from a differentiation or a low cost perspective due to their very small size. With a relatively small sample size of 45 completely filled questionnaires they found that IS/MSEs were members of the strategic groups of focus differentiation and focus low cost within Porter's model. Only 15.5% of the enterprises were in the so called 'stuck-in-the-middle' cluster, that is, placing an emphasis on neither of the two strategies. The applicability of Porter's model to IS/MSEs, however, begun to unravel when comparisons were made between the business performance of the different clusters. Enterprises pursing pure or mixed strategies did not have better performance than those pursing none.

In addition, a study by Ogot (2014) established the challenges faced by IS/MSEs in the manufacturing sector in Nairobi. From the study, 30 challenges were identified and ranked. The top three challenges were Competition, High Cost of Production and Lack of Adequate Capital. Strategies are therefore needed that would assist the IS/MSEs to overcome these challenges, especially competition.

Several studies have also been carried out to determine factors that may influence the growth and increased performance of IS/MSEs. For example, Akoten, Sawada and Otsuka (2006) studied the consequences of credit access to the performance of MSEs in the garment sub-sector in Nairobi. They found that factors affecting access to credit were different from those affecting enterprises growth indicating that credit access is not a key indicator of firm performance. The main factors that may affect the performance of MSEs in developing countries may be more to do with their isolation, rather

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than their size. Isolation hinders their access to markets, information, finance and institutional support. Reasons for failure include intense competition and replication of micro enterprises, lack of managerial skills and experience (Katwalo and Madichie 2008). External causes, on the other hand, may require policy interventions that change the external environment. One of the challenges that appears in nearly all of them is competition (Roy and Wheeler, 2006; Bekele and Worku, 2008). As much of the MSE activity occurs in the informal sector that is characterized by few entry barriers, small scale operations and to a large extent, unregulated markets, it becomes relatively easy for competitors to start and stay in business (Chu, Benzing and McGee, 2007).

Further, Kinyanjui (2007) posits that efforts to formalize and legalize enterprises in the informal sector, especially in sub-Saharan Africa, have not worked. Instead, the values and intrinsic structural characteristics of the emergent production systems in the sector should be studied and better understood, as the sector continues to define itself by extending its frontiers and markets, forming new businesses and expanding spatially. Kinyanjui (2007) goes onto state that, 'the [informal] economy has evolved market and social institutions that define business rules and regulations and enhance transactions, which the conventional capitalist development theory largely ignores. ... the [informal] economy is an integral part of Africa's development.' (p. 28) Typical competitive business methods, activities and strategies currently employed by IS/MSEs mainly take on the form of participation in clusters; value chain approaches (also know as forward and backward linkages); horizontal networking through formal and informal group formation with similar enterprises; and membership in producer organisations and associations. The approaches, however, are scattered in the academic, governmental and international organisation literature, making it difficult for either the practitioner or researcher to benefit from a simple validated framework of strategic choice, similar to those available for medium and large enterprises.

Combining competency theory (Porter 1980, 1985) with strategic alliance theories (Lange et al., 2000; De Propis, 2002; Kula et al., 2005), Ogot (2012) incorporated competitive business methods shown from the literature to improve the business performance of IS/MSEs into a new MSE competitive business strategies typology. He posited that the proposed typology is better suited to increasing the competitive advantage of IS/MSEs, than the current dominant business strategy theories found in

the strategic management literature that seem to be geared towards formal large and medium enterprises. The typology is anchored on two dimensions: Collaboration (Peer and Mentor) and Competency (Low cost and Differentiation). The latter dimension was retained from Porter's (1980) typology. An IS/MSE can therefore employ one or more of four key generic business strategies: Peer Differentiation, Peer Low Cost, Mentor Differentiation, and Mentor Low Cost. In theory, the applicability and adoption of successful strategies embodied in the proposed typology may start to address and overcome the myriad of previously enumerated challenges faced by IS/MSEs. This may facilitate their transition to formal small and medium enterprises, thereby strengthening their countries economies. The efficacy of the proposed typology, however, has not been empirically tested either on its own, or against the dominant existing competitive business strategies typologies. In view of the above, this study sought, through empirical testing to answer the following critical question: Does the application of business strategies based on a combination of competency and strategic alliance theories correspond to better business performance of MSEs in the informal sector?

1.3 Research Objectives

The general objective of this study was the empirical determination of the extent to which the application of business strategies based on a combination of competency and strategic alliance theories lead to better business performance of MSEs in the informal sector.

The specific objectives were:

i. To carry out exploratory empirical construct validation of the MSE typology to, determine IS/MSE strategic group membership based on the typology;

ii. To establish if adopting the strategies based on competency and strategic alliance theories as defined within the MSE typology leads to improved business performance; and

iii. To determine if IS/MSEs adoption of strategies based on competency and strategic alliance theories as defined in the MSE typology leads to better performance than adoption of strategies within the typology of Porter (1980, 1985).

Please note that the validation was exploratory in that although strategies defined within the MSE CBS typology is expected to be generally applicable to all IS/MSEs independent of sector, geographical location or economy, time constraints of the current study limited validation to urban MSEs in Nairobi in two business sub-sectors: manufacturing (wood and metal) and agro-food processing. These sub-sectors were chosen due to their being the dominant informal sub-sectors engaged in value addition (KNBS 2012), the latter being key to the realization of significant economic impact and realization of Kenya's Vision 2030. For this study geographic location is defined as an enterprise being located in either an urban, peri-urban or rural area.

1.4   Value of the Study

The study contributes to existing theory through the empirically validation and refinement of the generic MSEs CBS typology, thereby providing a set of competitive business strategies better suited to IS/MSEs than those currently found in the strategic management literature. This work therefore contributes to both the informal sector and micro-enterprise theory in the strategic management literature.

The outcome of the study provides a framework for policy makers to develop well articulated policies for the improvement of the performance of the sector. The refined model developed in this study provides a concise model relevant to IS/MSEs and serve as a useful tool that may be used to communicate their specific implementation variables with a view to improved performance of IS/MSEs leading to better performance and facilitation to transition to formal small and medium enterprises.

1.5   Organisation of the Thesis

The organisation of the rest of the dissertation is as follows. Chapter 2 presents the literature review for the study, concluding with the identified knowledge gaps, conceptual framework and hypotheses which form the basis of, and justification for the study. Chapter 3 describes the adopted research methodology, with a presentation of the results in Chapter 4. A discussion of the results follows in Chapter 5, with Chapter 6, presenting the conclusions and recommendations.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on strategy development as applied to improved business performance. Various perspectives are presented, with justification for use of generic strategy typologies for this study. In addition, relevant literature on MSEs is provided.

The chapter concludes with the presentation and discussion of the key knowledge gaps in the literature, anchoring the conceptual framework of the study, and the research hypotheses.

2.2 Theoretical Perspectives

This study is anchored on strategic alliance theory, typology-based competitive business theory and resource-based view theory. These theories are discussed within the historical context of their development, leading to justification for their use. Over the years, numerous definitions for strategy have been advocated in the literature. Chandler (1962) defines strategy as 'the determination of the basic long-term goals and objectives of an enterprise, the adoption of courses of action, and the allocation of resources necessary for carrying out the goals.' (p. 13) Alternatively, strategy may be defined as the common thread among a firm's activities and product markets. It comprises four components: product-market scope, growth vector (or changes that a firm makes in its product-market scope), competitive advantage, and synergy (Ansoff, 1965). Leonard et al. (1969) posits that strategy is the pattern of objectives, purposes, or goals and major policies and plans for achieving these goals, stated in such a way as to define what business the company is in or is to be in, and the kind of company it is or is to be.

Strategy may also be defined as the study of the sources (and creation) of efficiencies that make firms successful, for example innovation, new product development, diversification, entry, corporate governance, acquisitions, joint venture and strategic alliances, executive compensation, and influence of top management teams. (Camerer, 1991).

Porter (1996) argues that strategy is creating fit among a company's activities. The success of a strategy depends on doing many things well, and integrating among them. If there is no fit among activities, there is no distinctive strategy and little sustainability. Gailbraith and Schendel (1983) define strategy types as a 'consistent pattern or combination of managerial controllable or decision components representing scope, resource deployments and competitive advantages; and the direction in which these components are shifting over time, which characterises the way businesses tend to compete.' (p. 156)

Strategic management also looks at both corporate-level strategies that focusses primarily on decisions on which environments to compete in, and business-level strategies that focus on how to compete in those environments. This study exclusively focusses on business-level strategies. It is also important to distinguish between strategic process and and strategic content. Strategic process focusses on how strategies are formulated and implemented. In contrast, strategic content refers to the type of decisions and actions taken. A brief discussion of each follows.

2.2.1 Strategic Content

Strategy content refers to how organisations actually behave, as opposed to strategies that are stated or intended, but not realised. Strategy content can be conceptualized at two levels, strategic stance and strategic actions (Boyne and Walker, 2004). Strategic stance is how an organisation seeks to maintain or improve its performance. Also referred to as strategic posture, it indicates how a business is choosing to compete (Schendel and Hofer, 1979) It is relatively enduring and unlikely to change substantially in the short term (Zajac and Shortell, 1989). This is because the structure and operational routines are set when an organisation is established and are difficult to change (Barnett and Freeman, 2001).

Strategic actions, on the other hand, are the specific steps that an organisation takes to operationalize its stance, and are more likely to change in the short term (Fox-Wolfgramm, Boal and Hunt 1998). Strategic action is based on five specific types of action that organisations may use to operationalize their stance: changes in markets, changes in services, changes in revenues, the external environment, and the internal organisation. These five actions are embodied in three behavioural activities normally

available to organisations namely: changes in the environment – move to a different market or shift the balance between existing markets; changes in the relationship with an existing environment by altering services, revenues, or external structure; or changes in the organisation itself through modifications to its internal structure. Since most MSEs do not have documentation of intended strategy (for example, strategic plans), the strategic content view (that is, determining an enterprises strategic stance and actions) was used throughout this study.

Generic strategy typologies, often referred to as theories of different strategy types (Smith, Guthrie and Chen, 1986), has emerged as an important research area in strategic management (Conant, Mokwa and Varadarajan, 1990; Miles and Snow, 1978; Porter, 1980; Kim, Nam and Stimpert, 2004; Spanos, Zaralis and Lioukas, 2004; Gopalakrishna and Subramanian, 2000; Proff, 2000). A broad categorization of strategic choice, generally applicable regardless of industry, organisation type or size is referred to as a generic strategy (Herbert and Deresky 1987). Recall that a typology can be defined as "a conceptually derived set of ideal types. ... each of which represents a unique combination of the organisational attributes that are believed to determine the relevant outcome(s)." (Doty and Glick, 1994, p. 232)

Environments may be seen through an objective or a perceived prism. Objective environments are based on facts, independent of firms, while perceived environments are perceptually determined and enacted by the firms. Although seemingly contradictory, both perspectives are relevant to strategic choice: Objective environments are relevant to strategy making (domain selection), while perceived environments are key to secondary strategy making or domain navigation (Bourgeois, 1980). Firms in the same industry, therefore, will compete differently depending on how they view their environment. The different perspectives will result in a corresponding difference in resource allocation. As stated by Kim and Lim (1988):

'..it is environmental differences that account for differences in strategy, as strategy is a pattern or stream of decisions taken to achieve the most favourable match between external environment and organisation.' (p. 804).

Differences in environmental characteristics, therefore, may explain the multiple strategic groups within the same industry (Kim and Lim, 1988). Strong and complex links exist between strategy choice and characteristics of the environment. As a result, one would expect the uncertainty inherent in business strategy to be strongly correlated with environment uncertainty (White 1986).

Numerous generic strategy typologies are described in the literature including those that focus on structural aspects of the firm, life-cycle theories (Chandler, 1962; Herbert and Deresky, 1987); portfolio models (Hofer and Schendel 1978); product market evolution (Glueck 1980), and competitive business strategies (Porter 1980, 1985; Wright, 1987; Murray, 1988; Kim, Nam and Stimpert, 2004; Spanos, Zaralis and Lioukas, 2004; Gopalakrishna and Subramanian, 2001; Pertusa-Ortega, Claver-Cortes and Molina-Azorin, 2009; Ogot 2012). The importance of generic strategic typologies in the running of firms is emphasized by Herbert and Deresky (1987) who state that,

> 'The utility of generic strategies takes several forms. First, they highlight the essential features of separate, situation-specific strategies, capturing their major commonalities in such ways that they facilitate understanding broad strategic patterns. Second, they provide guidance at the corporate level, for portfolio strategic alternatives and directions, and serve as a basis for allocating resources among diverse subsidiaries and business units in complex organisations. Third, at the business level such categorisation reduces the myriad variables that demand managerial 'art' to a manageable set of factors with high communality.' (p. 136).

The use of generic strategies typologies gained dominance in the late 1970s and early 1980s, with those of and based on Porter (1980, 1985) dominating the literature. Pepper (cited in Campbell-Hunt, 2000) put forward two hypotheses on how the 'world' can be described: formism that describes the world in categories; and mechanism that describes the world in elements and the relationships between them. Campbell-Hunt (2000) went further in a descriptive analysis of Porter's typology, to present four approaches that may be used to describe generic strategy typologies. The first three approaches, taxonomic, empiricist and nominalist are based on formism perspective of the world; while the fourth, dimensional definition, is based on the mechanism perspec-

tive. A taxonomy can be defined as a 'hierarchal ordered set of classifications, within which all designs can be allocated to a unique position, depending on the particular set of strategic elements involved' (Campbell-Hunt, 2000, p. 129). A development process following the taxamomic approach seeks to condense a large number of possible strategic designs into a smaller set of hierarchal allocation rules to which a particular competitive strategy may be classified within the hierarchy (Doty and Glick, 1984). Inspired by biological taxonomy, designs developed following this approach require that the classifications be internally homogenous, mutually exclusive, and collectively exhaustive. For example, in the context of Porter's typology, this approach would view cost- and differentiation-based designs as having their own fundamental characteristics, not combinable, with hybrid strategies based on the two not impossible, but rare.

Development of typologies based on the Empiricist Approach follows a similar argument as the taxonomic approach in that a large number of competitive strategy designs can be reduced to a smaller number of classes (Miller, 1981; Miller, 1992). This is achieved through empirically derived clusters that are associated together in hierarchies of similarity. This approach, however, is not as restrictive as the taxonomic approach in that it accepts that not all designs can be classified; it does not bar the emergence of hybrid designs; and a precise set of allocation rules is no longer used–instead a balance is established between having a large number of homogenous classes and a smaller, and possibly less extensive classification (Campbell-Hunt, 2000).

The Nominalist Approach views generic typologies as ideal 'types' presented within a minimalist classification system. Due to the latter, 'correspondence between the real designs and the ideal types will be both imperfect and variable, so that classifications will be neither fully homogenous nor mutually exclusive.' (Campbell-Hunt, 2000, p. 130). This approach only seeks to describe a small number of ideal types based on a nominal set of competitive-strategy design aspects, based on their perceived importance. Similar to the taxonomic approach, hybrid designs are expected to be few, as the nominal set selected to describe each ideal type are taken to be fundamentally important to the type and therefore not be shared or used across types (Doty and Glick, 1994). Finally, the dimensional definition approach is fundamentally different from the other three in that it does not define classes of competitive-strategy designs. Instead it is based on defining independent dimensions, devoid of rank, of a multi-variate space

within which most of the variations of competitive-strategy designs are captured. As stated by Campbell-Hunt (2000), 'because all designs are positioned relative to [each other]...., the presence of one emphasis does not exclude the other, and unrestricted scope is allowed to mixed-emphasis designs.' (p.131). Porter's CBS typologies, for example, may be interpreted on a two-dimensional framework: Competency and Market Scope.

In the description of his CBS typology, however, Porter appears to defend the use of a taxonomical approach. This assessment is based on his arguments that the two strategies of low-cost and differentiation are two alternative, incompatible methods to achieve competitive advantage. This view, however, has been countered in the literature by those who support the strength of using mixed or hybrid strategies. Following that line of reasoning, development of CBS typologies is best done for MSEs pursuing a (Pertusa-Ortega, Claver-Cortes and Molina-Azorin, 2009) 'dimensional approach, according to which generic competitive strategies should not be regarded as ... unique strategies but as ... dimensions with respect to which each firm must choose its position...Porter's framework could be improved by viewing it as providing ... important dimensions of strategic positioning ... rather than as ... distinct strategies.' (p. 4). They go on to conclude from their study of 164 firms in Spain that their 'findings provide evidence that multi-dimensional measures are necessary to capture and better understand the complexity and variety of the strategy development process.' (p. 26).

A representative sample of researchers who have used the dimensional approach to CBS typology development include Buzzel et al. (1975), Hofer and Schendel (1978), Wissema et al. (1980), Porter (1980), Miles (1992), Beal and Yasai-Ardekani (2000), Parnell (2006), Pertusa-Ortega, Claver-Cortes and Molina-Azorin (2009) and Ogot (2012).

2.2.2   The Strategy Process

From the literature, researchers have proposed numerous approaches to the strategy process, that is, ways in which strategy is (or should be) formulated. Emanating from the industrial organisation economics in the late 1960s to the mid 1980s, literature in strategy process can be divided into several schools of thought. These include, the design school – views strategy formation as a deliberate process; the entrepreneurial school – views strategy formation as a visionary process; the cognitive school – views

strategy formation as a mental process; the learning school – views strategy formation as an emergent process; and the environmental school – views strategy formation as a passive process (Mintzburg, 1987). The design school and the learning school are most entrenched in the literature. A brief discussion of each follows.

The design school approach dominates the strategic management literature. It depicts a deliberate process. First think, then act; formulate then implement. Schendel and Hofer (1979) identified six tasks that form the process: goals formulation, environmental analysis; strategy formulation, strategy implementation, and strategic control. The design school advocates a strategy formation process that uses a few essential concepts to design an overall strategy, most common of which is that of matching. The design school places emphasis on appraisal of the external situations to uncover threats and opportunities in the environment, and internal situations to uncover strengths and weaknesses of the organisation. The design school also takes into account organisational values and social responsibilities. Organisational values are the beliefs and preferences of those who formally lead the organisation, while social responsibility refers to the ethics of the society in which the organisation is embedded, at least as perceived by the managers (Mintzburg 1990). An example of the design school approach is the use of Porter's Five Forces. Porter (1979) posited that strategy formulation should be based on having a clear understanding of the underlying forces that govern competition in an industry, he proposed that:

'Knowledge of these underlying sources of competitive pressure provides the groundwork for a strategic agenda of action. They highlight the critical strengths and weaknesses of the company, animate the positioning of the company in its industry, clarify the areas where strategic changes may yield the greatest payoff, and highlight the places where industry trends promise to hold the greatest significance as either opportunities or threats.' (p. 3)

Porter identified five competitive forces: bargaining power of suppliers, threat of new entrants, bargaining power of customers, threat of substitute products or services, and jockeying for position among current industry players. A brief explanation of each of these follows. First, suppliers may exert bargaining power if they are the sole or one of a few suppliers of the given product or service. The bargaining power may mani-

fest itself either through increased prices or reduction in quality. Increased prices may erode the profitability of firms who may not be able to pass on the increased costs to their customers. Second, threat of entry stems from the view that new entrants into an industry bring with them new capacity, the desire to gain market share, and typically substantial resources. The barriers present will determine the extent of the seriousness of the threat of entry, coupled with the reaction from existing firms. High entry barriers and expected threat of retaliation from existing firms will deter entrance by new comers. Examples of entry barriers include economies of scale (forces entering firms to either come on in a large scale or start off from a cost disadvantage); product differentiation (identification with existing brands forces entering firms to spend heavily to overcome customer loyalty); capital requirements especially if are required to be large to facilitate effective competition; access to distribution channels; and sometimes government policy (Porter, 1979; 1980).

Third buyers may exert bargaining power if they purchase in large volumes (for example a large supermarket chain) or if the products tend to be relatively undifferentiated allowing buyers to seek alternative sources in search of the lowest cost. Fourth, substitute products as an underlying force are those that can improve a firm's price-performance trade-off vis-a-vis existing products. A firm will move to a substitute if it can either reduce its costs, and/or increase its performance. Finally, rivalry among existing firms will manifest itself through tactics such as price competition, product introduction, and fierce advertising wars (Porter, 1979; 1980).

Strategy formulation then hinges on the firm performing an assessment of these underlying forces affecting competition and their underlying causes, thereby allowing the firm to identify its weaknesses and strengths, then forming a strategic posture vis-a-vis the causes of each force. From this assessment and strategic posture the firm can develop a strategic plan of action that may include positioning the firm to use its capabilities in a manner providing the best defence against the identified competitive forces; and/or improving the firm's position by using strategic actions to influence the balance of the forces; and/or choosing strategies appropriate to anticipated new competitive balance by anticipating shifts in the factors that underly the forces and responding to them before they are recognised by competitors (Porter, 1979; 1980). The learning school, on the other hand, takes the position that strategies can form as well as be formulated.

A realised strategy can emerge in response to an evolving situation, or it can be brought about deliberately, through a process of formulation followed by implementation. But when planned intentions do not produce the desired actions, organisations are left with unrealised strategies. Although many intended strategies are well conceived, the problem often lies one step beyond, in the distinction made between formulation and implementation, the common assumption that thought must be independent of (and precede) action (Mintzburg, 1987). Emergent strategies are those that may appear without or in spite of clear intentions. Actions simply converge to patterns. They may become deliberate, and if the patterns are recognised and then legitimised by senior management they become the strategies. Pure deliberate strategy precludes learning once the strategy is formulated; emerging strategy fosters it (Mintzburg, 1987).

In the mid to late 1980s, there was a shift in business strategy formulation research away from approaches that looked external to the firm towards the resource-based view (RBV) addressing a growing concern among researchers at the limited emphasis placed on internal organisation specific factors. Penrose (1959) pioneered the idea that a firm can be viewed as a bundle of resources. She stated that the 'firm is more than an administrative unit; it is also a collection of productive resources the disposal of which between different users over time is determined by administrative decision'. She defined resources as, 'physical things a firm buys, leases, or produces for its own use, and the people hired on terms that make them effectively part of the firm.'

The RBV seeks to explain the performance differences of firms belonging to the same strategic group within an industry by focusing on resource heterogeneity in an industry, and the sources of sustainable competitive advantage (Akio, 2005). Firms facing similar external environments with similar initial resource endowments should result in similar behaviour and performance. However, firms are able to leverage their unique tangible and intangible resources to give them competitive advantage through their internal structures/organisations, strategies and core capabilities (Masakure, Henson and Cranfield, 2009; Kor, Mahoney and Michael, 2007). Resource-based theorists view a resource as anything that could be thought of as a strength or a weakness of a given firm. These include routines (Nelson and Winter, 1982), functionally-based distinctive competencies (Hitt and Ireland, 1985; Snow and Hrebiniak, 1980), unique business experience combinations (Huff, 1982), organisational culture (Barney, 1986), organ-

isational learning (Teece et al., 1997), entrepreneurship, and human resources (Amit and Schoemaker, 1993). Several resource typologies have emerged in the literature as scholars attempt to define broad classifications of a firms resources. These include tangible and intangible resources (Grant, 1991); physical capital, human capital, and organisational capital (Barney, 1991); financial, human, physical, managerial, organisational and technological resources (Hofer and Schendal, 1978); and knowledge-based resources (Miller and Shamise, 1996). In the latter typology, property-based resources are all the legal properties the firm owns. These include the financial capital, as well as physical and human resources. On the other hand, knowledge-based resources are the firms intangible knowledge and skills. They include tacit know-how, skills, and technical and managerial systems not patent protected. They tend to be vague and ambiguous and therefore hard to imitate by competitors.

Further, Rumelt (1984) posits that firms may start as homogeneous but with 'isolating mechanisms' then become differentiated such that their resources cannot be perfectly imitated. It has also been suggested in the literature that resource factors differ in their 'tradeability', where a tradeable factor is one that can be specifically identified and its monetary value determined via a strategic factor market (Barney, 1986a). A more concrete framework for sustainable competitive advantage based on resource-based theories was put forth by Grant (1991). With reference to Figure 2.1, he proposed a five stage procedure for strategy formulation based on the resource-based view (RBV): analyzing a firms resource-base, appraising the firm's capabilities, analyzing the profit-earning potential of the firms resources and capabilities, selecting a strategy, and finally extending and upgrading the firm's pool of resources and capabilities.

According to Grant (1991), a long-term strategy formulation is best grounded on the portfolio of a firm's own capabilities and resources serving as the basis to form its identity. This is because, 'although the competitive strategy literature has tended to emphasize issues of strategic positioning in terms of the choice between cost and differentiation advantage, and between broad and narrow market scope, fundamental to these choices is the resource position of the firm.' (p. 117).

In other words, long-term business strategy should be seen as the need to obtain Ricardian rents,[1] that is, returns from the firms resource which yield competitive advantage over and above the reals costs of the resources. The manner in which resources form the basis of profitability is summarised in Figure 2.2.

Resources, by themselves, however, do not provide competitive advantage to a firm. Exploitation of resources to yield profit requires the coordination of teams of resources. Capability is the ability to leverage a team of resources to perform some task or activity. It involves complex patterns of coordination between personnel, as well as personnel and other resources. Capability is anchored on the successful integration of numerous organisational routines – regular and predictable patterns of activity made of coordinated actions by individuals (Nelson and Winter, 1982) – for example, routines in the production floor, routines employed by top management in the firm, and routines in strategy formulation. As stated by Grant (1991), 'while resources are the source of a firm's capabilities, capabilities are the main source of its competitive advantage.' (p.119) Snow and Hrebiniak (1980) were able to identify ten function areas (which

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[1] To avoid confusion with accounting definition of profit, the academic literature uses the term 'rent' to refer to 'economic profit.' Rent is therefore the surplus of revenue over the 'real' or 'opportunity' cost of the resources used to generate that revenue (Barney, 1991).

Resource Based Approach to Strategy Analysis

Figure 2.2: A Resource-Based Approach to Strategy Formulation

| 1. Identify and classify the firms resources. Appraise the strengths and weaknesses relative to competitors. Identify opportunities for better utilization of resources | 2. Identify the firms capabilities: What can the firm do more effectively than its rivals? Identify the resources inputs to each capability, and the complexity of each capability | 3. Appraise the rent-generating potential of resources and capabilities in terms of (a) their potential sustainable Competitive advantage and (b) the appropriability of their returns | 4. Select a strategy which best exploits the firms resources and capabilities relative to external opportunities |

Resources → Capabilities → Competitive Advantage → Strategy

5. Identify resource gaps which need to be filled. Invest in replenishing, augmenting and upgrading a firms resource base

Friday, October 18, 2013

Source: Grant (1991)

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Resource Based Approach to Strategy Analysis

Figure 2.2 – Resource as the Basis for Profit

Patents Brands Retaliatory Capability	Market Share	Firm Size Financial Resources	Process technology Size of plants Access to low cost inputs	Brands Product technology Marketing, distribution, and service capabilities
↓	↓	↓	↓	↓
Barriers to Entry	Monopoly	Vertical Bargaining Power	Cost Advantage	Differentiation Advantage

Industry Attractiveness   **Competitive Advantage**

Rate of Profit in Excess of Competitive Level

Source: Grant (1991)

they referred to as 'distinctive competencies') closely linked to the capabilities of firms in relation to exploitation of their resources. These are general management, financial management, marketing and selling, marketing research, product R&D, engineering, production, distribution, legal affairs and personnel. The key to getting competitive advantage is successful integration of a few key, relevant functional capabilities to exploit the resources possessed by the firm.

Grant went on to state that the returns to a firm's resources and capabilities will depend on (1) the competitive advantage accruing to the firm from the resources and capabilities, and (2) the ability of the firm to extract profits from the resources and capabilities. Over time, however, it is expected that the competitive advantage will be eroded as other firms imitate or acquire superior resources and capabilities. To maintain sustained competitive advantage (SCA), Barney (1991) proposed four criteria that the resources must have: value – the extent to which the firm's combination of resources fits the external environment so that the firm is able to exploit opportunities and/or neutralise threats in the competitive environment; rareness – the physical or perceived rareness of the resources in the factor markets; inimitability – the continuation of imperfect factor markets via information asymmetry such that resources can only be obtained or recreated by other firms with a cost disadvantage; and substitutability – extent to which products

and services on offer can be substituted by similar offerings from competitors. The key to successful strategy formulation, therefore, is to design strategies that effectively use these core resources and capabilities of the firm to support sustainable competitive advantage. Strategy formulation factors in the time-frame of the firm's strategic planning process. Where resources and capabilities are easily transferred or imitated or are not able to remain rare, the firm must either adopt a short-term harvest strategy, and/or develop new sources of competitive advantage.

According to Akio (2005), and in the context of Grant's (1991) framework, firms that control valuable and rare resources are able to obtain competitive advantage. Sustainable competitive advantage is then obtained if these resources are also non-imitable and non-substitutable. Further, Foss and Foss (2005) states that it is these latter two criteria that describes situations where all attempts by competing firms at imitating or substituting the firm's valuable and rare resources have ceased, yield SCA. In addition, the digital age has reduced the importance of physical boundaries and combined with an increase in transaction speeds, has further increased the attention of firms on organisational resources that would enable a firm to establish and maintain competitive advantage within a faster, more complex environment (Parnell, 2006). SCA for the firm, however, presumes the resources cannot be easily replicated by the competing firms, which may result in erosion of the competitive advantage. Dierickx and Cool (1989) argued that the firm's competitive sustainability is anchored on how easily (or not) it is for a firm's resource to be substituted or imitated, where imitability is tied to the aspects of the asset (resource) accumulation process. These include the time compression diseconomies, asset mass efficiencies, inter-connectedness, asset erosion and casual ambiguity. This framework, however, has been criticized in that it does not account for bundles of resources, but treats resources as singularly distinct factors (Black and Boal, 1994).

2.2.3 A Case for Continued Research on Generic Strategies

Despite the recent focus on RBV approaches to strategy, the usefulness and applicability of generic strategic typologies still remains. According to Parnell (2006) the differences between RBV and generic strategy perspectives are not as different empirically as they are conceptually due to the need to assume level of resource value consistency across firms, and assumption that is the basis in strategic group perspec-

tives. Further, as suggested by Barney, Wright and Ketchen (2001), and Kim, Nam and Stimpert (2004), firm performance is related to both strategic factors that are constant across firms (generic strategy perspective) as well as strategic factors unique to individual firms (resource-based view). Continued improvement of generic strategy approaches alongside or integrated with RBV may provide a balanced perspective of the strategy-performance framework. In addition, and especially for small firms the RBV may not be generally applicable to them, but better suited for larger firms who can exercise better control over their resources (Ogot and Mungai, 2012).

Parnell (2006) sought to reconceptualise generic strategies within a RBV context. He proposed two dimensions: Value and Market Control. The value dimension represents the relationship between perceived worth and cost, where a product or service worth is independent of price, and may be directly linked to the needs of one or more targeted customer groups. Value can be delivered in two ways. First, and on one end of a continuum, by providing great worth of a particular group of customers. This is analogous to Porter (1980)'s differentiation strategies. The other end of the continuum seeks to find a compromise between worth and price, analogous to Porter's low cost strategies. An enterprise may therefore choose to operate anywhere along the value dimension in order to yield an overall value proposition. The Market control dimension incorporates the RBV perspective. It describes the extent to which organisational resources are used to configure the market spaces to be most favourable to the firm. Market control may be manifested by control over market access to prospective competitors (erecting entry barriers), suppliers, and customer access to competitors (switching costs). Within Parnell's typology, therefore, business strategy may emphasize and operate anywhere along the dimensions value and market control in order to get competitive advantage.

In addition, Snow and Ketchen (2014) state that a great value can be found in typologies that have ideal types (referred to as strategic groups for business typologies) that are comprehensive and mutually exclusive, where the strategic groups can be validly and reliably measured, and the typology has a clearly articulated theoretical foundation. The theoretical framework for this study is therefore grounded on generic strategy typology theory.

2.3 Typological Approach to Theory Building

What constitutes a theory? What criteria must a theory meet to be considered a theory? Although there is no universal agreement, there is however a general consensus in the literature on three criteria a theory must meet: there must be clearly identified and articulated constructs, the relationships between the constructs must be specified, and these relationships must be subject to empirical validation (Whetten, 1989).

Typologies have been criticised in the literature for begin more of classification schemes, rather than theories (Rich, 1992). These critiques have been given strength by numerous typologies found in the literature that focus more on providing the descriptions of the typologies, and less on developing the underlying theory they purportedly represent. Doty and Glick (1994) however disagree with this view. They argue that,

> "typologies are complex theories that are frequently misinterpreted. ... the problems with many existing typologies are the result of a misunderstanding about what typologies are (or should be), improper development of the typology, and a failure to take full advantage of the unique form of theory building represented by the typology approach."

Further support for typologies as a form of theory building finds support in recent literature. Biggart and Delbridge (2004) argue that typologies provide a key tool to theorists making distinctions between complex phenomena. Fiss (2011) argue that typologies lend themselves to development of configurational arguments by incorporating notions of equifinality and asymmetric causal relations, as opposed to simple correlations. Delbridge and Fiss (2013) state that typologies are complex systems of theoretical statements, presenting a challenging and attractive form of theorising.

Typologies, if properly developed, can be viewed as complex theories. As stated by Doty and Glick (1994), a typology is a "conceptually derived interrelated sets of ideal types. ... each of which represents a unique combination of the organisational attributes that are believed to determine the relevant outcome(s)." (p. 232) For example, the MSE typology defines a set of generic strategy groups (ideal types) that are propositioned to maximise competitive advantage.

The 'ideal type' construct in typologies can be used to represent holistic configurations of unidimensional constructs. They are theoretical abstractions posited to yield a specified level of a dependant variable. It is important to note that ideal types represent possible (and not necessarily existing) organisations. In addition, they are often described in terms of multiple dimensions, each representing different concepts.[2] They integrate multiple organisational attributes into a holistic definition of fit, as opposed to simplistic additive functions of those attributes. In reality, an organisation to some extent be similar to an ideal type (Doty and Glick, 1994).

2.4 Competitive Business Activities and Generic Strategies

A brief review of selected major typologies from the literature follows. The review categorises the typologies between those that describe strategic stances or postures, and those describing strategic actions. The review also highlights activities that define the generic strategies.

2.4.1 Strategic Posture Typologies

Miles and Snow (1978) researched on the strategies that organisations employ in solving their entrepreneurial, engineering, and administrative problems (Miles et al., 1978). Although similar typologies of various aspects of organisational behaviour (Ansoff, 1962) were already available in the literature, they developed and introduced four strategic types of organisations: Defenders, Analyzers, Prospectors, and Reactors, with their attributes summarised in Table 2.1.

The generic nature of the typology has made it very attractive for researchers and practitioners alike. Defenders do not strive to be leaders in the field but instead are late adopters of innovations once they have been tried and tested. They take a conservative view of new product development and focus on a narrow range of services, production efficiency and stable administrative structures (Smith et al. 1989). Defenders, Miles and Snow (1978) argue, 'devote primary attention to improving the efficiency of their existing operations.' The firm devotes its time to controlling costs, since efficiency is important to its success. Its technology is inflexible and often uses vertical integration to control costs, with centralised decision making (Hambrick 1983).

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[2]Dimensions are also referred to in the literature as "first order" constructs

Table 2.1 – Miles and Snow Generic Strategies

Strategic Type	Attributes
Prospectors	Organisation which almost continuously search for market opportunities, regularly experimenting with potential responses to emerging environmental trends.
Analyzers	Organisation which operate in two types of product-market domains, one relatively stable, the other changing. In their stable areas, these organisations operate routinely and efficiently. But in more turbulent areas, they watch their competitors closely for new ideas, rapidly adopting those which appear to be the most promising.
Defenders	Organisation which have narrow product-market domains, rarely searching outside of their domains for new opportunities.
Reactors	Organisation in which top managers frequently perceive change and uncertainty occurring in their organisational environments but are unable to respond effectively.

Source: Miles and Snow (1978 p. 29)

Prospectors, on the other hand, display the key attributes of innovative organisations: they are likely to be pioneers, leaders in the field, and perhaps innovation award winners. They are organisations that almost continually search for market opportunities, and they regularly experiment with potential responses to emerging environmental trends (Miles and Snow 1978). They are usually first-to-market with new products and services. The characteristics of a public-sector prospector include being proactive, taking risks, and making rapid organisational responses to new circumstances (Downs 1967; Boschken 1988). A prospector strategy has also been associated with firms that have broad product market domains with a focus on innovation and change and a flexible administrative structure (Smith, Guthrie and Chen 1989). These firms would have complex coordination and communication mechanisms relying on decentralised decision-making to be ready to grab any market opportunity (Hambrick, 1983). Technological flexibility is a crucial aspect of this strategy (Thomas and Ramaswamy, 1996). Reactors have no consistent substantive stance. Although managers in reactor

organisations frequently perceive change and uncertainty, they lack a coherent strategy because the organisation 'seldom makes adjustment of any sort until forced to do so by environmental pressures' (Miles and Snow 1978). Indeed, a reactor stance has been equated with an absence of strategy (Inkpen and Choudhury, 1995). Reactors, therefore, are likely to have a formal stance imposed by external agencies, such as regulators. Even if a reactor is instructed to behave like a prospector, it may lack the culture and expertise to successfully adopt this strategy. The firm focuses on activities that need immediate action with little or no forward planning. Finally, Analyzers are a hybrid of the prospector and defender types combining the strengths of both. A true Analyzer is an organisation that attempts to minimise risk while maximising the opportunity for profit. The firm has multiple products but adopts both stable and flexible technology with matrix or product-oriented structures. Further, firms adopting these strategies penetrate deeper into the market they serve, adopting new products only after thorough analysis and proven potential (Conant, Mokwa and Varadarajan,1990).

Galbraith and Schendel (1983), from an empirical analysis of consumer products companies from the Profit Impact of Market Strategy (PIMS) research database proposed six generic strategies of harvest, builder, continuity, climber, niche and cashout. The PIMS database represented more than 1,200 business components from which they extracted 26 managerial controlled variables. The harvest strategy type is practiced by firms that seek to dispose of products through discounted prices, while at the same time providing decreased support in terms of promotion or research and development to the product. Firm adopting the builder strategy type attempt to rapidly expand sales and/or gain market share position. Strategies in this category tend to promote the high visibility of the product be emphasising a degree of product differentiation in the market. The continuity strategy type seeks to maintain the status quo by adapting to industry norms or imitating competitor strategies.

The climber strategies are adopted by firms seeking to improve their posture. These firms typically have narrow product bases, low prices and inferior quality as compared to the industry averages. The niche strategy emphasises high quality product characteristics. Finally, the cashout strategy tend to command high prices, maintain high quality and have a broad range of products. It applies to mature products with little investment dedicated to R & D for further product improvement.

Herbert and Deresky (1987) proposed the four generic strategies of Develop, Stabilize, Turnaround and Harvest from a review, synthesis and categorization of strategy classifications from the literature. The typology attempts to provide a broader description of strategies by including variables such as marketing, investment, product policy and structure. The Develop strategies are employed by organisations that are trying to grow by exploiting new product and market opportunities. There is a greater focus on the generation of long-term earnings, more than short-term profits and cost efficiency. Product and market emphasis is shown through continual monitoring of the external environment to keep pace with technological and market change; high investment for developing and launching new products and processes, market development and intensive pursuit of market share; flexibility of operations and technology; and risk-taking, competitive pursuit of new opportunities. Firms employing the stabilize strategy aim to maintain their competitive position efficient use of assets and/or market segmentation. Typical activities include production of a limited set of products with strict cost control; efficiency of standardized operations; technical product leadership; and focusing on niche markets difficult for competitors to penetrate. The turn-around strategy aims to stop and reverse a company that may be in decline as fast as possible. This is especially so, if the long-term value of the business as a going concern is seen to be greater than its liquidation value. By necessity some form of drastic change is common. Typical activities include short-term cash generation (changes in management, changes in budgeting and control systems, cost control, product streamlining); divestment from unprofitable units; diversification; and expansion, acquisition, integration and/or mergers.

