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EFFECT OF FINANCIAL ACCESSIBILITY ON THE SUSTAINABILITY OF MANUFACTURING SMALL AND MEDIUM ENTERPRISES IN NAIROBI COUNTY, KENYA

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MDF/101846

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN DEVELOPMENT FINANCE, STRATHMORE BUSINESS SCHOOL,

STRATHMORE UNIVERSITY

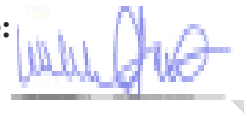
MAY 2023

DECLARATION

I, the undersigned declare that this is my original work and it has not been submitted to any college, institution or university other than Strathmore Business School, for academic credit.

All material obtained from other sources is duly acknowledged.

Martin Mengo Kimondo

Signature: 

Date: **18/5/2023**

Supervisor's Approval

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ACRONYMS AND ABBREVIATIONS

CBD	Central Business District
CBK	Central Bank of Kenya
CEO	Chief Executive Officer
CRB	Credit Reference Bureau
DMT	Delegated Monitoring Theory
GDP	Gross Domestic Product
LT	Legitimacy Theory
MSMEs	Manufacturing Small and Medium Enterprises
NACOSTI	National Council of Science, Technology and Innovation
RLT	Relationship Lending Theory
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for Social Science
VC	Venture Capital

OPERATIONAL DEFINITION OF TERMS

Business Risk	The possibility of a commercial business failing to make adequate profits due to uncertainties (Maali, 2020).
Loan processing fees	The expenses that a manufacturing SME must meet during loan processing (fees) (Wekesa, Bunyasi, Bwisa & Namusonge, 2017).
Credit Rationing	Extending credit in a lower amount that what the borrower requested for (Jin & Zhang, 2019).
Financial Accessibility	Ability to access the money or other forms of capital by manufacturing SMEs (Coffie, Zhao & Adjei Mensah, 2020).
Sustainability	Generating enough amount of profits to ensure business's perpetual continuity (Moore, Mascarenhas, Bain & Straus, 2017).

ABSTRACT

Access to finance has remained one of the notable factors that impede the sustainability of small and medium-sized enterprises in the developing world. This study aims to investigate the effect of financial accessibility on the sustainability of manufacturing small and medium-sized enterprises (SMEs) in Nairobi County, Kenya. The elements of access to finance that are in the interest of this study include cost of credit, interest rate, credit rationing and business risk. The specific objectives were to analyse the influence of loan processing fees on the sustainability of manufacturing small and medium enterprises (SMEs); to establish the influence of interest rate on the sustainability of manufacturing small and medium enterprises (SMEs) in Nairobi County, Kenya; to determine the influence of credit rationing on the sustainability of manufacturing small and medium enterprises (SMEs) in Nairobi County, Kenya; and to find out the influence of business risk on the sustainability of manufacturing small and medium enterprises (SMEs) in Nairobi County, Kenya. The study was underpinned by the Delegated Monitoring theory, Relationship Lending Theory and legitimacy theory. The study adopted descriptive research design methodology, which involved the collection of first-hand data from the operators of manufacturing SMEs in Nairobi County, Kenya. Stratified sampling technique was used to select the manufacturing SMEs that were involved in the study. A total of 89 participants were involved in the study. Data collection involved administration of online questionnaire to the participants using online communication platforms. The study documented positive effect of loan processing fees on sustainability of manufacturing small and medium enterprises in Nairobi, Kenya. Secondly, there was a negative and not significant effect of interest rate on sustainability of small and medium manufacturing companies in Nairobi County. Thirdly, there was positive and significant effect of credit rationing on sustainability of manufacturing small and medium enterprises. Further, there was positive and not significant effect business risk and sustainability of manufacturing small and medium enterprises in Nairobi, Kenya. From the findings it can concluded that loan processing fees, legal fees, insurance fees and negotiating fees have inverse effect on sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. Secondly, sustainability of manufacturing small and medium enterprises is significantly affected by inflation rates and total cost of credit. Thirdly, credit access was limited by number of loans applied by manufacturing companies, type of loan products applied for, repayment period and collateral required. Further, the higher the price fluctuations, competition and emergence of

technologies the hinders the odds of sustaining firms. There is need for evaluation of measures aimed at minimizing credit access costs through mitigation of loan processing fees, legal fees, insurance fees and negotiating fees. Moreover, there is need for adoption of time series approaches while managing price fluctuations, competitiveness and emergence of new products.