Finally, the harvest strategy is normally entered to wind down and divest from the business. Typical reasons to do so may include, unsuccessful turnaround strategy implementation or recognition of significant changes in the external environment. The main focus is on meeting minimum financial targets and to attract buyers. Activities carried out under this strategy include developing operational efficiencies; intense pruning of less profitable business lines and markets; intense reduction in costs and assets; emphasis on the immediate term; and immediate profits or cash flow take precedence over market share.

The above discussion of generic strategy typologies have focused on organisational strategies. van Gelden, Frese and Thurik (2000) argue, however, that for small business start-ups individual and psychological strategies should also be considered. This view has been supported by Dickson and Weaver (1997) who state that the strong influence of the founders of companies, and their dominance in decision making suggests a high degree of similarity between individual and organisational levels of analysis. At the individual level, strategies may be regarded as plans of action, influencing how we do things. Further, Rauche and Frese (2000) state that whereas for large firms the right level of analysis to establish organisational success may be at the organisational level, for small firms, the owner is typically the source of action for the firm. For micro enterprises especially, the owner will have a greater impact on the enterprises polices, culture and actions. van Gelden, Frese and Thurik (2000) proposed a generic strategy typology based on four psychological strategies – Reactive, Opportunistic, Complete Planning and Critical Point – and their effect on the way in which founders of firms deal with situations. Reactive strategy suggests that one does not make proactive use of information or have planned actions, but are driven by the situation. Someone following a Complete Planning Strategy, however, plans ahead and has a proactive orientation using clear knowledge. An Opportunistic Strategy, on the other hand, has some rudimentary plan, but the person following this approach readily deviates from these plans if opportunities arise (Palatano and Seifert, 1997). Finally, a founder following the Critical Point Strategy attempts to solve the most difficult, most important and most unclear issues first, before tackling any others.

These four strategies may then be geared towards the small business founder's goals or situation. For those geared towards the situation, they can either be reactive to the situation – Reactive Strategy, or embark on multidirectional planning, emphasizing use of proactively sought after opportunities – Opportunistic Strategy. For those who are goal oriented, a top-down approach can be employed with a completely worked out plan – Complete Planning Strategy, or one can focus planning on areas of particular importance – Critical Point Strategy (Frese, Stewart and Hannover 1987).

2.4.2 Strategic Action Typologies

The generic Competitive Business Strategy (CBS) typologies of, or based-on Porter (1980, 1985) dominate the strategic management literature. Porter settled on three key generic strategies that a business can adopt: cost leadership, differentiation and market focus. The three strategies can be characterized along two dimensions of competency (cost or differentiation) and market scope (focused or broad).

The cost leadership strategy aims to have the lowest price in the target market. To achieve this, while remaining competitive, companies following this strategy must be able to operate at costs lower than their competitors. Low costs can be realised via high asset turnover, low operating costs, and control over the supply chain. Low cost strategies are aimed at achieving low margins and high volumes.

Differentiation strategies seek to earn above average returns by creating brand loyalty. The latter can serve as a strong entry barrier to competitors. These strategies are most applicable to market segments that are competitive, not price sensitive, and have specific needs that are under-served. The firm therefore must have unique and hard-to-copy resources and capabilities to meet the customer requirements. Differentiation strategies tend to achieve high margins and low volumes. Finally, focus strategies target seg-

Figure 2.3 – Porter's three key generic business strategies
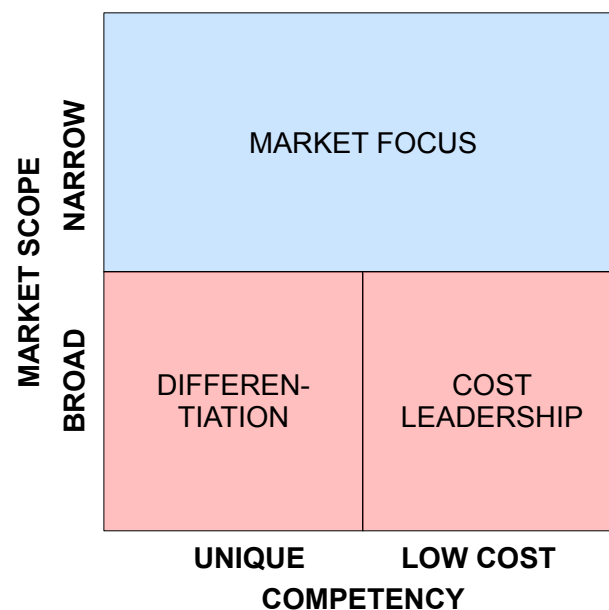
Source: Porter (1980)

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ments of the market whether a specific consumer group, product line or geographic area. Firms adopting this approach focus on either a low cost position or a differentiation strategy within its target market. Porter's generic strategies have been widely accepted by researchers.

Porter's generic strategies may be treated as different dimensions that define the strategic outlook of a business. A firm may chose to follow any of the strategies to a greater or less extent, leading to Porter's generic strategies being used in combination. Successful combination strategies may create synergies that overcome any negative trade-offs that may result from the combination (Parnell, 2006). Studies in support of 'hybrid', 'mixed', 'integrated' or 'combination' strategies include Kim, Nam and Stimpert (2004), Spanos, Zaralis and Lioukas (2004), Pertusa-Ortega, Claver-Cortes and Molina-Azorin (2009). Alpkan et al. (2005) in a study of Turkish firms, demonstrated that low cost and differentiation strategies can be profitably pursued simultaneously. The strength of Porter's strategies where adequately captured by Hambrick (1983) who stated that 'Porter's typology of generic strategies seems especially useful, because it builds on previous findings and it is appropriately broad, but not vague.' (p. 688).

Dess and Davis (1984) sought to establish if intended strategies could provide empirical support for the presence of strategic groups based on Porter's typology and of firms that identified with a least one of Porter's generic strategies out-performed those who do not, the so called, stuck-in-the-middle. Carrying out a study among 22 non-diversified manufacturing firms in the paints and allied products industry, where the CEOs were asked to state the importance of the competitive methods in Table 1.1. Using factor analysis they were able to show that in general firms that committed to at least one of Porter's categories of generic strategies out performed those who did not (stuck-in-the-middle). They however noted that if a large number of firms pursued a similar generic strategy orientation, then they would fail to have competitive advantage over each other. As they stated about firms in their study (Dess and Davis, 1984),

> 'A large number of firms in the sample were identified as pursuing a differentiation strategy, and this may have inhibited the ability of firms in this group to realize as high a level of performance as those in other less populated groups.' (p. 484-5)

A common thread of all these studies on Porter's CBS is that they were based on medium and large enterprises. Porter's work was mainly been developed from an analysis of large cooperations in mature markets. As argued by Wright (1987):

'..choices of generic strategies have limitation boundaries in terms of size of the firm and its access to resources, as well as industry and competitive analyses....large firms in an industry with greater access to resources may primarily compete with the cost leadership and differentiation strategies. And the smaller firms can only viably compete with the focus strategy.' (p. 93)

Miller (1987) proposed a business typology composed of four strategic dimensions that a firm could pursue: complex innovation; marketing differentiation, breadth and conservative control. The complex innovation strategic dimension determines the extent to which a business regularly brings to market fundamentally new products and services. Those pursing this dimension are similar to Porter's differentiators or Miles and Snow's prospectors. The marketing differentiation strategy seeks to create customer loyalty by meeting a particular need, through aggressive marketing. The breadth dimension captures the market scope of the business, from example as measured by variety of customers. geographic range and number of products. Finally, the conservative control dimension determines the extent to which a business controls its costs. Several researchers have also developed CBS typologies, based on Porters work (Mintzberg, 1988; Beal and Yasai-Aderkani 2000; Pertusa-Ortega, Claver-Cortes and Molina-Azorin 2009).

These typologies have retained the basic concepts of cost leadership and differentiation, but have split the differentiation dimension into sub-dimensions in an attempt to provide refined models that better capture business strategy complexities. For example, Mintzberg (1988) proposed a six dimension typology of cost leadership, marketing differentiation, marketing image differentiation, product design differentiation, quality differentiation, support differentiation; and undifferentiation.

Beal and Yasai-Aderkani (2000) similarly proposed five dimensions of cost leadership, innovation differentiation, marketing differentiation, quality differentiation; and service differentiation. Finally, the three-dimensional typology of Pertusa-Ortega, Claver-Cortes and Molina-Azorin (2009) is based on cost leadership, marketing-based differentiation, and innovation-based differentiation. These typologies, however, have received limited empirical support in the literature.

Ogot (2012) proposed the two-dimensional generic MSE typology, as presented in Figure 2.4, is anchored on the established competency (low cost/differentiation) and strategic alliance theories. The typology is based on the synthesis from the literature of activities employed by IS/MSEs to achieve competitive advantage, thereby providing the typology with strong theoretical underpinnings. He employed a two-dimensional approach, as adopted by Porter (1980), due to its simplicity and ease of understanding, especially considering the target IS/MSE audience.

With reference to the Figure 2.4, an informal sector/micro and small enterprises (IS/MSE) can adopt one or a combination of four key generic business strategies: peer differentiation, peer low cost, mentor differentiation, and mentor low cost. The four strategies are characterised along the two dimensions of Collaboration (peer or mentor), and Competency (cost or differentiation). The latter dimension was retained from Porter's

Figure 2.4 – IS/MSE Competitive Business Strategies Typology
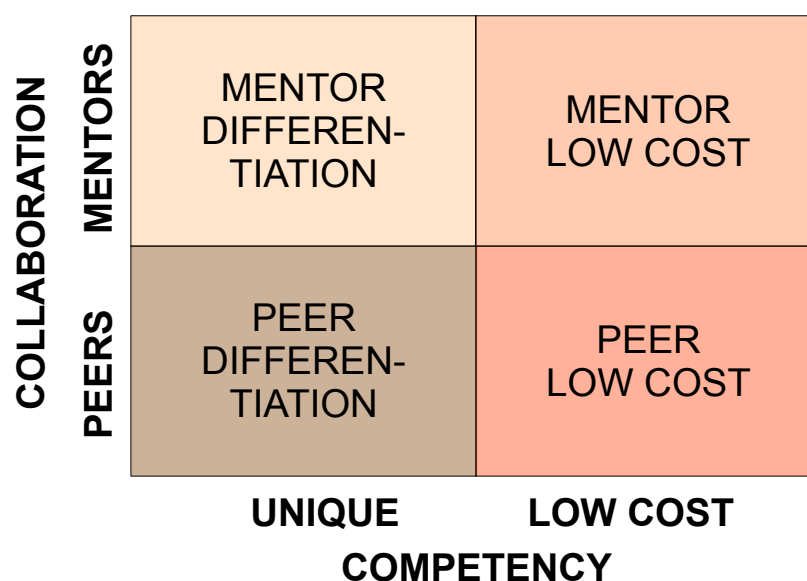
Source: Ogot (2012)

(1980) typology. It is important to emphasize that, like in other dimensional-based typologies, the strategic dimensions represent classes, and are not dimensions in the statistical sense. The peer strategies are based on activities carried out by IS/MSEs within networks and linkages with other MSEs to achieve competitive advantage either through differentiation, or low cost. Similarly, IS/MSEs may seek to achieve the same through relationships with larger enterprises and organisations (for example forward and backward linkages, membership in organisations and associations) who play both a business partner, and a mentor role to the IS/MSE. Those pursuing this avenue are said to be adopting the mentor strategies. A brief description of each follows.

The peer differentiation strategies seek to leverage on peer relationships to set their products and services apart from others in the localised market. This may be realised through, working within groups to maintain quality control, developing new products together, and group lending/borrowing to finance differentiations initiatives, amongst others.The peer low cost strategies aim to reduce production and operating costs, and thereby selling costs through peer relationships. Example activities include lowering of the cost of capital through participation in informal financing groups; sharing of expensive equipment that allow reduction in production efficiencies and costs; and collective purchasing of raw materials to lower unit costs.

The mentor differentiation strategies are pursued mainly through forward and backward linkages with larger enterprises, as well as membership and participation in umbrella organisations and associations. Benefits accruing to the IS/MSEs through these relationships include technology transfer promoting differentiation, branding of products or services, increased awareness and publicity of products and services through trade shows and fairs, amongst others.

Finally, the mentor low cost strategies are also mainly pursued through forward and backward linkages with larger enterprises, as well as membership and participation in umbrella organisations and associations. For these generic strategies, however, the aim is to accrue benefits that lower costs of production and operation, thereby providing the IS/MSEs with a low cost advantage, vis-a-vis their peers. This is mainly achieved through technology transfer, training, reduction in cost of capital, access to new markets and therefore increased economies of scale.

The competitive business strategies closely aligned to each of the proposed four generic strategies are presented in Table 2.2. These are based on a synthesis of the literature. It is worth noting that several activities are cross-cutting along the Collaboration dimension. They are carried out as part of either peer-based or mentor-based strategies, independent of whether an IS/MSE is pursing a low-cost or differentiation approach. These cross-cutting methods, therefore, appear more than once in Table 2.2.

The MSE typology is a conceptual construct that has been developed with the two dimensions of collaboration and competency grounded in strategic alliance and competency theories. The validity of any typology, despite the important insights into strategic behaviour that it provides, is enhanced by empirical support (Galbraith and Schendel, 1983). The MSE typology, however, has neither been empirically tested nor empirically compared against other dominant CBS typologies. In addition, the theoretical underpinnings, especially for the collaboration dimension, are relatively weak. These gaps will be addressed by this study.

Table 2.2: Competitive methods aligned to the generic strategies in the IS/MS CBS typology

Generic Strategy/Competitive Methods

Peer Differentiation
- Group development of new products
- Quality compliance through producer groups
- Group labour specialization
- Joint problem solving
- Group lending/borrowing

Continued on Next Page...

Table 2.2 – Continued

Generic Strategy and Competitive Methods

Mentor Differentiation

- Branding through mentor organisations
- Technology transfer from forward/backward linkages generating new product development
- Access finance and/or credit through forward/backward linkages
- Sub-contracting
- Backward/forward linkages for training
- Backward linkages for specialized inputs
- Access to lower cost finance and/or credit through membership in umbrella organisations (associations) or cooperatives
- Technology transfer through umbrella organisations (associations) generating new product development
- Publicity, quality control, training and/or exchange of ideas through umbrella organisations (associations)

Peer Low Cost

- Group bulk procurement of raw materials
- Group Lending/Borrowing
- Joint problem solving
- Reciprocal business relationships (for example, provision of material support, buying merchandise from each other)
- Sharing of workspaces and specialized equipment
- Participation in group bidding

Table 2.2 – Continued

Generic Strategy and Competitive Methods

Mentor Low Cost

- Technology transfer to improve production efficiencies from forward/backward linkages
- Backward/forward linkages for training
- Access to lower cost finance and/or credit through forward/backward linkages
- Backward linkages for low-cost inputs
- Access to lower cost finance and/or credit membership in umbrella organisations (associations) or cooperatives
- Technology transfer to improve production efficiencies from umbrella organisations (associations)
- Access to lower cost raw materials through organisations (associations) who buy in bulk
- Training and/or exchange of ideas through umbrella organisations (associations)

Source: Ogot (2012)

Rauch and Frese (2000) proposed an interdisciplinary model of entrepreneurship for small businesses with attendant strategies, the Giessen-Amsterdam model shown in Figure 2.5. Within the model, they posit that the concept of action is central, with strategies and tactics of action serving as the conduit through which all entrepreneurial success is accomplished. The influence of personality, human capital and the environment on business success, they argue, is therefore mediated by strategies and tactics of action. Rauch and Frese (2000), however, state that strategic content approaches may be deficient in their lack of sophisticated classification systems, in that they are mainly focussed on products, markets and competitors, with little direct relation to suppliers, customers, and environmental conditions.

Figure 2.5 – Giessen-Amsterdam Model of Entrepreneurship
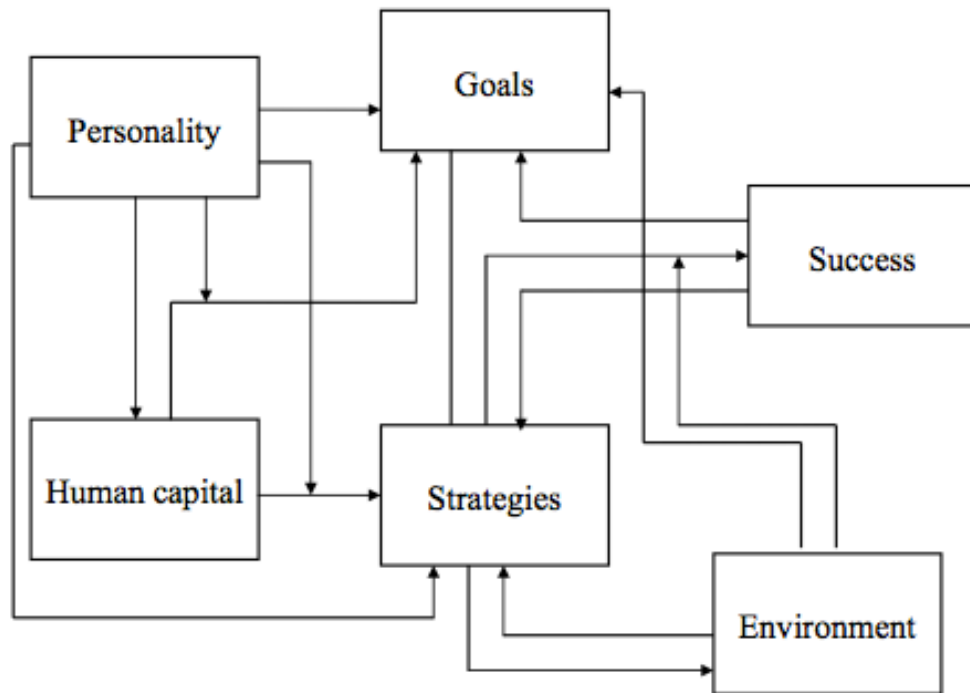
Source: Rauch and Frese (2000)

2.5   Contingency Theory and Generic Strategies

In the context of generic strategies, contingency theory seeks to link each generic strategy to a environmental preconditions, thereby also establishing a link between generic strategies and the strategic means used to implement them (Murray, 1988). For example, Hambrick (1983) posits that the appropriate generic strategy to use will depend on a given situation. Phillips, Chang and Buzzell (1983) indicated that the success of the generic strategies will vary with the type of business to which they are applied. Day (1984) linked the use of generic strategies to customer perceptions of product offerings. Murray (1988) sought to provide a theoretically based contingent approach to the use of Porter's generic strategies. They sought to determine and justify, under which conditions each of Porter's three generic strategies should be applied. A summary of his work is provided in Table 2.3.

Table 2.3: External Conditions Under Which Porter's Generic Strategies May be Viable

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Contingencies

Focus Strategy viable if
- Customer needs within the given product class are heterogenous, *and*
- None or negative synergies between the value chains associated with the product offerings targeted at each individual market segment.

Cost leadership viable if
- There is a high transaction costs or differentials in the cost of producing the inputs, and if these costs or differentials can be overcome vertical integration or some other means of getting preferential access, *and/or*
- Significant innovations can still be realised from the technologies employed in the value chain, *and/or*
- learning effects can yield significant cost improvements from complex employed process technologies, *and/or*
- Optimal scale from a significant part of the value chain exceeds half the market.

Differentiation viable if
- Customers attach weight to product attributes other than price when making purchase decisions, *and/or*
- Significant product innovations can still be achieved from the state of development of product technologies, *and/or*
- Significant quality or service differentials between competitors product offerings can be maintained due to sufficiently complex process technologies.

Source: Murray (1988)

2.6   Strategic Alliances

Numerous theories can be fond in the literature seeking to explain the formation of horizontal linkages, often referred to as strategic alliances. These theories and models include transaction cost economics, game theory, the making model, social exchange theory, power dependence theory and the resource-based theory (Das and Teng 2000). In the transaction cost economies model that dominates the literature, the main focus is on firms forming alliances to minimize the sum of their transaction and production costs. Here the transaction costs are defined as costs that originate from activities necessary for an exchange, while production costs come from in house coordination activities (Williamson, 1975). The resource-based model views strategic alliances as a means to access the resources of another firm, thereby gaining hitherto unavailable competitive advantage. In other words, firms seek to 'aggregate, share or exchange valuable resources with other firms when these resources cannot be efficiently obtained through market exchanges (Das and Teng, 2000, p. 37).

A close review of the literature on MSEs seems to suggest that strategic alliances, also referred to as inter-firm cooperation, is a key ingredient on those which are successful (Lange, Ottens and Taylor, 2000; De Propis, 2002; Wattanapruttipaisan, 2002; Kula et al, 2005; Makombe, 2006; Kabukuru, 2011). Schemerhorn, (1975 in Biiru, 2011) define inter-firm cooperation as 'the presence of deliberate relations between otherwise autonomous organisations for the joint accomplishment of individual and operating goals' (p. 807). Inter-firm cooperation is formed by at least two businesses who remain legally independent, share benefits and managerial oversight on agreed and assigned tasks, and make contributions in agreed upon strategic areas (Yoshino and Rangan, 1995).

Businesses seek to form strategic alliances for a diversity of reasons, but as argued by Todeva and Knoke (2005), decisions 'to cooperate [are] not a responsive action, but is fundamentally a strategic intent, which aims at improving the future circumstances for each individual firm and their partnership as a whole.' (p. 129). From a resource-based view, strategic alliances are typically formed when when both firms are in need of resources and/or posses valuable resources to share (Eisenhardt and Schoonhoven, 1996).

Alliances serve as a vehicle for obtaining otherwise unattainable competitive advantages and values to the firm (Das and Teng, 2000). This may be even more important for small businesses who may lack their own resources to allow them to adequately respond to threats and to take advantage of available opportunities (Palakshappa and Gordon, 2007).

2.7   Measurement of Business Performance

In the strategic management research literature two main approaches have been used to measure business performance, objective and subjective. From an objective perspective, Venkatraman and Ramaujam (1986) treat 'business performance' as a subset of the organisational effectiveness. In their view, the narrowest conception of business performance centers on the use of outcome-based financial indicators assumed to reflect the meeting of the economic goals of the firm. Typical of this approach would be examination of indicators such as sales growth, profitability ratios (for example, return on investment, return on sale, and return on equity), and earnings per share.

Some studies have employed 'market' or 'value-based' measurements such as market-to-book or stock-market returns and its variants (for example, Kudla, 1980; Montgomery, Thomas and Kamath, 1984). A broader conceptualization of business performance may also include emphasis on indicators of operational performance, in addition to indicators of financial performance (Venkatraman and Ramaujam, 1986). These would include measures such as market-share, market-share position (seen as a determinant of profitability), new product introduction, product quality, marketing effectiveness, and manufacturing value-added.

Operationalization of business performance measurement must take into account the sources of data that are either primary (e.g., data collected directly from organisations) or secondary (e.g., data from publicly available records). The conceptualization of business performance (financial versus operational indicators) and data sources (primary versus secondary), therefore forms two basic but different concerns in the overall process of measuring business performance. The use of different combinations of conceptualization of performance and data sources will depend on the nature of the study being conducted.

The use of subjective approaches to measurement of business performance is also found in the strategic management literature (see for example, Gopalakrishna and Subramanian, 2001; Spanos and Lioukas, 2001; Pertusa-Ortega, Claver-Cortes and Molina-Azorin, 2009). Following this approach, firms are asked to rate themselves along several measures in comparison to its main competitors on a Likert-type scale, typically ranging from 'well below my competitors' to 'well above my competitors'. Comparisons are normally made over a multi-year period to avoid any biases from temporal fluctuations (Spanos and Lioukas, 2001). Typical measures include sales growth, employment growth, market share growth, profits before tax, cash flow, and returns on investment (Pelham and Wilson,1996).

Alternatively, firms could be asked to provide financial data such as annual sales turnover either as absolute figures, or as ranges selected from a Likert-type scale. This approach finds traction especially in studies where there is difficulty in obtaining reliable financial information, such as the case for MSEs and SMSEs. This approach has been used by several researchers (for example Robinson and Pearce, 1988; Spanos and Lioukas, 2001; Dess, 1987; Inmyxai and Takahashi, 2010), and will also be applied in this study. A summary of business performance (sometimes referred to as business success) measures that have been used in the literature for MSEs in Africa is presented in Table 2.4. The information contained therein will be used to inform this study.

Table 2.4: Summary of Business Performance Measures for MSEs from the Literature

Performance (Success) Measure	Author(s)
Nominal or Increase in annual revenues	House (1984), Ntseane (2004), Obura, Abeka and Obere; Liedholm (2002), Parker (1994, cited in Liedholm, 2002), Wood (2006), Adekunle (2011)

Table Continued on Next Page. . .

Table 2.4 – Continued

Performance (Success) Measure	Author(s)
Nominal or Increase in annual profit	McCormick (2001), Obura, Abeka and Obere, Wood (2006), Adekunle (2011), Rand and Torm (2012)
Investment expenditures	Ntseane (2004), McCormick (2001), Rand and Torm (2012)
Nominal or Increase in number of employees	Ntseane (2004), McCormick (2001), Liedholm (2002), Parker (1994, cited in Liedholm, 2002), Wood (2006), Adekunle (2011), Rand and Torm (2012)
Transition from informal (unregistered) to formal (registered) business	Ntseane (2004), Rand and Torm (2012), Fajnzylber, Maloney and Montes-Rojas (2011)
Perceived level of success	Roy and Wheeler (2006)
Growth in savings	Adekunle (2011)
Age of Business	Wood (2006), Pertusa et al. (2009)

2.8 Generic Strategies and Business Performance

Competitive business strategy typologies provide classifications of business strategies according to common elements. They are typically used in deriving business strategy from competitive industry analysis in the formal economy with a view to to gaining competitive advantage over ones rivals. In the context of Porter's typology, for example, Hambrick (1983) found all three generic strategies of low cost leadership, differ-

entiation and focus among higher performing firms producing capital goods. His study found the presence of single strategies and absence of mixed strategies (where a single firm used more than one of the generic strategies). Similar conclusions were drawn by Dess and Davis (1984) in the paint industry and Hooley, Lynch and Jobber (1992) in a study of single business companies.

On the other hand, the literature also has studies in support of combining the generic strategies to achieve higher business performance. Recall that firms who adopt particular generic strategies are said to be members of that strategic group. For example, Hill (1988) states that within emergent industries or mature industries undergoing technological change, differentiation may be a means to overall low cost leadership. Other studies in support of hybrid, mixed, integrated or combination strategies include Kim, Nam and Stimpert (2004), Spanos, Zaralis and Lioukas (2004), Gopalakrishna and Subramanian (2001), and Proff (2000), all arguing that the pursuit of a single generic strategy may lead to lower performance. Other authors who have shown that combination of low cost and differentiation strategies can be effective in tackling competitive forces, resulting in superior performance Liao and Greenfield (1997) and Beal and Yasai-Ardekani (2000). In addition, Spanos, Zaralis and Lioukas (2004) found that firms that combined cost leadership with other dimensions from Porter's typology performed better than those that did not.

Other researchers have developed Porter-based typologies of their own, and shown that firms adoption of the generic strategies contained therein, leads to better performance. For example, Pertusa-Ortega, Molina-Azorin and Claver-Cortes, (2009) carried out an empirical study of large firms in Spain, and concluded that firms that engage in more generic strategies defined within the typology perform better. Their study was based on a three dimensional typology of innovation differentiation, marketing differentiation and low cost.

All these typologies were developed for and validated on medium and large enterprises. They therefore may not be directly applicable to IS/MSEs. Ogot and Mungai (2012) sought to determine the suitability of Porter's competitive business strategies typology to IS/MSEs based on micro-enterprise furniture manufacturers (metal and wood) in Nairobi, Kenya. Restricting themselves to the focus dimension (as IS/MSEs cannot

become industry leaders either from a differentiation or a low cost perspective due to their very small size), and based on the corresponding activities presented in Table 2.5, they found that IS/MSEs employed generic strategies within the strategic groups of focus differentiation and focus low cost of Porter's model, with only 15.5% of the sampled enterprises in the so called 'stuck-in-the-middle' cluster.

Porter's model as relates to improved business performance did not hold when comparisons were made between the different strategic groups in the model. Enterprises pursing pure or mixed strategies did not perform better than those pursing none, as would have been expected. In its current form, therefore, Porter's typology may be too limiting and not adequately provide alternative strategy dimensions capturing the needs of IS/MSEs. This therefore presents a strong need to develop and empirically validate generic CBS typologies tailored to the needs, and being able to capture the specific characteristics of IS/MSEs with a view to improved business performance.

Table 2.5: Competitive methods aligned to the focus dimension generic strategies in the Porter's typology

Generic Strategy/Competitive Methods

Focus Differentiation
- I try to make sure that my products can be distinguished from those of my competitors so as to increase sales
- I continuously come up with new products to offer my customers so I can be a step ahead of my competitors
- I buy my raw materials used to manufacture my products from the same set of suppliers
- I try to target my products to a particular type of customer
- I focus on only a small number of different products

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Table 2.5 – Continued

Generic Strategy and Competitive Business Activities

Focus Low Cost

- I change my source of raw materials to the supplier who will give me the lowest price at the time of order
- I try to make sure that the selling price of my products are lower than those offered by my competitors
- I try to make sure that I reduce wastage during my manufacturing process so I can offer my customers lower prices and therefore beat my competition
- I try to make sure that I reduce wastage during my manufacturing process so I can make more profit
- I try to improve my manufacturing process so that I can use less material or be able to produce my products quicker
- When I hire employees, I look for those who already have experience

Source: Dess and Davis (1984), Ogot and Mungai (2012)

2.9 Barriers to Growth of Micro and Small Enterprises

Despite the significant role of IS/MSEs few grow to become medium or large size enterprises due to barriers that include lack of access to markets, information on and access to finance; limited access to technology; low education levels of the entrepreneurs; lack of managerial, marketing and production skills; use of rudimentary technology; low-skilled work-base; lack of access to credit; very low purchasing power of their consumers/clients; and regulatory constraints emanating from difficulties of obtaining legal status (Stevenson and St-Onge, 2005a, 2005b; 2006).

Several studies have been carried out to determine factors that may influence the growth and increased performance of IS/MSEs. Oroko and Korir (2009) investigated the impact of transferrable knowledge on MSE performance. McCormick (1999) studied the effect of risk on firm growth amongst small-scale manufactures in Nairobi. From her study, whereas many enterprises managed risk by working in rent-free quarters, us-

ing family labour and capital, these strategies simultaneously inhibit the formation of a dynamic business environment, and enterprise growth. Akoten, Sawada and Otsuka (2006) studied the consequences of credit access to the performance of MSEs in the garment sub-sector in Nairobi. They found that factors affecting access to credit were different from those affecting enterprises growth indicating that credit access is not a key indicator of firm performance.

The main factors that may affect the performance of MSEs in developing countries may be more to do with their isolation, rather than their size. Isolation hinders their access to markets, information, finance and institutional support. Reasons for failure include intense competition and replication of micro enterprises, lack of managerial skills and experience (Katwalo and Madichie 2008). Causes of failure may be internal to the firm, and therefore presumably within its control, or external to the enterprise and therefore beyond its control. Internal short-comings should encourage interventions that help enterprises help themselves. Alternatively, external causes may require policy interventions that change the external environment. Numerous researchers have empirically identified the main barriers to growth experienced by micro and small enterprises in various African countries (Roy and Wheeler, 2006; Bekele and Worku, 2008; Ogot, 2014). With reference to the summary provided in Table 2.6, and although several barriers cut across the studies, the local environments, national economies and Government policies amongst others greatly influence the barriers faced. For example, one of the barriers repeatedly found across several studies is competition. As much of the MSE activity occurs in the informal sector that is characterized by few entry barriers, small scale operations and to a large extent, unregulated markets, it becomes relatively easy for competitors to start and stay in business (Chu, Benzing and McGee, 2007). In addition, differences will occur between sectors, and within sectors located in urban, peri-urban and rural areas. Further, as the aforementioned influencing conditions are continually changing, so will the barriers. Finally, studies establishing growth barriers often present industry, sector or country averages, ignoring that enterprises, even with the same sector, may face different challenges, depending on the strategies they may have employed, and the maturity of the business (Ogot 2014). This view is further supported by Gill and Biger (2012) who posit that the differences in barriers to growth of small businesses in different countries may be due to differences in economic situations, rules and regulations, political systems, market competition and legal systems.

Table 2.6: Summary of Barriers to Growth Faced by MSEs
in various African countries

Author/ Context of Study	Identified Barriers to Growth
McCormick, Kinyanjui and Ongile (1999)	Sampled 40 small and medium sized garment manufacturers in Nairobi. Barriers: Weak demand, gaps in the financial system, lack of secure premises.
Mambula (2002)	Sampled 32 small businesses in Nigeria. Barriers: Lack of financing, poor infrastructure, difficulty in getting machines and spare parts, difficulty in getting raw materials.
Roy and Wheeler (2006)	Barriers: Lack of market knowledge and training; limited access to capital; lack of cooperation among business partners.
Okpara and Wynn (2007)	Barriers: Lack of financial support, lack of managerial experience, corruption, lack of infrastructure, lack of training, and inadequate book and record keeping.
Chu, Benzing and McGee (2007)	Sampled 356 MSEs in Kenya and Ghana. Barriers: Weak economy, competition, unreliable and undependable employees, lack of capital, tedious business registration process/tax system.
Robson and Obeng (2008)	Sampled 500 entrepreneurs from six regions in Ghana. Barriers: High inflation rate, high interest rates, high depreciation of local currency, high cost of utility charges, high transport costs, high cost of replacing old equipment, high cost of local raw materials.
Bekele and Worku (2008)	Sampled of 500 MSMSEs in five geographical regions of Ethiopia. Barriers: Inability to obtain loans from formal banking institutions, inability to convert part of profit to investment, poor managerial skills, shortage of technical skills, low level of education.

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Table 2.6 – Continued

Author/ Context of Study	Identified Barriers to Growth
Bowen et al. (2009)	Sampled of 198 micro and small enterprises in Nairobi. Barriers: Increased competition, insecurity, debt collection, lack of credit, power interruptions, political uncertainty, cost of materials (inputs), hawkers, low demand, unfavourable business laws.
Ogot (2014)	Sampled of 135 micro and small wood and metal furniture manufacturing enterprises in Nairobi. Barriers: Competition, high cost of production, lack of adequate capital, cyclical demand, lack of ready markets, hard bargaining customers, shortage of raw materials, dishonest employees. government regulations, high tax

Formality may allow IS/MSEs to attract better educated workers and be able to engage them for longer periods, thereby making training and acquisition of capital goods more profitable. In addition, formality may open up avenues within the formal credit market as well as access to government sponsored business development services. It may further be a pre-requisite to sub-contracting relationships with formal firms (Fajnzylber, Maloney and Montes-Rajas, 2009). For example, Fajnzylber, Maloney and Montes-Rajas (2009) in a study in Brazil found that firms which became officially registered resulted in higher revenues, profits and capital use. In addition, firms were able to hire more contractual labour as well as operate from better established physical locations. Further in a longitudinal study of Vietnamese MSEs concentrated in three urban areas, Rand and Torm (2012) found a positive correlation between formalisation and firm performance as measured by gross profits and profit growth.

Despite the apparent benefits of formalisation, barriers remain. Various studies have suggested that the high cost (both monetary and time) in complying with Government regulations may serve as a strong disincentive to formalisation (De Soto, 1989). For example, according to the International Finance Corporation/World Bank (2013) it takes on average 32 days at an approximate cost of 40.4% per capita income, to register a business in Kenya. The procedure encompasses ten steps as summarised in Table 2.7. A comparison with sub-Saharan African countries averages reveals an average of eight procedures requiring 34 days to complete, at an estimated cost of 67.3% of per capita income. A comparison between Kenya and selected African countries as well as the sub-Saharan averages are presented in Table 2.8. From the Table it becomes apparent that the cost and time required can serve as a barrier to formalisation and registration of IS/MSEs.

Table 2.7: Procedures for Registration of a Business in Kenya

No.	Procedure	Days	Estimated Cost
1	State registration of legal entity, statistical, and tax registration with the Center for Public Registration	3	KES 100 per name reservation
2	Stamp the memorandum and articles and a statement of the nominal capital	5	1% of nominal capital + KES 2,020 for stamp duty on Memorandum and Articles of Association
3	Pay stamp duty at bank	1	KES 100 for bank commission
4	Declaration of compliance (Form 208) is signed before a Commissioner of Oaths /notary public	1	KES 200
5	File deed and details with the Registrar of Companies at the Attorney General's Chambers in Nairobi	7- 14	KES 6,400

Continued on Next Page...

Table 2.7 – Continued

No.	Procedure	Days	Estimated Cost
6	Register with the Tax Department for a PIN, VAT and PAYE online	1	No charge
7	Apply for a business permit	5	KES 10,000
8	Register with the National Social Security Fund (NSSF)	1	No charge
9	Register with the National Hospital Insurance Fund (NHIF)	1	No charge
10	Make a company seal after a certificate of incorporation has been issued	2	KES 2,500 - KES 3,500

Source: IFC/World Bank (2013)

Table 2.8: Time and Cost of Formalisation for Selected African and OECD Countries

Indicator	Kenya	Tanzania	Rwanda	S. Africa	Nigeria	SSA	OECD
Procedures	10	9	2	5	8	8	5
Days	32	26	3	19	34	34	12
Cost (% of income per capita)	40.4	28.2	4.3	0.3	60.4	67.3	4.5

Source: IFC/World Bank (2013)

In contrast and still with reference to Table 2.8, developed high income countries in the Organisation for Economic Cooperation and Development (OECD) thereby have a significantly lower number of procedures, registration cost and registration time, minimizing the registration process as a barrier to formality. A listing of OECD countries is presented in Table 2.9.

Table 2.9: Member Organisation for Economic Cooperation and Development (OECD) Countries

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Member Countries

Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States

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Source:OECD Website

Simplification of the registration process may not, however, lead to significant increase in the number of IS/MSEs seeking formalization. For example the SARE programme[3] in Mexico was aimed at creating a one stop shop for registration of small, micro and medium enterprises. The programme was implemented in a few municipalities and brought together under a single local office all the federal, state and municipal procedures required to register a business. As a result, the registration process could be completed in two days (Fajnzylber, Maloney and Montes-Rajas, 2009). A study by Kaplan, Piedra and Sera (2006, in Fajnzylber, Maloney and Montes-Rajas, 2009) on the impact of programme on new business registrations found a small rise in between 4-8%. The rise however was mainly due to former salaried workers opening up new businesses with a minimal effect from formalisation of existing MSEs.

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[3]SARE stands for *Sistema de Apertura de Empressas*, translated to System for Opening Enterprises

Formalisation may also be hindered by lack of relevant information and knowledge of laws on the procedures of formalisation. Formalisation may therefore be hindered in areas where business knowledge does not spread fast, especially where there are low linkages between firms (McKenzie and Sakho, 2010).

Levenson and Maloney (1988) further argue that the cost structure of many informal enterprises is such that they never grow large enough to need formality. For example, a small single person enterprise may have a client base of neighbours and their small steady state size may reduce the importance of formal credit institutions. This view is supported by a study of IS/MSEs in Mexico by McKenzie and Woodruff (2006) where they found that 75% of the survey enterprises felt that they were too small to make the process of formalization worth their while. In addition, Rand and Torm (2012) in a survey of MSEs in Hanoi, Vietnam, found that the decision to formalize was often a combination of factors that included the stability of the business; the belief that formality will yield improved access to public services and formal credit; being able to attract better quality workers; and a potential to expand the customer base. Further, the decision to formalize will also depend on the perceived impact formalization will have on profits (McKenzie and Sakho, 2010).

2.9.1   Barriers to Inter-Firm Cooperation

Lack of trust between firms can serve as a significant barrier to inter-firm cooperation. Trust, among other factors, is pivotal in encouraging effective communication, facilitates information exchange, strengthens bonds, and promotes risk taking. Trust therefore plays a key role in lowering the transaction costs by controlling opportunisms, encouraging firms to invest in relation-specific assets, as well as facilitating learning between them (Malmberg and Power, 2005).

Lack of trust can develop when firms take on a negative perception of competition, leading to a decline in close relationships between firms. Firms may believe that cooperation could lead to loss of ones innovative ideas or market share to competitors through loss of product differentiation opportunities (Birru, 2011).

Cultural factors including ethnicity, religion and language can also significantly promote as well as serve as a barrier to firm cooperation. Strong cultural ties, for example, may foster sharing of expertise or make available grants, enabling cooperating firms to beat out their competition. Such networks, however, may generate distrust among cultural group members preventing potentially productive relationships (Portes and Sensenbrenner, 1993).

2.9.2 Barriers to MSE Participation in Public Procurement

Governments worldwide have received a lot of attention as providers of essential services including health, education, defence, and infrastructure. To be able to provide these critical services, governments purchase goods and services from the market place through public procurement. Public procurement may be broadly defined as the purchasing, hiring or obtaining by any other contractual means of goods, construction works and services by the public sector. Public procurement can alternatively be defined as the purchase of commodities or contracting of construction works and services, if such acquisition is effected with resources from state budgets, local authority budgets, state's foundation funds, domestic or foreign loans guaranteed by the state, foreign aid, as well as revenue received from the state's economic activity (OECD 2005). The importance of public procurement is manifested by its size relative to World Gross Domestic Product (GDP). OECD (2000) estimated the value of the contestable government procurement market at over US$ 2,000 billion in 1998. This is equivalent to 7% of the world's GDP and 30% of the world merchandise trade. In a related study, Trionfetti (2000) estimated that the size of public procurement varies between 5-8% of GDP in industrialized countries. In most EU member states, procurement purchases are estimated at 25-30% of public expenditure (Morand 2003). For the Middle East and Africa, the magnitude of central procurement purchases ranges between 9-13%.

Although the focus of this study is on IS/MSEs, literature on public procurement and small enterprises primarily focuses on SMEs, and therefore perspectives of SMEs applicable to IS/MSEs are presented here. SMEs face numerous hurdles to public procurement participation. For example in the interest of administration efficiencies and economies in purchasing, public procuring entities more often than not place orders in relatively large lots and often by selective tender. As a result, they tend to unwittingly discriminate against SMEs (Morand 2003). Wittig (2001) identified a number

of procuring entity practices that have an effect of restricting access of SMEs to public procurement. These include, pressure to rationalize the supplier base, use of approved supplier lists, lack of procurement expertise across central and local government and the perception of the SME sector as high risk. Bannock and Peacock (1989) develop a model that illustrated five approaches to improving SMSE participation in public procurement by overcoming the traditional procurement barriers. Other studies have delineated steps that can be taken by procuring entities to encourage SMSE participation including facilitating access to procurement information; use of a flexible approach to quality assurance (QA) requirements; and ensuring the prompt payment of invoices – often crucial to a SMEs survival.[4]

SMEs can participate in public procurement by either directly contracting with the procurement entity, or participating as a subcontractor to a prime contractor, usually a large corporation. Large corporations can help SMEs become more viable business partners by providing training skills such as management, bookkeeping, business planning, marketing, distribution, and quality control. They can assist through technology transfers, direct investment in infrastructure, and sharing of knowledge. This makes SMSEs more competitive and facilitates access to credit. All of this can benefit the large corporations by creating more effective and inclusive supply chains (World Business Council for Sustainable Development, 2004). In the EU in 2003, SMEs accounted for 65% of turnover generated by the private sector, but less than 25% of public contracts won directly (Morand 2003). A study carried out in the EU determined that SMSEs could achieve improved access to public procurement mainly through a change in the procuring entities procurement culture, not necessarily through legislative changes in the EU Public Procurement Directives. From the study, the main problems SMEs had with regard to access to public procurement included: large size of contracts; excessive administrative burden; lack of knowledge on tender procedures; to little time to prepare tender documents (difficulties in obtaining information as they are unable to allocate sufficient resources to information collection); excessive requirements for financial guarantees; late payments by procuring entities (due to lower liquidity levels, SMEs are unable to sustain long payment delays); and the cost of preparing the tenders (as most costs are fixed, SMEs face disproportionate qualification levels and certifi-

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[4]East of England Development Agency Small business service annual survey of contracts awarded by public sector bodies to small and medium sized enterprises (SMEs) (2004-2005)

cation requirements).[5] Some of the challenges above can be overcome both through government intervention, as well as appropriate business strategies instituted by the SMSEs themselves. For example, possible SME strategies include pooling together to rely on their combined economic and financial standing and technical ability.

In the UK framework agreements, several SMEs, not just a single supplier can be used on a particular project. For example, a case study showed how an office furniture framework agreement was established that included large and small enterprises. Large furniture suppliers were able to achieve economies of scale for standard office furniture (low cost strategies), and SMEs were able to provide flexibility in meeting requirements for special items such as reception and conference room furniture and specialist seating (differentiation strategies). The latter are typically specified at a higher standard and will vary from order to order. The procurement entity therefore achieved value for money in both standard and specialist items of furniture(Commission of European Communities 2008). In the literature as well as from government and development partner publications, there are numerous studies discussing strategies for increased SME participation in public procurement. These studies, however, focus mainly on actions the procuring entities could take, or additional training of SMEs on the public procurement process (awareness). For example Morand (2003) developed analytical models to determine optimal government procurement policy to increase participation of SMEs in public procurement. Similar approaches emphasizing government preferential treatment where pursued in analytical models developed by Myerson (1981), McAfee and McMillian (1989), Laffont and Tirole (1987; 1993). We will however focus on strategies that SMEs themselves have taken to increase their participation in public procurement as part of the development process of the generic CBS typology for IS/MSEs.

2.10   Strategic Alliances and MSEs

From the literature, competitive business strategies and methods employed by IS/MSEs are quite diverse. Most of them revolve around strategic alliances, also referred to as inter-firm cooperation, that may be defined as (Schemerhorn, 1975 in Biiru, 2011), 'the presence of deliberate relations between otherwise autonomous organisations for the

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[5]GHK/Technopolis, Evaluation of SME Access to Public Procurement Markets in the EU, Available at http://ec.europa.edu/enterprise/entrepreneurship/public_procurement.htm

joint accomplishment of individual and operating goals' (p. 807). The literature is rich in significant benefits that may accrue from inter-firm cooperation. For example Hardy, Phillips and Lawrence (2003) posit that inter-firm collaboration leads to increased collective learning where there are opportunities for development and exchange of ideas as well as sharing of knowledge between firms. This has also been shown to be a prevalent mode of learning among SMSEs as compared to formal learning (Lange, Ottens and Taylor, 2000). Further for SMSEs who generally lack adequate internal resources, cooperation with other enterprises allows them to make up for the shortfall by accessing financial, material and human resources of their partners (De Propis, 2002). Inter-firm cooperation or strategic alliances mainly takes on two general approaches: value chain approaches, and horizontal linkages and networks. Linkages are cooperations between firms seeking to integrate some of their activities, exploit their complementarities in search of new markets, and pool sources of knowledge in order to achieve economies of scale or address common problems (Berkley and Henry, 2007).

IS/MSE participation in value chains involves vertical (forward and backward) linkages, typically with larger firms, and often in the form of sub-contracts, franchising, licensing and supplier relationships. Horizontal linkages, on the other hand, are typically in the form of formal and informal networks with firms of similar size, either directly or through umbrella organisations and associations. Other related competitive business approaches, for example clustering, combine both vertical and horizontal linkages between firms who are in close proximity to one another. A detailed discussion of each follows.

2.10.1   Value Chain Approaches

A value chain involves the activities needed to turn raw materials into finished products ready for sale. Each activity 'adds value' towards the final product (UNIDO, 2002). IS/MSEs participate in forward linkages in value chains mainly through subcontracting. Other methods include franchising, agency arrangements, and licensing. Subcontracting can be viewed as an 'arms length' relationship between a larger enterprise (buyer) and a smaller one (producer). Subcontracts are durable, that is, they are not one-off in nature, as would be the purchase of ready-made products and widely available services. Subcontracting can reduce the capacity building period for IS/MSEs to come up with the desired levels of product quality and design, the ability to meet stated delivery times,

and for ongoing innovation and differentiation. Within these arrangements, large enterprises can often serve as a valuable source of capital, technology transfer, and quality collateral in the form of secure production contracts (Wattanapruttipaisan, 2002). It is worth noting that large enterprises enter into subcontracts with their own agenda and interests, which may not necessarily be the same as the SMSE suppliers. For example, large enterprises will only invest in building up the capabilities and competitiveness of SMSEs only if they are able to get a good return in a reasonable period, or can play a key role in their strategic plans to diversify or differentiate – for example, in products, supply sources, market segments, and market locations. Even then, large enterprises will weigh the risks in terms of monetary and time costs that may be required to bring potential SMSE subcontractors up to the required standards and criteria before deciding to invest (Wattanapruttipaisan, 2002).

IS/MSEs backward linkages in the value chain are normally with larger firms from which inputs, technology transfer, and training can be obtained. For example, in Kenya, small-holder farmers are able to move away from rain-fed agriculture to simple greenhouse drip irrigation systems with kits supplied by Amiran Kenya Ltd. The company provides 'complete kit[s] containing a simple greenhouse drip irrigation system, water tank fertilizer, seeds, agro support and training.' (Kabukuru, 2011, p. 30). Farmers have been known to receive up to 200% returns from use of the kits. Participation in value chains is not without risk both for the IS/MSEs and the larger firms. As described by Kula et al. (2005),

> 'Risk experienced by MSEs is that MSEs will become "captive" firms to a single buyer. [Risk] created by MSEs, but faced by buyers considering whether to subcontract with MSEs, is the risk of non-compliance of subcontracts resulting in insufficient quality or quantity of product.' (p. 8).

The risk often experienced by IS/MSEs also applies to the fear of being dependent on a single larger firm for access to inputs as well. Knopp (2002, cited in Kula et al., 2005) suggested forward linkages with multiple lead firms as a way to reduce IS/MSE dependency on a single buyer. The drawback, however, is that lead firms when competing against others tend to decrease the services offered to IS/MSEs. But as suggested by Liedholm and Mead (1987), this risk may be reduced through diversification of prod-

ucts and services offered by the MSE, that is, if the IS/MSEs becomes captive in a vertically integrated market for one activity, they could pursue other linkages for alternative activities. Pursuit of alternative economic activities also reduces the risk on the buyer as it lowers the chance of IS/MSE failure. For example, according to Bernard (2003, cited in Kula et al, 2005), some horticultural exporters in Kenya who subcontract with small-holder farmers require that the farmers do not commit more than 30% of their land, labour and capital to the contracted crop. From the large firm's perspective, subcontracting to a large number of small-scale producers remains hampered by the cost associated with ensuring product quality and quantity compliance. It is worth noting however that risks associated with product quality compliance can be reduced through IS/MSEs organizing into producer groups, cooperatives, and associations (Kula et al., 2005). These will be discussed in more detail in the following section on horizontal linkages.

IS/MSEs generally have little power in buyer-driven (controlled) chains, for example in garments, commodity foods, and agency arrangements (e.g. Safaricom's MPESA agents in Kenya). There are a few exceptions however. For example, Starbucks Coffee in the US leads a buyer-driven chain where the products value is linked to its quality, something controlled by the producers who are mainly small-holder speciality coffee farmers in Africa and Latin America. The success of this arrangement lies in the strong inter-firm cooperation between the lead-buyer (Starbucks) and the producer groups (the small holder farmers) with more of the post-harvest and quality control functions being passed to the farmers groups (Ponte, 2002). It is worth noting that producers have more power in value chains where their products are characterized by a high degree of labour specialization and product differentiation (Kula et al, 2005). The next section presents a discussion on horizontal linkage and networking approaches employed by MSEs to boost business performance.

2.10.2 Horizontal Linkage and Networking Approaches

One of the main approaches to increased business performance of MSEs is through the creation of collective efficiencies via group formation (Berry, Rodriguez and Sandee, 2002, cited in Kula et al, 2005). Presence of strong producers groups and associations for quality driven value chains, allows product differentiation and branding strategies at the producer level as they are able to control for quality, and carry out branding

activities on behalf of members (Knorringa and Schmitz, 2000). Horizontal cooperation or linkages between similar size enterprises performing like functions in a sector can result in collective efficiencies from reduced transaction costs, faster innovation and problem solving, as well as increased market access via economies of scale (Bazan and Schmitz, 1997, cited in Kula et al, 2005).

Collective efficiencies (Schmitz, 1995) can be defined as the 'combination of incidental external economies, and of the effects of joint actions, that helps to explain the efficiency gains of firms located in clusters, and their increased capability to upgrade and grow.' (Pietrobelli and Rabellotti, 2004, p. 1) For example, Makombe (2005) in a study of women food-processing micro entrepreneurs in Tanzania found significant benefits of membership in their producer association, the Tanzania Food Processors Association. The women were no longer isolated in their micro enterprises, and had a forum within which to exchange ideas and establish networks. Specific benefits to the women entrepreneurs as determined from the study included, 'facilitating contacts with other women [entrepreneurs]; getting advice on new products; getting information about training, seminars, meetings and trade fairs; getting inputs in bulk more easily; selling products under the association's trade name; sponsorship to trade fairs; ...getting loans; and becoming known or getting publicity'. (p. 129). The last point is of particular importance as MSEs rarely have funds available individually to undertake any marketing activities. In addition, participation in trade fairs further helps to advertise their products and activities resulting in more business exposure and therefore the possibility of potential customers, suppliers or promoters. As one of the women entrepreneurs stated when interviewed,

> 'When I went to Nairobi for the first time, I got a market for honey and I discovered that Kenyans liked honey very much. They asked me to supply them and I have since been doing it. The same thing applied to vegetable and fruit pickles. I came to know that our Kenyan counterparts did not know how to process them. I showed them how to do it. I also got a market for those products.' (p. 133).

Prasad and Tata (2010) examined the supply chains of silk sari micro-enterprises in three different weaving locations in India. They found that the micro-enterprises that had better connections with their customers to be more attuned to customer needs. For example, in the study, enterprises in Kanjipuram connected to their buyers through 'buyer-seller' meets organized by their cooperative society. These meets allowed them to display their talents, market their products, enhance their income, as well as understand the needs of the market.

In a study amongst women micro-entrepreneurs in Botswana, Ntseane (2004) found use of networks as a main strategy for achieving success. The women would often assess and help members whose businesses where experiencing problems. In addition, as they operated in a male dominated world, the women in the study all indicated that their success in business depends on their sharing business ideas and profits, as well as teaching and learning from others. Within their networks, 'reciprocal business relationships included giving one another material support. During slow periods of the year, women reported buying merchandise from one another and providing free labour. [The women] also share ideas about commercial success, problem solving and future planning.' (p. 40).

Leadership of IS/MSE groups often, however, remains an obstacle to sustainability of the groups. Members of horizontal groups are often the business owners, with management and leadership resources for the group being drawn from the individual enterprises, something they may not be able or willing to accommodate. In addition, group members come in with different levels of knowledge, skill and access to information which they may be unwilling to share with others (Meyer-Stamer, 1998). Horizontal networks are also used to provide informal avenues to financing. IS/MSEs typically experience difficulty in accessing regular sources of financing. Many owners, therefore, often participate in variants of rotating savings and credit associations (ROSCAs). ROSCAs have their roots in mutual guarantee systems, typical of most African and Asian societies. Generally ROSCAs have between 5-10 members. The associations hold regular meetings where each member contributes a fixed amount, with each member getting a turn as the recipient. Interest is not normally charged for the loan or paid on the interest, unless the association uses its mutual strength to 'top-up' its fund from a micro-finance institution. In Kenya, for example, ROSCAs were found to be

very popular among women in the informal sector (Stevenson and St-Onge, 2005a). It is worth noting that entrepreneurs who participate in these 'merry-go-round' networks also leverage group membership to share ideas as well as exchange business experience and know-how. For example, in a study of 100 small and medium sized leather shoe manufacturing firms in Ethiopia, Birru (2011) found significant inter-firm cooperation aimed at, amongst others, use of mutual credit schemes as an important source of finance to facilitate the purchase of new equipment and machinery, as well as to reach out to new markets or development of new products.

Although not restricted to businesses only, Savings and Credit Cooperative Societies (SACCOs) provide another avenue to financing. SACCOs' main objective is to provide group-based members access to a reliable savings system as well as affordable credit. In Kenya, for example, SACCOs are the largest source of finance to IS/MSEs (Coetzee, Kabbuchi and Minjama cited in Stevenson and St-Onge, 2005a). Group-based lending methods are however, not without their challenges. For example as discovered by Stevenson and St-Onge (2005a), in a survey of women micro entrepreneurs in Kenya, 'Challenges posed by group lending methods include the onerous demands of group meetings, which often restrict the participants' ability to network in other arenas, thereby denying them the opportunity to share experiences with entrepreneurs from different backgrounds and other areas within the ... economy.' (p. 25).

2.10.3 Participation in Clusters

Porter (1998) defined clusters as, 'geographic concentrations of interconnected companies and institutions, specialized suppliers, service providers, firms in related industries and associated institutions (for example, universities, standards agencies and trade unions) in a particular fields that compete and also cooperate.' (p. 78). Clusters may also be defined as 'geographic concentrations of horizontally and vertically linked firms, suppliers, service providers, associated institutions operating in a single field.' (Kula et al, 2005, p. 13-14). Clustering can increase industrial capacity by increasing market access, fostering communication and information sharing, enhancing technology spillovers, increasing efficiencies, and contributing to the development of support institutions (McCormick,1999).

Clusters create spatial proximity of firms that encourages inter-firm cooperation by promoting trusted relations between firms over long periods of time, nurturing a local business environment of confidence, risk-taking and cooperation (Immarino and Mc-Cann, 2006). Cortright (2006) went on to state that clusters can help small firms overcome challenges normally associated with size, promote technological development and thereby strengthen their capability to effectively compete in both local and international markets. McCormick (1999) further breaks down clusters into three groups: groundwork clusters, industrializing clusters, and complex industrializing clusters. Groundwork clusters build a productive environment, establishing the foundation for the emergence of collective efficiencies through local and typically low-income markets. Industrializing clusters are characterized by evidence of emerging collective efficiencies and a greater extent of labour characterization and differentiation, as well as linkages with both local and more distant markets. Finally, complex industrial clusters have a high degree of differentiation and specialization, targeting high value and global markets (McCormick, 1999). IS/MSEs mainly fall in the groundwork clusters category. As a result our discussion will be restricted to this cluster type only. It is however worth noting that in small market economies with excess labour, cluster advantages of collective efficiency and knowledge transfer may not be realised (McCormick, 1999).

Formal cluster formation, especially for IS/MSEs, normally requires interventions from government and international organisations, especially in developing countries, and mainly in the areas of governance and financing. Further, successful cluster formation and management requires cooperation amongst the various ministries and implementing agencies to coordinate the IS/MSEs support, assist in the development of cluster support structures, as well as provide leadership and professional competence (Tambunan, 2005). In urban areas, however, clustering of IS/MSEs often occurs naturally and informally, especially in the areas of manufacturing (wood and metal products), plant nurseries, and retail trade in clothing. In these informal clusters, new enterprises in similar sectors set up shop where others have previously established themselves, hoping to take advantage of an established customer base. Although not formally established, these informal clusters may also reap some of the benefits as those found in formal clusters.

Moyi and Njiraini (2005) observed that IS/MSEs in industrial clusters tend to specialize in performing particular processes or stages in production, thus allowing them to engage in relative complex webs of inter-firm networks that extend beyond market transactions. The larger the networks, the more external economies accrue to the enterprises, thereby overcoming some of the shortcomings arising from their small size. Similarly, Schmitz and Nadiv (1999) noted that clustering provides even the poorest and most vulnerable cottage industry producers, reduced 'search and reach' costs, inter-firm collaboration, and the opportunity to become more competitive in wider markets proximity. Ketels (2006) argues that companies within clusters can operate with higher efficiency levels, drawing on proximity of more specialized assets and suppliers leading to shorter reaction times than would have been achievable in isolation. In addition, knowledge spill overs and close interaction with other similar companies and customers, creates an atmosphere conducive to the generation of new ideas. The key to success of IS/MSEs operating in clusters, however, is their ability to gain strength through cooperation and collaboration, leveraging on both formal and informal networks. Within these networks, trust and inter-personal relationships are highly developed, yielding a high level of social capital within the cluster (OECD, 2006).

Social capital, within clusters, refers to social organisation aspects such as shared norms and values that foster coordination and collaboration between enterprises for their mutual advantage. Further, social capital within a cluster is built on trust amongst the various members. Development of trust is normally a painstakingly slow process of interaction. But once developed, trust reduces failures and costs for enterprises through support of stable and reciprocal relationships between members (Wolfe, 2002). Strong leadership within clusters is essential for its success. Leadership may come from individuals or institutions. As emphasized by Svetina et al. (2007),

> 'leaders within clusters can be crucial for removing obstacles, assisting in enhancing collaboration, developing a vision and acting as champions for the future of the cluster. Strong civic leadership can help to foster a collaborative advantage by raising mutual awareness of local strengths and a shared vision for business growth. Leaders are typically people committed to a local area, perceived as having a high degree of influence and able to cultivate interaction between cluster stakeholders.' (p. 15).

There are numerous studies illustrating the positive impact participation in clusters can have on IS/MSEs. Ayele et al. (2010) focussed on handloom weaver clusters in Ethiopia. Amongst other findings, their study found use of interconnected trade linkages to ease working capital constraints, in areas where formal financial institutions were absent. In addition, the clustering enabled the entrepreneurs with limited capital to leverage on shared workspaces and division of labour. In a study of SMSEs clusters in the tourism sector, Greffe (1994) found that SMSEs tend to cooperate through value-added networks of product and service delivery to enhance tourist satisfaction, for example by referring customers to each other, rather than compete. Pietrobelli and Rabellotti (2004) performed extensive empirical studies on small enterprise clusters in Brazil, Chile, Mexico and Nicaragua, mainly in the textile, garment, shoes, and furniture industries. They found significant evidence of clusters achieving medium to high collective efficiencies. Sakurani, Furuya and Futakuchi (2006) in a study of rice miller clusters in Kumasi, Ghana, found that the clusters tended to adopt more advanced technology in rice-milling than non-clustered enterprises. In addition, the clustered millers tended to adopt more innovation resulting in increases in milling efficiency and milling quality. Other empirical studies, both from developed and developing countries that illustrate the ability for small firms to overcome some of the major constraints they usually face through participation in clusters include Nadvi and Schmitz (1999) and Rabellotti (1997).

2.11   Adoption of Technology and Innovation

Buainain (2002) observed that IS/MSEs must undergo technological change and accumulation of knowledge in order for them to grow and become competitive. Without technology (Moyi and Njiraini, 2005), '[IS/MSEs] lack the ability to produce efficiently, meet deadlines, upgrade product quality and evolve new product designs.' (p. 9). Choosing the right technology often requires skills and knowledge that IS/MSEs may not have. Technology may be defined as a body of knowledge of techniques, methods, process and designs needed to get things done (Aduda and Kaane, 1999).

In an attempt to improve the technological capabilities of IS/MSEs, the late 1970's saw the introduction of the term, 'appropriate technology', which can be defined as technology tailored to the needs of small enterprises operating in labour-intensive, low-skill sectors and using local materials and resources (Ngahu, 1995). Appropriate technol-

ogy provides incremental technological improvements. The IS/MSEs, who are the direct beneficiaries, are rarely involved in the design process. The approach has been criticized for having minimal overall impact on a countries technological capabilities, although it has had a measure of success among IS/MSEs (Moyi and Njiraini, 2005).

Most IS/MSEs are not developers of technology, but mainly adapters and adopters. They therefore need technological capability to make effective use of the transferred technologies. Albu (cited in Moyi and Njiraini, 2005) state that technological capability can be segregated into three components: production capability, investment capability, and innovation and adaptive capability.

> 'Production capabilities are those skills, knowledge and resources that are needed to use existing plant and process efficiently to make established products. Investment capabilities involve those skills, knowledge and resources that enable firms to expand workshop facilities, procure and install standard equipment; and to search for, evaluate and select technology and its sources for new production projects. Innovative capability consists of the skills, knowledge and resources that enable firms to assimilate, change and create technology.' (p. 16).

Due to limited availability of resources and manpower, IS/MSEs may have production and investment capabilities only, if any at all. Some of these capabilities may be through established networks, groups and associations as previously discussed.

2.12 Previous Studies and Knowledge Gaps

This study sought to conduct exploratory empirical validation and refinement of the IS/MSEs CBS typology proposed in Ogot (2012). The proposed typology has sought to incorporate and classify business activities that have been shown to lead to better performance leading to the four generic strategies of peer low cost, peer differentiation, mentor low cost and mentor differentiation. From the literature, previous efforts on development of activity-based generic strategy typologies have mainly been derived from and validated on medium and large enterprises. With the exception of Ogot (2012), no typologies could be found that were directly derived from, and applicable to IS/MSEs

in their entirety, not as special cases. A representative set of previously developed typologies, therefore, form part of the identified knowledge gaps as summarised in Table 2.10. Note that only a representative sample of the key typologies is provided due to the large number of studies available in the literature.

Further, numerous studies have investigated approaches to improve the business performance and/or stimulate growth of IS/MSEs. None of the studies, however attempted to synthesize these approaches into a simple model readily understood and applicable by IS/MSE owner/managers. A recent sample of these studies adds to the knowledge gap. Finally, although Ogot (2012) proposed a CBS typology tailored to IS/MSEs, the study was purely conceptual with no empirical validation, and minimal theoretical explanation.

Table 2.10: Previous Studies and Knowledge Gaps

Author(s)	Focus	Knowledge Gap(s)
Porter (1980)	Developed typology with the following dimensions: (1) Cost leadership - Efficiency, experience curve policies, overhead control, and other cost reductions; (2) Differentiation - Creating uniqueness in product and/or service; (3) Focus - Focusing on specific buyer group, or market.	Neither developed for nor validated on IS/MSEs.

Table Continued on Next Page. . .

Table 2.10 – Continued

Author(s)	Focus	Knowledge Gap(s)
Minztberg (1987)	Developed typology with the following dimensions: (1) Cost leadership; (2) Marketing differentiation; (2) Marketing image differentiation; (3) Product design differentiation; (4) Quality differentiation; (5) Support differentiation; and (6) Undifferentiation.	Neither developed for nor validated on IS/MSEs.
McCormick (1999)	Studied the effect of risk on firm growth in amongst small-scale manufactures in Nairobi.	Limited business strategies to only those that reduce risk.
Beal and Yasai-Ardekani (2000)	Developed typology with the following dimensions: (1) Cost leadership; (2) Innovation differentiation; (3) Marketing differentiation; (4) Quality differentiation; and (5) Service differentiation.	Neither developed for nor validated on IS/MSEs.
Pertusa-Ortega, Claver-Cortes and Molina-Azorin (2009)	Developed typology with the following dimensions: (1) Cost leadership; (2) Marketing-based differentiation; (3) Innovation-based differentiation.	Neither developed for nor validated on IS/MSEs.

Table Continued on Next Page...

Table 2.10 – Continued

Author(s)	Focus	Knowledge Gap(s)
Akoten, Sawada and Otsuka (2006)	Examined the consequences of credit access on the performance of garment MSEs in Nairobi.	Study did not look at strategies that MSEs can employ to increase performance.
Masakure, Hensen and Cranfield (2009)	Assessed micro-enterprises in several rural and urban regions of Ghana based on resource-based view of the firm.	Did not propose generic strategies that IS/MSEs could apply to improve performance.
Oroko and Korir (2009)	Investigated impact of transferable experiences on growth of manufacturing IS/MSEs in Nairobi.	Did not propose generic strategies that IS/MSEs could apply to improve performance.
Ogot and Mungai (2012)	Empirically determined that IS/MSEs in the manufacturing sub-sector could fit within Porter's model, but application of Porters model failed to improve business performance	No suggestions on how Porter's model can be improved to be better suited to IS/MSEs. Addressed in this study.
Ogot (2014)	Conceptually developed an IS/MSE Competitive Business Strategy typology	Model not empirically tested for efficacy. Addressed in this study.

Table 2.10 – Continued

Author(s)	Focus	Knowledge Gap(s)
Ogot (2013)	Fresh evidence on challenges faced by manufacturing MSEs and their influence on strategic choice	Little insight into strategies that can be used to overcome identified challenges. Addressed in this study.
Kithee, Nyaga and Kimani (2013)	Micro-finance factors influencing sustainability of women managed MSEs in Kenya	Qualitative study limited to only financial aspects.

2.13 The Conceptual Framework and Research Hypotheses

Collections of firms within an industry following the same or similar competitive business strategies may be referred to as strategic groups (Porter, 1980). Strategic groups can be developed from multivariate measures of intended or implemented strategies, and provide a framework for empirically demonstrating that strategies differ among firms, and that better strategies lead to better performance. Demonstration, therefore, of the ability of multivariate measures of strategic choice to classify firms into homogenous groups based on the new typology will provide empirical evidence of its construct validity. A similar approach was employed by Dess and Davis (1984), Beal and Yasai-Ardekani (2000), Pertusa-Ortega, Claver-Cortes and Molina-Azorin (2009). For this study, due to general lack of documentation on or the existence of intended strategy among IS/MSEs, implemented strategy will be used. The multivariate measures for the strategic groups will be based on the competitive business activities most closely aligned to each of the four generic strategies as previously presented in Tables 2.5 and 2.2.

Figure 2.6 – Conceptual framework for exploratory empirical validation of the MSE typology
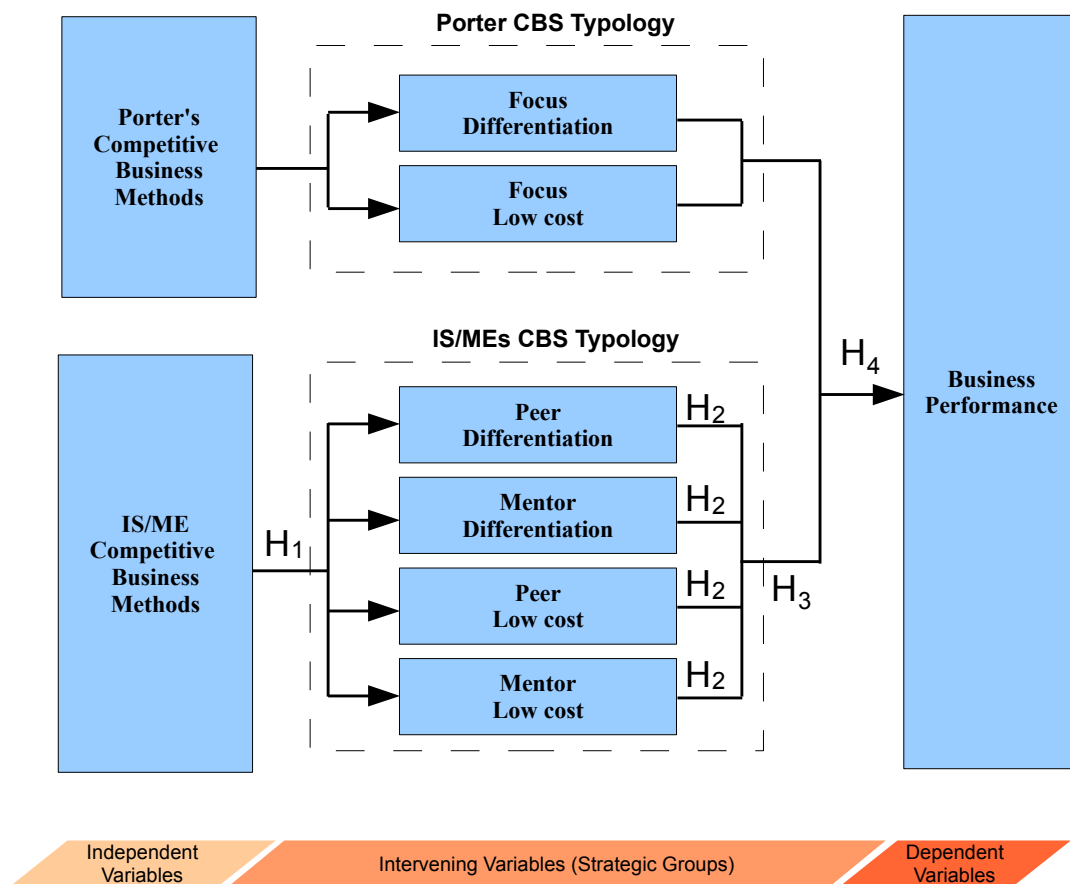
The conceptual framework for the exploratory empirical determination if the use of strategies based on competency and strategic alliance theories as embedded in MSE typology leads to better business performance than use of competency competency theories alone, is presented in as presented in Figure 2.6. Within the figure, competitive business activities that the IS/MSEs may employ, strategic groups and performance form the independent, intervening and dependent variables respectively. The basis for any typology is the ability to group the independent variables in a manner that captures the similarities between them, the strategic groups. This will be tested by the hypotheses between the independent and the intervening variables. On the other hand, enterprises within a strategic group may have a similar impact on their performance. This relationship between membership in a strategic group and performance will be tested by the hypotheses between the intervening and dependent variables.

The comparison of performance of MSEs using strategies combining strategic alliance and competency theories with those using strategies based on competency theories alone was tested by hypothesis 4. As was stated earlier in Chapter 1, this study will limit exploratory validation of the strategies within the MSE typology to IS/MSEs in the manufacturing and agro-food processing sub-sectors in Nairobi. These will be captured in the following research hypotheses. The first hypothesis focusses on the validity of the strategic groups defined by the new typology:

H$_1$: The MSE typology can serve as determinants of strategic group membership among manufacturing IS/MSEs.

Further, studies done with medium and large firms and based on Porter's (1980) typology found that those companies employing any or a combination of the defined strategies had generally better performance than those adopting none. Will these conclusions still hold true with the new typology for IS/MSEs? This will be answered by testing the following two hypotheses:

H$_2$: Manufacturing IS/MSEs employing pure strategies in the MSE typology will lead to better performance.

H$_3$: Manufacturing IS/MSEs employing mixed strategies in the MSE typology will lead to better performance.

Finally, do enterprises adopting generic strategies combining strategic alliance and competency theories as captured in the MSE typology perform better than those adopting competency-based generic strategies embodied in Porter's typology? This was explored by testing the following hypotheses:

H$_4a$: Manufacturing IS/MSEs employing pure strategic alliance/competency-based strategies in the MSE typology will perform better than those employing pure competency-based strategies in Porter's typology.

H$_4b$: Manufacturing IS/MSEs employing mixed strategies alliance/competency-based in the MSE typology will perform better than those employing mixed competency-based strategies in Porter's typology.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology that was used for this study. Starting of with a brief on the adopted research philosophy, the chapter provides a presentation of the population of the study and the approach used for data collection.

The second part of the chapter focuses on the approaches used for testing the reliability and validity of the collected data, as well as the statistical methods used to characterise the data. Finally, the chapter concludes with a discourse on methods used to test the previously delineated hypotheses.

3.2 Research Philosophy

This chapter presents the methodology used for the exploratory validation and refinement of the MSE typology will lead to improved performance. Empirical studies will be carried out among IS/MSEs in the Nairobi area. Justification for the approach used is also presented. Acceptance of the MSE typology will be derived from validation through empirical studies. This study, therefore, will form the first step in that process.

Two main research philosophies dominate the literature in the social sciences: positivism and phenomenology. Positivism takes a quantitative view and posits that knowledge is based on facts, without consideration of abstraction or subjectivity of individuals. It builds on the utilization of facts, objectivity, neutrality, measurement and validity of phenomena to yield credible results, that are expressed numerically with both explanatory and predictive power (Cooper and Schindler, 2003). In contrast, phenomenology may be viewed as a qualitative perspective.

Phenomenologists posit that knowledge is subjective, anchored in the experiences, personal knowledge and interpretations of the individual (Saunders, Lewis and Thornhill, 2009). Exploring the validity of the model through empirical testing and comparisons with Porter's typology, as presented here, this study adopted a positivistic approach.

3.3 Research Design

A cross-sectional survey was used for this study. The study draws on primary data from the IS/MSEs in the manufacturing (wood and metal works) and agro-food processing in Nairobi. If properly developed and conducted, surveys provide relatively quick, inexpensive and accurate means of collecting information and was therefore used in this study.

The survey instrument was grounded on secondary research material for its development. It combines a mixture of Likert scale type and direct data questions. In addition, it is structured in a manner that would be readily understood by the target population. The research design will offer the opportunity for the empirical determination of the extent to which the targeted IS/MSE utilise the delineated competitive business strategies, and as to whether their use enhances their business performance.

3.4 Population of the Study

A population may be described as any well-defined collection of units. In applications, such as this, where it may be impractical or too expensive to measure each unit in the population, it is often more feasible to measure a random sample of units from the population. The population from which the random sample is drawn is referred to as the study population (Bomet and Wright, 2007).

For this work, the study population was all the IS/MSEs in the manufacturing (wood and metal working) and food-processing sectors in Nairobi. These sectors were picked as they are in the top two informal sector categories (KNBS, 2012). Information from the random sample allows the drawing of certain conclusions about the study population. Logical arguments can then be made to derive inferences from the study population to other populations of interest (Bomet and Wright, 2007).

Membership in the informal sector presents a major challenge as it is difficult to determine the population size. Although membership lists can be obtained from business associations such as the Jua Kali Association, that approach has a few drawbacks. First a large portion of the target population are not association members due to a perception that not much value is derived from membership. In addition, one of the aspects

of the study seeks to establish differences derived in strategies employed as a result of an IS/MSEs membership in a trade organisation, against those who are not members. Restricting the population to only IS/MSEs who are members would therefore have negated this central aspect of the study. Finally, although data could have been obtained from the Nairobi City Council licensing department, a very large number of IS/MSEs are not registered. In addition, the Council only categorizes businesses as small, medium or large, with their definitions not following those used in this study.

The last survey done to estimate the size of the MSE sector in Kenya was the National MSE Baseline Survey in 1999 (CBS/K-REP, 1999). From the survey and with reference to Table A, it was estimated that there were over 204,280 MSEs in Nairobi and Mombasa, with the majority being in Nairobi. It is therefore reasonable to assume that the areas of wood and metal working as well as food-processing exceeds 10,000 in Nairobi.