CHAPTER ONE

INTRODUCTION

The current chapter presents background of the study, statement of the problem, objectives of the study and research questions, significance and scope of the study.

1.1 Background of the Study

The sustainability of manufacturing small- and medium-sized enterprises (SMEs) remains a challenge in the global landscape given the changing financial and economic circumstances. Global recessions and pandemics have always subjected SMEs to negative because they halter markets and access to finance. Most notably, the current COVID-19 pandemic has been recognised as one of the greatest impediments of SME advancement of this decade (Kaberia & Muathe, 2021). As the consequences of the pandemic intensified, the Central Bank of Kenya (CBK) encouraged banks to extend flexibility to the loan terms of borrowers due to the circumstances related to the pandemic (IMF, 2021).

CBK's suspension of listing loan defaulters on the Credit Rating Bureau (CRB) on April 15, 2020 and raising a minimum of listing to $10 for negative listing was meant to protect the public from the jaws of lenders (Mutwiri, 2021). However, these steps are believed to have scared lenders from issuing loans, which widely affected SMEs that have been struggling to remain in operation during this economic turbulent period. Despite this notable observation that have existed close to fifteen months since the first case of Coronavirus was reported in Kenya, empirical research has not extensively investigated the extent to which financial access can affect sustainability of manufacturing SMEs in the context of a pandemic.

Based on the assertion by Maali (2020), businesses have short-term and long-term goals that drive their existence to perpetuity. However, most of the SMEs do not transcend their operations past a half a decade due to a multiplicity of factors that characterize the micro and macro business environments including access to finance during a pandemic such as the Coronavirus (Wakiaga, 2020). In the context of finance, researchers and business operators have widely evaluated the influence of access to finance on the perpetual continuity of businesses and eventual performance (Anton & Bostan, 2017; Ye & Kulathunga, 2019; Wandiri, Nyangau & Ochieng, 2020).

United Nations Conference on Trade and Development [UNCTAD] (2001) identified that finance is the most important factor that determines the survival and growth of SMEs in both developing and the developed countries. Thus, access to finance allows SMEs to undertake productive investments that enables them to expand and enhance their competitiveness. In the context of poor functioning financial systems, Burlea-Schiopoiu & Mihai (2019) concur with Shields & Shelleman (2015) that microeconomic fundamentals of a country are undermined, which results to derailed business growth and incomes. However, there exist a scenario of mixed reactions regarding the popular influence of access to finance as a factor that undermines sustainability (Johnson & Nino-Zarazua, 2011; Shah & Ahmad, 2019). Moreover, there are several factors that make up the aspect of access to finance such as cost of credit, business risk, interest risk, credit rationing, willingness to apply, and banks' ability to raise the credit applied for. The effect of each of the aspects of financial access has not been clarified especially in the context of manufacturing SME (Shah & Ahmed, 2019).

Nevertheless, emerging laws such as the Finance Bills have a notable influence on MSMEs' ability to uptake credit, yet it has not been closely researched. Furthermore, most of the past studies have concentrated on the general context of the SMEs rather than the manufacturing sector. Notwithstanding the limitation, available evidence confirms that achievement of SMEs' goals requires adequate funding (Peter & Anyieni, 2015; Kimaiyo, 2016; Kiprotich, 2017; Maali, 2020).

As defined under the Micro and Small Enterprises Act of 2012, SMEs include enterprises that employ 10-99 people and generates a revenue of ksh. 500,000 to ksh. 800 million. (Kenya Climate Innovation Centre, 2020). A portion of SMEs operating in Kenya perform a range of manufacturing activities, which involve transformation of materials and components into new products using hand or machinery. The Kenya Vision 2030's economic pillar recognises the manufacturing sector as the key building block that will accelerate the speed towards Kenya's development agenda. Big four agenda had a target for manufacturing sector in Kenya to contribute 15 % to the gross domestic product. The current regime has created "Hustler fund" as a state backed concessional loan to small and medium businesses that have struggled to access financing from the mainstream banks Furthermore, a report by Kenya Climate Innovation Centre (2020) identifies that the manufacturing sector has been given priority because it is seen as a sector that can raise Kenya's growth rate to the region's 10%.