Table 3.1 – Estimate of Number of MSEs in Kenya (1999)

Stratum	Number
Nairobi and Mombasa	204,280
Other major towns	157,533
Rural towns	81,320
Rural area	845,879
Total	$\mathbf{1,289,012}$

Source: National MSE Baseline Survey, 1999

3.5   Sampling

Owing to the true population of IS/MSEs in both metal manufacturing and agro-food processing not being known, stratified strip transect sampling was used in six representative regions of Nairobi with high concentrations of MSEs: Eastlands, Westlands, Nairobi West, Industrial Area, Dagoretti Corner/Kawangware and Kangemi. Stratification will ensure an equal proportion of manufacturing and agro-food processing MSEs are included in the sample from each of the representative areas. Transect sampling is commonly used when the population size is not precisely known. It is an approach commonly used in the biological sciences for the estimation of populations of differ-

ent species, or the occurrences of certain natural phenomenon. The minimum sample size, n, was estimated from Cochran's (1977) sample size equation for scaled data, and populations greater than 10,000,

$$n = \frac{Z^2 \tilde{s}^2}{(p_t \varepsilon)^2} \qquad (3.1)$$

where Z, $\tilde{s}$, p_t, and ε, are the normal z-value corresponding to the desired level of accuracy, estimate of the standard deviation in the population, number of points on the primary measurement scales, and the acceptable margin of error, respectively. A critical part of using the formula is estimating the variance of the population. The vast majority of the variables in this study are scaled variables mainly from 1-5. The standard deviation was therefore estimated from (Bartlett, Kotrlik and Higgins 2001),

$$\tilde{s} = \frac{p_t}{N_\sigma} \qquad (3.2)$$

where N_σ is the number of standard deviations that include nearly all of the possible values in the range (normally taken as 6). From Equations 3.1 and 3.2, and assuming 5-point inclusive scales, p_t; N_σ equals 6 – captures 98% of all responses; a desired accuracy level of 95%; margin of error, ε, of 3%; the minimum sample size. n, is,

$$n = \frac{1.96^2 (5/6)^2}{(5 * 0.03)^2} \backsimeq 119 \qquad (3.3)$$

3.6 Data Collection

The survey data collection method was used. It relies heavily on the voluntary participation of IS/MSE owners, meaning that not all questionnaires are likely to be filled out and returned. To ensure that the minimum sample size is reached, some researchers have recommended oversampling (Bartlett, Kotrlik and Higgins 2001). From a review of the response rate of several studies on IS/MSEs in Kenya (Litondo, 2010 (80%); Ogot and Mungai, 2012 (33%)), an average response rate of 56.5% was found, and is therefore assumed for this study . In an attempt to meet the minimum sample of 119,

therefore, the sample size is increased to 239. Consequently, within each of the six sample regions, 20 manufacturing (wood and metal works) and 20 agro-food processing IS/MSEs were sought, totalling 240. The questionnaires were handed to owners of the IS/MSEs, as they are considered the person most knowledgeable of the enterprises key competitive actions.

The research instrument was inductively derived to be able to evaluate the extent to which IS/MSEs employ each of the competitive methods that define the four generic strategies of the IS/MSE CBS typology, and the two generic strategies of the focus dimension in Porter's typology. The research instrument has three main parts. Part I seeks demographic information including age, educational background, gender, and family history in business. Part II asks respondents to provide data on several business performance measures, multi-year data on revenue and on number of employees, as well as number of years the IS/MSE has been in business. Part III, respondents were requested to indicate the extent to which they use all of the 28 competitive business methods (as was presented in Table 2.2) that form the basis of the new typology. Ratings will be based on a 5-point ordinal scale ranging from '1-Never' to '5-All the time.' Finally, in Part IV, respondents were requested to indicate the extent to which they use all of the 11 Porter typology competitive business methods (as was presented in Table 2.5). The set of variables employed by the study include 39 independent variables (the 28 IS/MSE typology competitive business strategies and the 11 Porter focus dimension strategies), 6 intervening variables (the 4 IS/MS typology strategic groups and 2 Porter focus dimension strategic groups), and the dependent variable (determined from three business performance measures). The operalisation of the variables and where they are in the questionnaire are summarised in Table 3.2. The business performance variable was formed by combining the values from the three identified performance variables: revenue, business age and number of employees. This approach ensures increased validity of the resulting compound performance variable than if a single variable was chosen (Rahman 2001, Wood 2006). Variables were assumed to be equally weighted. The instrument was pre-tested on a small set of firms, but no changes were required to reflect improvements in wording, clarity and desired outcomes. A copy of the survey instrument is provided in Appendix A.

Table 3.2: Operalisation of variables for exploratory empirical validation

Variables/Elements	Measure	Question
Business Performance • Revenue (2010, 2011, 2012, 2013) • Number of employees (2010, 2011, 2012, 2013) • Age of enterprise	Nominal values entered, from which revenue growth rate, employment growth rate calculated. Simple weighted average used for business performance index	Part II, Questions 2.1 - 2.3
Peer Differentiation • Variable elements as presented in Table 2.2	5-point ordinal scale to measure extent of use for each of methods. Range: '1-Never' to '5-All the time'.	Part III, Questions 3.1- 3.7
Peer Low Cost • Variable elements as presented in Table 2.2	5-point ordinal scale to measure extent of use for each of methods. Range: '1-Never' to '5-All the time'.	Part III, Questions 3.8 - 3.16
Mentor Differentiation • Variable elements as presented in Table 2.2	5-point ordinal scale to measure extent of use for each of methods. Range: '1-Never' to '5-All the time'.	Part III, Questions 3.17 - 3.23

Continued on Next Page...

Table 3.2 – Continued

Variables/Elements	Measure	Question
Mentor Low Cost • Variable elements as presented in Table 2.2	5-point ordinal scale to measure extent of use for each of methods. Range: '1-Never' to '5-All the time'.	Part III, Questions 3.24 - 3.28
Focus Differentiation • Variable elements as presented in Table 2.5	5-point ordinal scale to measure extent of use for each of methods. Range: '1-Never' to '5-All the time'.	Part IV, Questions 4.1 - 4.5
Focus Low Cost • Variable elements as presented in Table 2.5	5-point ordinal scale to measure extent of use for each of methods. Range: '1-Never' to '5-All the time'.	Part IV, Questions 4.6 - 4.11

3.7   Tests for Validity and Reliability

Most of the statistical tests to be applied assume normality of the underlying data. Two measures commonly used to measure normality (or deviation from it) are skewness and kurtosis. Skewness measures the symmetry that a distribution has about its centre point. The skewness of a normal distribution is zero, with positive values indicating data is skewed to the right (right tail is longer than left), and negative values, skewed left.

On the other hand, kurtosis measures whether the data is peaked or flat, relative to a normal distribution. Large values for the kurtosis measure indicates data distributions with high distinct peaks near the mean, followed by rapid decline and heavy tails. Low values indicate flat tops near the mean, the uniform distribution being an extreme case. Large values for kurtosis and skewness indicates underlying distributions that are not

normal, and may need to be transformed first before being used. For skewness, values of two standard errors of skewness or more (positive or negative) are typically not within the expected range of chance fluctuations for assumptions of normality. The standard error of skewness (SES) can be estimated from Equation 3.4 (Tabachnick and Fidell, 1996),

$$SES = \sqrt{\frac{6}{N}} \tag{3.4}$$

where N is the population sample. The acceptable range for SES, AR_S, is therefore,

$$-2(SES) \leq AR_S \leq 2(SES) \tag{3.5}$$

For Kurtosis, normal distributions produce a Kurtosis of approximately zero. The Kurtosis statistic, increasing positively from zero, signifies a leptokurtic distribution (with a tall peak), while negative departure indicates a platykurtic distribution (with a flat peak). Values of two standard errors of kurtosis or more (positive or negative) are typically not within the expected range of chance fluctuations for assumptions of normality. The standard error of kurtosis (SEK) can be estimated from Equation 3.6 (Tabachnick and Fidell, 1996)

$$SEK = \sqrt{\frac{24}{N}} \tag{3.6}$$

where N is the population sample. The acceptable range for SEK, AR_K, is, therefore,

$$-2(SEK) \leq AR_K \leq 2(SEK) \tag{3.7}$$

Two types of validity were tested: content and criterion validity. Content validity is ensured by reviewing the literature for the items contained in the questionnaire. An emphasis has been placed on the small business and informal sector business literature.

Criterion validity was estimated by use of correlations between the objective and subjective items utilized in the scales representing the five dimensions. It was expected that within each dimension the correlations between items will be positive and significant (Pertusa-Ortega, Claver-Cortes and Molina-Azorin, 2009).

Reliability may be defined as the extent to which a set of items in the research instrument, measures the respective unidimensional latent construct. Cronbach's (1951) coefficient, α, has been widely used and is adopted in this study. Cronbach's α measures the internal consistency when several items are used to measure the same construct, and varies from 0 to 1, with higher scores indicating higher internal consistency between the items, and by extension higher reliability. In other words, it measures the extent to which a set of respondents provide consistent answers to similar items (van Eden, Vivies, and Venter, 2008).

Nunnally (1978) suggested, as a rule of thumb, that scores in the ranges 0.5-0.6, 0.6-0.7, 0.7-0.8, and 0.8-0.9, should be considered to have an internal consistency that is poor, questionable, acceptable or good, respectively. Values above 0.9 represent excellent internal consistency, while values less than 0.5 are considered to be unacceptable. It is worth noting that several researchers have observed that Cronbach's α tends to *underestimate* internal consistency (Novick and Lewis, 1967), and therefore data yielding lower values may still be useable.

3.8   Data Analysis

3.8.1   Descriptive Statistics and Tests for Generality of the Proposed Generic Strategies

Descriptive statistics were first used to provide demographic perspectives on the sampled population. This was followed by tests to establish the generality of the proposed generic business strategies across gender (male/female) and sector (manufacturing/agro-food processing). Recall that generic strategies were defined as broad categorizations of strategic choice, generally applicable regardless of industry, organisation type or size (Herbert and Deresky 1987). The 28 generic strategies in the proposed IS/MSE model were tested for general applicability across sub-sectors (manufacturing and agro-food processing) and gender (male/female) using binary logistic regression analysis.

The binary logistic model may be expressed as (Equation 3.8)

$$log\left(\frac{\pi}{1-\pi}\right) = \alpha + \beta_1 X_1 + \beta_2 X_2 + ... + \beta_k X_k + \varepsilon \qquad (3.8)$$

where π is the probability that the observed variable meets a stated condition. The term $\pi/(1-\pi)$ is referred to as the odds, and is the ratio between the probabilities of the observed variable meeting a stated condition, to it not meeting the condition, respectively. The dependent variable in Equation 3.8 is referred to as the log odds, and can take on values from negative to positive infinity. Estimation of the model values was carried out using the maximum likelihood technique (Hosmer and Lemeshow, 1989), which for large samples yields regression coefficients that are approximately normal, making significance testing of each coefficient via z-test possible (DeMaris 1995).

The maximum likelihood technique is used where obtaining closed form solutions for the coefficient values is not possible. The technique employs an interactive approach, starting with an initial guess, and revising it using approaches such as Newton's method, until the process converges to a final solution. To reduce the likelihood of non-convergence, a general rule of thumb is that logit regression models should have at least 10 events per predictor variable (Peduzzi et al, 1996). The significance of the individual predictors $exp(\beta_i)$ is assessed using the likelihood ratio test.

In the context of this study, application of this approach was done by dummy coding each of the variables (business strategies) for each IS/MSE either as a '1' if they applied the strategy or a '0' if they did not. A business is assumed to apply the particular strategy if the respondent gave it a score of 4 (frequently) or 5 (all the time), when answering the question 'how often do you use each of the following strategies?'. The dependent variable was also dummy coded. When testing for generality across genders, a '1' was used to represent male owner/manager businesses, and '0' female. Similarly for testing of the generality vis-a-vis sector, an enterprise was code '1' if in manufacturing and '0' if in agro-food processing. Ordinary least squares (linear regression) could have been used as presented in Equation 3.9

$$\pi = \alpha + \beta_1 X_1 + \beta_2 X_2 + ... + \beta_k X_k + \varepsilon \tag{3.9}$$

However, use of ordinary least squares (OLS) for modeling probabilities presents three main challenges (Demaris, 1995). First, use of the OLS can lead to predicted probabilities outside the limits of 0 and 1. In addition, the pseudo-isolation condition that requires the predictors to be uncorrelated to the error term is violated when using OLS with binary dependent variables. Finally, because the error variance is $\pi(1-\pi)$, the error term is inherently heteroskedastic in that π and the error variance vary with the values of the predictors. Presence of heteroskedasticity may invalidate numerous statistical tests of significance employed in regression analyses, as they assume that the modeling errors are uncorrelated, normally distributed and that their variances do not vary with the model parameters.

3.8.2 Hypotheses Testing

Hypothesis testing was used to address the specific objectives presented in Chapter 1. As was stated at the end of Chapter 2, four hypotheses are put forth. Despite the extensive use of hypothesis testing methods in the social sciences, they have had their fair share of criticisms, mainly due to their failure to differentiate between informative and non-informative tests, as well as their lack of information on if the magnitude of the population parameters are important to the questions being posed, despite them being found to be significant from calculation of their p-values (Bomet and Wright, 2007). Non-informative hypothesis tests do not provide new information regarding parameter values that are being studied. For example many tests that compare difference between means or other statistic using t-tests, F-tests (in ANOVA for example) and chi-square tests (for example independence, goodness of fit) do not provide new information about the means themselves. Further, although the tests may confirm a difference, they fail to provide information on the magnitude of that difference and with what level of confidence that difference is determined.

Use of confidence intervals, however, provide an opportunity to address these inherent weakness in the sole use of t-tests, F-tests and chi-square tests. Confidence intervals are a range of values (interval) that provide a good estimate of the unknown population parameter of interest. The confidence level of a confidence interval indicates the

probability that the confidence interval contains the actual population parameter, given a distribution of samples. Levels of confidence are usually taken at 95%. The same was adopted in this study. Further, whereas hypothesis tests provide information on the direction differences in population means (as an example), confidence intervals yield both direction and magnitude differences. A two-side confidence interval is formed by a lower and upper limit that seeks to capture the true value of a population parameter at a specified level of confidence. This study therefore adopted both the use of traditional tests for hypothesis testing, and the use of confidence intervals to facilitate a deeper understanding, and therefore richer interpretation of the results.

3.8.2.1 Approach for Testing of Hypothesis 1

Hypothesis 1 sought to determine the extent of membership of the enterprises in the different strategic groups as defined by the IS/MSE typology. This was achieved by establishing the extent of use of the business activities as defined within each of the strategic groups, are adopted more by members of the strategic group than by non-members.

Dummy coding schemes for the independent (predictor) variables and linear regression techniques were used to determine the extent of the differences. This approach finds use where analysis involves nominal (categorical) variables, with groups of unequal sizes. In dummy coding, a '1' is used to indicate that a business is a member of a group and a '0' if not. The regressed variables (predictors), x_{ki}, therefore, are arrays consisting of only '0s' and '1s'. The dependent variable is coded as the deviation of the dependent variable of interest from the mean of a comparison group. For hypothesis 1, the dependent variable, δS_i, thus becomes the difference in the average score of member businesses employing the business strategies of the member group of interest, and the average score of the non-members as defined by

$$\delta S_i = S_i - \frac{\sum_{j=1}^{N_{nm}} S_{nmj}}{N_{nm}} \qquad (3.10)$$

where δS_i, S_i, S_{nmj}, and N_{nm} are the deviation of the activities score of the ith enterprise from the mean score of non-members, activities score of the ith enterprise, activities score of the jth non-member, and the number of non-members, respectively.

The activities score, S_i, is formed from the sum of the perception ratings provided by each business for the extent of their use of activities belonging to each of the strategic groups and defined as

$$S_i = \sum_{k=1}^{N_a} s_{ik} \tag{3.11}$$

where N_a and s_{ik} are the number of activities in a particular strategic group, and the ith enterprises perception score for each activity in that strategic group, respectively. The linear regression equation takes on the form,

$$\delta S_i = \beta_0 + \beta_1 x_{1i} + \varepsilon \tag{3.12}$$

where the regression coefficients, β_1, represent the difference in the activities score between the strategic group of members and the score of the non-members (the comparison group). They provide an indication to what extent the mean values of the strategic group members are larger or smaller than the comparison group and level of significance. Further, x_{1i} is an dummy array with '1' indicating that enterprises is a member of the strategic group, and '0' if a non-member.

3.8.2.2 Approach for Testing Hypotheses 2, 3 and 4

Dummy coding schemes for the independent (predictor) variables and linear regression techniques were used to compare performance from the various strategic groups through hierarchal regression models to test hypotheses 2, 3 and 4. This approach finds use where analysis involves nominal (categorical) variables, with groups of unequal sizes. In dummy coding, a '1' is used to indicate that a business is a member of a group and a '0' if not. The regressed variables (predictors), x_{ki}, therefore, are arrays consisting of only '0s' and '1s'. The dependent variable, Y_i, is coded as the deviation of the dependent variable of interest from the mean of a comparison group. For example, if considering the business performance of enterprise i as compared to those enterprises stuck-in-the-middle, the dependent variable becomes the deviation of the business performance enterprise i from the mean business performance of the stuck-in-the-middle group, that is,

$$\delta Y_i = Y_i - \frac{\sum_{j=1}^{N_c} Y_{cj}}{N_c} \tag{3.13}$$

where δY_i, Y_i, Y_{cj}, and N_c are the deviation of the ith dependent variable of interest from the mean of a comparison group, i^{th} dependent variable of interest, dependent variable of jth comparison group member, and number of members of comparison group, respectively. Business performance is formed from a combination of nominal revenue (R), age (A), and number of employees (N_e) as presented in Equation 3.14.

$$Y_i = R_i + log_e(A_i) + log_e(N_{ei}) \tag{3.14}$$

Use of natural logarithm for both age and employee variables has been shown to yield better regression results, and is therefore adopted here (Pertusa-Ortega, Claver-Cortes and Molina-Azorin, 2009; Rand and Torm, 2012). The linear regression equation takes on the form,

$$\delta Y_i = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + ...\beta_k x_{ki} \tag{3.15}$$

where the regression coefficients, β_k, represent the difference between the group of interest and the comparison group. They provide an indication to what extent the mean values of the group of interest are larger or smaller than the comparison group. For data analysis, the R-Statistical Package version 3.0.0 was used. A summary of the hypotheses and statistical methods used is provided in Table 3.3.

Table 3.3: Summary of Hypotheses and Statistical Methods
Used

Hypothesis	Data Analysis
H_1: The new IS/MSEs CBS typology can serve as determinants of strategic group membership among manufacturing IS/MSEs.	Dummy coding and linear regression on the difference in activity scores between strategic group members and non-members.
H_2: Manufacturing IS/MSEs employing pure strategies in the new typology will lead to better performance.	Dummy coding and linear regression on the difference in performance between strategic group members and those stuck-in-the-middle.
H_3: Manufacturing IS/MSEs employing mixed strategies in the new typology will lead to better performance.	Dummy coding and linear regression on the difference in performance between strategic group members and those stuck-in-the-middle.
H_4: Manufacturing IS/MSEs employing pure/mixed strategies in the new typology will perform better than those employing pure/mixed strategies in Porter's typology.	Dummy coding and linear regression on the difference in performance between IS/MSE strategic group members and Porter strategic group members.

Source: Author

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CHAPTER FOUR
DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents the results from the study, followed by discussion. First, a presentation is made on the tests done to establish the reliability and validity of the collected data. This is followed by a description of the demographics of the entrepreneurs that constituted the population sample.

Next, a the ranking of the business activities within the IS/MSE model is presented, followed by the results from binary logistic regressions to establish the independence of the activities to gender or sector. The latter is important as independence is one of the core tenets of generic strategies. The chapter concludes with results from the testing of the four hypotheses. In total 239 complete surveys were returned, giving a response rate of 100%. Figure 4.1 and 4.2 displays images from two of the sampled businesses.

Figure 4.1 – Metal Fabrication of Suitcases from a Vendor in Gikomba, Nairobi

Figure 4.2 – Wood Furniture Products from a Sampled Vendor Along Ngong Road, Nairobi

4.2 Reliability and Validity of Data

Several tests for reliability and validity were performed to ensure usability of the collected data. For ease of presentation, each of the construct items within the two models has been provided with a code. The codes and the corresponding items are presented in Table 4.1 for the IS/MSE model and Table 4.2 for Porter (1980)'s Model. Subsequent tables will refer to the codes.

Table 4.1: Coding of IS/MSE Typology Activities

Code	Activity
3-1	I work with other small businesses to develop new products that we can both then produce ourselves and sell

Table 4.1 – Continued

Code	Activity
3-2	I work with other small businesses to solve problems that each of us face
3-3	I get together with other small businesses to borrow money in support of my business
3-4	I work with other small businesses and share specialised labour that I may not need all the time
3-5	I work with other small businesses to solve problems that both of us face
3-6	I get together with other small businesses to purchase raw materials for our businesses in bulk to lower our costs
3-7	I work with a group of small businesses where we support each other by buying each others products or referring clients to them for products I do not have
3-8	I share workspace or specialised equipment with other small businesses
3-9	I get together with other small businesses to submit joint quotations for business from the Government
3-10	I work with larger businesses to help me brand my products
3-11	I work with larger businesses to get new technologies to help me develop new products
3-12	I work with larger businesses to help me get finance or credit to run my business

Table 4.1 – Continued

Code	Activity
3-13	I have obtained training as part of my relationship with larger businesses
3-14	I work with large businesses to get new technologies to lower my production costs
3-15	I work with large businesses to get new lower cost raw materials for my business
3-16	I have been sub-contracted by larger businesses as part of a large sale
3-18	Through my membership, I am able to get credit or low cost loans
3-19	Through my membership, I have learnt new about new technologies that have helped me develop new products
3-20	Through my membership, my products have been marketed for me, increasing my sales
3-21	Through my membership, I have been able to maintain quality of my products
3-22	Through my membership, I have been able to get competitive pricing for my products
3-23	Through my membership, I have been able to get additional training that has helped me develop new products
3-24	Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products

Table 4.1 – Continued

Code	Activity
3-25	Through my membership, I have been able to get additional training that has helped me lower the cost of producing my products
3-26	Through my membership, I have been able to exchange ideas with other business owners that has helped me lower the cost of my products
3-27	Through my membership, I have been able to obtain lower cost raw materials
3-28	Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products

Source: Author

Table 4.2: Coding of Porter (1980) Typology Activities

Code	Activity
4-1	I make sure that my products can be distinguished from those of my competitors so as to increase sales
4-2	I continuously come up with new products to offer my customers so I can be a step ahead of my competition
4-3	I buy raw materials used to manufacture my products from the same set of suppliers
4-4	I try to target my products to a particular type of customer
4-5	I focus on only a small number of different products

Continued on Next Page. . .

Table 4.2 – Continued

Code	Activity
4-6	I change my source of raw materials to the supplier who will give me the lowest price at the time of order
4-7	I try to make sure that my selling price of my products are lower than those offered by my competitors
4-8	I try to make sure I reduce wastage during my manufacturing process so I can offer my customers lower prices and beat my competition
4-9	I try to make sure that I reduce wastage during my manufacturing process so I can make more profit
4-10	I try to improve my manufacturing process so that I can use less material or be able to produce my products quicker
4-11	When I hire employees, I look for those who already have experience

Source: Author

4.2.1   Data Validity

Tests for Skewness and Kurtosis for all the items are presented in Table 4.3. For skewness, values of two standard errors of skewness or more (positive or negative) are typically not within the expected range of chance fluctuations for assumptions of normality, and therefore not present any problems associated skewness. The standard error of skewness (SES) can be estimated from Equation 4.1 (Tabachnick and Fidell, 1996),

$$SES = \sqrt{\frac{6}{N}} \tag{4.1}$$

where N is the population sample. The expected range for skewness is therefore,

$$-2(SES) \leq ExpectedRange \leq +2(SES) \qquad (4.2)$$

For this study, the sample population is 239, yielding an SES of 0.158 and therefore the expected range of ±0.316. Most values fall between this range with a few outliers at -0.577 to +0.377. Items that exceed the expected range are 3-2, 3-3, 3-4, 3-7, 3-22, 3-14, 3-15, 4-7, 4-8, 4-9, 4-10 and 4-11. For these items, however, the deviations are small still within an acceptable range.

Table 4.3: Summary Statistics and Measures of Kurtosis and Skewness for Each of the Items Used in the Scales

Code	Mean	St. Dev.	Skewness	Kurtosis
3-1	2.460251	0.7372798	-0.147303195	-0.31855630
3-2	2.564854	0.7354892	-0.577635937	-0.08200092
3-3	2.510460	0.7439500	-0.468314320	-0.27046352
3-4	2.472803	0.6968513	-0.503241507	-0.29627500
3-5	2.456067	0.7197359	-0.322246843	-0.33207698
3-6	2.464435	0.7260104	-0.307035473	0.04884401
3-7	2.418410	0.7507951	-0.379515051	-0.49964275
3-8	2.334728	0.7253564	-0.207716907	-0.51860960
3-9	2.380753	0.7228313	-0.316764640	-0.49988772
3-10	2.347280	0.7281141	-0.312455234	-0.58886182
3-11	2.351464	0.6935386	-0.293155228	-0.50608224
3-12	2.225941	0.7773018	-0.146402358	-0.84275650
3-13	2.171548	0.8043122	0.020809441	-0.81574074
3-14	2.062762	0.8452999	0.090647064	-1.14994072
3-15	1.970711	0.8270505	0.189570834	-1.18587613
3-16	1.979079	0.8766231	0.267195036	-0.98000559
3-17	2.012552	0.5304285	0.013569346	0.60408786
3-18	2.820084	0.7482854	-0.118109300	-0.09069327

Continued on Next Page...

Table 4.3 – Continued

Code	Mean	St. Dev.	Skewness	Kurtosis
3-19	2.866109	0.7092293	-0.300964678	0.46114050
3-20	2.815900	0.7215168	-0.316746665	0.42557294
3-21	2.757322	0.7388518	-0.273077265	0.60592052
3-22	2.723849	0.7269542	-0.383482332	0.45892497
3-23	2.677824	0.6987157	-0.356549687	0.09072526
3-24	2.661088	0.7027799	-0.368421438	0.06933242
3-25	2.602510	0.7425781	-0.387962318	0.23547343
3-26	2.552301	0.7589694	0.025003525	0.27512995
3-27	2.502092	0.7440209	0.054505357	0.37720237
3-28	2.502092	0.7440209	-0.007220698	0.71538419
4-1	3.326360	0.9179442	-0.167935825	-0.47016524
4-2	3.326360	0.8612672	-0.127062586	-0.28576357
4-3	3.338912	0.9017912	0.109249322	-0.46570079
4-4	3.355649	0.9092657	0.182088533	-0.29040990
4-5	3.276151	0.9432958	0.239897730	-0.32130592
4-6	3.301255	0.9310463	0.183802821	-0.15091442
4-7	3.146444	0.9300639	0.367624938	-0.34595742
4-8	3.163180	0.9584564	0.331716521	-0.52139332
4-9	3.121339	0.9559218	0.365774007	-0.39020114
4-10	3.108787	0.9596295	0.355592065	-0.32421434
4-11	3.000000	0.9744639	0.467063088	-0.29522108

Source: Author

Turning to Kurtosis, normal distributions produce a Kurtosis of approximately zero. The Kurtosis statistic increasing positively from zero signifies a leptokurtic distribution (with a tall peak), while negative departure indicates a platykurtic distribution (with a flat peak). Values of two standard errors of kurtosis or more (positive or negative)

are typically not within the expected range of chance fluctuations for assumptions of normality. The standard error of kurtosis (SEK) can be estimated from Equation 4.3 (Tabachnick and Fidell, 1996),

$$SEK = \sqrt{\frac{24}{N}} \qquad (4.3)$$

where N is the population sample. The expected range for SEK is, therefore,

$$-2(SEK) \leq ExpectedRange \leq +2(SEK) \qquad (4.4)$$

For this study, the sample population is 239, yielding an SEK of 0.316 and therefore the expected range of ± 0.634. With reference to Table 4.3, nearly all values fall between this range with a few outliers at peaking at -1.18 indicating distributions that tend towards platykurtic (flatness). Items that exceed the expected range are 3-12, 3-13, 3-14, 3-15 and 3-16. For these items, however, the deviations are still within an acceptable range.

Two additional types of validity where also tested: content and criterion validity. Content validity was done by ensuring that all the items defining the constructs where based on analysis of the literature. Criterion validity was estimated using correlations between the items utilized in the scales defining the constructs in the two models. Criterion validity is established through positive significant correlations. The results from analysis using Pearson's correlations coefficients are presented in Tables 4.4 - 4.7. From the tables, correlations for all items defining the constructs where positive and significant, with p-values < 0.0001 indicating criterion validity.

Table 4.4: Pearson's Correlation Coefficients for Items Defining Peer Differentiation under the IS/MSE Typology

	3-1	3-2	3-3	3-4	3-5	3-6
3-2	0.77					
3-3	0.67	0.82				
3-4	0.61	0.67	0.72			
3-5	0.50	0.57	0.58	0.75		
3-6	0.48	0.47	0.41	0.55	0.69	
3-7	0.39	0.35	0.32	0.42	0.56	0.62

All p-values < 0.0001

Table 4.5: Pearson's Correlation Coefficients for Items Defining Peer Low Cost under the IS/MSE Typology

	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15
3-9	0.77							
3-10	0.65	0.73						
3-11	0.52	0.60	0.70					
3-12	0.42	0.50	0.56	0.65				
3-13	0.38	0.47	0.52	0.52	0.69			
3-14	0.49	0.52	0.55	0.56	0.65	0.78		
3-15	0.46	0.48	0.48	0.53	0.63	0.72	0.80	
3-16	0.41	0.46	0.48	0.52	0.61	0.68	0.76	0.84

All p-values < 0.0001

Table 4.6: Pearson's Correlation Coefficients for Items Defining Mentor Differentiation under the IS/MSE Typology

	3-17	3-18	3-19	3-20	3-21	3-22
3-18	0.29					
3-19	0.28	0.85				
3-20	0.25	0.69	0.79			
3-21	0.21	0.55	0.63	0.73		
3-22	0.19	0.44	0.53	0.62	0.76	
3-23	0.22	0.38	0.49	0.51	0.60	0.72

All p-values < 0.0001

Table 4.7: Pearson's Correlation Coefficients for Items Defining Mentor Low Cost under the IS/MSE Typology

	3-24	3-25	3-26	3-27
3.25	0.63			
3.26	0.45	0.55		
3.27	0.40	0.48	0.63	
3.28	0.42	0.45	0.57	0.70

All p-values < 0.0001

Table 4.8: Pearson's Correlation Coefficients for Items Focus Differentiation under Porter's Typology

	4-1	4-2	4-3	4-4
4-2	0.92			
4-3	0.81	0.82		
4-4	0.69	0.72	0.82	
4-5	0.66	0.70	0.79	0.82

All p-values < 0.0001

Table 4.9: Pearson's Correlation Coefficients for Items Focus Low Cost under Porter's Typology

	4-6	4-7	4-8	4-9	4-10
4-7	0.78				
4-8	0.70	0.81			
4-9	0.69	0.75	0.81		
4-10	0.65	0.66	0.74	0.81	
4-11	0.58	0.65	0.74	0.79	0.84

All p-values < 0.0001

4.2.2 Data Reliability

Cronbach's (1951) coefficient, α, was used to measure the internal consistency of the items used to measure the same construct within both the IS/MSE and Porters models. The coefficient varies from 0 to 1, with higher scores indicating higher internal

consistency between the items, and by extension higher reliability. Nunnally (1978) suggested, as a rule of thumb, that scores in the ranges 0.5-0.6, 0.6-0.7, 0.7-0.8, and 0.8-0.9, should be considered to have an internal consistency that is poor, questionable, acceptable or good, respectively. Values above 0.9 represent excellent internal consistency, while values less than 0.5 are considered to be unacceptable.

With reference to Table 4.10 values of Cronbach's α where calculated for all the constructs in both models. Values ranged from 0.8519 to 0.9502, all within the good or excellent ranges. The items defining the constructs therefore all have high internal consistency, and therefore high reliability.

Table 4.10: Summary Results from Reliability Tests with Cronbach's Alpha on Items Defining Strategic Groups

Strategic Group	Item Codes	No. Items	Alpha	% Downweighted
Peer Differentiation	3-1 to 3-7	7	0.9041	2.93
Peer Low Cost	3-8 to 3-16	9	0.9278	1.26
Mentor Differentiation	3-17 to 3-23	7	0.8885	3.77
Mentor Low Cost	3-24 to 3-28	5	0.8519	1.67
Focus Differentiation	4-1 to 4-5	5	0.9502	3.77
Focus Low Cost	4-6 to 4-11	5	0.9438	3.35

Source: Author

4.3 Demographics of Entrepreneurs from Sampled IS/MSEs

From the 239 sampled businesses, there were 144 (60.25%) males and 95 (39.75%) female owner/managers. Their highest level of education achieved is as presented in Table 4.11. It is worth noting that only a tiny fraction (6.69%) have only secondary education. The majority (53.56%) have a Post-Secondary Diploma with 36.66% a univer-

sity undergraduate degree. The high percentage with a least a post-secondary education is not surprising due to the nature of the businesses sampled. The selected enterprises involving either value-added activities of manufacturing or agro-food processing typically leverage on skills acquired after secondary education.

In addition, the distribution of business activities where broken down into sectors and sub-sectors as shown in Table 4.12, revealing a 50.84% and 49.6% distribution between manufacturing and agro-food processing. Finally, and noteworthy is that *all* the sampled business were members of either a business association (13.4%), or a cooperative (72%), or both (14.6%).

Table 4.11: Distribution of Highest Attained Level of Education

Level of Education	Number	%
Secondary School	16	6.69
Post Secondary Diploma	128	53.56
Undergraduate	90	37.66
Postgraduate	5	2.09
Total	**239**	**100**

Source: Author

Table 4.12: Sample Distribution by Business Activity

Business Activity	Number	%
Metal	58	24.37
Wood	63	26.47
Sub-Total Manufacturing	121	50.84
Continued on Next Page...		

Table 4.12 – Continued

Business Activity	Number	%
Beverages and Juice	34	14.29
Vegetables and Fruits	20	8.40
Cakes and Bakery	19	7.98
Grocer	8	3.36
Others-Agro Processing	36	15.13
Sub-Total Agro Processing	117	49.16
Total	238	100

Source: Author

4.4 Ranking of Competitive Business Activities Employed by IS/MSEs

The IS/MSE Model provides a total of 28 possible business activities that a business can engage in to meet its strategic objectives. Of interest was to determine the popularity of the activities among the IS/MSEs. Two similar approaches were used to determine the ranking: based on percent of businesses using the particular activity, and based on the calculation of a normalized index, nR_i, as given by Equation 4.5

$$nR_i = \frac{A_i}{max(A_{j=1,..,28})} \tag{4.5}$$

where A_i is the number of enterprises employing the ith activity and $max(A_{j=1,..,28})$ is the number of enterprises employing the activity with the highest business uptake. Note that an enterprises is assumed to be utilizing a particular activity if it gave it a rating of 4 or 5 on the Likert scale where 1, 2, 3, 4 and 5 corresponded to never, rarely, occasionally, frequently and all the time, respectively. With a normalized index, therefore, the activity most used by the sampled enterprises will have an index of 1.

The ranked normalized index list of activities employed by the IS/MSEs is provided in Table 4.13. Included therein is also the percentage of business employing that activity.

Table 4.13: Ranked Normalized Indexed List of Activities
Employed by IS/MSEs

Rank	Index	%	Code	Activity
1	1.0000	74.5	3-19	Through my membership, I have learnt new about new technologies that have helped me develop new products
2	0.9663	72.0	3-20	Through my membership, my products have been marketed for me, increasing my sales
3	0.9326	69.5	3-21	Through my membership, I have been able to maintain quality of my products
4	0.9213	68.6	3-18	Through my membership, I am able to get credit or low cost loans
5	0.9157	68.2	3-22	Through my membership, I have been able to get competitive pricing for my products
6	0.8652	64.4	3-23	Through my membership, I have been able to get additional training that has helped me develop new products

Continued on Next Page. . .

Table 4.13 – Continued

Rank	Index	%	Code	Activity
7	0.8539	63.6	3-24	Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products
8	0.8315	61.9	3-25	Through my membership, I have been able to get additional training that has helped me lower the cost of producing my products
9	0.8202	61.1	3-2	I work with other small businesses to solve problems that each of us face
10	0.7640	56.9	3-3	I get together with other small businesses to borrow money in support of my business
11	0.7360	54.8	3-26	Through my membership, I have been able to exchange ideas with other business owners that has helped me lower the cost of my products
12	0.7247	54.0	3-28	Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products

Continued on Next Page...

Table 4.13 – Continued

Rank	Index	%	Code	Activity
13	0.7247	54.0	3-4	I work with other small businesses and share specialised labour that I may not need all the time
14	0.7135	53.1	3-6	I get together with other small businesses to purchase raw materials for our businesses in bulk to lower our costs
15	0.6966	51.9	3-27	Through my membership, I have been able to obtain lower cost raw materials
16	0.6910	51.5	3-5	I work with other small businesses to solve problems that both of us face
17	0.6854	51.0	3-7	I work with a group of small businesses where we support each other by buying each others products or referring clients to them for products I do not have
18	0.6685	49.8	3-1	I work with other small businesses to develop new products that we can both then produce ourselves and sell
19	0.6348	47.3	3-9	I get together with other small businesses to submit joint quotations for business from the Government

Table 4.13 – Continued

Rank	Index	%	Code	Activity
20	0.6124	45.6	3-10	I work with larger businesses to help me brand my products
21	0.5955	44.4	3-11	I work with larger businesses to get new technologies to help me develop new products
22	0.5843	43.5	3-8	I share workspace or specialised equipment with other small businesses
23	0.5337	39.7	3-12	I work with larger businesses to help me get finance or credit to run my business
24	0.4888	34.7	3-13	I have obtained training as part of my relationship with larger businesses
26	0.4663	34.7	3-14	I work with large businesses to get new technologies to lower my production costs
27	0.4494	33.5	3-16	I have been sub-contracted by larger businesses as part of a large sale
28	0.4045	30.1	3-15	I work with large businesses to get new lower cost raw materials for my business

Source: Author

From the table, the following observations can be made. First the most popular business activity was, 'Through my membership (in a business association and/or cooperative), I have learnt about new technologies that have helped me develop new products.' With a normalised index of 1.000, this business activity had a high uptake by 74.5% of the businesses sampled. Further, the top eight employed business activities, leveraged on their business association and/or cooperative memberships in order to improve the enterprises competitive advantage, with number eight having a relatively high uptake of 60%. This outcome finds strong support in the literature where horizontal linkages through associations have been shown to result in reduced transaction costs, faster innovation and problem solving as well as increased market access (Kula et al., 2005; Makombe, 2005; Prasad and Tata, 2010). On the low end of the scale, but still with a respectable uptake > 30% were activities that sought to leverage on collaboration with larger enterprises.

The sampled population consisted of enterprises both in manufacturing and agro-food processing. The popularity of the employed activities were further desegregated between the two sectors, and compared with the overall ranking to establish if there are any major sectoral differences. With reference to Table 4.14, ranking for each of the sectors is provided in comparison with the overall ranking, as well as the percent uptake of each activity by sector. In the table $Rank_O$, $Rank_M$, $Rank_{AF}$, $\%M$, and $\%AF$ refer to the ranking of the overall, manufacturing and agro-food processing sectors, percent uptake in the manufacturing enterprises and percent uptake in the agro-food processing enterprises, respectively. From the results, the differences across sectors, and as compared to the overall ranking are small, except for a few outliers mainly, in the agro-food sector as further illustrated in Figure 4.3.

Table 4.14: Ranked Normalized Indexed List of Activities Employed by IS/MSEs

$Rank_O$	$Rank_M$	% M	$Rank_{AF}$	% AF	Code
1	1	70.3	1	78.8	3-19
2	3	67.8	2	76.3	3-20
3	2	68.6	4	70.4	3-21

Continued on Next Page. . .

Table 4.14 – Continued

$Rank_O$	$Rank_M$	% M	$Rank_{AF}$	% AF	Code
4	6	64.5	3	72.9	3-18
5	4	66.1	4	70.4	3-22
6	5	65.3	7	63.6	3-23
7	9	61.2	6	66.1	3-24
8	7	63.6	8	60.2	3-25
9	8	62.8	9	59.3	3-2
10	11	58.7	11	55.1	3-3
11	12	57.9	14	51.7	3-26
12	10	59.5	19	48.3	3-28
13	14	53.7	12	54.2	3-4
14	17	49.6	10	56.8	3-6
15	13	57.0	21	46.6	3-27
16	15	50.4	13	52.5	3-5
17	15	50.4	14	51.7	3-7
18	18	47.9	14	51.7	3-1
19	19	45.5	18	49.2	3-9
20	20	43.0	19	48.3	3-10
21	23	38.8	17	50.0	3-11
22	21	40.5	21	46.6	3-8
23	21	40.5	23	39.0	3-12
24	24	38.0	24	34.7	3-13
26	25	36.4	25	33.0	3-14
27	26	34.7	26	32.2	3-16
28	27	30.6	27	29.6	3-17

Source: Author, Key: O-Overall; M - Manufacturing; AF- Agrofood

Figure 4.3 – Variation of Business Activity Use Overall and Per Sector Ranking
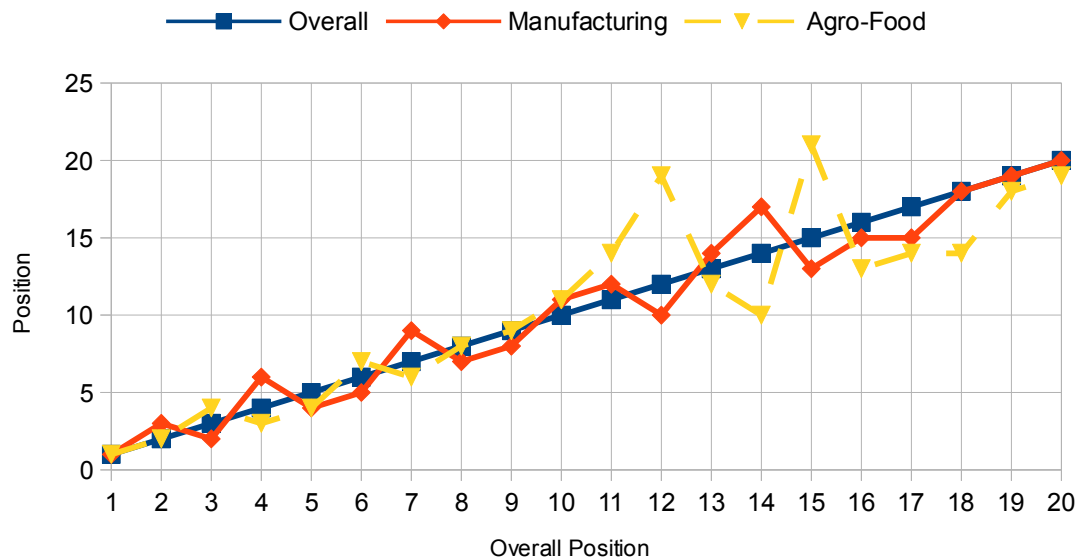
For example, with reference to the figure, looking at item 3-28, 'through my membership, I have been able to exchange my ideas with other business owners that has helped me develop new products', ranked 12th overall, was ranked 10th by the manufacturing sector, but 19th by the agro-food sector. Similar, the other large difference also from the agro-food processing, was item 3-27, 'through my membership, I have been able to obtain lower cost raw materials,' that was ranked 15th overall, 13th for manufacturing, but 21st with the the agro-food processing businesses. Of importance is that the leveraging of membership in business associations or cooperatives for competitive advantage dominate the top of the list of utilised strategies across both sub-sectors. This result further strengthens support for the importance and generic nature (that is general applicability) of the proposed strategies.

4.5 Independence of Competitive Business Activities Adoption Across Gender and Sub-Sector

Generic strategies were previously defined as a broad categorization of strategic choice, generally applicable regardless of industry, organisation type or size (Herbert and Deresky 1987). The 28 items (generic strategies) proposed in the IS/MSE model were tested for general applicability across sector or gender using binary logistic regression. The importance of generally applicability forms the basis of this study. The assessment generality was exploratory in nature in that only two sub-sectors were considered, and only IS/MSEs in Nairobi.

4.5.1 Tests of Independence Competitive Business Activities Adoption to Gender

To test for the independence of gender, the logit model estimated the conditional mean of the latent measure on gender, that is an enterprise owner likely to be male (dummy coded, 1) or female (dummy coded, 0) based on the business activity they pursue. The activities served as predictors in the model. The exponential of the predictor coefficients, $exp(\beta_i)$, is the odds ratio for those in the membership category (in this case males that were coded as 1) versus those not (in this case females).

In the first step, all the predictors (business activities) were included in the model to determine which ones had p-values < 0.2, as a starting point for sequential modeling. With reference to Table 4.15, only activities 3-6 (p=0.134), 3-7 (p=0.172), 3-10 (p=0.110) and 3-12 (p=0.126) met this criteria. These activities now constituted Model I and were again regressed using the logit model onto latent measure.

Table 4.15: Binary Logistic Regression Results for Gender Predictors (Activities) of Inclusion or Exclusion with all Predictors

Code	Estimator	z-value	p-value
3-1	0.1873	0.475	0.635
3-2	-0.5335	-1.047	0.295
3-3	-0.1182	-0.235	0.814
3-4	0.0341	0.075	0.94
3-5	0.3216	0.761	0.447
3-6	0.5993	1.498	0.134
3-7	-0.5486	-1.364	0.172
3-8	0.0360	0.080	0.936
3-9	-0.2521	-0.579	0.562
3-10	0.7111	1.597	0.110
3-11	-0.0057	-0.013	0.989
3-12	-0.6784	-1.528	0.126

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Table 4.15 – Continued

Code	Estimator	z-value	p-value
3-13	-0.3722	-0.778	0.437
3-14	-0.0652	-0.116	0.908
3-15	0.6593	1.274	0.203
3-16	-0.5238	-1.014	0.310
3-18	0.7008	1.258	0.208
3-19	0.0199	0.031	0.975
3-20	0.2391	0.479	0.632
3-21	-0.2091	-0.435	0.664
3-22	0.4834	1.038	0.299
3-23	-0.1577	-0.366	0.714
3-24	-0.1709	-0.445	0.656
3-25	0.2310	0.637	0.524
3-26	0.1732	0.490	0.624
3-27	-0.3636	-0.961	0.337
3-28	-0.4608	-1.209	0.227

Source: Author

With reference to Model I results provided in Table 4.16, the p-values for each of the predictors were now 3-6 (p=0.1025), 3-7 (p=0.1704), 3-10 (p=0.2638) and 3-12 (p=0.0261). Model II was formed by dropping the activity with the highest p-value (lowest statistical significance), activity 3-10, and regressing again. Results of Model II are shown in the same table. Dropping activity 3-10 yield new p-values of 3-6 (p=0.0994), 3-7 (p=0.2756) and 3-12 (p=0.0511). Activity 3-7 is then dropped as has the highest p-value, yielding Model III with new p-values of 3-6 (p=0.1875) and 3-12 (p=0.0327). As 3-6 has statistical significance $p > 0.05$, it is therefore dropped yielding Model IV, which now only remains with activity 3-12 (p=0.0688).

Table 4.16: Model Binary Logistic Regression Results for
Gender Predictors (Activities) of Inclusion or Exclusion

Model No.	Code	Estimator	z-value	p-value
I	3-6	0.5192	1.633	0.1025
	3-7	-0.4473	-1.371	0.1704
	3-10	0.3720	1.117	0.2638
	3-12	-0.7386	-2.225	0.0261
II	3-6	0.5213	1.648	0.0994
	3-7	-0.3372	-1.090	0.2756
	3-12	-0.5791	-1.951	0.0511
III	3-6	0.3744	1.318	0.1875
	3-12	-0.6263	-2.136	0.0327
IV	3-12	-0.5018	-1.820	0.0688

Source: Author

The predictor 3-12 – I work with larger businesses to help me get finance or credit to run my business – was the only one whose statistical significance was $p < 0.1$, and had an odds ratio of $exp(-0.5018) = 0.605$. This means that the odds of those who pursue this business activity being male is 0.605 as large for those who employ this activity as for those who do not. Alternatively this may be viewed as the odds of those who pursue the activity being female are 1.65 times as large as those who do not. The confidence intervals at 95% for the estimator ranged from -1.049 to 0.0337, yielding and confidence interval for the odds ratio of $exp(-1.049) = 0.3502$ to $exp(0.0337) = 1.0343$. This means that the odds of those who pursue this business activity being male range from 0.3502 to 1.0343 as large as those who do not. Better stated, the odds of

those who pursue this activity being female ranges from 0.97 to 2.855 as large as those who do not. Due to the large range, as well as the lower bound indicating that the activity is likely to be carried out by a male (albeit a small likelihood), this activity serves as a weak, but statistically significant discriminator between male and female entrepreneurs.

The model goodness of fit can be quantified by comparing observed variables to the expected values (means) of the variables in a particular category. The likelihood ratio statistic, G, can be used as a measure of goodness of fit and is defined as

$$G = 2 \sum x_o log \frac{x_o}{x_e} \qquad (4.6)$$

where x_o and x_e are the observed variables and expected means, respectively. The sum is taken over all the categories. The likelihood ratio is a non-negative statistic, with smaller values indicating a better fit for a given sample size (Agresti, 1989). Table 4.17 presents the goodness-of-fit measure by the likelihood ratio statistic for the various models of predictors of gender differences on IS/MSE activities. From the table it can be observed that when all predictors are in the model, it results in a relatively large ratio of 25.0713 (p=0.5705). Non-significant predictors were then sequentially removed from the model, resulting in the goodness of fit and the significance of the likelihood ratio statistic progressively improving to 3.3694 (p=0.0664) for final model IV.

The odds ratios for the other 27 business activities were not statistically significant ($p > 0.05$) and therefore did not serve as predictors of gender differences. The business activities, were therefore generally applied, independent of gender.

Table 4.17: Sequential Binary Model Building Summary for Predictors of Gender Differences on IS/MSE Model Activities

Model	Variables in Model	Likelihood Ratio	DoF	Model p-value
0	All	25.0713	27	0.5705
I	3-6, 3-7, 3-10, 3-12	7.5840	4	0.1081
II	3-6, 3-7, 3-12	6.3204	3	0.0970
III	3-6, 3-12	5.1243	2	0.0771
IV	3-12	3.3694	1	0.0664

Source: Author

4.5.2 Tests of Competitive Business Activity Adoption Independence to Sub-Sector

The logit model was also used to estimate the conditional mean of the latent measure on sub-sector, that is, is an enterprise likely to be in manufacturing (dummy coded, 1) or in agro-food processing (dummy coded, 0) based on the business activity the owners chose to pursue, where the activities served as predictors in the model. The exponential of the predictor coefficients, $exp(\beta_i)$, is the odds ratio for those in the membership category (in this case manufacturing enterprises that were coded as '1') versus those not (in this case agro-food processing enterprises code as '0').

In the first step, all the predictors (business activities) were included in the model to determine which ones had p-values < 0.25, as a starting point for sequential modeling. With reference to Table 4.18, only activities 3-6 (p=0.1268), 3-11 (p=0.0376), 3-24

(p=0.2176) and 3-28 (p=0.1686) met this criteria. These activities now constituted Model I and were again regressed using the logit model onto the latent measure.

Table 4.18: Binary Logistic Regression Results for Sub-Sector Predictors (Activities) of Inclusion or Exclusion with all Predictors

Code	Estimator	z-value	p-value
3-1	-0.33661	-0.877	0.3805
3-2	0.43640	0.877	0.3804
3-3	0.23922	0.481	0.6308
3-4	0.07242	0.165	0.8693
3-5	-0.14867	-0.364	0.7161
3-6	-0.59033	-1.527	0.1268
3-7	0.22389	0.583	0.5601
3-8	-0.14282	-0.331	0.7406
3-9	0.14266	0.344	0.7305
3-10	-0.32782	-0.774	0.4392
3-11	-0.86733	-2.079	0.0376
3-12	0.50717	1.181	0.2374
3-13	0.23020	0.492	0.6230
3-14	0.22948	0.432	0.6656
3-15	-0.03857	-0.078	0.9376
3-16	0.16277	0.327	0.7439
3-18	-0.32523	-0.619	0.5362
3-19	-0.27452	-0.456	0.6485
3-20	-0.43635	-0.907	0.3647
3-21	0.23247	0.493	0.6220
3-22	-0.30425	-0.665	0.5062
3-23	0.23066	0.542	0.5879
3-24	-0.46780	-1.233	0.2176
3-25	0.17237	0.485	0.6278
3-26	0.36381	1.052	0.2928

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Code	Estimator	z-value	p-value
3-27	0.24740	0.665	0.5059
3-28	0.51340	1.377	0.1686

Source: Author

With reference to Model I results provided in Table 4.19, the p-values for each of the predictors were now 3-6 (p=0.2278), 3-11 (p=0.1037), 3-24 (p=0.2648) and 3-28 (p=0.0137). Model II was formed by dropping the activity with the highest p-value (lowest statistical significance), activity 3-6, and regressing again. Results of Model II are shown in the same table. Dropping activity 3-6 yield new p-values for 3-11 (p=0.0636), 3-24 (p=0.2289) and 3-28 (p=0.0200). Activity 3-24 becomes the only one with statistical significance $p > 0.05$, and is therefore dropped yielding Model III, where all p-values are now have statistical significance $p < 0.05$.

Table 4.19: Model Binary Logistic Regression Results for Sector Predictors (Activities) of Inclusion or Exclusion

Model No.	Code	Estimator	z-value	p-value
I	3-6	-0.3029	-1.085	0.2778
	3-11	-0.4527	-1.627	0.1037
	3-24	-0.3345	-1.115	0.2648
	3-28	0.7242	2.466	0.0137

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Table 4.19 – Continued

Model No.	Code	Estimator	z-value	p-value
II	3-11	-0.5069	-1.855	0.0636
	3-24	-0.3592	-1.203	0.2289
	3-28	0.6701	2.326	0.0200
III	3-11	-0.55520	-2.057	0.0397
	3-28	0.55359	2.057	0.0396

Source: Author

With reference to Table 4.19, the final model has two statistical significant predictors, activities 3-11 – I work with larger businesses to get new technologies to help me develop new products; and 3-28 – Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products. The predictor 3-11 has an odds ratio of $exp(-0.55520) = 0.5739$. This means that the odds of those who pursue this business strategy being in manufacturing is 0.5739 as large for those who employ this activity as for those who do not. Alternatively this may be viewed as the odds of those who pursue the strategy being in agro-food processing are 1.742 times as large as those who do not. The confidence intervals at 95% level of significance for the estimator ranged from -1.0898 to -0.02969, yielding a confidence interval for the odds ratio of $exp(-1.0898) = 0.3363$ to $exp(-0.2969) = 0.9707$. This means that the odds of those who pursue this business strategy being in manufacturing range from 0.3363 to 0.9707 as large as those who do not. Better stated, the odds of those who pursue this activity being in agro-food processing ranges from 1.0301 to 2.9735 as large as those who do not. This activity, therefore serves as a mild, but statistically significant discriminator between agro-food processing and manufacturing entrepreneurs.

The predictor 3-28 had an odds ratio of $exp(0.55359) = 1.7395$. This means that the odds of those who pursue this business strategy being in manufacturing is 1.7395 as large for those who employ this strategy as for those who do not. The confidence intervals at 95% level of significance for the estimator ranged from 0.02979 to 1.0863, yielding a confidence interval for the odds ratio of $exp(0.02979) = 1.0302$ to $exp(1.0863) = 2.9636$. This means that the odds of those who pursue this business strategy being in manufacturing range from 1.0302 to 2.9636 as large as those who do not. This businesses strategy, therefore serves as a mild, but statistically significant discriminator between agro-food processing and manufacturing entrepreneurs.

Table 4.20 presents the goodness-of-fit measure by the likelihood ratio statistic for the various models of predictors of sub-sector differences on IS/MSE business strategies. From the table it can be observed that when all predictors are in the model, it results in a relatively large ratio of 25.9017 (p=0.5241). Non-significant predictors were then sequentially removed from the model, resulting in the goodness of fit and the significance of the likelihood ratio statistic progressively improving to 7.2124 (p=0.0258) for final model IV.

Finally, the odds ratios of the other 26 business strategies were not significant ($p > 0.05$) and therefore did not serve as predictors of sub-sector differences. The business activities, were therefore generally applied, independent of sub-sector. The tests therefore support the notion that the prescribed business strategies within the IS/MSE typology meet one of the requirements of generic strategies, that is are applicable independent of industry.

Table 4.20: Sequential Binary Model Building Summary for Predictors of Sector Differences on IS/MSE Model Activities

Model	Variables in Model	Likelihood Ratio	DoF	Model p-value
0	All	25.907	27	0.5241
I	3-6, 3-11, 3-24, 3-28	9.9550	4	0.0412

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Table 4.20 – Continued

Model	Variables in Model	Likelihood Ratio	DoF	Model p-value
II	3-11, 3-24, 3-28	8.7729	3	0.0325
III	3-11, 3-28	7.3124	2	0.0258

Source: Author

4.6 Hypotheses Testing

The following sections presents the results from testing of the four hypotheses, each presented under its own sub-heading. In addition, where applicable confidence intervals are also provided.

4.6.1 H_1 : The MSE Typology Can Serve As Determinants of Strategic Group Membership Among Manufacturing IS/MSEs

Hypothesis 1 sought to determine the extent of enterprise membership in each of the different strategic groups as defined by the IS/MSE typology. This was done by establishing the extent of use of the business activities defined in each of the strategic groups by group members, in comparison with non-group members. Clear significant differences between group and non-group members confirm the existence of, and membership in the strategic group. As described in Chapter 3, strategic group membership was tested using linear regression with dummy coding for membership: '1' for members and '0' for non-members. The dependent variable was defined as the difference in the average score of member enterprises employing the businesses strategies of the member group of interest, and the average score of the non-members. Regression results are presented in Table 4.21. The estimators are the regression coefficients and provide an indication to what extent the mean values of the strategic group members are larger (positive number) or smaller (negative number) than the comparison group,

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in addition to the level of significance. From the results of the four tests presented in the table, all members had a significant ($p < 0.0000$) positive difference between members and non-members with mean differences ranging from 0.8722 (for Peer Differentiation) to 1.015 (for per low cost).

Within the same table are values for the Coefficient of Determination, R^2, for each of the tests. R^2 provides a measure of the model fit based on the extent of the observed outcomes being modelled by the regression model. The values indicate the percent of variation in the data captured by the model, and range from 0 (no fit at all) to 1 (a perfect fit). From Table 4.22, R^2 values range from 0.5702 (mentor differentiation) to 0.6652 (peer low cost) inferring that the models provide good fit of the data, capturing between 57% and 66.5% of the variation in the data.

Table 4.22 provide the confidence intervals from the regression at 95% level of confidence. From the table the bounds range from a difference of 0.7754 (peer differentiation) to 1.1071 (peer low cost) on a 1-5 scale, thereby confirming the appreciable difference in scores between members and non-members of strategic groups within the IS/MSE typology. From the presented sets of results, therefore, Hypothesis 1 testing if the IS/MSE typology can serve as determinants of strategic group membership is therefore supported.

Table 4.21: Results Summary from Regression Analysis used to Test Hypotheses 1

Test No.	Strategic Group	Estimator	t-value	p-value	R^2	
1.	Mentor Differentiation	0.9804	17.8	$< 2e\text{-}16$	0.5702	****
2.	Mentor Low Cost	0.8956	18.15	$< 2e\text{-}16$	0.5815	****
3.	Peer Differentiation	0.8722	17.76	$< 2e\text{-}16$	0.5711	****
4.	Peer Low Cost	1.015	21.7	$< 2e\text{-}16$	0.6652	****

Source: Author   Sig. Codes:'****' 0.000, '***' 0.001

Table 4.22 – Confidence Intervals at 95% Confidence Level for Regression Coefficients used for Testing Hypothesis 1

	Coefficient	Lower Bound	Upper Bound
Mentor Differentiation	0.9804148	0.87188011	1.08894951
Mentor Low Cost	0.895631	0.79840231	0.99285983
Peer Differentiation	0.8721852	0.7754594	0.9689110
Peer Low Cost	1.014923	0.92277960	1.10706716

Source: Author

4.6.2 H$_2$: Manufacturing IS/MSEs Employing Pure Strategies in the MSE Typology Will Lead To Better Performance

The study sought to determine the strategies from each of the strategic groups that IS/MSEs employed in order to gain competitive advantage and boost their business performance. From the four strategic groups of mentor differentiation, mentor low cost, peer differentiation, and peer low cost, and depending on which combination of strategies they used, IS/MSEs were categorised as presented in Table 4.23. Expanding on the different possible combinations yields a total of 27 strategy types. An IS/MSE averaging a score of 4 (Frequently) or 5 (All the time) within any of the strategic groups received a 'High' rating; a score of 3 (occasionally) a 'Mid' rating; and a score of 1 (Never) or 2 (Rarely) a 'Low' rating. A similar approach was used by Pertusa-Ortega, Molina-Azorin, and Claver-Cortes (2009).

Table 4.23: Classes of Strategies Derived from the IS/MSE Model

No.	Peer LC	Peer Diff	Men. LC	Men. Diff	Strategy Type
1	High	Low	Low	Low	Pure Peer Low Cost (PEER.LC)
2	Low	High	Low	Low	Pure Peer Differentiation

Continued on Next Page. . .

Table 4.23 – Continued

No.	Peer LC	Peer Diff	Men. LC	Men. Diff	Strategy Type
					(PEER.DIFF)
3	Low	Low	High	Low	Pure Mentor Low Cost (MEN.LC)
4	Low	Low	Low	High	Pure Mentor Differentiation (MEN.DIFF)
5	High	Low	High	Low	Hybrid Low Cost (HYBRID.LC)
6	Low	High	Low	High	Hybrid Differentiation (HYBRID.DIFF)
7	High	High	Low	Low	Hybrid Peer (HYBRID.PEER)
8	Low	Low	High	High	Hybrid Mentor (HYBRID.MENTOR)
9	Low	High	High	Low	2-Dimension Mixed
10	High	Low	Low	High	2-Dimension Mixed
11	High	High	High	Low	Broad hybrid (BROAD.HY)
12	High	High	Low	High	Broad hybrid (BROAD.HY)
13	High	Low	High	High	Broad hybrid (BROAD.HY)
14	Low	High	High	High	Broad hybrid (BROAD.HY)
15	High	High	High	High	Broad hybrid (BROAD.HY)

Table 4.23 – Continued

No.	Peer LC	Peer Diff	Men. LC	Men. Diff	Strategy Type
16-27	Mid/Low	Mid/Low	Mid/Low	Mid/Low	Stuck-in-the-middle

Source: Author

For practical purposes and to facilitate the analysis, the strategic combinations have been grouped into 10 broad strategic types as defined in the table: (i) pure peer low cost, (ii) pure peer differentiation, (iii) pure mentor low cost, (iv) pure mentor differentiation, (v) hybrid low cost, (vi) hybrid differentiation, (vii) hybrid peer, (viii) hybrid mentor, (ix) broad hybrid and (x) Stuck-in-the-middle. These strategy types as defined formed the basis for testing of hypotheses 2-4.

In order to measure performance, the three parameters that formed the performance measure, nominal revenue (R), age (A), and number of employees (N_e), were coded as presented in Tables 4.24 and 4.25. Recall the performance parameter is calculated from Equation 4.7

$$Y_i = R_i + log_e(A_i) + log_e(N_{ei}) \qquad (4.7)$$

Table 4.24: Coding for Annual Revenue

Annual Revenue (Kshs.)	Coding
10,000-50,000	1
51,000-100,000	2
101,000-150,000	3
151,000-200,000	4

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Table 4.24 – Continued

Annual Revenue (Kshs.)	Coding
201,000-250,000	5
251,000-300,000	6
301,000-350,000	7
351,000-400,000	8
401,000-500,000	9
501,000-1million	10
Above 1 million	11

Source: Author

Table 4.25: Coding for Business Age and Number of Employees

Business Age (Yrs)	Coding	No. Employees	Coding
0-2	1	0-5	1
3-7	2	6-10	2
12-8	3	11- 20	3
> 13	4	> 21	4

Source: Author

Based on the coding scheme, the means and standard deviations corresponding to each of the strategy groups are presented in Table 4.26. Also presented therein are the number of enterprises per strategic group. It is interesting to note that the vast majority of

the enterprises, 109, fit within the broad hybrid strategic group and only 28 stuck-in-the middle. Further, business in the peer differentiation group have the highest revenue and have been in existence the longest. Hybrid differentiation, with the second highest revenue and the third highest average age, on average had the largest number of employees.

Testing of Hypothesis 2–within the IS/MSE CBS typology enterprises employing pure strategies leads to better performance than those stuck-in-the-middle, used dummy coding schemes, with linear regression. The regressed variables, therefore, are arrays consisting of only '0s' and '1s'. The dependent variable was coded as the deviation of the performance variable of interest from the mean performance of the 'stuck-in-the-middle' group that served as the comparison group, that is,

$$\delta Y_i = Y_i - \frac{\sum_{j=1}^{N_s} Y_{sj}}{N_s} \tag{4.8}$$

Table 4.26: Mean Values for Revenue, Business Age and Number of Employees for the Strategic Group within the IS/MSE Model. Standard Deviations in brackets

Strategic Group	N	Revenue	Bus. Age	Employees	Perf. Var.
Peer Differentiation	11	7.273	3.455	1.455	8.887
		(2.988)	(0.522)	(0.522)	
Hybrid Differentiation	14	7.214	3.143	1.643	8.856
		(2.833)	(0.663)	(0.842)	
Hybrid Mentor	21	6.810	2.952	1.571	8.344
		(2.839)	(0.590)	(0.598)	
Mentor Low Cost	11	6.727	3.273	1.364	8.223
		(2.339)	0.647	0.505	
Broad Hybrid	109	6.459	3.046	1.587	8.035
		(2.901)	(0.699)	(0.760)	
Peer Low Cost	5	6.800	3.00	1.00	7.899
		(2.713)	(0.000)	(0.000)	

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Table 4.26 – Continued

Strategic Group	N	Revenue	Bus. Age	Employees	Perf. Var.
Mentor Differentiation	21	6.431	3.000	1.429	7.887
		(2.647)	(0.707)	(0.507)	
Hybrid Peer	5	5.000	2.600	1.400	6.292
		(3.464)	(0.548)	(0.548)	
Stuck-in-the-Middle	28	5.077	2.923	1.115	6.258
		(2.96)	(0.744)	(0.319)	
Hybrid Low Cost	5	4.800	3.200	1.200	6.145
		(2.683)	(0.837)	(0.447)	

Source: Author

where δY_i, Y_i, Y_{sj}, and N_s are the deviation of the ith performance variable of interest from the mean of the stuck-in-the-middle group, i^{th} performance variable of interest, performance variable of jth stuck-in-the-middle group member, and number of members in the stuck-in-the-middle group, respectively. The regression coefficients therefore represent the difference between the performance of the group of interest and the that of enterprises in the stuck-in-the-middle group. They provide an indication to what extent the mean values of the group of interest are larger or smaller than the comparison group. In the first step, shown as Model I in Table 4.27 all strategic group members (predictors) were regressed onto their difference from those members stuck-in-the middle to determine which coefficients would be significant. Note that where coefficients are not significant implies there was no statistical difference between that corresponding strategic groups performance and that of enterprises who are stuck-in-the-middle. From Model I, only broad hybrid (p=0.0628), hybrid differentiation (p=0.0523), hybrid mentor (p=0.0908) and peer differentiation (p=0.0645) where significant at $p < 0.1$ level of significance.

Model II dropped the strategic group with the largest p-value from Model I, hybrid peer (p=0.7267) and regressed the remaining variables. With reference to Table 4.27, there is an improvement in the significance of the same four strategic group members: broad hybrid (p=0.0394), hybrid differentiation (p=0.0413), hybrid mentor (p=0.0710) and peer differentiation (p=0.0529). The other strategic groups remain with $p > 0.1$.

Continuing with the sequential modeling, Model III dropped the strategic group with the largest p-value from Model II, hybrid low cost (p=0.6863) and regressed the remaining variables. With reference to Table 4.27, there is an improvement in the significance of the same four strategic group members: broad hybrid (p=0.0237), hybrid differentiation (p=0.0326), hybrid mentor (p=0.0551) and peer differentiation (p=0.0433). The other strategic groups remain with $p > 0.1$. Further sequential modeling to Model IV as shown in Table 4.27 results in a deterioration of the significance of the coefficients in the model. As a result Model III is retained as the final model.

Table 4.27: Results Summary from Hierarchical Regression
Analysis with Dummy Coding to Test Hypotheses 2 and 3

Model No.	Variable	Estimator	t-value	p-value	
I	BROAD.HY	1.1510	1.870	0.0628	*
	HYBRID.DIFF	1.9801	1.951	0.0523	*
	HYBRID.LC	-0.6819	-0.442	0.6586	
	HYBRID.MENTOR	1.5013	1.699	0.0908	*
	HYBRID.PEER	-0.5394	-0.350	0.7267	
	MEN.DIFF	1.0431	1.180	0.2392	
	MEN.LC	1.3926	1.253	0.2113	
	PEER.DIFF	2.0641	1.858	0.0645	*
	PEER.LC	1.1455	0.743	0.4581	
II	BROAD.HY	1.2152	2.072	0.0394	**
	HYBRID.DIFF	2.0444	2.052	0.0413	**
	HYBRID.LC	-0.6177	-0.404	0.6863	
	HYBRID.MENTOR	1.5655	1.814	0.0710	*

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Table 4.27 – Continued

Model No.	Variable	Estimator	t-value	p-value	
	MEN.DIFF	1.1073	1.283	0.2007	
	MEN.LC	1.4568	1.332	0.1841	
	PEER.DIFF	2.1283	1.946	0.0529	*
	PEER.LC	1.2097	0.792	0.4292	
III	BROAD.HY	1.2809	2.277	0.0237	**
	HYBRID.DIFF	2.1101	2.150	0.0326	**
	HYBRID.MENTOR	1.6312	1.928	0.0551	*
	MEN.DIFF	1.1730	1.387	0.1669	
	MEN.LC	1.5225	1.410	0.1598	
	PEER.DIFF	2.1940	2.032	0.0433	**
	PEER.LC	1.2754	0.841	0.4011	
IV	BROAD.HY	1.1582	2.134	0.0339	**
	HYBRID.DIFF	1.9874	2.049	0.0416	**
	HYBRID.MENTOR	1.5086	1.811	0.0714	*
	MEN.DIFF	1.0504	1.261	0.2085	
	MEN.LC	1.3999	1.310	0.1916	
	PEER.DIFF	2.0713	1.938	0.0539	*

Source: Author   Significance Codes: ' ** ' 0.05, ' * ' 0.01

Hypothesis 2–Within the IS/MSE CBS typology IS/MSEs employing pure strategies leads to better performance than those stuck-in-the-middle, investigated the efficacy of adopting pure mentor low cost, pure mentor differentiation, pure peer low cost or pure peer differentiation strategies to improve performance vis-a-vis those enterprises stuck-in-the-middle. With reference to Model III in Table 4.27, only pure peer differentiation

practicing enterprises performed better than those stuck in the middle.

The confidence intervals for the coefficients from Model III are given in Table 4.28. The coefficients represent an averaged difference in performance between the group of interest and the IS/MSE typology stuck-in-the-middle group. For the highlighted groups, the range remains positive indicating consistent superior performance. All four pure strategies remained in Model III. Enterprises employing pure differentiation enjoyed a robust superior performance, with the performance difference with those stuck-in-the-middle ranging from 0.0675 to 4.3209 at a 95% confidence level.

As expected, coefficients that were not significant have negative lower bounds, and positive upper bounds indicating that the difference in performance of the group of interest and the reference group (stuck-in-the-middle) is sometimes above and sometimes below, that is, there is no significant difference. There was no significant difference, therefore between enterprises employing mentor differentiation, mentor low cost and peer low cost when compared to those stuck-in-the-middle. Hypothesis 2 is therefore only marginally supported.

Table 4.28 – Confidence Intervals at 95% Confidence Level for Coefficients of Model III from Hierarchical Regression Analysis with Dummy Coding to Test Hypotheses 2 and 3 with the IS/MSE Stcuk-in used as Performance Reference

	Coefficient	Lower Bound	Upper Bound
BROAD.HY	1.2808814	0.1727628	2.389000
HYBRID.DIFF	2.1100660	0.1765931	4.043539
HYBRID.MENTOR	1.6311997	-0.0355946	3.297994
MEN.DIFF	1.1730158	-0.4937784	2.839810
MEN.LC	1.5225024	-0.6044357	3.649440
PEER.DIFF	2.1939837	0.0670456	4.320922
PEER.LC	1.2754249	-1.7117033	4.262553

Source: Author

4.6.3 H_3 : Manufacturing IS/MSEs Employing Mixed Strategies in the MSE Typology Will Lead to Better Performance

Hypothesis 3 sought to investigate the efficacy of adopting broad hybrid, hybrid differentiation, hybrid low cost, hybrid mentor or hybrid peer strategies to improve per-

formance vis-a-vis those enterprises stuck-in-the-middle. With reference to Model III in Table 4.27, broad hybrid, hybrid differentiation and hybrid mentor practicing enterprises performed better than those stuck-in-the-middle.

The confidence intervals for the coefficients from Model III are given in Table 4.28. The coefficients represent an averaged difference in performance between the group of interest and the IS/MSE typology stuck-in-the-middle group. For the mixed strategies strategies, only broad hybrid, hybrid differentiation and hybrid mentor remained in Model III. Enterprises employing hybrid differentiation enjoyed a robust superior performance, with the performance difference with those stuck-in-the middle ranging from 0.17659 to 4.04354, followed by broad hybrid with performance difference ranging from 0.17276 to 2.389, and finally hybrid mentor with a difference range from -0.03559 to 3.297994, all at a 95% confidence level. Note that though the lower bound for hybrid mentor is negative (-0.03559), it represents a negligible inferior performance lower bound. There was no significant performance difference between enterprises employing the other mixed strategies and those stuck-in-the-middle. Hypothesis 3 is therefore only partially supported. A summary of the results from Hypotheses 2 and 3 is provided in Table 4.29. In the table, '+' indicate where the IS/MSE typology strategic group enterprises performed better than the corresponding enterprises stuck-in-the-middle. Blank cells represent where there was no significant differences in performance. From the results, enterprises adopting any four of the the nine IS/MSE typology strategies, peer differentiation, hybrid differentiation, hybrid mentor and broad hybrid perform better then those stuck-in-the-middle. It is worth noting that these enterprises together represent 155 out of 239 enterprises, or 64.8%. However, there was no significant difference in performance for those enterprises adopting the peer low cost, mentor low cost, mentor differentiation, hybrid peer and hybrid low cost strategies from the IS/MSE typology, as compared to enterprises stuck-in-the-middle. It is worth noting that none of the enterprises stuck-in-the middle performed better than enterprises adopting strategies from any of the IS/MSE typology strategic groups.

Table 4.29 – Summary of Regression Results for Testing Hypothesis 2 and 3

IS/MSE Typology	Number	Stuck-in-the-Middle
Pure Strategies		
Peer differentiation	11	+
Peer low cost	5	
Mentor differentiation	21	
Mentor low cost	11	
Mixed Strategies		
Hybrid peer	5	
Hybrid mentor	21	+
Hybrid low cost	5	
Hybrid differentiation	14	+
Broad hybrid	109	+

Source: Author

4.6.4   H$_4$: Manufacturing IS/MSEs Employing Pure/mixed Strategies in the MSE Typology will Perform Better than those Employing Pure/mixed Strategies in Porter's typology

From Porter's model, it was posited that IS/MSEs could only operate on the focus dimension and therefore adopt pure focus low cost, pure focus differentiation or a combination of the two. A summary of the different strategic groups according to Porter's model are presented in Table 4.30, resulting in 7 classes. For ease of analysis, these have been grouped and reduced to four: pure low cost, pure differentiation, mixed and Porter stuck-in-the-middle. In addition, an IS/MSE averaging a score of 4 (Frequently) or 5 (All the time) within any of the strategic groups received a 'High' rating; a score of 3 (occasionally) a 'Mid' rating; and a score of 1 (Never) or 2 (Rarely) a 'Low' rating. Before testing of Hypothesis 4, the study sought to determine the extent of enterprise membership in each of the different strategic groups as defined by Porter's typology. Similarly to the case for determination of membership in the IS/MSE typology, this was done by establishing the extent of use of the business activities defined in each of the strategic groups by group members, in comparison with non-group members. Clear significant differences between group and non-group members confirm the existence of, and membership in the strategic group. Strategic group membership was tested us-

ing linear regression with dummy coding for membership: '1' for members and '0' for non-members. The dependent variable was defined as the difference in the average score of member enterprises employing the businesses strategies of the member group of interest, and the average score of the non-members.

Table 4.30: Classes of Strategies Derived from the Porter's Model

No.	Focus LC	Focus Diff	Strategy Type
1	High	Low	Pure Low Cost (FOCUS.LC)
2	Low	High	Pure Differentiation (PURE.DIFF)
3	High	High	Mixed (PORTER.MIXED)
4-7	Mid/Low	Mid/Low	Stuck-in-the-middle (PORTER.STUCK)

Source: Author

Regression results are presented in Table 4.31. The estimators are the regression coefficients and provide an indication to what extent the mean values of the strategic group members are larger (positive number) or smaller (negative number) than the comparison group, in addition to the level of significance. From the results of the two tests presented in the table, there was a significant ($p < 0.0000$) positive difference between members and non-members with mean differences ranging from 0.3162 (for Porter Differentiation) to 0.9404 (for Porter low cost). Within the same table are values for the Coefficient of Determination, R^2, for each of the tests. R^2 values range from 0.0522 (Porter differentiation) to 0.1946 (Porter low cost) inferring that the models capture between 5.22% and 19.46% of the variation in the data. These figures are substantially below the coefficient of determination values for the IS/MSE models that range from

57.02% to 66.52%. Table 4.32 presents the confidence intervals from the regression at 95% level of confidence. From the table the bounds range from a member - non-member difference of 0.15033 (Porter differentiation) to 1.185 (Porter low cost) on a 1-5 scale, thereby confirming the appreciable difference in scores between members and non-members of strategic groups within Porter's typology. The wide range reflects a smaller general variation between members and non-members than the case for strategic groups defined by the IS/MSE typology whose confidence intervals had a range of of 0.7754 (peer differentiation) to 1.1071 (peer low cost). Although these tests confirm that indeed Porter's typology can also serve as determinants of strategic group membership for the sample population, the results from both the coefficient of determination of the various models combined with those from the calculations of the confidence intervals, suggest that the IS/MSE typology provides a better model of strategic membership for the sample population, than does Porter's model.