According to Mkalama, Ndemo & Maalu (2018), manufacturing SMEs require adequate funding to maintain their operations especially during the early periods of operation and when economic recessions occur if it is to help a nation to achieve its economic prospects. Failure of available funds to fully support the implementation of strategic plans continue to raise

heightened from research and practice in the global SME manufacturing sector. Although a number of studies have been conducted to identify how access to finance affects the sustainability prospects of SMEs, empirical research attention on manufacturing SMEs within the Nairobi County context is largely scarce. Thus, it is crucial to conduct empirical studies that seek to uncover the effect of financial access on sustainability of SMEs in Nairobi County, Kenya.

1.1.1 Sustainability of Manufacturing SMEs

The focus of MSME sustainability is to achieve a balance on the one hand between financial, human and material resources, and on the other hand with the social and economic environment within which it operates. This means that manufacturing SMEs must be able to operate consistently with the tenets of the triple bottom-line, which consist of profit, people and planet. Based on the framework generated by Burlea-Schiopoiu and Mihai (2019), MSMEs are expected to engage in corporate social responsibility, innovation and training while ensuring that they maximise profits for company and per employee at minimal debt ratios to achieve sustainability and competitiveness. Regardless of the necessity of sustainability to the overall existence and performance of MSMEs, previous studies have not adequately investigated sustainability of SMEs operating in the manufacturing sector in Kenya. Given that these operating sustainably requires funding and the COVID-19 pandemic has not only decreased profitability, but also negated access to funding, MSMEs' ability to operate sustainably has remained a strategy in books.

Ombongi & Long (2018) noted that manufacturing SMEs' share in Kenya's Gross Domestic Product (GDP) saw a tremendous increased from 13% in 1993 to 18% in 2003 and 20%-25% in 2011-2016. Being the most industrialized country in the East African region with manufacturing sector constituting 16% of its GDP (World Bank, 2016), manufacturing SMEs account for 85% of the employment regardless of the major challenges that they face in their operations. Shields & Shelleman (2015) insist that business sustainability should be the primary priority of any activity established to generate profit.

Wakiaga (2020) noted that although SMEs remain a crucial part of manufacturing in Kenya due to their crucial rule of employment creation and attraction of innovation, approximately 400,000 SMEs do not usually manage to celebrate their second birthday while a very limited number reach their fifth birthday. This spur heated conversations regarding the sustainability of the general SME sector where the manufacturing SMEs are included. Furthermore, 46% of the SMEs in Kenya have been found to close within a year of founding (Wakiaga, 2020). Various studies have been conducted to analyse the factors that influence the growth of SMEs (Ngui, 2014; Afande, 2015; Deloitte, 2016). However, there has been minimal attention to the aspect of sustainability as pertains to SMEs. Nyaboga, Nyangosi & Mbunya (2015) noted that the SMEs operating with the Kenyan context several efforts have been made to enhance the performance of SMEs, but they continue to exhibit serious difficulties in meeting their obligations due to limited competence in their operations.

1.1.2 Financial Accessibility

Coffie, Zhao & Adjei Mensah (2020) define financial accessibility as the availability of funds to both individuals and businesses. The topic of financial accessibility has continued to elicit interest throughout the world, particularly in emerging and developing economies. Financial accessibility denotes the ability of enterprises and individuals to obtain services related to finance (Bell, 2010). Accessing credit is an important factor in increasing the development of SMEs. It is believed that access to credit enable SMEs to overcome their liquidity constraints and undertake some investments. Banks and SACCOS remain highly liquid and reluctant to expand credit other than to most credit worthy borrowers which in most cases excluded the SMEs (Muguchu, 2013). Manufacturing SMEs require financial support for them to transcend the hurdles of growth to grow and achieve their strategic goals. According to Wekesa Bunyasi, Bwisa & Namusonge (2017), access to finance is a key determinant for business start-up, development and growth of SMEs. However, the financial system may or may not fully cater for their needs due to complexities and demands of the financial markets.

Credit constraints operate in several ways, thus, forcing SMEs to work with informal financial strategies and self-financing. Lack of capability to access long-term financial assistance pushes SMEs into short-term loans that are usually more costly. The root of these struggles is grounded on the belief by major financial institutions that SMEs are credit-worthless due to their limited scale of operation and lack of proven sustainability. Nonetheless, Chesang (2017) applauds the role played by SACCOs and MFIs that have emerged recently in offering better financial offers. However, Johnson & Nino-Zarazua (2011) contend that MFIs and SACCOs have not managed to adequately ease the burden of SMEs due their limited funds. Wanjohi (2009)

recognises that the fact that financial institutions cannot turn their savings into medium or long-term loans as well as absence of refinancing from central bank limits the amount of credit they can offer. The crucial factors that are hypothesised to influence financial accessibility include loan processing fees, interest rate, credit rationing and business risk.

Loan processing fees has been continuously blamed for limited access to finance by SMEs. The government has been placing efforts to increase SMEs' access to finance to enable them to sustain their operations through strategies such as relaxation of loan terms and reduction in the rates of interest that occurred during the earlier periods of COVID-19 (Kaberia & Muathe, 2021). However, the positive effect of this on access to finance remains unclear given the scarcity of empirical research in this area. Gichuki, Njeru & Tirimba (2014) pointed out that the key indicators of cost are loan processing fees, negotiation fees, personal insurance and legal fees. While transaction costs are restraining for all borrowers, there are arguments that they are even more constraining for small and micro enterprises. Their diverse characteristics and their relative opaqueness increase assessment and monitoring costs. Unlike other credit categories, such as consumer credit or mortgage lending, SME lending is still considered a high-cost lending product. More specifically, unlike other lending products that can be reduced to simple transactions, SME lending often still depends heavily on relationships between borrowers and lenders.

Johnson & Arnold (2012) defined interest rate as the return on capital. Interest rates are usually a percentage of the borrowed amount. High interest rates on credit may discourage SMEs from borrowing reducing the accessibility of credit among them. Banks have often been criticized for having high interest rates charged on loans, which discourages businesses from seeking

financial assistance from them. Credit rationing occurs when lenders become unwilling to provide additional funds to borrowers at the prevailing market interest rate (Kirschenmann, 2016). In this case, the lender may supply lower less funds than the borrower demanded as per the terms of the contract. Business risk constraints the willingness of financial institutions to extend financial assistance to SMEs (Cenni et al., 2015). During the recent COVID-19 pandemic, MSMEs especially in manufacturing sector have faced reduced sales and banks have taken precautionary measures against lending to them. This suggests that there exists a financing gap when it comes to SMEs funding in manufacturing sector and therefore this paper reveals a better and deeper understanding of the issues surrounding the financial difficulties encountered by SMES in Nairobi County.

Notwithstanding the high rate of MSME failure, empirical focus on the possible causes of financial access and factors related to it including cost of credit, interest rate, credit rationing, and business risk have not been adequate. Most of the available studies have present a disintegrated focus on the themes of financial access and sustainability, with most of them paying more attention to performance, which is not necessarily sustainability. For example, Ye & Kulathunga (2019) analysed how financial literacy promotes sustainability in SMEs from a developing country perspective Anton & Bostan (2017) was interested in the role played by access to finance in explaining the variations that characterised the cross-national entrepreneurial activity. The thematic and contextual gaps aforementioned were also evident in the study by Peter and Anyiemi (2015) and Kimaiyo (2016). Although Wandiri, Nyang'au & Ochieng (2020) focused their study on Nairobi County, they concentrated on the influence of financial development initiatives on growth small and medium enterprises, which is distant

from financial accessibility and sustainability of manufacturing SMEs. This means that there are notable gaps in literature that needs attention.

Contingent to respective empirical studies there are glaring methodological, conceptual, contextual and knowledge gaps that necessitated the current examination. For instance, there are some studies that adopted parametric statistical methods though they never disclosed on respective diagnostic tests. This may have increased likelihood of drawing biased conclusions. Further, there were heterogenous conceptualization of sustainability and financial accessibility in past studies though the current limited its definition of financial accessibility to loan processing fees, interest rate, credit rationing and business risk owing to their prediction in heterogenous sectors. Further, there were notable contextual gaps that were linked to consideration of studies from different business operating environment hence the need for customized study in the manufacturing sector in Kenya.