Table 4.31: Results Summary from Regression Analysis for Determination of Strategic Group Membership in Porter's Model

Test No.	Strategic Group	Estimator	t-value	p-value	R^2	
1.	Porter Differentiation	0.31624	3.755	0.00021	0.053	****
2.	Porter Low Cost	0.9404	7.567	< 0.00000	0.5815	****

Source: Author   Sig. Codes:'****' 0.000, '***' 0.001

Table 4.32 – Confidence Intervals at 95% Confidence Level for Regression Coefficients used for Testing Hypothesis 1

	Coefficient	Lower Bound	Upper Bound
Porter Differentiation	0.31624	0.15033	0.482156
Porter Low Cost	0.940389	0.6955791	1.1851992

Source: Author

Next, the mean coded values for revenue, number of employees, business age, and performance score (as was defined by Equation 4.7 for both the IS/MSE and Porter typology strategic groups are presented in declining order of the performance score, in Table 4.33. From the descriptive statistics, Porter Low Cost had the highest performance score, followed by peer differentiation, hybrid differentiation, Porter differentiation and hybrid mentor, rounding out the top 5 strategic groups. At the bottom three are IS/MSE stuck-in-the middle, hybrid low cost and Porter stuck-in-the-middle.

Table 4.33: Mean Values for Revenue, Business Age and Number of Employees for the Strategic Group within the IS/MSE and Porter Models. Standard Deviations in brackets

Strategic Group	N	Revenue	Bus. Age	Employees	Perf. Var.
Porter Low Cost	23	7.521	1.487	2.960	9.004
		(2.556)	(1.498)	(1.277)	
Peer Differentiation	11	7.273	3.455	1.455	8.887
		(2.988)	(0.522)	(0.522)	
Hybrid Differentiation	14	7.214	3.143	1.643	8.856
		(2.833)	(0.663)	(0.842)	
Porter Differentiation	20	7.050	1.320	3.114	8.463
		(2.781)	(1.514)	(1.170)	
Hybrid Mentor	21	6.810	2.952	1.571	8.344
		(2.839)	(0.590)	(0.598)	
Mentor Low Cost	11	6.727	3.273	1.364	8.223
		(2.339)	0.647	0.505	
Broad Hybrid	109	6.459	3.046	1.587	8.035
		(2.901)	(0.699)	(0.760)	
Peer Low Cost	5	6.800	3.00	1.00	7.899
		(2.713)	(0.000)	(0.000)	
Mentor Differentiation	21	6.431	3.000	1.429	7.887
		(2.647)	(0.707)	(0.507)	
Porter Mixed	173	6.312	1.392	2.969	7.731

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Table 4.33 – Continued

Strategic Group	N	Revenue	Bus. Age	Employees	Perf. Var.
		(2.913)	(1.505)	(1.271)	
Hybrid Peer	5	5.000	2.600	1.400	6.292
		(3.464)	(0.548)	(0.548)	
Stuck-in-the-Middle	28	5.077	2.923	1.115	6.258
		(2.96)	(0.744)	(0.319)	
Hybrid Low Cost	5	4.800	3.200	1.200	6.145
		(2.683)	(0.837)	(0.447)	
Porter Stuck-in-the-middle	23	5.217	1.043	2.130	5.958
		(3.060)	(1.232)	(1.869)	

Source: Author

Testing of hypothesis 4 was in done in three phases, first using Porter's mixed group as the reference group, second using Porter's pure focussed differentiation as the reference and third using Porter's pure focus strategic group as the reference group. The triple comparisons, ensures validity of the results.

Phase I used Porter's mixed strategic group as the reference group for comparison. Similar to the analysis carried out for Hypothesis 2, dummy coding schemes, and linear regression techniques were used. The regressed variables (the predictors), therefore, are arrays consisting of only '0s' and '1s'. The dependent variable was coded as the deviation of the performance variable of interest from the mean of the performance of Porter's mixed strategic group, that served as the comparison group, that is,

$$\delta Y_i = Y_i - \frac{\sum_{j=1}^{N_{pm}} Y_{pmj}}{N_{pm}} \qquad (4.9)$$

where δY_i, Y_i, Y_{pmj}, and N_{pm} are the deviation of the ith performance variable of interest from the mean of the Porter's mixed strategic group, i^{th} performance variable of interest, performance variable of jth Porter's mixed strategic group member, and number of members in Porter's mixed strategic group, respectively. The regression coefficients therefore represent the performance difference between the group of interest and Porter's mixed strategic group. They provide an indication to what extent the mean values of the group of interest are larger or smaller than the comparison group. Note that where coefficients are not significant implies there was no statistical difference between that corresponding strategic groups performance and that of enterprises who adopted Porter's mixed strategies.

In the first step of phase I, shown as Model I.I in Table 4.34, all strategic group members from both models (predictors) were regressed onto their performance differences from those members from Porter's mixed strategic group. From Model I.I, only broad hybrid (p=0.0440), focus low cost (p=0.0367), hybrid differentiation (p=0.0388), hybrid mentor (p=0.0914) and peer differentiation (p=0.0851) where significant at $p < 0.1$ level of significance.

Model I.II dropped the strategic group with the largest p-value from Model I.I, Porter stuck-in-the-middle (p=0.8873) and regressed the remaining variables. With reference to Table 4.34, there is a marginal improvement in the significance of the same five strategic group members: broad hybrid (p=0.0438), focus low cost (p=0.0364), hybrid differentiation (p=0.0389), hybrid mentor (p=0.0920) and peer differentiation (p=0.0846). The other strategic groups remain with $p > 0.1$.

Continuing with the sequential modeling, Model I.III dropped the strategic group with the largest p-value from Model I.II, hybrid peer (p=0.7553) and regressed the remaining variables. With reference to Table 4.34, there is an improvement in the significance of the same five strategic group members: broad hybrid (p=0.0275), focus low cost (p=0.0350), hybrid differentiation (p=0.0307), hybrid mentor (p=0.0738) and peer differentiation (p=0.0711). The other strategic groups remain with $p > 0.1$. Further sequential modeling to Model I.IV as shown in Table 4.34 results in a deterioration of the significance of the coefficients in the model. As a result Model I.III is retained as the final model.

Table 4.34: Results Summary from Hierarchical Regression Analysis with Dummy Coding to Test Hypothesis 4. Porter Mixed Strategic Group used a Performance Reference.

Model No.	Variable	Estimator	t-value	p-value	
I.I	BROAD.HY	1.2639	2.025	0.0440	**
	FOCUS.DIFF	0.9412	1.190	0.2353	
	FOCUS.LC	1.5170	2.102	0.0367	**
	HYBRID.DIFF	2.1090	2.078	0.0388	**
	HYBRID.LC	-0.7363	-0.479	0.6328	
	HYBRID.MENTOR	1.5057	1.695	0.0914	*
	HYBRID.PEER	-0.4564	-0.296	0.7674	
	MEN.DIFF	0.8977	1.008	0.3145	
	MEN.LC	1.3345	1.207	0.2287	
	PEER.DIFF	1.9205	1.729	0.0851	*
	PEER.LC	1.0403	0.669	0.5041	
	PORT.STUCK	0.1113	0.155	0.8773	
I.II	BROAD.HY	1.2504	2.028	0.0438	**
	FOCUS.DIFF	0.9455	1.199	0.2319	
	FOCUS.LC	1.5155	2.105	0.0364	**
	HYBRID.DIFF	2.0957	2.077	0.0389	**
	HYBRID.LC	-0.7343	-0.478	0.6329	
	HYBRID.MENTOR	1.4904	1.692	0.0920	*
	HYBRID.PEER	-0.4779	-0.312	0.7553	
	MEN.DIFF	0.8879	1.002	0.3176	
	MEN.LC	1.3335	1.209	0.2280	
	PEER.DIFF	1.9191	1.732	0.0846	*
	PEER.LC	1.0179	0.659	0.5105	
I.III	BROAD.HY	1.3064	2.218	0.0275	**
	FOCUS.DIFF	0.9380	1.192	0.2344	

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Table 4.34 – Continued

Model No.	Variable	Estimator	t-value	p-value	
	FOCUS.LC	1.5234	2.121	0.0350	**
	HYBRID.DIFF	2.1532	2.175	0.0307	**
	HYBRID.LC	-0.6795	-0.446	0.6557	
	HYBRID.MENTOR	1.5460	1.796	0.0738	*
	MEN.DIFF	0.9427	1.087	0.2781	
	MEN.LC	1.3906	1.281	0.2016	
	PEER.DIFF	1.9768	1.813	0.0711	*
	PEER.LC	1.0773	0.704	0.4820	
I.IV	BROAD.HY	1.2816	2.341	0.02007	**
	FOCUS.DIFF	1.0428	1.345	0.18006	
	FOCUS.LC	1.4909	2.085	0.03813	**
	HYBRID.DIFF	2.1136	2.193	0.02932	**
	HYBRID.MENTOR	1.5210	1.830	0.06857	*
	MEN.DIFF	0.9209	1.100	0.27255	
	MEN.LC	1.3498	1.272	0.20450	
	PEER.DIFF	1.9265	1.810	0.07168	*

Source: Author   Significance Codes: ' ** ' 0.05, ' * ' 0.01

Hypothesis 4–within the IS/MSE CBS typology IS/MSEs employing mixed/pure strategies leads to better performance than those employing mixed/pure strategies in Porter's framework, investigated the efficacy of adopting IS/MSE typology strategies to improve performance vis-a-vis those enterprises adopting Porter's. Phase I compared the performance of enterprises adopting IS/MSE typology strategies to those enterprises adopting Porter's mixed strategies. With reference to Model I.III in Table 4.34, broad hybrid, hybrid differentiation, hybrid mentor and peer differentiation practicing enter-

prises performed better than those employing Porter's mixed strategies. The confidence intervals for the coefficients from Model I.III are given in Table 4.35. The coefficients represent an averaged difference in performance between the group of interest and the Porter mixed reference group. For the highlighted groups, the range remains positive indicating consistent superior performance. The exception is peer differentiation and hybrid mentor, that have marginal negative lower bounds (-0.1715 and -0.1501, respectively, making the difference negligible) to sizeable upper bounds of 4.1251 and 3.2422, respectively. Enterprises employing hybrid differentiation enjoyed a robust superior performance, with the performance difference with those employing Porter's mixed ranging from 0.2021 to 4.1043, followed by enterprises employing broad hybrid with a performance difference range of 0.14596 to 2.4668, all at a 95% confidence level.

As expected, coefficients that were not significant have negative lower bounds, and positive upper bounds indicating that the difference in performance of the group of interest and the reference group (Porter mixed) is sometimes above and sometimes below. There was, therefore, no significant difference in performance between enterprises employing focus differentiation, hybrid low cost, hybrid peer, mentor differentiation, mentor low cost and peer low cost from the IS/MSE typology with those employing Porter mixed strategies. In Phase II, Porter's focus differentiation strategic group was used as the reference group for comparison. The dependent variable was coded as the deviation of the performance variable of interest from the mean of the performance of Porter's focus differentiation strategic group, that is,

$$\delta Y_i = Y_i - \frac{\sum_{j=1}^{N_{pd}} Y_{pdj}}{N_{pd}} \tag{4.10}$$

where δY_i, Y_i, Y_{pdj}, and N_{pd} are the deviation of the ith performance variable of interest from the mean performance of Porter's focus differentiation strategic group, i^{th} performance variable of interest, performance of jth Porter's focus differentiation strategic group member, and number of members in Porter's focus differentiation strategic group, respectively. The regression coefficients therefore represent the difference between the group of interest and the performance of Porter's focus differentiation strategic group.

Table 4.35 – Confidence Intervals at 95% Confidence Level for Coefficients of Model I.III from Hierarchical Regression Analysis with Dummy Coding to Test Hypothesis 4 with Porter Mixed Strategic Group used as Performance Reference

	Coefficient	Lower Bound	Upper Bound
BROAD.HY	1.3063881	0.1459556	2.4668207
FOCUS.DIFF	0.9380411	-0.6123775	2.4884597
HYBRID.DIFF	2.1531719	0.2020885	4.1042553
HYBRID.LC	-0.6795392	-3.6790887	2.3200103
HYBRID.MENTOR	1.5460106	-0.1501425	3.2421637
MEN.DIFF	0.9427386	-0.7657867	2.6512639
MEN.LC	1.3905680	-0.7490000	3.5301360
PEER.DIFF	1.9767728	-0.1715492	4.1250948
PEER.LC	1.0773202	-1.9366965	4.0913370

Source: Author

The first step of Phase II, is shown as Model II.I in Table 4.36. In this phase all strategic group members from both models (predictors) were regressed onto their performance difference from those enterprises adopting Porter's focus differentiation strategic group. Again, note that where coefficients are not significant implies there was no statistical difference between that corresponding strategic groups performance and that of enterprises who adopted Porter's focus differentiation strategies. From Model II.I, only hybrid differentiation (p=0.04582), focus low cost (p=0.03757) and peer differentiation (p=0.05979) where significant at $p < 0.1$ level of significance.

Model II.II dropped the strategic group with the largest p-value from Model II.I, Porter stuck-in-the-middle (p=0.82415) and regressed the remaining variables. With reference to Table 4.36, there is a negligible change in the significance of the same three strategic group members: hybrid differentiation (p=0.04659), focus low cost (p=0.03773) and peer differentiation (p=0.05944). The other strategic groups remain with $p > 0.1$.

Continuing with the sequential modelling, Model II.III dropped the strategic group with the largest p-value from Model II.II, hybrid peer (p=0.74760) and regressed the remaining variables. With reference to Table 4.36, there is an improvement in the significance of the same three strategic group members, hybrid differentiation (p=0.036627), focus

low cost (p=0.037451), and peer differentiation (p=0.049391); and the addition of one group broad hybrid (0.070303). The other strategic groups remain with $p > 0.1$. Next, Model II.IV dropped the strategic group with the largest p-value from Model II.III, hybrid low cost (p=0.54129) and regressed the remaining variables. With reference to Table 4.36, there is an improvement in the significance of the same four strategic group members: hybrid differentiation (p=0.02613), focus low cost (p=0.04262), peer differentiation (p=0.03821) and broad hybrid (0.03719); and the addition of another strategic group, hybrid mentor (p=0.07480). The other strategic groups remain with $p > 0.1$.

Model II.V dropped the strategic group with the largest p-value from Model II.IV, Porter mixed (p=0.50395) and regressed the remaining variables. With reference to Table 4.36, there is an improvement in the significance of the same five strategic group members: hybrid differentiation (p=0.0232), focus low cost (p=0.0464), peer differentiation (p=0.0427) and broad hybrid (0.0224) and hybrid mentor (p=0.0670). The other strategic groups remain with $p > 0.1$. Further sequential modelling to Model II.VI as shown in Table 4.36 results in a deterioration of the significance of the coefficients in the model. As a result Model II.V is retained as the final model.

Table 4.36: Results Summary from Hierarchical Regression Analysis with Dummy Coding to Test Hypothesis 4. Porter Pure Differentiation Strategic Group used a Performance Reference.

Model No.	Variable	Estimator	t-value	p-value	
II.I	BROAD.HY	1.0496	1.643	0.10175	
	FOCUS.LC	1.8127	2.092	0.03757	**
	HYBRID.DIFF	2.0491	2.008	0.04582	**
	HYBRID.LC	-1.0025	-0.647	0.51858	
	HYBRID.MENTOR	1.3680	1.534	0.12636	
	HYBRID.PEER	-0.4653	-0.301	0.76368	
	MEN.DIFF	0.7295	0.811	0.41846	
	MEN.LC	1.3454	1.214	0.22590	
	PEER.DIFF	2.0976	1.892	0.05979	*

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Table 4.36 – Continued

Model No.	Variable	Estimator	t-value	p-value	
	PEER.LC	1.3973	0.902	0.36819	
	PORT.MIXED	0.4443	0.759	0.44865	
	PORT.STUCK	0.1605	0.222	0.82415	
II.II	BROAD.HY	1.0307	1.631	0.10419	
	FOCUS.LC	1.8064	2.090	0.03773	**
	HYBRID.DIFF	2.0307	2.001	0.04659	**
	HYBRID.LC	-0.9989	-0.646	0.51915	
	HYBRID.MENTOR	1.3461	1.522	0.12935	
	HYBRID.PEER	-0.4952	-0.322	0.74760	
	MEN.DIFF	0.7159	0.799	0.42516	
	MEN.LC	1.3446	1.216	0.22520	
	PEER.DIFF	2.0960	1.894	0.05944	*
	PEER.LC	1.3656	0.887	0.37610	
	PORT.MIXED	0.4397	0.753	0.45205	
II.III	BROAD.HY	1.0925	1.818	0.070303	*
	FOCUS.LC	1.8055	2.093	0.037451	**
	HYBRID.DIFF	2.0918	2.102	0.036627	**
	HYBRID.LC	-0.9374	-0.612	0.541293	
	HYBRID.MENTOR	1.4060	1.629	0.104613	
	MEN.DIFF	0.7758	0.887	0.376069	
	MEN.LC	1.4040	1.290	0.198185	
	PEER.DIFF	2.1533	1.976	0.049391	**
	PEER.LC	1.4222	0.931	0.352589	
	PORT.MIXED	0.4279	0.736	0.462538	
II.IV	BROAD.HY	1.2012	2.096	0.037187	**
	FOCUS.LC	1.7445	2.039	0.042621	**

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Table 4.36 – Continued

Model No.	Variable	Estimator	t-value	p-value	
	HYBRID.DIFF	2.1934	2.239	0.026129	**
	HYBRID.MENTOR	1.5113	1.790	0.074801	*
	MEN.DIFF	0.8870	1.038	0.300383	
	MEN.LC	1.5049	1.401	0.162473	
	PEER.DIFF	2.2466	2.085	0.038212	**
	PEER.LC	1.5076	0.993	0.321782	
	PORT.MIXED	0.3859	0.669	0.503945	
II.V	BROAD.HY	1.2845	2.299	0.0224	**
	FOCUS.LC	1.4297	2.002	0.0464	**
	HYBRID.DIFF	2.2317	2.285	0.0232	**
	HYBRID.MENTOR	1.5486	1.840	0.0670	*
	MEN.DIFF	0.9543	1.126	0.2614	
	MEN.LC	1.5142	1.412	0.1594	
	PEER.DIFF	2.1857	2.038	0.0427	**
	PEER.LC	1.3971	0.927	0.3550	
II.VI	BROAD.HY	1.1503	2.132	0.0341	**
	FOCUS.LC	1.4030	1.967	0.0503	*
	HYBRID.DIFF	2.0954	2.170	0.0310	**
	HYBRID.MENTOR	1.4161	1.708	0.0890	*
	MEN.DIFF	0.8243	0.986	0.3250	
	MEN.LC	1.3802	1.299	0.1952	
	PEER.DIFF	2.0517	1.931	0.0547	*

Source: Author   Significance Codes: ' ** ' 0.05, ' * ' 0.01

Phase II compared the performance of enterprises adopting the IS/MSE typology strategies to the performance of those adopting Porter's focus differentiation strategies. With reference to Model II.V in Table 4.36, broad hybrid, hybrid differentiation, hybrid mentor and peer differentiation practicing enterprises performed better than those employing Porter's focus differentiation strategies.

The confidence intervals for the coefficients from Model II.V are given in Table 4.37. The coefficients represent an averaged difference in performance between the group of interest and the Porter's focus differentiation reference group. For the highlighted groups, the range remains positive indicating consistent superior performance. The exception is hybrid mentor, that has a marginal negative lower bound (-0.1094, making the difference negligible) to a sizeable upper bound (3.2067). Enterprises employing hybrid differentiation enjoyed a robust superior performance, with the performance difference with those employing Porter's focus differentiation ranging from 0.3070 to 4.1565, followed by enterprises employing peer differentiation, with a performance difference range from 0.0724 to 4.2989, and finally broad hybrid with a performance difference range of 0.1835 to 2.3855, all at a 95% confidence level.

As expected, coefficients that were not significant have negative lower bounds, and positive upper bounds indicating that the difference in performance of the group of interest and the reference group (Porter focus differentiation) is sometimes above and sometimes below. There was, therefore, no significant difference in performance between enterprises employing focus differentiation, hybrid low cost, hybrid peer, mentor differentiation, mentor low cost, and peer low cost from the IS/MSE typology with those employing Porter focus differentiation strategies.

Finally, in Phase III, Porter's focus low cost strategic group was used as the reference group for comparison. The dependent variable was coded as the deviation of the performance variable of interest from the mean of the performance of Porter's focus low cost strategic group, that is,

$$\delta Y_i = Y_i - \frac{\sum_{j=1}^{N_{plc}} Y_{plcj}}{N_{plc}} \tag{4.11}$$

Table 4.37 – Confidence Intervals at 95% Confidence Level for Coefficients of Model II.V from Hierarchical Regression Analysis with Dummy Coding to Test Hypothesis 4 with Porter Pure Differentiation Strategic Group used as Performance Reference

	Coefficient	Lower Bound	Upper Bound
BROAD.HY	1.2845094	0.18350920	2.385510
HYBRID.DIFF	2.2317421	0.30697257	4.156512
HYBRID.MENTOR	1.5486337	-0.10943605	3.206704
MEN.DIFF	0.9542886	-0.71571563	2.624293
MEN.LC	1.5142063	-0.59907329	3.627486
PEER.DIFF	2.1856876	0.07240802	4.298967
PEER.LC	1.3971010	-1.57323646	4.367438

Source: Author

where δY_i, Y_i, Y_{plcj}, and N_{plc} are the deviation of the ith performance variable of interest from the mean of the performance of Porter's focus low cost strategic group, i^{th} performance variable of interest, performance of jth Porter's focus low cost strategic group member, and number of members in Porter's focus low cost strategic group, respectively. The regression coefficients therefore represent the difference between the group of interest and the performance Porter's focus low cost strategic group.

The first step, of phase III shown as Model III.I in Table 4.38 all strategic group members from both models (predictors) were regressed onto their difference from those members from Porter's focus low cost strategic group to determine which coefficients would be significant. From Model III.I, only broad hybrid (p=0.0514), hybrid differentiation (p=0.05514), hybrid mentor (p=0.0783) and peer differentiation (p=0.0828) where significant at $p < 0.1$ level of significance.

Model III.II dropped the strategic group with the largest p-value from Model III.I, Porter mixed (p=0.98816) and regressed the remaining variables. With reference to Table 4.38, there is an improvement in the significance of the same four strategic group members: broad hybrid (p=0.0482), hybrid differentiation (p=0.0531), hybrid mentor (p=0.0776) and peer differentiation (p=0.0821). The other strategic groups remain with $p > 0.1$.

Next, Model III.III dropped the strategic group with the largest p-value from Model III.II, Porter stuck (p=0.9005) and regressed the remaining variables. With reference to Table 4.38, there is a marginal improvement in the significance of the same four strategic group members: broad hybrid (p=0.0475), hybrid differentiation (p=0.0530), hybrid mentor (p=0.0775) and peer differentiation (p=0.0816). The other strategic groups remain with $p > 0.1$.

Continuing with sequential modeling, Model III.IV dropped the strategic group with the largest p-value from Model III.III, hybrid low cost (p=0.7114) and regressed the remaining variables. With reference to Table 4.38, there is a further improvement in the significance of the four strategic group members: broad hybrid (p=0.0278), hybrid differentiation (p=0.0416), hybrid mentor (p=0.0589) and peer differentiation (p=0.0680). The other strategic groups remain with $p > 0.1$.

Model III.V dropped the strategic group with the largest p-value from Model III.IV, hybrid peer (p=0.0.7314) and regressed the remaining variables. With reference to Table 4.38, there is a further improvement in the significance of the same four strategic group members: broad hybrid (p=0.0172), hybrid differentiation (p=0.0336), hybrid mentor (p=0.0466) and peer differentiation (p=0.0571). The other strategic groups remain with $p > 0.1$.

Further sequential modeling to Model III.VI as shown in Table 4.38 results in a deterioration of the significance of the coefficients in the model. As a result Model III.V is retained as the final model.

Table 4.38: Results Summary from Hierarchical Regression Analysis with Dummy Coding to Test Hypothesis 4 with Porter Pure Low Cost Strategic Group used as the Performance Reference.

Model No.	Variable	Estimator	t-value	p-value	
III.I	BROAD.HY	1.250640	1.959	0.051391	*
	FOCUS.DIFF	0.800461	0.892	0.373210	

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Table 4.38 – Continued

Model No.	Variable	Estimator	t-value	p-value	
	HYBRID.DIFF	1.986445	1.928	0.055144	*
	HYBRID.LC	-0.572795	-0.369	0.712680	
	HYBRID.MENTOR	1.584997	1.769	0.078309	*
	HYBRID.PEER	-0.572259	-0.366	0.714578	
	MEN.DIFF	1.122488	1.257	0.210041	
	MEN.LC	1.356441	1.213	0.226217	
	PEER.DIFF	1.953659	1.743	0.082765	*
	PEER.LC	0.949289	0.605	0.545789	
	PORT.MIXED	-0.008218	-0.015	0.988155	
	PORT.STUCK	0.090825	0.125	0.900709	
III.II	BROAD.HY	1.24911	1.987	0.0482	**
	FOCUS.DIFF	0.80661	1.016	0.3109	
	HYBRID.DIFF	1.98461	1.944	0.0531	*
	HYBRID.LC	-0.57387	-0.371	0.7113	
	HYBRID.MENTOR	1.58473	1.773	0.0776	*
	HYBRID.PEER	-0.57456	-0.370	0.7115	
	MEN.DIFF	1.12222	1.260	0.2090	
	MEN.LC	1.35559	1.217	0.2249	
	PEER.DIFF	1.95374	1.747	0.0821	*
	PEER.LC	0.94904	0.606	0.5450	
	PORT.STUCK	0.09086	0.125	0.9005	
III.III	BROAD.HY	1.2381	1.993	0.0475	**
	FOCUS.DIFF	0.8102	1.023	0.3074	
	HYBRID.DIFF	1.9739	1.945	0.0530	*
	HYBRID.LC	-0.5724	-0.370	0.7114	
	HYBRID.MENTOR	1.5722	1.774	0.0775	*
	HYBRID.PEER	-0.5920	-0.384	0.7014	

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Table 4.38 – Continued

Model No.	Variable	Estimator	t-value	p-value	
	MEN.DIFF	1.1140	1.257	0.2102	
	MEN.LC	1.3547	1.219	0.2241	
	PEER.DIFF	1.9526	1.749	0.0816	*
	PEER.LC	0.9309	0.598	0.5501	
III.IV	BROAD.HY	1.3081	2.214	0.0278	**
	FOCUS.DIFF	0.8306	1.053	0.2934	
	HYBRID.DIFF	2.0415	2.049	0.0416	**
	HYBRID.MENTOR	1.6418	1.899	0.0589	*
	HYBRID.PEER	-0.5255	-0.344	0.7314	
	MEN.DIFF	1.1836	1.369	0.1724	
	MEN.LC	1.4216	1.299	0.1954	
	PEER.DIFF	2.0176	1.834	0.0680	*
	PEER.LC	0.9933	0.644	0.5205	
III.V	BROAD.HY	1.3629	2.400	0.0172	**
	FOCUS.DIFF	0.8192	1.042	0.2986	
	HYBRID.DIFF	2.0976	2.138	0.0336	**
	HYBRID.MENTOR	1.6968	2.001	0.0466	**
	MEN.DIFF	1.2386	1.460	0.1456	
	MEN.LC	1.4781	1.368	0.1725	
	PEER.DIFF	2.0751	1.912	0.0571	*
	PEER.LC	1.0523	0.687	0.4925	
III.VI	BROAD.HY	1.2713	2.306	0.0220	**
	FOCUS.DIFF	0.8949	1.151	0.2511	
	HYBRID.DIFF	1.9973	2.061	0.0404	**
	HYBRID.MENTOR	1.6036	1.918	0.0564	*
	MEN.DIFF	1.1454	1.370	0.1721	

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Table 4.38 – Continued

Model No.	Variable	Estimator	t-value	p-value	
	MEN.LC	1.3748	1.287	0.1995	
	PEER.DIFF	1.9650	1.833	0.0681	*

Source: Author   Significance Codes: ' ** ' 0.05, ' * ' 0.01

Phase III compared the performance of enterprises adopting IS/MSE typology strategies to the performance of of those adopting Porter's pure low cost strategies. With reference to Model III.V in Table 4.38, broad hybrid, hybrid differentiation, hybrid mentor and peer differentiation practicing enterprises performed better than those employing Porter's pure low cost strategies.

The confidence intervals for the coefficients from Model III.V are given in Table 4.39. The coefficients represent an averaged difference in performance between the group of interest and the Porter low cost reference group. For the highlighted groups, the range remains positive indicating consistent superior performance. The exception is Peer differentiation, that has a marginal negative lower bound (-0.0633, making the difference negligible) to a sizeable upper bound (4.2135). Hybrid differentiation presents a robust superior performance, with the performance difference with Porter's low cost ranging from 0.1645 to 4.031, followed by hybrid mentor with a range of 0.0256 to 3.3679, and then broad hybrid with a range of 0.24416 to 2.4816, all at a 95% confidence level.

As expected, coefficients that were not significant have negative lower bounds, and positive upper bounds indicating that the performance of the group of interest and the reference group (pure low cost) is sometimes above and sometimes below. There was, therefore, no significant difference between focus differentiation, hybrid low cost, hybrid peer, mentor differentiation, mentor low cost, and peer low cost with Porter low cost strategies.

Table 4.39 – Confidence Intervals at 95% Confidence Level for Coefficients of Model III.V from Hierarchical Regression Analysis with Dummy Coding to Test Hypothesis 4 with Porter Pure Low Cost Strategic Group used a Performance Reference

	Coefficient	**Lower Bound**	**Upper Bound**
BROAD.HY	1.3629183	0.24416575	2.481671
FOCUS.DIFF	0.8192498	-0.73030680	2.368806
HYBRID.DIFF	2.0976154	0.16431115	4.030920
HYBRID.MENTOR	1.6967729	0.02563876	3.367907
MEN.DIFF	1.2385890	-0.43254507	2.909723
MEN.LC	1.4781329	-0.65011710	3.606383
PEER.DIFF	2.0751370	-0.06330547	4.213579
PEER.LC	1.0523101	-1.96400298	4.068623

Source: Author

From the results from Phases I - III enterprises adopting the MSE typology strategies of Peer Differentiation, Hybrid differentiation, Hybrid mentor or Broad hybrid perform better then those adopting either pure focus low cost, pure focus differentiation or mixed strategies from Porter (1980)'s typology.

However, there was no significant difference in performance for those enterprises adopting peer low cost, mentor low cost, mentor differentiation, hybrid peer or hybrid low cost strategies from the MSE typology, as compared to enterprises adopting strategies from any of the strategic groups in Porter (1980)'s typology. As a result, Hypothesis 4–within the IS/MSE CBS typology IS/MSEs employing mixed/pure strategies leads to better performance than those employing mixed/pure strategies in Porter's framework, is only partially supported.

CHAPTER FIVE
DISCUSSION OF THE RESEARCH FINDINGS

5.1 Introduction

The general objective of this study was the empirical determination of the extent to which the application of business strategies based on a combination of strategic alliance and competency theories leads to better performance among IS/MSEs as compared to those using strategies based on competency-based theories only. Both competency and strategic alliance theories have been widely used and researched in the literature.

According to Bacharach (1989), the two main criteria that any theory can be evaluated are falsifiability and utility. Falsifiability establishes whether a theory is set up so that it can be empirically refuted. This supports the general consensus in the literature that theories can never be proven, but only disproven. Utility, on the other hand, addresses the usefulness of the theory, that is, a theory may be considered useful if it can both explain and predict. "An explanation establishes the substantive meaning of constructs, variables, and their linkages, while a prediction tests that substantive meaning by comparing it to empirical evidence." (p. 501) The discussion of the research findings are therefore presented in the context of establishing whether the strategies based on the combined use of both competency and strategic alliance theories as embodied in the MSE typology does indeed lead to better performance.

5.1.1 Comparison with Theory

The MSE typology (presented again in Figure 5.1) is anchored on typology theory and based on the three concepts of competency, collaboration and business performance. That is, in order to improve business performance, MSEs may apply strategies that exploit certain competencies (competency theory) and collaborative structures (strategic alliance theory).

The model focusses on five main complex constructs (the ideal types) derived from the three concepts: peer differentiation, peer low cost, mentor differentiation, and mentor low cost and business performance. In addition, recall that in this context peer refers

to collaborative activities carried out within networks and linkages with other MSEs, while relationships with larger enterprises and organisations are referred to as mentors.

The peer differentiation construct advocates leveraging on peer relationships to set an MSE's products and services apart from others in the localised market. The peer low cost construct aims to reduce production and operating costs, and thereby selling costs through peer relationships. The mentor differentiation construct similarly seeks setting an MSE's products and services apart from others through relationships with larger (mentor enterprises). The mentor low cost strategies also partner with larger enterprises to reduce operating and production costs hence ability to pass on the savings to the final customers. Venkatraman and Ramaujam (1986) posit that the business performance construct can be viewed as a subset of the organisational effectiveness. In their view, the narrowest conception of business performance centers on the use of outcome-based financial indicators assumed to reflect the meeting of the economic goals of the firm. A broader conceptualization of business performance may also include emphasis on indicators of operational performance, in addition to indicators of financial performance (Venkatraman and Ramaujam, 1986).

The variables associated with each construct, and that provide measurability where previously presented in Table 2.2 for peer differentiation, peer low cost, mentor differ-

Figure 5.1 – IS/MSE Competitive Business Strategies Typology

Source: Ogot (2012)

160
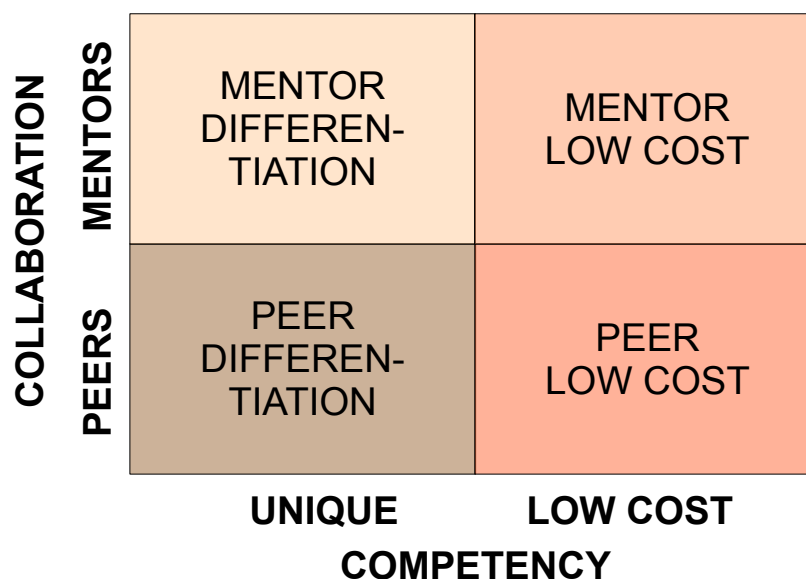
entiation and mentor low cost. The list is by no means exhaustive, nor does their listing preclude removal after empirical testing.

Simonin (1997) states that firms may choose to collaborate in order to accrue benefits that may categorised as tangible or intangible. Examples of tangible include higher profits, increase market share, and strengthened competitive advantage. Intangible benefits may include development of specific competencies or learning new skills. This study focused on tangible benefits, specifically, on improved competitive advantage as manifested in business performance. The variables used to measure business performance were revenue, age and number of employees. Similarly other variables can also be utilised as a measure of the construct. A summary of the Concepts, Constructs and Variables is presented in Table 5.1.

Table 5.1: Summary of Concepts, Constructs and Variables
in the MSE Typology

Construct (Concept(s)/Variables

Construct: Peer Differentiation

(Concepts: Collaboration and Competency)

- Group development of new products
- Quality compliance through producer groups
- Group labour specialization
- Joint problem solving
- Group lending/borrowing

Continued on Next Page...

Table 5.1 – Continued

Construct (Concept(s))/Variables

Construct: Mentor Differentiation

(Concepts: Collaboration and Competency)

- Branding through mentor organisations
- Technology transfer from forward/backward linkages generating new product development
- Access finance and/or credit through forward/backward linkages
- Sub-contracting
- Backward/forward linkages for training
- Backward linkages for specialized inputs
- Access to lower cost finance and/or credit through membership in umbrella organisations (associations) or cooperatives
- Technology transfer through umbrella organisations (associations) generating new product development
- Publicity, quality control, training and/or exchange of ideas through umbrella organisations (associations)

Construct: Peer Low Cost

(Concepts: Collaboration and Competency)

- Group bulk procurement of raw materials
- Group Lending/Borrowing
- Joint problem solving
- Reciprocal business relationships (for example, provision of material support, buying merchandise from each other)
- Sharing of workspaces and specialized equipment
- Participation in group bidding

Table 5.1 – Continued

Construct (Concept(s))/Variables

Construct: Mentor Low Cost

(Concepts: Collaboration and Competency)

- Technology transfer to improve production efficiencies from forward/backward linkages
- Backward/forward linkages for training
- Access to lower cost finance and/or credit through forward/backward linkages
- Backward linkages for low-cost inputs
- Access to lower cost finance and/or credit membership in umbrella organisations (associations) or cooperatives
- Technology transfer to improve production efficiencies from umbrella organisations (associations)
- Access to lower cost raw materials through organisations (associations) who buy in bulk
- Training and/or exchange of ideas through umbrella organisations (associations)

Construct: Business Performance

(Concepts: Competitive Advantage)

- Revenue
- Business Age
- Number of Employees

A complicating assumption found in typologies is the existence of hybrid (combinations) of ideal types (the core constructs). Each of the hybrids forms its own ideal type, and therefore construct. As stated by Doty and Glick (1994), "hybrid types are conceptually and analytically equivalent to the initial ideal types identified in the theory." (p. 241) This study identified a total of 11 hybrid types, coupled with the initial four resulting in a total of 15 ideal types in the MSE typology. These types and the logic of their derivation is provided in Table 5.2. Similarity between an organisation and each

of the initial ideal types is rated based on three groupings of low, medium and high. For this study, determination of rating was drawn from a 5-point likert-type scale. Under each of the core ideal types, high similarity was achieved if a business attained an average score of 4 (Frequently) or 5 (All the time) as relates to carrying out the activities characterising each of the ideal types; a score of 3 (occasionally) was translated to 'Mid' rating on similarity; and a score of 1 (Never) or 2 (Rarely), translated to a 'Low' rating on similarity. A similar approach to determine ideate type validity was used by Pertusa-Ortega, Molina-Azorin, and Claver-Cortes (2009).

Table 5.2: Pure and Hybrid Ideal Types in the MSE Model

No.	Peer LC	Peer Diff	Men. LC	Men. Diff	Ideal Type
1	High	Low	Low	Low	Pure Peer Low Cost (PEER.LC)
2	Low	High	Low	Low	Pure Peer Differentiation (PEER.DIFF)
3	Low	Low	High	Low	Pure Mentor Low Cost (MEN.LC)
4	Low	Low	Low	High	Pure Mentor Differentiation (MEN.DIFF)
5	High	Low	High	Low	Hybrid Low Cost (HYBRID.LC)
6	Low	High	Low	High	Hybrid Differentiation (HYBRID.DIFF)
7	High	High	Low	Low	Hybrid Peer (HYBRID.PEER)
8	Low	Low	High	High	Hybrid Mentor (HYBRID.MENTOR)

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Table 5.2 – Continued

No.	Peer LC	Peer Diff	Men. LC	Men. Diff	Ideal Type
9	Low	High	High	Low	2-Dimension Mixed
10	High	Low	Low	High	2-Dimension Mixed
11	High	High	High	Low	Broad hybrid (BROAD.HY)
12	High	High	Low	High	Broad hybrid (BROAD.HY)
13	High	Low	High	High	Broad hybrid (BROAD.HY)
14	Low	High	High	High	Broad hybrid (BROAD.HY)
15	High	High	High	High	Broad hybrid (BROAD.HY)

Source: Author

The operalization of the variables and corresponding coding were provided in Table 4.1, with items 3-1 to 3-7, 3-8 to 3-16, 3-17 to 3-23, and 3-24 to 3-28 representing the variables defining the peer differentiation, peer low cost, mentor differentiation and mentor low cost, respectively. Content validity was tested using Pearson's correlations between pairs of variables defining each of the constructs. It is expected that for content validity the correlations should be significant and positive. For all pairs, Pearson's Correlation Coefficient ranged between, 0.19 to 0.84, all with significant with p-values < 0.0001.

Of equal importance is the ability of the identified variables defining the constructs yield reliable data after sampling and data collection. This was measured using Cron-

bach's α. For all four constructs, the underlying variables yield Cronbach's α ranging between 0.8519 to 0.9592. Based on the suggested rule of thumb range by Nunnally (1978), these results all ranged between good and excellent, suggesting high internal consistency and therefore high reliability of the data collected based on the chosen variables. A good choice of variables (strategies in our context) should generally be applicable across industry, organisation type or size (Herbert and Deresky, 1989). Despite the limited scope of this study, an initial investigation on the generality of the selected variables was carried. Although the industry size and locations where the same for all sampled business (MSEs in Nairobi) the study allowed evaluation of generalisation across two sub-sectors (Furniture manufacturing and agro-food processing) as well as gender (taken as male and female). Using binary logistic regression, none of the variables served as statistically significant discriminants between male or female owners. Turning to generalisability across sub-sector only two of the 28 variables were statistically significant, albeit mild discriminant, supporting generalisability across subsectors. The odds of an agro-food processing business adopting the strategy defined by variable 3-11 – I work with larger business to get new technologies to help me develop new products, agribusiness processing firms, was significant and 1.742 times higher than for a manufacturing business. Although not precluding the generalisability of the variable, the result does show a preference of it by those in agro-food processing. This may be due to the ease of obtaining small-scale food processing equipment, and the requisite training from vendors (larger enterprises) who are often promoting new equipment, couple with new approaches to food processing. In addition, at the MSE level, new technologies often cost less and easier to have access to through relationships with vendors, than equipment for manufacturing.

Next, the odds of a manufacturing business adopting the strategy defined by variable 3-28 – Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products, was significant and 1.740 times higher than for an agro-food processing business. Although business associations are found across sectors, membership in them was found to be more prevalent among those in manufacturing than agro-food processing, thus explaining the higher odds. As expected from typology theory, the generic nature of the defined strategies was established.

Typology theory further posit propositions that highlight the internal consistency among the dimensions (Concepts) that define each ideal type (Constructs), and their causality on specified levels of the dependant Construct. In other words typologies proposition relationships on the level of similarity between an actual business and an ideal type and impact of that similarity on the dependant construct(s). For this study the propositions were captured in the first three hypotheses. Referring to hypothesis 1,

H$_1$: The MSE typology can serve as determinants of strategic group membership among manufacturing IS/MSEs.

The first hypothesis provided a means to determine the extent to which the businesses sampled are similar (or not) to the defined ideal types. This would form the basis of falsifiability as stated in typology theory. From the testing of the first hypothesis, there were significant differences (all with p< 0.0000) between businesses that were similar or dissimilar to the ideal types, confirming the validity of the proposed ideal types.

The next two hypotheses were stated as:

H$_2$: Manufacturing IS/MSEs employing pure strategies in the MSE typology will lead to better performance.

H$_3$: Manufacturing IS/MSEs employing mixed strategies in the MSE typology will lead to better performance.

These hypotheses were operationalised with the variables previously presented. From the population sample, a majority (109 businesses) had similarity at the high rating level to the Broad Hybrid ideal types, with 28 business dissimilar (low or medium rating across the board) with all the ideal types. This latter group are what Porter (1980) referred to as 'Stuck-in-the-Middle.'

Using Binary logistic regression for the second hypothesis, the extent to which the performance of those members who were similar at the high level to each of the pure strategy ideal types, was compared to the mean performance of those businesses 'stuck-in-the-middle.' From the test results, only those businesses similar to the Peer Differ-

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entiation ideal type where shown to have statistically significantly (p=0.0433) better business performance than those 'stuck-in-the-middle.'

Recall that the business performance construct was operationalised as:

$$Y_i = R_i + log_e(A_i) + log_e(N_{ei}) \qquad (5.1)$$

where R, A and N_e are the variables, nominal revenue, age, and number of employees, respectively. Based on the variable coding that was presented in Tables 4.24 and 4.25, the compound performance variable Y can take on values ranging from a minimum of 2 to a maximum of 13.773. From the binary logistic regression, Peer Differentiation businesses had on average a performance measure larger than those 'stuck-in-the-middle' by 2.194 units, with a confidence interval of 0.0675 to 4.3209 at the 95% confidence level. This result provides support for Hypothesis 2, but only in reference to the Peer Differentiation ideal type.

Businesses similar with a high rating to the other pure ideal types (Peer Low Cost, Mentor Differentiation, Mentor Low Cost) did not exhibit a significant difference in performance with those 'stuck-in-the-middle.' The lack of significance in difference for inferior or superior performance, although not in support of the hypothesis, does not falsify it, leaving room for further investigation of these ideal types. Although Mentor differentation had statistically adequate numbers (21 businesses), the low numbers of businesses similar to the Peer Low Cost (5), may have been statistically too low to achieve meaning full results.

The third hypothesis was also tested using binary logistic regression, to determine the extent to which the performance of those members who were similar at the high rating level to each of the identified hybrid strategy ideal types were to the mean performance of those 'stuck-in-the-middle.' From the test results, those businesses similar to the Broad Hybrid, Hybrid Differentiation and Hybrid Mentor ideal type where shown to have statistically significantly better business performance than those 'stuck-in-the-middle.' From the binary logistic regression, Broad Hybrid businesses had on average a performance measure larger than those 'stuck-in-the-middle' by 1.281 units, with a

confidence interval of 0.1728 to 2.389 at the 95% confidence level. Hybrid Differentiation businesses had on average a performance measure larger than those 'stuck-in-the-middle' by 2.110 units, with a confidence interval of 0.1766 to 4.0435 at the 95% confidence level. Finally, Hybrid Mentor businesses had on average a performance measure larger than those 'stuck-in-the-middle' by 1.6312 units, with a confidence interval of -0.0356 to 3.2980 at the 95% confidence level.

These result provide support for Hypothesis 3 with reference to Broad Hybrid, Hybrid Differentiation, and Hybrid Mentor ideal types. Businesses similar with a high rating to the other hybrid ideal types (Hybrid Low Cost and Hybrid Peer) did not exhibit a significant difference in performance with those 'stuck-in-the-middle.' The lack of significance in difference for inferior or superior performance although not in support of the hypothesis, does not falsify it, leaving room for further investigation for these ideal types. Further, the low numbers of businesses similar to the Hybrid Peer (5) and Hybrid Low Cost (5) may have been statistically too low to achieve meaning full results.

In addition, the following observations can be made from the results from both hypotheses 2 and 3. First, For businesses who had a high similarity rating to the ideal types, and which had a significant performance difference with those businesses 'stuck-in-the-middle', the ideal types involving differentiation on the competency dimension, had higher average performances measures (hybrid differentiation=8.856; peer differentiation=8.887) than the others (broad hybrid=8.035, hybrid mentor=8.344). This seems to imply that differentiation strategies whether pursue solely in collaboration with peers or in combination with peers and mentors result in better performance, than if combined with peer and/or mentor low cost strategies. This is consistent with the basis of differentiation strategies that seek to obtain above average returns by developing unique products and services (Porter 1980). Although low cost strategies may achieve the same, the low margins necessitate high volumes, a requirement that may not be readily achievable due to the micro and small scale nature of the businesses in the population under study.

5.2   Comparison to Other Empirical Studies

The MSE typology is built upon two main concepts of competency and collaboration. Both have strong theoretical underpinnings in the literature with regard to improving

business performance. For example, competency based on the differentiation and low cost leadership constructs was first popularised by Porter (1980, 1985). Low cost leadership is achieved by businesses who are able to operate at lower costs than their competitors, passing on some of the savings to the customer. Success with these strategies tends to come from subsequently being able to achieve high volumes and operate with low margins. Differentiation, on the other hand, seeks to achieve above average returns through products and services that have an element of uniqueness and harder to copy, and where customers are willing to pay more for. They tend to achieve higher margins, therefore, but lower volumes.

A key question is how does one implement either of the two generic strategy constructs. Most of the literature provides approaches that would be more suited to medium or larger companies, who have better control of, and access to resources (Porter, 1980, 1985; Kim, Nam and Stimpert, 2004; Alpkan et al., 2005; Spanos, Zaralis and Lioukas, 2004; Pertusa-Ortega, Claver-Cortes and Molina-Azorin, 2009). Of importance to this study is how can they be implemented by MSEs.

From a resource-based view, strategic alliances will occur when both firms require resources and/or posses valuable resources to share (Eisendardt and Schoonven, 1996). Especially for micro and small businesses who may lack resources, alliances serve as a means for obtaining otherwise unattainable levels of business performance (Das and Teng, 2000; Palakshappa and Gordon, 2007).

Further, firms may join umbrella trade organisations to seek additional resources and capabilities. This becomes even more important for MSEs who lack significant internal resources and capabilities on their own. A close analysis of all the options available to MSE as proposed by the 28 possible strategies within the MSE typology, membership in umbrella trade organisations (categorised under mentor collaborations) came out as the most significant form of collaboration. With reference to Table 5.3, strategies seeking to accrue resources and capabilities from membership in umbrella organisations formed 8 of the top 10 strategies, and the top 8. Clearly, there is a significant importance attached by MSEs to improved competitive advantage through membership. This view is supported by Hardy et al. (2003) who contend that inter-firm collaboration leads to increased collective learning, providing opportunities for development and exchange

of ideas, aspects central to umbrella organisations. A similar outcome was found by Makombe (2005) among Tanzanian women MEs.

Table 5.3: Ranked Normalized Indexed List of Activities Employed by IS/MSEs

Rank	Index	%	Code	Activity
1	1.0000	74.5	3-19	Through my membership, I have learnt new about new technologies that have helped me develop new products
2	0.9663	72.0	3-20	Through my membership, my products have been marketed for me, increasing my sales
3	0.9326	69.5	3-21	Through my membership, I have been able to maintain quality of my products
4	0.9213	68.6	3-18	Through my membership, I am able to get credit or low cost loans
5	0.9157	68.2	3-22	Through my membership, I have been able to get competitive pricing for my products
6	0.8652	64.4	3-23	Through my membership, I have been able to get additional training that has helped me develop new products

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Table 5.3 – Continued

Rank	Index	%	Code	Activity
7	0.8539	63.6	3-24	Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products
8	0.8315	61.9	3-25	Through my membership, I have been able to get additional training that has helped me lower the cost of producing my products
9	0.8202	61.1	3-2	I work with other small businesses to solve problems that each of us face
10	0.7640	56.9	3-3	I get together with other small businesses to borrow money in support of my business

Source: Author

Empirical tests carried out on the MSE typology provides insights into how the typology connects to existing theories, providing insights into the domains of the previous theories, thereby creating new knowledge (Bacharach, 1989). The MSE typology seeks to bridge the gap between competency theory as advocated through Porter's typology, and strategic alliance theories, in the context of micro and small enterprises. This connection in the proposition that MSEs can achieve improved performance through collaborative strategies with their peers and with larger organisations.

To test this proposition, this study sought to compare the business performance of business who sought to seek competencies of differentiation or low cost leadership through

strategies as advocated by Porter (1980) with those who sought the same through the use of a combination of both competency and strategic alliance strategies. Comparisons with Porter allows us to see if the pursuit of collaborations (both peer and mentor) for MSEs indeed leads to superior business performance, as opposed to seeking the same through traditional means. The proposition was thus tested through the following two hypotheses.

H$_4$a: Manufacturing IS/MSEs employing pure strategies in the MSE typology will perform better than those employing pure strategies in Porter's typology.

H$_4$b: Manufacturing IS/MSEs employing mixed strategies in the MSE typology will perform better than those employing mixed strategies in Porter's typology.

The results from testing of hypotheses 4 are summarised in Table 5.4. In the table, '+' indicate where the MSE typology strategic group enterprises performed better than the corresponding Porter strategic group enterprises. Blank cells represent where there was no significant differences in performance. From the results, enterprises adopting the MSE typology strategies of Peer Differentiation, Hybrid Differentiation, Hybrid Mentor or Broad Hybrid perform better then those adopting either pure focus low cost, pure focus differentiation or mixed strategies from Porter's typology.

It is worth noting that three of the four ideal types that exhibited better performance are hybrid or mixed strategy types. This finds support in the literature. For example, studies in support of hybrid, mixed, integrated or combination strategies include Kim, Nam and Stimpert (2004), Spanos, Zaralis and Lioukas (2004), Gopalakrishna and Subramanian (2001), and Proff (2000), all arguing that the pursuit of a single generic strategy may lead to lower performance. Other authors who have shown that combination of low cost and differentiation strategies can be effective in tackling competitive forces, resulting in superior performance include Liao and Greenfield (1997), Beal and Yasai-Ardekani (2000), and Pertusa-Ortega, Molina-Azorin and Claver-Cortes, (2009).

In testing hypothesis 4, however, there was no significant difference in performance for those enterprises adopting peer low cost, mentor low cost, mentor differentiation, hybrid peer or hybrid low cost strategies from the IS/MSE typology, as compared to enterprises adopting strategies from any of the strategic groups in Porter's typology.

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Table 5.4 – Summary of Regression Results for Testing Hypothesis 4

IS/MSE Typology	Number	Focus LC	Focus Diff	Porter Mixed
Pure Strategies				
Peer diff.	11	+	+	+
Mentor diff.	21			
Peer LC	5			
Mentor LC	11			
Mixed Strategies				
Hybrid diff.	14	+	+	+
Hybrid mentor	21	+	+	+
Broad hybrid	109	+	+	+
Hybrid peer	5			
Hybrid LC	5			

Source: Author

Those businesses with better performance, however, represented 155 of 239 or 64.8% of the sampled population. As a result, Hypothesis 4–within the IS/MSE CBS typology IS/MSEs employing mixed/pure strategies leads to better performance than those employing mixed/pure strategies in Porter's framework, received partial support.

It is worth noting that the three low cost ideal types (Peer LC, Mentor LC and Hybrid LC) did not achieve superior performance. This may be due to the difficulty in achieving sufficient volumes to become a low cost leader. In addition, as was previously mentioned, ideal types Peer LC, Hybrid Peer and Hybrid LC each with five similar businesses, may not have had sufficient numbers to provide a statistically valid analysis. In addition, none of the enterprises belonging to any of Porter's strategic groups performed better than enterprises adopting strategies from any of the MSE typology strategic groups. Using Porter's typology as a reference group, those who use collaborative techniques to achieve either differentiation or a combination of differentiation and low cost, had improved performance. The benefits that accrue from the collaborations as defined by the variables seem to have a positive impact on the businesses as measured by better business performance, than their peers.

Temporal and contextual elements that seek to fix boundaries of the application of the

strategies within the MSE typology was also explored. The study population was manufacturing and agro-food processing micro and small enterprises in Nairobi, Kenya. The definition for 'micro' and 'small' was taken from the Government of Kenya in the Micro and Small Enterprises Act (2012) that defines a micro enterprise as a firm, trade, service industry or business activity whose annual turnover does not exceed Kshs. 500,000, and which employs less than ten people. For those in the manufacturing sector, their investment in plant and machinery or its registered capital should not exceed Kshs 10 million. For the service sector and farming enterprises, the investment in equipment or its registered capital should not exceed Kshs. 5 million. Small enterprises, on the other hand, are a firm, trade, service industry or business activity whose annual turnover ranges between Kshs. 500,000 and Kshs 5 million, and which employs between ten and fifty people. For those in the manufacturing sector, their investment in plant and machinery or its registered capital should range between Kshs. 10-50 million. For the service sector and farming enterprises, the investment in equipment or its registered capital should range between Kshs 5-20 million.

These definitions starts to establish the boundaries of applicability and addresses the gap in the literature by establishing generic strategies directly applicable to MSEs. The successful empirical testing of the MSE typology on the study population has demonstrated its applicability to the targeted MSEs. In contrast, Ogot and Mungai (2012)'s study of the suitability of Porter (1980)'s typology to MSEs found that those pursuing either pure or mixed strategies did not perform better than those stuck-in-the-middle, suggesting that the typology may not be directly applicable to MSEs, unlike the MSE Typology as demonstrated by this study. Looking at other empirical studies, elements of the MSE typology were also identified in Prasad and Tata (2010). They found that inter-firm collaboration between silk sari MEs to better understand their customer needs resulted in improved performance. Similarly, Ntseane (2004) found inter-firm collaboration between women MEs in Botswana significantly improved business performance. Both the studies, similar to the current, have shown that strategies that incorporate collaboration may result in improved business performance.

The research findings viewed in the context of other theoretical and empirical studies suggests that the MSE Typology may indeed effectively combine the achievement of competitive advantage as advocated by competency-based theories through the acqui-

sition of needed resources and capabilities via application of strategic alliance theories. This may lead to improved business performance of manufacturing MSEs in the informal sector in Nairobi.

CHAPTER SIX
SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The importance of any study lies in its contribution to knowledge, that is, how the study fits into the existing studies that have been carried out, and to what extent the study provides a better understanding of the subject matter. In addition it should clearly show how it impacts methodology, policy, theory and practice.

These aspects are addressed in this chapter. In addition, limitations of the study, recommendations and suggestions for future work are presented.

6.2 Summary of the Findings

This study sought to determine through empirical validation the extent to which application of collaboration and competency-based strategies within MSE typology leads to improved performance by IS/MSEs. As previously presented, the outcome from this study provides empirical support for the ideal types, and similarity to them (also referred to as strategic group membership) by the MSEs in the study population, thereby addressing the first specific objective of the study.

Empirical tests that sought to achieve the next two objectives, established the following. From the study population, adoption of strategies defined by each of the ideal types does not necessarily lead to better performance than those MSEs who adopt none. Specifically, adoption of Broad Hybrid, Hybrid Differentiation, Hybrid Mentor and Peer differentiation led to better performance. MSE adoption of strategies identified by these ideal types, therefore, should lead to better performance. This provided support to the proposition that collaboration may have provided the businesses with access to additional resources that they may have lacked due to their small size, allowing them to better address threats and take advantage of opportunities available to them. Mentor Differentiation, Peer Low Cost, Mentor Low Cost, Hybrid Peer and Hybrid Low cost did not lead to better performance. These businesses were statistically neither better nor worse than those businesses 'stuck-in-the-middle.' Lack of support for Hybrid

Peer, Hybrid Low Cost and Peer Low Cost may have been due to the low numbers of business that were similar with a high rating to each the ideal types (5 each) which may have affected the validity of the statistics tests.

The final hypothesis compared the strategies in the MSE typology to those found in Porter's typology. The fundamental difference between the MSE typology and Porter's is the emphasis on collaboration as a means to bridge resource and capability deficiencies that an MSE might have. Collaboration may be sought either with peers, or with larger organisations and businesses (mentors). By comparing the business performance of those adopting Porter's strategies vis-a-vis those adopting strategies in the proposed strategy, the effect of collaboration can be quantified. From the results, MSEs adopting strategies defined within the Peer Differentiation, Hybrid Differentiation, Hybrid Mentor or Broad Hybrid ideal types performed better than those adopting low cost, differentiation or mixed strategies under Porter's typology. These results suggest that strategies that incorporate collaboration both with peers and mentors, should lead to superior business performance of MSEs. However, those MSEs adopting Peer Low Cost, Mentor Low Cost and Hybrid Low Cost strategies from the proposed typology did not perform better (or worse) than those adopting Porter's strategies. This may be due to the difficulty in MSEs being low cost leaders due to insufficient sales volumes.

6.3   Conclusion

The study sought to determine the extent to which use of strategies based on combining strategic alliances (collaboration) and competency (differentiation and low cost approaches) can lead to improved performance of MSEs. This is especially critical for a country like Kenya, and most developing countries where MSEs especially those in the informal sector account for 60%-80% of those employed. Many studies have focused on what can be done for the MSEs to improve their capabilities and help them overcome the numerous challenges they face as the seek to grow and prosper.

This study took an alternative approach by focussing on what the MSEs can do in terms of the strategies they adopt to improve their performance. Use of strategies that focus on both improving one's competitive advantage (competency-based strategies) and simultaneously seeking to obtain require resources and capabilities through collaborations with peer and larger firms (strategic alliances) were shown to improve business perfor-

mance. This is important for the target population that face numerous challenges that often hinder their progressive growth to small or medium enterprises, or to provide the necessary incentive for formalisation. The ability to improve business performance by collaboration, especially with peers may seem counter-intuitive given the fact that peers are also competitors. However, the need to mutually acquire resources often overcomes the impulse not to cooperate with competitors, as the mutually acquired resources lead to performance gains for both parties.

In addition, a key outcome of the study was that MSEs that apply in combination multiple strategies as defined by the ideal types, benefit from the synergies that accrue and in general perform better than those who do not. This use of combined, hybrid or mixed strategies finds wide support in the literature.

The study was exploratory in that only MSEs in Nairobi and only in two sub-sectors, wood/metal furniture manufacturing and agro-food processing were investigated. Further studies would therefore need to be done to look at other sub-sectors and geographic locations to determine the extent to which the strategies within the MSE typology are applicable. In addition, aspects of product life cycle, business cycle, and seasonality that play a significant role should also be investigated.

Finally, the study successfully showed using historical data that strategies combining strategic alliance theory and competency based theory correspond to better performance among the MSEs. It would be significant for future work to conduct longitudinal studies to compare MSEs which purposely adopt the strategies with the typology, and those that do not.

6.4   Contribution to Knowledge

The resource-based view states that firms facing similar external environments with similar initial resource endowments should result in similar behaviour and performance. But, firms may also leverage their unique tangible and intangible resources to gain competitive advantage through their internal structures/organisations, strategies and core capabilities (Masakure, Henson and Cranfield, 2009; Kor, Mahoney and Michael, 2007).

Parnell (2006) suggested that continued improvement of generic strategy approaches

alongside or integrated with RBV may provide a balanced perspective of the strategy-performance framework. He proposed a model that reconceptualised generic strategies within a RBV context. His proposed model has two dimensions: Value and Market Control. The value dimension represents the relationship between perceived worth and cost, where a product or service worth is independent of price, and may be directly linked to the needs of one or more targeted customer groups. The Market control dimension incorporates the RBV perspective. It describes the extent to which organisational resources are used to configure the market spaces to be most favourable to the firm. Within Parnells typology, therefore, business strategy may emphasize and operate anywhere along the dimensions value and market control in order to get competitive advantage. His model therefore presents an integration of RBV and generic strategies.

This study has sought to demonstrate that generic strategies that leverage on competency and strategic alliance theories, can lead to better business performance. The studies contribution to knowledge is through demonstration that use of strategic alliances by MSEs to seek resources and capabilities they lack and in combination with use of differentiation and low cost strategies can lead to improved performance.

The study further contributes to knowledge by proposing a revised RBV framework, based on Grant (1991) for strategy formulation that may be more applicable to MSEs. The proposed a framework utilises generic strategy approaches alongside the RBV to provide a balanced perspective of the strategy-performance framework. The collaboration dimension in the MSE typology viewed through a RBV prism, can be seen as a means for MSEs to gain competitive advantage by accessing resources and capabilities they do not have (resource and capabilities gap) from mentors, or in conjunction with peers, resources and capabilities that they may not have or be able to access individually. As earlier presented, Grant (1991) had proposed a five stage procedure for strategy formulation based on the resource-based view: analyzing a firms resource-base, appraising the firms capabilities, analyzing the profit-earning potential of the firms resources and capabilities, selecting a strategy, and finally extending and upgrading the firms pool of resources and capabilities. In other words a firm would develop a strategy based on its identified resources and capabilities.

In the context of the MSE typology and with reference to Figure 6.1, a proposed frame-

work for strategy formulation within the resource-based view framework, and in the context of the MSE typology is presented. Developed from the resource-based view framework of Grant (1991), and supported by the results from this study, the proposed framework is as follows:

  i. An MSE would identify and classify the resources that it has. For the objectives that it seeks to accomplish, the MSE would identify and prioritise resource gaps.

 ii. Simultaneously, an MSE would do the same for its capabilities, identifying and prioritising capabilities gaps.

iii. From the identified gaps in resources and capabilities, an MSE would identify and engage collaborators (both peer and mentor) to fill the gaps, resulting in an augmented set of resources and capabilities.

 iv. The rest of the proposed framework in Figure 6.1 is similar to Grant (1991), except that the proposed model utilises augmented resources and capabilities for steps 3-5. Some resources and capabilities are only present so long as the collaboration is maintained and thus never wholly owned by the MSE. For example, MSEs who come together to share space or tools, or to apply for loans using each other as guarantors, only benefit from those new resources and capabilities as long as they remain together. Augmented is therefore not the same as acquired.

The proposed framework for the first time provides a link between resource-based view theory and typology theory for business competitiveness specifically for MSEs. The framework addresses the previous limitation of Grant (1991)'s framework that has been restricted to mainly medium and large enterprises who have access to and control of significant resources. MSEs typically lack resources, negating the direct applicability of resource-based theory. Incorporating alliance-based theory into the MSE typology and using it as the foundation for development of strategies under a resource-based framework fills the gap in knowledge that has hitherto existed.

6.5 Implication of the Study on Methodology, Policy, Theory and Practice

The outcome of the study provides a framework for policy makers to develop well articulated policies for the improvement of the performance of the sector. The empirically

Figure 6.1 – Resource-Based View Framework for Strategy Formulation within the Context of the MSE Typology
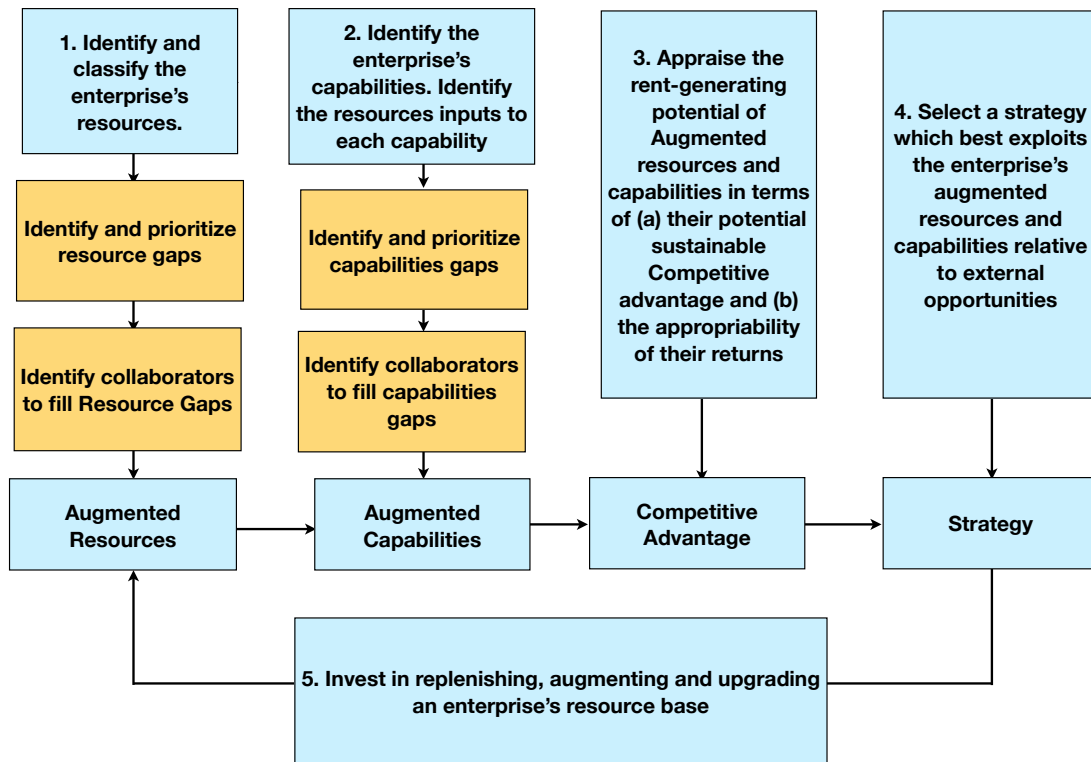
Source: Author

validated ideal types with their corresponding variables, combined with the proposed resource-based view framework for strategy formulation may serve as a useful tool to guide and influence policies that encourages and facilitates both relevant peer and mentor alliance formation by MSEs in the informal sector. This in turn may lead to better performance and facilitate their transition to formal small and medium enterprises. Currently most policies targeting the sector have focussed on what can be done for the MSEs, as opposed to creating a climate where MSEs can collaborate, especially with larger organisations, thereby increasing their resource and capability base. The combined effect would be synergetic relationships between MSEs and medium and large enterprises, significantly increasing the competitive of both categories of businesses. Policies therefore that facilitate the use of the proposed framework in an easily understood manner should go along way in enhancing the competitiveness of MSEs.

Implications to theory is that the outcome of this study begins to provide a better understanding of linkage fit between competency-based and strategic alliance theories. The

current literature provides a wealth of studies that either focus on competency or strategic alliance theories in the context of MSEs. This study has demonstrated the validity of developing competitive business strategies that combine both theories, especially in regard to their their combined applicability to MSEs, a sector generally under represented in the literature. This is especially poignant given the significant role MSEs play in the economies of developing countries.

Finally, implications to practice and to methodology are that the proposed resource-based view framework provide a structured set of consistent and structured approach for collaboration and strategy choice for adaptation by IS/MSE owner/managers who are typically involved, whether formally or informally, in an incremental process of strategic formulation and implementation. When put into practice, the strategies should lead to increase in competitive advantage and improved business performance. Simplification of training on the use of the framework, coupled with further research to address some of the identified gaps, should present owner/managers with a better range of strategy options as the seek to improve their businesses performance.

6.6   Recommendations of the Study

The study demonstrated that the use of strategies that combine both competency and strategic alliance theories may be able to address the challenges faced by MSEs and lead to improved performance. The inability of MSEs to grow due to lack of resources and capabilities, combined with their low competitive advantage could both be simultaneously mitigated against through the use of the studied strategies.

This study therefore recommends that further work be carried out to determine the best approach on how the results from this study can be adopted in a manner readily understood and useable by the target population. The transition of these results from theory to practice should begin the process of improving the competitiveness of the sector.

In addition, other researchers should carry out further studies using the MSE typology with a view to further refinement of the approaches that may better combine the two theories on which it is anchored. This would also begin to establish the boundaries to which the strategies based on the combined theories are applicable.

Finally, policy makers, trade groups, trade associations and the government should develop mechanisms that make it easier for MSEs to establish strategic alliances. This is especially key for the mentor alliances (between MSEs and larger organisations). Such mechanisms would reduce the current barrier, real and perceived, that have hindered the formation of such alliances.

6.7 Limitations of the Study

Despite general support for the strategies within the MSE typology, the generalization of the study is limited as the selected MSEs were only in two sub-sectors, furniture manufacturing and agro-food processing. Secondly, all respondents were in Nairobi, an urban area, where synergies may have accrued from formation of informal clusters. Similar situations may be absent in peri-urban and rural areas.

Third, the administered instrument restricted the choice of implemented strategies to those provided, thereby excluding the addition of strategies that the enterprises may be implementing to improve their performance. Such additions in future may enrich the depth of competitive methods that may be incorporated into the IS/MSE competitive business model. A fourth limitation may be in the reliability of the financial revenue data. Studies have shown (cite references) that micro-enterprises, especially in the informal sector, tend to keep poor records. The revenue figures were also unable to be confirmed from secondary sources. However, the author believes that the assurances given to the owners on the confidentiality and anonymity of the data enhanced the reliability of the data provided.

6.8 Suggestions for Further Research

Although the study supports the premise that collaboration (both with peers and mentors) allows micro and small enterprises to achieve competitive advantage through differentiation and low cost leadership, this study did not delve into the extent or challenges with the collaborations themselves. The research literature seems to suggest that collaborations often feature tension between competition (applies to peer collaboration) and cooperation, hindering the achievement of lasting results (Inkpen and Beamish, 1997; Das and Teng, 2000; Todeva and Knoke, 2005). In addition, the extent of satisfaction with and perceived benefits from the collaborations were not investigated in

this study. These would provide fertile grounds for future work.

Further, the population was limited to two sub-sectors in Nairobi, Kenya. With a view to further define the 'Who, Where, When' questions, future work should look at different sub-sectors, geographical contexts (that is urban, peri-urban, rural), and state of the business (for example new, growth phase, seasonality). In addition, longitudinal studies where MSEs who have purposely chosen to adopt the strategies contained with the typology, against those who have not would allow cause and effect element to be studied. That was not possible for this study that limited itself to historical data.

REFERENCES

Adekunle, B. (2011) 'Determinants of Micro Enterprise Performance in Nigeria', *International Small Business Journal*, Vol. 29, No. 4, pp. 360-373.

Aduda, K., and Kaane, H. (2000). 'Technology policies and strategies.' *Micro and small enterprises in Kenya: agenda for improving the policy environment.* Nairobi: ICEG.

Ahn, H. (2001), 'Applying the Balanced Scorecard Concept: An Experience Report', *Long Range Planning*, Vol. 34, pp. 441-461.

Akio, T. (2005) 'The Critical Assessment of the Resource-Based View of Strategic Management', *Ritsumeikan International Affairs*, Vol. 3, pp. 125-150.

Akoten, J., Y. Sawada and K. Otsuka (2006), 'The Determinants of Credit Access and its Impacts on Micro and Small Enterprises: The Case of Garment Producers in Kenya', *Economic Development and Cultural Change*, Vol. 54, No. 4, pp. 927-944.

Akpalu, W. and Bhasin, V. (2001) 'Impact of Micro-Finance Enterprises on the Efficiency of Micro-Enterprises in Cape Coast', *IFLIP Research Paper 01-5*, ILO: Geneva.

Alpkan, L, Bulut, C. and Mert, E. (2005), 'Strategic Planning Trends in Turkish Small Firms: Empirical Study on SMEs in Kocadi', *Proceedings of the International Strategic Management Congress*, Canakkale, Turkey.

Amit, R., and Schoemaker, P. J. (1993). 'Strategic assets and organizational rent.' *Strategic Management Journal*, Vol. 14, No. 1, pp. 33-46.

Anand, M., Sahay, B., and Saha, S. (2005), 'Balanced Scorecard in Indian Companies', *Vikalpa*, Vol. 30, No. 2, pp. 11-25.

Ansoff, H. Igor.(1965), *Corporate Strategy*, New York: McGraw- Hill.

Ayele, G., Moorman, L., Wamisho, K., and Zhang, X. (2010). *Infrastructure and cluster development.* IFPRI Discussion Papers, 980.

Bacchetta, M., Ernst, E. and Bustamante, J.P. (2009), *Globalization and Informal Jobs in Developing Countries*, International Labour Organisation and World Trade Organisation, Geneva.

Bacharach. S. B. (1989), 'Organization Theories: Some Criteria for Evaluation. *Academy of Management Review*, Vol. 14, No. 4, pp. 495-515.

Bannock, G., and Peacock, A. T. (1989). *Governments and small business*. Paul Chapman for the David Hume Institute.

Barkley, D.L. and M.S. Henry (2007), 'Rural Industrial Development: To Cluster or Not to Cluster?" *Review of Agricultural Economics*, Vol. 19, No. 2, pp. 308-325.

Barnett, W. P., and Freeman, J. (2001). 'Too Much of a Good Thing? Product proliferation and Organizational Failure.' *Organization Science*, Vol. 12, No. 5, pp. 539-558.

Barney, J. B. (1986). 'Strategic factor markets: Expectations, luck, and business strategy.' *Management Science*, Vol. 32, No. 10, pp. 1231-1241.

Barney, J.B. (1991), 'Firm Resources and Sustained Competitive Advantage.' *Journal of Management*, Vol. 17, pp. 99-120.

Barney, J.B., Wright, M. and Ketchen, D.J. (2001), 'Resource-based View of the Firm: Ten Years After 1991', *Journal of Management*, Vol. 27, pp. 625-641.

Bartlet, J.E., J. Kotrlik, and C. Higgins, (2001), 'Organizational Research: Determining Appropriate Sample Size in Survey Research', *Information Technology, Learning and Performance Journal*, Vol. 9, No. 1.

Beal, R. M. and M. Yasai-Ardekani, (2000). Performance Implications of Aligning CEO Functional Experiences with Competitive Strategies, *Journal of Management*, Vol. 26, No. 4, pp. 733-762.

Bekele, E., and Worku, Z. (2008). 'Factors that Affect the Long-Term Survival of Micro, Small and Medium Enterprises in Ethiopia', *South African Journal of Economics*, Vol. 76, No. 3, pp. 548-568.

Biggart, N., and Delbridge, R. (2004). 'Systems of Exchange.' *Academy of Management Review*, Vol. 29, pp. 28-49.

Birru, W.T., (2011) 'Horizontal inter-firm cooperation in Ethiopian small and medium enterprises', *Journal of Small Business and Enterprise Development* Vol. 18 No. 4, pp. 806-820

Black, J. A., and Boal, K. B. (1994). 'Strategic resources: Traits, configurations and paths to sustainable competitive advantage.' *Strategic Management Journal*, Vol. 15, No. S2, pp.131-148.

Bonnet, D.G. and Wright, T. A. (2007), 'Comments and Recommendations Regarding the Hypothesis Testing Controversy' *Journal of Organizational Behaviour*, Vol. 28, No. 6, pp. 647-659.

Bourgeois, L. J. (1980). 'Performance and consensus.' *Strategic Management Journal*, 1(3), 227-248.

Bowen, M., M. Morara and S. Mureithi (2009) 'Management of Business Challenges Among Small and Micro-Enterprises in Nairobi-Kenya' *KCA Journal of Business Management*, Vol. 2, Issue 1. pp. 16-31.

Boyne , G. and R. Walker (2004), 'Strategy Content and Public Service Organizations', *Journal of Public Administration Research and Theory*, Vol. 14, no. 2, pp. 231252.

Buainain A.M (2002) 'Conditions for Successful Economic and Social Use of Inventions and Innovations – Invention and Innovation in Micro and Small Enterprises,' emphSecond International Forum on Creativity and Invention– A Better Future for Humanity in the 21st Century, Beijing, May 23-25, 2002.

Buzzell, R.D., B.T.Gale and R. Sultan, (1975).' Market share- A key to profitability' *Harvard Business Review*,January-February Vol. 1, pp. 35-44.

Campbell-Hunt, C. (2000). 'What Have We Learned About Generic Competitive Strategy? A Meta-Analysis', *Strategic Management Journal*, Vol. 21, No. 2, pp. 127-154.

Camerer, C. (1991), 'Does Strategy Research Need Game Theory?' *Strategic Management Journal*, Vol. 12, pp. 137-152.

Castells, M. and A. Portes (1989). 'World Underneath: The Origins, Dynamics and Effects of the Informal Economy. In *The Informal Economy: Studies in Advanced and Less Developing Countries*, A. Portes, M. Castells and L.A. Benton (eds.). Baltimore: John Hopkins University Press.

CBS, ICEG, K-Rep, (1999) *National Micro and Small Enterprise Baseline Survey 1999*, Central Bureau of Statistics, International Center for Economic Growth, K-Rep Holdings Ltd., Nairobi.

Chandler, A. D., (1962). *Strategy and Structure: Chapters in the History of the American Industrial Enterprise*. Cambridge, MA: MIT Press.

Chen, M. (2005), 'Rethinking the Informal Economy: Linkages with the Formal Economy and the Formal Regulatory Environment', *Research Paper, UNU-WIDER*, United Nations University, No. 5, 2005/10.

Chu, H., Benzing, C. and McGee, C. (2007), 'Ghanaian and Kenyan Entrepreneurs: A Comparative Analysis of their Motivation, Success Characteristics and Problems', *Journal of Development Entrepreneurship*, Vol. 12, No. 3, pp. 295-322.

Cochran (1977), *Sampling Techniques*, 3rd ed. New York: Wiley.

Conant, J. S., Mokwa, M. P., and Varadarajan, P. R. (1990). 'Strategic types, distinctive marketing competencies and organizational performance: A multiple measures-based study.' *Strategic Management Journal*, Vol. 11, pp. 365-383.

Cooper, D. R., and Schindler, P. S. (2003). *Business Research Methods.*, McGraw-Hill.

Cotright, Joseph (2006), 'Making sense of clusters: regional competitiveness and economic development,' discussion paper prepared for the Brookings Institution Metropolitan Policy Program.

Cronbach, L. J., (1951). 'Coefficient Alpha and the Internal Structure of Tests', *Psychometrika*, Vol. 16, No. 3, pp. 297-334.

Das, T.K. and Teng, B.-S. (1998), 'Between trust and control: developing confidence in partner cooperation in alliances', Academy of Management Review, Vol. 23, pp. 491-512.

Das, J.K. and Teng, B.S. (2000) 'A Resource-Based Theory of Strategic Alliances' *Journal of Strategic Management* Vol. 26, No. 1, pp. 31-36.

Day, G.S. (1984), *Strategic Market Planning: The Pursuit of Competitive Advantage*, St. Paul: West.

Delbridge, R. and Fiss, P. (2013), 'Editors' Comments: Styles of Theorizing and the Social Organization of Knowledge', *Academy of Management Review*, Vol. 38, No. 3, pp. 325-331.

DeMaris, A. (1995), 'A Tutorial in Logistic Regression', Journal of Marriage and Family, Vol. 57, No.4, pp. 956-968.

De Propis (2002), 'Types of Innovation and Inter-firm Cooperation', *Entrepreneurship and Regional Development*, Vol. 14, No. 4, pp. 337-353.

De Soto, H., (1989), *The Other Path: The Invisible Revolution in the Third World*. New York, Harper and Row.

Dess, G. G. (1987). 'Consensus on strategy formulation and organizational performance: Competitors in a fragmented industry.' *Strategic Management Journal* Vol. 8, No. 3, pp. 259-277.

Dess, G.G. and Davis, P.S., (1984). 'Porter's (1980) generic strategies as determinants of strategic group membership and organizations performance'. *Academy of Management Journal*, Vol. 27, pp. 467-488.

Dickson, P. H., and Weaver, K. M. (1997). 'Environmental determinants and individual-level moderators of alliance use.' *Academy of Management Journal*, Vol. 40, No. 2, pp. 404-425.

Dierickx, I., and Cool, K. (1989). 'Asset stock accumulation and sustainability of competitive advantage.' *Management Science*, Vol. 35, No. 12, pp. 1504-1511.

Doty D.H., and Glick W.H. (1994) 'Typologies as a Unique Form of Theory Building: Toward Improved Understanding and Modeling' *Academy of Management Review* Vol. 19, pp. 230-251.

Drucker, P. F. (1955). *Practice of Management*, London: William Heinemann Ltd.

Eisenhardt, K. M., and Schoonhoven, C. B. (1996). 'Resource-Based View of Strategic Alliance Formation: Strategic and Social Effects of Entrepreneurial Firms.' *Organization Science*, Vol. 7, pp. 136150.

Fajnzylber, P., Maloney, W., Montes-Rajas, G. (2011), 'Does Formality Improve Micro-Firm Performance? Quasi-Experimental Evidence from the Brazilian SIMPLES Program', Journal of Development Economics, Vol. 94, pp. 262-276.

Fiess, N.M., Fugazza, M. and Maloney, W.F. (2008), 'Informality and Macroeconomic Fluctuations,' *Discussion Paper 3519*, Institute for the Study of Labor, Bonn.

Folta, T.B., Delamr, F. and Wennberg, K. (2010), 'Hybrid Entrepreneurship', *Management Science*, Vol. 56, pp. 253-269.

Foss, K., and Foss, N. J. (2005). 'Resources and transaction costs: how property rights economics furthers the resource?based view.' *Strategic Management Journal*, Vol. 26, No. 6, pp. 541-553.

Frese, M., Stewart, J., and Hannover, B. (1987). 'Goal orientation and planfulness: Action styles as personality concepts.' *Journal of Personality and Social Psychology*, Vol. 52, No. 6, pp. 1182.

Galbraith, C. and Schendel, D. (1983) 'An Empirical Analysis of Strategy Types,' Strategic Management Journal, Vol. 4, No. 2, pp. 153-173.

Gill, A. and Biger, N. 'Barriers to Small Business Growth in Canada', *Journal of Small Business and Enterprise Development*, Vol. 19, No. 4, 2012, pp. 656-668.

Gopalakrishna, P. and R. Subramanian (2001), 'Revisiting the Pure Versus Hybrid Dilemma: Porters Generic Strategies in a Developing Economy, *Journal of Global Marketing*, Vol. 15, No. 2, pp. 61-79.

Grant, R.M. (1991), 'Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation', *California Management Review*, Vol. 33, No. 3, pp. 114-135.

Greffe, X. (1994). 'Is rural tourism a lever for economic and social development?' *Journal of Sustainable Tourism*, Vol 2, No. 1-2, pp. 22-40.

Glueck, W.F. (1980), *Business policy and strategic management*, New-York: McGraw-Hill, 1980.

Hardy, C., N. Phillips and T. B. Lawrence (2003), 'Resources, Knowledge and Influence: the Organizational Effects of Inter-Organizational Collaboration', *Journal of Management Studies*, Vol. 40, No. 2, pp. 321-347.

Hambrick (1983), 'High Profit Strategies in Mature Capital Goods Industries: A Contingency Approach', *Academy of Management Journal*, Vol. 26, pp. 687-707.

Herbert, T. and H. Deresky, (1987). 'Generic strategies: An empirical investigation of typology validity and strategy content', *Strategic Management Journal*, Vol. 8, No. 2, pp. 135-147.

Hiker, L.M. and E. Fraser (2009) *Youth Exclusion, Violence, Conflict and Fragile States*, DFID

Hill, C.W.L. (1988) 'Differentiation versus low cost or differentiation and low cost: A contingency framework.' *Academy of Management Review*, Vol. 13, pp. 401-412.

Hitt, M. A., and Ireland, R. D. (1985). 'Corporate distinctive competence, strategy, industry and performance.' *Strategic Management Journal*, Vol. 6, No. 3, pp. 273-293.

Hofer, C. and D. Schendel, (1978) *Strategy formulation: Analytical concepts*. St Paul: West.

Hooley, G. J., Lynch, J. E., and Jobber, D. (1992). 'Generic marketing strategies.' *International Journal of Research in Marketing*, Vol. 9, No. 1, pp. 75-89.

Hosmer, D. W., and Lemeshow, S. (1989). *Applied Logistic Regression*. New York:Wiley.

House, W. J. (1984), 'Nairobi's Informal Sector: Dynamic Entrepreneurs or Surplus Labor? *Economic Development and Cultural Change* Vol. 32, No. 2 pp. 277-302.

Huff, A. S. (1982). 'Industry influences on strategy reformulation.' *Strategic Management Journal*, Vol. 3, No. 2, pp. 119-131.

Inmyxai, S. and Y. Takahashi (2010), 'The Effect of Firm Resources on Business Performance of Male- and Female-Headed Firms in the Case of Lao Micro-, Small-, and Medium-sized Enterprises (MSMEs)', *International Journal of Business and Information*, Vol. 5, No. 1, pp. 63-90.

Immarino, S. and McCann, P. (2006), 'The Structure and Evolution of Industrial Clusters: Transactions, Technology and Knowledge Spillovers', *Research Policy*, Vol. 35, No. 7, pp. 1018-36.

Inkpen, A.C. and Beamish, P.W. (1997), 'Knowledge, bargaining power, and the instability of international joint ventures', *Academy of Management Review*, Vol. 22, pp. 177-202.

Inkpen, A.C., and Choudhury, N. (1995). 'The seeking of strategy where it is not: Towards a theory of strategy absence.' *Strategic Management Journal*, Vol. 16, No. 4, pp. 313-323.

International Labour Organisation (ILO) (1972), *Employment, Incomes and Equality: A Strategy for Increasing Productive Employment in Kenya*, ILO, Geneva

International Labour Organization (ILO) (1993), 'Resolution Concerning Statistics of Employment in the Informal Sector', *15ᵗʰ International Conference of Labour Statistics*, Geneva.

International Labour Organization (ILO),(2000) 'Resolution concerning statistics of employment in the informal sector', adopted by the Fifteenth International Conference of Labour Statisticians(January 1993), in *Current International Recommendations on Labour Statistics*, Geneva:ILO.

Ketels, C. H. (2006). 'Michael Porters competitiveness frameworkrecent learnings and new research priorities.' *Journal of Industry, Competition and Trade*, Vol. 6, No. 2, pp. 115-136.

Kabukuru, W., (2011), 'Kenya Agribusiness brain fed, not rain fed.', *African Business*, August/September, p. 30-31.

Katwalo, A. M., and Madichie, N. O. (2008). 'Entrepreneurial and cultural dynamics: a gender kaleidoscope of Ugandan microenterprises'. *International Journal of Entrepreneurship and Small Business*, Vol. 5, No. 3, pp. 337-348.

Kaplan, R.S. (2005), 'How the Balanced Scorecard Complements the McKinsey 7-S Model', *Strategy and Leadership*. Vol. 33, No. 3, pp. 41-46.

Kim, L. and Lim, Y. (1988). 'Environment, Generic strategies, and Performance in a rapidly developing country: A Taxonomic Approach', *Academy of Management Journal*, Vol. 31, pp.802-827.

Kim, E., D. Nam and J. L. Stimpert, (2004). 'The Applicability of Porters Generic Strategies in the Digital Age: Assumptions, Conjectures, and Suggestions', *Journal of Management*, Vol. 30, No. 5, pp. 569-589.

Kinyanjui, M.N. (2007), 'Emerging Production Systems in Conventional Development: Experience of the Jua Kali Economy in Kenya", *Umoja*, Vol. 2, No. 2, pp. 27-35.

Kithee, P.P., Nyaga, J.G. and Kimani, J.G. (2013) 'Role of Microfinance Factors on the Sustainability of Women Managed Micro and Small Enterprises (MSEs) in Kenya,' *International NGO Journal*, Vol. 8, No. 4, pp. 94-99.

KNBS, *Statistical Abstracts and Economic Surveys 2012*, Nairobi: Kenya National Bureau of Statistics.

Kolhi, A.K. and Jaworksi, B.J, (1990), 'Market Orientation: the Construct, Research Propositions, and Managerial Implications.' *Journal of Marketing*, pp. 1-18.

Kor, Y.Y., Mahoney, J.T. and Michael, S.C. (2007), 'Resources, capabilities and entrepreneurial perceptions', *Journal of Management Studies*, Vol. 44, No. 7, pp. 1187-1212.

Schmitz, H., and Knorringa, P. (2000). 'Learning from global buyers'. *Journal of Development Studies*, Vol. 37, No. 2, pp. 177-205.

Kudla, R. J. (1980). 'The effects of strategic planning on common stock returns.' *Academy of Management Journal*, Vol. 23, No. 1, pp. 5-20.

Kula, O., V. Choudhary, and L. Batzdorff (2005), *Integrating Micro- and Small-Scale Enterprises into Productive Markets: A Discussion Paper*, micro Report #29, US Agency for International Development (USAID).

Lange, T., M. Ottens and A. Taylor (2000) 'SMEs and Barriers to Skills Development: A Scottish Perspective', *Journal of European Industrial Training*, Vol. 24, No. 1, pp. 5-11.

Levenson, A. R., and Maloney, W. F. (1998). *The informal sector, firm dynamics, and institutional participation* (No. 1988). The World Bank.

Liedholm, C. (2002), 'Small Firm Dynamics: Evidence from Africa and Latin America', *Small Business Economics*, Vol. 18, No. 1/3, pp. 227 -242.

Liedholm, C., and Mead, D. C. (1987). *Small scale industries in developing countries: Empirical evidence and policy implications* (No. 54062). Michigan State University, Department of Agricultural, Food, and Resource Economics.

Liao, Z. and P. F. Greenfield (1997), 'The Impact of Generic Competitive Strategies on Corporate RandD: An Empirical Study in Japan, *International Journal of Technology Management*, Vol. 13, No. 5/6, pp. 542-553.

Litondo K. (2010), 'Mobile Phones and E-Commerce in Micro and Small Enterprises: An Empirical Investigation of Entrepreneurship in Nairobi', *A Doctoral thesis, University of Nairobi*.

Makombe, I. A. (2006). *Women Entrepreneurship Development and Empowerment in Tanzania: The Case of SIDO/UNIDO-supported Women Microentrepreneurs in the Food Processing Sector*, Unpublished Ph.D. Dissertation, University of South Africa.

Malmberg, A. and Power, D. (2005), '(How) do (firms in) Clusters Create Knowledge?' *Industry and Innovation*, Vol. 12, No. 4, pp. 409-32.

Maloney, W.F. (2004), 'Informality Revisited', *World Development*, Vol. 32, No. 7, pp. 1159-1178.

Mambula, C. (2002) 'Perceptions of SME Growth Constraints in Nigeria' *Journal of Small Business Management*, Vol. 4, No. 1, pp. 58-65.

Masakure, O., Henson, S. and Cranfield, J. (2009), 'Performance of Microenterprises in Ghana: A Resource-Based View', *Journal of Small Business and Enterprise Development*, Vol. 16, No. 3, pp. 466-484.

Meyer-Stamer, J. (1998). Path dependence in regional development: persistence and change in three industrial clusters in Santa Catarina, Brazil. *World development*, Vol. 26, No. 8, pp. 1495-1511.

McCormick, D., (1999), 'African Enterprise Clusters and Industrialization.' *World Development,* Vol. 27 No.9.

McCormick, D. (2001), 'Gender in Small Enterprise in Kenya: An Institutional Analysis.?' In P.C. Samanta and R. K. Sen (Eds), *Realising African Development.* Kolkata, India: CIADS in collaboration with IIDS, pp. 309-330.

McCormick, D., Kinyanjui, M.N. and Ongile, G. (1997), 'Growth and Barriers to Growth Among Nairobi's Small and Medium Sized Garment Producers', *World Development*, Vol. 25, No. 7, pp. 1095-1110.

McKenzie, D. and Sakho, Y. (2010) 'Does it Pay for Firms to Register for Taxes? Impact of Formality on Firm Profitability' *Journal of Development Economics*, Vol. 91, pp. 15-24.

McKenzie, D. and Woodruff, C. (2008), 'Experimental Evidence on Return to Capital and Access to Finance in Mexico' *World Bank Economic Review*, Vol. 22, pp. 457-482.

Miles, R. C. and Snow, C. C. (1978), *Organizational Strategy, Structure, and Process.* MacGraw-Hill, New York.

Miles, R. E., Snow, C. C., Meyer, A. D., and Coleman, H. J. (1978). 'Organizational strategy, structure, and process.' *Academy of Management Review*, Vol. 3, No. 3, pp. 546-562.

Miller, D., (1981) 'Toward a new contingency approach: The search for organizational gestalts', *Journal of Management Studies*, 18(1), pp. 1-26.

Miller, D., (1987) 'The Structural and Environmental Correlates of Business Strategy', *Strategic Management Journal*, Vol. 8, No. 1, pp. 55-76.

Miller,D. (1992) 'Generic combination and context'. In P. Shrivastava, A. Huff and J. Dutton, (eds.), *Advances in Strategic Management*,Vol. 8. JAIPress, Greenwich, CT, pp.391- 408.

Miller, D. and Shamise, J. (1996), 'The Resource-Based View of the Firm in Two Environments: The Hollywood Film Studio from 1936 to 1965'. *Academy of Management Journal*, Vol. 39, pp. 519-543.

Mintzberg, H., (1987) 'Crafting Strategy, *Harvard Business Review*, July-August, pp. 65-75.

Mintzberg, H. (1988). 'Generic strategies: toward a comprehensive framework'. *Advances in Strategic Management*, Vol. 5, No. 1, pp. 1-67.

Mintzberg, H. (1991). 'Learning 1, planning 0 reply to Igor Ansoff.' *Strategic Management Journal*, Vol. 12, No. 6, pp. 463-466.

Montgomery, C. A., Thomas, A. R., and Kamath, R., (1984) Divestiture, market valuation, and strategy. *Academy of Management Journal*, Vol. 27, pp. 830-840.

Morand, P. H. (2003). 'SMEs and public procurement policy.' *Review of Economic Design*, Vol. 8, No. 3, pp. 301-318.

Moyi, E., and Njiraini, P. (2005). *Towards technology models for MSES in Kenya: Common principles and best practices (No. 51).* Kenya Institute for Public Policy Research and Analysis.

Myers, A.D. (1991), 'What is Strategy's Distinctive Competence?' *Journal of Management*, Vol. 7, pp. 821-833.

Murray, A. I., (1988) 'A Contingency View of Porter's "Generic Strategies" ' *The Academy of Management Review*, Vol. 13, No.3, pp. 390-400.

Nelson, R. and Winter, S. (1982), *An Evolutionary Theory of Economic Change*, Cambridge, MA: Belknap Press of Harvard University Press.

Ngahu, C. (1995). *Choice of technology in small-scale enterprise*: International Development Research Center (IDRC).

Ngethe, N. and G. Ndua (1998), Education, Training and Welfare in the Informal Sector: A Study of Carpentry and Metalwork in the Eastlands of Nairobi, Kenya. *IDS Occasional Paper No. 55*.

Nsteane, P. (2004), 'Being a Female Entrepreneur in Botswana: Cultures, Values, Strategies for Success', *Gender and Development*, Vol. 12, No. 2, pp. 37-43.

Nunnally, J.C. (1978). *Psychometrtc Theory*. New York: McGraw-Hill.

Obura, J.M., Abeka, E.O. and Obere, A., 'Networks, Micro Small Enterprises and Performance: The Case of Kenya', *Journal of Developmental Entrepreneurship*.

Ogot, M. (2012), 'A Generic Competitive Business Strategies Typology for Micro-Enterprises', *European Journal of Business Management*, Vol. 4, No. 20, pp. 98-109.

Ogot, M. and E. Mungai (2012), 'Does Porter's Competitive Business Strategies Model Apply to Micro-Enterprises? A study of Furniture Makers in the Informal Sector in Nairobi, Kenya.' *African International Business and Management Conference*, Kenyatta International Conference Centre, Nairobi, July 12-13.

Ogot, M. (2014) 'Evidence on Challenges Faced by Manufacturing Informal Sector Micro-Enterprises in Nairobi and their Relationship on Strategic Choice.' *International Business Research*, Vol.7, No.6.

Okpara, J.O. and Wynn, P. (2007), 'Determinants of Small Business growth Constraints in a Sub-Saharan African Economy', *Advanced Management Journal*, Vol. 72, No. 2, pp. 24-37.

Oroko, H. and M. Korir (2009), 'Transferable Experiences as Influencers of Micro-enterprise Growth in Nairobi, Kenya', *Africa Journal of Business and Economics*, Vol. 3, No. 1, pp. 51-73.

Packard, T. (2007). *Do Workers in Chile Choose Informal Employment? A Dynamic Analysis of Sector Choice*, Washington DC: World Bank, Latin America and Caribbean Region Social Projection Unit.

Palakshappa, N. and Gordon, M.E., (2007) 'Collaborative Business Relationships: Helping Firms to Acquire Skills and Economies to Prosper' *Journal of Small Business and Enterprise Development*, Vol. 14, No. 2, pp. 264-279.

Palatano, A.L., and Seifert, C.M., (1997), 'Opportunistic planning: Being reminded of pending goals', *Cognitive Psychology*, Vol. 34, pp. 1-36.

Pandy, I.M. (2005), 'Balanced Scorecard: Myth or Reality', *Vikalpa*, Vol. 30, No. 1, 51-66.

Parnell (2006) 'Generic Strategies after Two Decades: A Reconceptualization of Competitive Strategy', *Management Decision*, Vol. 44, No. 8, pp. 1139-1154.

Peduzzi, P., Cancito, J, Kemper, E., Holford, T.R., and Feinstein, H.R. (1996), 'A Simulation Study of the Number of Events per Variable in Logistic Regression Analysis', *Journal of Clinical Epidemiology*, Vol. 49, No. 12, pp. 1373-9.

Pelham, Alfred M, and David T, Wilson (1996), 'A Longitudinal Study of the Impact of Market Structure, Firm Structure, Strategy, and Market Orientation Culture on Dimensions of Small- Firm Perfonnance,' *Journal of the Academy of Marketing Science*, Vol. 24, pp. 27-A3.

Penrose, E.T. (1959), *The Theory of the Growth of the Firm*, Oxford University Press, New York.

Pertusa-Ortega, E., J. F. Molina-Azorin, and E. Claver-Cortes, (2009), 'Competitive Strategies and Firm Performance: A Comparative Analysis of Pure, hybrid or "stuck in the middle" Strategies in Spanish Firms.' *British Journal of Management*, Vol. 20, pp. 508-523.

Phillips, L.W., Chang, D.R. and Buzzell, R. D. (1983) 'Product Quality, cost Position and Business Performance: A Test of Some Key Hypotheses', *Journal of Marketing*, Vol. 47, No. 2, pp. 26-43.

Pietrobelli, C., and Rabellotti, R. (2004). 'Upgrading in clusters and value chains in Latin America: the role of policies.' *Inter-American Development Bank.*

Ponte, S. (2002). 'Thelatte revolution? Regulation, markets and consumption in the global coffee chain.' *World Development*, Vol. 30, No. 7, pp. 1099-1122.

Porter, M. E. (1979), 'How Competitive Forces Shape Strategy', *Harvard Business Review*, July-August, pp. 2-10.

Porter, M.E., (1980) *Competitive strategy: Techniques for analyzing industries and competitors*. New York: The Free Press.

Porter, M.E., (1985) *Competitive advantage: Creating and sustaining superior performance*., New York: The Free Press.

Porter, M.E. (1996). 'What is Strategy?,' *Harvard Business Review*, Vol. 74, pp. 61-78.

Porter, M.E. (1998) 'Clusters and New Economics of Competition'. *Harvard Business Review*, November-December, pp. 77-90.

Portes, A. and Sensenbrenner, J. (1993) 'Embeddedness and Immigration: Notes on the Social Determinants of Economic Action', *American Journal of Sociology*, Vol. 98, pp. 1320-1350.

Prasad, S. and Tata, J. (2010) 'Micro-enterprise Supply Chain Management in Developing Countries', *Journal of Advances in Management Research*, Vol. 7, No. 1, pp. 8-31.

Proff, H. (2000), 'Hybrid Strategies as a Strategic Challenge. The Case of the German Automotive Industry, *Omega, The International Journal of Management Science*, Vol. 28, pp. 541-553.

Rabellotti, R. (1997). *External economies and cooperation in industrial districts: a comparison of Italy and Mexico*. London: Macmillan.

Raffie, J. and Feng, J. (2014), 'Should I Quit my Day Job: A Hybrid Path to Entrepreneurship' *Academy of Management Journal*, Vol. 57, No. 4, pp. 936-963.

Rand, J. and Torn, W. (2012), 'The Benefits of Formalisation: Evidence from Vietnamese Manufacturing SMEs', *World Development*, Vol. 40, No. 5, pp. 983-998.

Rauche, A. and Frese, M. (2000) 'Psychological Approaches to Entrepreneurial Success. A General Model and an Overview of Findings' in C.L. Cooper and I.T. Robertson (Eds.), *International Review of Industrial Organizational Psychology*, pp. 101-142, Chester: Wiley.

Rich, P. (1992), The Organizational Taxonomy: Definition and Design. *Academy of Management Review.* Vol. 17, pp. 758-781.

Robinson, R. B., and Pearce, J. A. (1988). 'Planned patterns of strategic behavior and their relationship to business?unit performance.' *Strategic Management Journal*, Vol. 9, No. 1, pp. 43-60.

Robson, A.J. and Obenig, B.A. (2008), 'The Barriers to Growth in Ghana', *Small Business Economics*, Vol. 30, pp. 385-403.

Roy, M-A and D. Wheeler, (2006). 'A Survey of Micro-Enterprise in Urban West Africa: Drivers shaping the sector.', *Development in Practice*, Vol. 16, No. 5, pp. 452-464.

Rumelt, R. P. (1984). 'Towards a strategic theory of the firm.' *Competitive Strategic Management*, Vol. 26, pp. 556-570.

Sakurai, T., Furuya, J., and Futakuchi, K. (2006, August). 'Rice Miller Cluster in Ghana and Its Effects on Efficiency and Quality Improvement.' *In Contributed paper prepared for presentation at the International Association of Agricultural Economists Conference*, Gold Coast, Australia.

Saunder, M.N., A. Thornhill, P. Lewis (2009), *Research Methods for Business Students*, 5th Edition, Englewood Cliffs: Financial Times/ Prentice Hall.

Sakurani, T., Furuya, J. and Futakuchi, F. (2006) 'Rice Miller Cluster in Ghana and its Effects on Efficiency and Quality Improvement', *International Association of Agricultural Economists Conference*, Gold Coast, August 12-18.

Schendel, D., and Hofer, C. W. (Eds.). (1979). *Strategic Management: A New View of Business Policy and Planning.* Little, Brown.

Schmitz, H. (1995). 'Collective Efficiency: Growth Path for Small-scale Industry.' *Journal of Development Studies*, Vol. 31, No. 4, pp. 529-566.

Schmitz, H., and K. Nadvi, K. (1999). 'Clustering and Industrialization', *World Development*, Vol. 27, No. 9, pp. 1503-1514.

Simonin, B.L. (1997), 'The Importance of Collaborative Know-how: An Empirical Test of the Learning Organization', *Academy of Management Journal*, Vol. 40 No. 5, pp. 1150-74.

Slater, S. and Narver, J.C. (2000), 'The Positive Effect of a Market Orientation on Business Profitability. A Balanced Replication', *Journal of Business Research*, Vol. 48, pp. 69-73

Sleuwaegen, L. and Goedhuys, M. (2002) 'Growth of Firms in Developing Countries: Evidence from Cote D'Ivoire' *Journal of Development Economics*, Vol. 73, pp. 369-394.

Smith, K. G., Guthrie, J. P., and Chen, M. J. (1986). 'Miles and Snow's Typology of Strategy, Organizational Size and Organizational Performance'. *Academy of Management proceedings Vol. 1986*, No. 1, pp. 45-49. Academy of Management.

Snow, C. and Hrebiniak, L. 'Strategy, Distinctive Competence, and Organizational Performance', *Administrative Science Quarterly*, Vol. 25, pp. 317-336.

Snow, C. and Ketchen, D.J. (2014) 'Typology Driven Theorizing: A Response to Delbridge and Fiss' *Academy of Management Review*, Vol. 39, No. 2, pp. 231-233.

Smothers, N.P. 'Patterns of Japanese Strategy: Strategic Combinations of Strategies.' *Strategic Management Journal*, Vol. 11, No. 7, pp. 521-533.

Spanos, Y.E., and S. Lioukas (2001). 'An Examination into the Causal Logic of Rent Generation: Contrasting Porter's Competitive Strategy Framework and the Resource-Based Perspective', *Strategic Management Journal*, Vol. 22, No. 10, pp. 907-934.

Spanos, Y. E., G. Zaralis and S. Lioukas, (2004) 'Strategy and Industry Effects on Profitability: Evidence from Greece', *Strategic Management Journal*, Vol. 25, No. 2, pp. 139-165.

Stevenson, L. and A. St-Onge (2005a), *Support for Growth Oriented Women Entrepreneurs in Kenya*, Geneva: International Labour Organization.

Stevenson, L. and A. St-Onge (2005b), *Support for Growth Oriented Women Entrepreneurs in Tanzania*, Geneva: International Labour Organization.

Stevenson, L. and A. St-Onge (2006), *Support for Growth-Oriented Women Entrepreneurs in Ethiopia, Kenya and Tanzania, an Overview Report*, Geneva: International Labour Organization.

Svetina, AC., Jaklic, M., and Prodan, I. (2008). 'Does collective learning in clusters contribute to innovation?.' *Science and Public Policy*, Vol. 35, No. 5, pp. 335-345.

Tabachnick, B. G., and L. S. Fidell, (1996). *Using Multivariate Statistics* 3rd ed., New York: Harper Collins.

Tambunan, T. (2005). 'Promoting small and medium enterprises with a clustering approach: A policy experience from Indonesia.' *Journal of Small Business Management*, Vol. 43, No. 2, pp. 138-154.

Thomas, A. S., and Ramaswamy, K. (1996). 'Matching managers to strategy: further tests of the Miles and Snow typology.' *British Journal of Management*, Vol. 7, No. 3, pp. 247-261.

Teece, D.J., Piscano, G. and Shuan, S. (1997), 'Dynamic Capabilities and Strategic Management', *Strategic Management Journal*, Vol. 18, No. 7, pp. 509-533.

Todeva, E., and Knoke, D. (2005). Strategic alliances and models of collaboration. Management Decision, Vol 43, No. 1, pp. 123-148.

Trent, R.J. and Monczka, R.M., (2002) 'Pursuing Competitive Advantage through Integrated Global Sourcing' *The Academy of Management Executive*, Vol. 16, No. 2, pp. 66-80.

UNDP (2003) *Human Development Report* New York: Oxford University Press.

UNIDO. (2002). *Industrial Development Report 2002-03*. Vienna: United Nations.

van Gelderen, M., M. Frese and R. Thurik, (2000). 'Uncertainty and Performance of Small Business Startups', *Small Business Economics*, Vol. 15, No. 3, pp. 165-181.

Venkatraman, N. and V. Ramanujam, (1986). 'Measurement of Business Performance in Strategy Research: A Comparison of Approaches', *The Academy of Management Review*, Vol. 11, No. 4, pp. 801-814.

Wattanapruttipaisan, T. (2002). 'SME Requirements as a Bridgehead to Competitiveness: An Assessment of Supply-Side Capabilities and Demand-Side Requirements', *Asia-Pacific Development Journal*, Vol. 9, No. 1. pp. 65-87.

Webster, L. and P. Fidler (eds.) (1996) *The Informal Sector and Microfinance Institutions in West Africa*, London: Methuen.

Whetten, D. A. (1989), 'What Constitutes a Theoretical Contribution' *Academy of Management Review* Vol. 14, pp. 490-495.

White, R. E. (1986). 'Generic Business Strategies, Organizational Context and Performance: An Empirical Investigation,' *Strategic Management Journal*, Vol. 7, pp. 217-231.

Williamson, O.E. (1975), *Markets and Hierachies: Analysis and Antitrust Implications*, New York: Free Press.

Wittig, W. (2001). 'Improving access to SME public procurement.' *International Trade Journal*, Vol. 4, pp. 14-16.

Wood, E. H. (2006) 'The Internal Predictors of Business Performance in Small Firms' *Journal of Small Business and Enterprise Development*, Vol. 13, No. 3, pp. 441-453.

Wernerfelt, A. (1984) 'A Resource-Based View of the Firm', *Strategic Management Journal*, Vol. 5, No. 2, 1984, pp. 171-180.

Wissema, J., H. Van der Pol and H. Messer, (1980) 'Strategic management archetypes', *Strategic Management Journal*, Vol. 1, pp. 37-47.

Wright, P. (1987) 'A refinement of Porter's strategies'. *Strategic Management Journal*, Vol. 8, pp. 93-101.

Yoshino, M.Y. and Rangan, U.S. (1995), *Strategic Alliances: An Entrepreneurial Approach to Globalization*, Harvard University Press, Cambridge, MA.

Zajac, E. J., and Shortell, S. M. (1989). 'Changing Generic Strategies: Likelihood, Direction, and Performance Implications.' *Strategic Management Journal*, Vol. 10, No. 5, pp. 413-430.

APPENDIX A
SURVEY INSTRUMENT

UNIVERSITY OF NAIROBI ● School of Business
Questionnaire to Determine Competitive Business Methods Employed by Micro-Enterprises in Nairobi

Part I: Demographics

1.1   Metal/Wood Manufacturing.............. ☐   Food Processing........... ☐

1.2   Male... ☐   Female....................... ☐

1.3   Age...................................▶ ☐

1.4   Education (Check all that apply):

Primary.. ☐   Undergraduate degree......................... ☐

Secondary... ☐   Post Graduate Diploma........................ ☐

Diploma... ☐   Graduate Degree.................................. ☐

Certificate... ☐

Family Business Background:

1.5   Where either of your parents involved in business? YES... ☐   NO.... ☐

1.6   If YES, what type of business?...............▶ ☐

Part II: Business Performance

		2009	2010	2011	2012
2.1	What was your approximate **total sales** in the years 2009 to 2012? Please write in in the relevant box and write in **Thousands of Kenya Shillings**...▶				
2.2	How many employees do you have (or plan to have) in the years 2009 to 2012? Please fill in the numbers in relevant box ....▶				
2.3	Which year did you start your business ?...▶				

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Part III: Competitive Business Strategies

For each question/statements, please indicate to what extent you use any of the following activities to stay ahead of your competition - select only ONE choice per question / statement:

		Never 1	Rarely 3	Occasionally 3	Frequently 4	All the Time 5
3.1	I work with other small businesses to develop new products that we can both then produce ourselves and sell	…☐…	.☐.	….☐….	…☐…	..☐
3.2.	I work with other small businesses to solve problems that both of us face	…☐…	.☐.	….☐….	…☐…	..☐
3.3.	I get together with other small businesses to borrow money in support of my business.....................................	…☐…	.☐.	….☐….	…☐…	..☐
3.4.	I work with other small businesses and share specialized labour that I may not need all the time	…☐…	.☐.	….☐….	…☐…	..☐
3.5.	I work with other small businesses to solve problems that both of us face..	…☐…	.☐.	….☐….	…☐…	..☐
3.6.	I get together with other small businesses to purchase raw materials for our businesses in bulk to lower our costs	…☐…	.☐.	….☐….	…☐…	..☐
3.7.	I work with a group of small businesses where we support each other by buying each others products or referring clients to them for products I do not have	…☐…	.☐.	….☐….	…☐…	..☐
3.8.	I share workspace or specialized equipment with other small businesses	…☐…	.☐.	….☐….	…☐…	..☐
3.9.	I get together with other small businesses to submit joint quotations for business from the Government	…☐…	.☐.	….☐….	…☐…	..☐
3.10.	I work with larger businesses to help me brand my products	…☐…	.☐.	….☐….	…☐…	..☐
3.11.	I work with larger businesses to get new technologies to help me develop new products	…☐…	.☐.	….☐….	…☐…	..☐
3.12.	I work with larger businesses to help me get finance or credit to run my business	…☐…	.☐.	….☐….	…☐…	..☐
3.13.	I have obtained training as part of my relationship with larger businesses	…☐…	.☐.	….☐….	…☐…	..☐
3.14.	I work with large businesses to get new technologies to lower my production costs	…☐…	.☐.	….☐….	…☐…	..☐
3.14.	I work with large businesses to get new lower cost raw materials for my business	…☐…	.☐.	….☐….	…☐…	..☐
3.16.	I have been sub-contracted by larger businesses as part of a larger sale	…☐…	.☐.	….☐….	…☐…	..☐

3.17 Do you belong to any of the following to help you with your business? (Check all that apply):

        Business association/Organization .... ☐

        Cooperative society... ☐

If you DO NOT belong to any, please skip Questions 3.18 to 3.28 and go to Part IV

For each question/statements, please indicate to what extent you use any of the following activities to stay ahead of your competition - select only ONE choice per question/ statement:

	Never 1	Rarely 3	Occasionally 3	Frequently 4	All the Time 5
3.18 Through my membership, I am able to get credit or low cost loans..	…☐…	.☐.	….☐….	…☐…	..☐
3.19 Through my membership, I have learnt new about new technologies that have helped me develop new products...	…☐…	.☐.	….☐….	…☐…	..☐
3.20 Through my membership, my products have been marketed for me, increasing my sales...........................	…☐…	.☐.	….☐….	…☐…	..☐
3.21 Through my membership, I have been able to maintain quality of my products	…☐…	.☐.	….☐….	…☐…	..☐
3.22 Through my membership, I have been able to get competitive pricing for my products..............................	…☐…	.☐.	….☐….	…☐…	..☐
3.23 Through my membership, I have been able to get additional training that has helped me develop new products...	…☐…	.☐.	….☐….	…☐…	..☐
3.24 Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products.................................	…☐…	.☐.	….☐….	…☐…	..☐
3.25 Through my membership, I have been able to get additional training that has helped me lower the cost of producing my products..	…☐…	.☐.	….☐….	…☐…	..☐
3.26 Through my membership, I have been able to exchange ideas with other business owners that has helped me lower the cost of my products......................	…☐…	.☐.	….☐….	…☐…	..☐
3.27 Through my membership, I have been able to obtain lower cost raw materials	…☐…	.☐.	….☐….	…☐…	..☐
3.28 Through my membership, I have been able to exchange ideas with other business owners that has helped me develop new products................................	…☐…	.☐.	….☐….	…☐…	..☐

Part IV: Competitive Business Strategies

For each question/statements, please indicate to what extent you use any of the following activities to stay ahead of your competition - select only ONE choice per question / statement:

	Never 1	Rarely 2	Occasionally 3	Frequently 4	All the Time 5
4.1 I try to make sure that my products can be distinguished from those of my competitors to increase sales	☐	☐	☐	☐	☐
4.2 I continuously come up with new products to offer my customers so I can be a step ahead of my competitors	☐	☐	☐	☐	☐
4.3 I buy my raw materials used to manufacture my products from the same set of suppliers	☐	☐	☐	☐	☐
4.4 I try to target my products to a particular type of customer	☐	☐	☐	☐	☐
4.5 I focus on only a small number of different products	☐	☐	☐	☐	☐
4.6 I change my source of raw materials to the supplier who will give me the lowest price at the time of the order	☐	☐	☐	☐	☐
4.7 I try to make sure that the selling price of my products are lower than those offered by my competitors	☐	☐	☐	☐	☐
4.8 I try to make sure that I reduce wastage during my manufacturing process so I can offer my customers lower prices and therefore beat my competition	☐	☐	☐	☐	☐
4.9 I try to make sure that I reduce wastage during my manufacturing process so I can make more profit	☐	☐	☐	☐	☐
4.10 I try to improve my manufacturing process so that I can use less material or be able to produce products quicker	☐	☐	☐	☐	☐
4.11 When I hire employees, I look for those who already have experience	☐	☐	☐	☐	☐

THANK-YOU FOR COMPLETING THE SURVEY