1.1.3 Manufacturing Small and Medium Enterprises in Nairobi County

In the emerging markets, SMEs continue to remain a choice of investment in the wake of increased need for economic growth. According to Ombongi & Long (2018), SMEs create employment opportunities and promote business linkages at local, regional and international levels. Based on the estimations by Memba, Gakure and Kabare (2013), SMEs employ more than 84% of the workforce in the developing country context (Kenya Association of Manufacturers, 2021). The massive employment that SMEs generate has been the motivation for the government's investment and promotion of the growth of SMEs. Although the investments and promotion by the government have been inadequate, there have been

concerted efforts by the government to not only directly offer finance to SMEs, but also partner with other local, regional and international development partners to boost the success of the SMEs. Regardless of this immense contribution to the development of economy, SMEs remain exposed to a myriad of challenges including limited access to finance. Baraka & Anyieni (2015) argue that failure to provide business information that can guarantee financial support constrains SMEs access to finance.

The role played by Kenya Association of Manufacturers (KAM) in advocating the government to create a conducive environment for entrepreneurship and SME development cannot be understated. From the manufacturing perspective, SMEs gave remained instrumental tools for securing the future of the sector. This explains the reason for KAM setting out to provide strategic leadership aimed at supporting manufacturing SMEs towards inclusivity in global competitiveness. The manufacturing SME hub that KAM launched was geared towards preparing, nurturing and growing the manufacturing SMEs in order to enhance their ability to take full advantage of the available markets (Kenya Association of Manufacturers, 2020). Various activities that the hub has conducted as part of its commitment towards nurturing manufacturing SMEs through financial linkages prospects for SMEs include capacity building services and financial access.

On October 27, 2020, KAM and Equity Bank held a webinar under the theme of *Building business resilience through access to finance.* The webinar was intended to address issues that relate to manufacturing SMEs' access to finance. This was part of KAM's quest to scale up and access global markets. The partnership was established the following day at Crowne Plaza Hotel between KAM and Equity Bank sought to establish financial linkages through provision

of access to credit and export linkages (Kenya Association of Manufacturers, 2020). Despite these efforts, manufacturing SMEs are struggling to continue their operations, a factor which raises concern over the factors that limit their sustainability. Although studies have focused on a variety of factors such as leadership and governance, access to markets, low capital base and poor knowledge of operations (Maali, 2020), existing literature has not fully explored the influence of access to credit on manufacturing SMEs' sustainability.

1.2 Statement of the Problem

Manufacturing companies in Kenya have significant contribution in Gross Domestic Product (GDP) of at least 20%, maintain 15% of regional market share and attract local and international strategic investors (Gitau & Gathiaga, 2017). Furthermore, Kenya Association of Manufacturers (2020) allude that it ought to create at least 20% of employment opportunities. Despite of these expected trend, the situation is not promising since most manufacturing companies are recording decrease in profitability, scale down of their operations and deployment of workers. This threatens achievement of vision 2030 manufacturing growth rate of 20%. Sales decline have averaged at 3.3% (Kenya Economic Survey, 2020).

Manufacturing SMEs owners expect to establish manufacturing enterprises and remain in operations into unforeseeable future. They intend to generate desirable income that can enable them to not only finance their current operations, but also sustain productivity during the current and future periods. Contrary to their expectations, most of the manufacturing SMEs cease to operate within the first year while more others stop operations within the first half a decade of their establishment (Chen et al., 2013; Namara, Murro & O'Donohoe, 2017;

Wakiaga, 2020). Moreover, the current COVID-19 pandemic is believed to have either positively or negatively affected MSMEs depending on the nature of products they deal in. While most of the studies and experience from practice claim that low capital base and lack of access to finance are the major causes of SMEs failure, some of the SMEs have been found to have access to a wide pool of capital and ready finance from angel/venture capitalists, but still fail.

Moreover, factors specific to general SMEs may not necessarily apply to manufacturing SMEs. What is not fully disclosed in available literature is the influence of the specifics of access to finance on the sustainability of manufacturing SMEs. Additionally, the regulations that were put in place during the COVID-19 pandemic to increase uptake of credit by MSMEs intended to encourage increased lending to SMEs, but the extent of the banks' reactions influenced MSMEs' access to finance remains unknown. Hence, the current study aimed at examining the effect of financial accessibility on sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The objective of this study was to investigate the effect of financial accessibility on the sustainability of manufacturing small and medium enterprises (SMEs) in Nairobi County, Kenya.

1.3.2 Specific Objectives

i. To examine the effect of loan processing fees on the sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya.
ii. To establish the effect of interest rate on the sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya.
iii. To determine the effect of credit rationing on the sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya.
iv. To find out of the effect of business risk on the sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya.

1.4 Research Questions

The study sought to respond to the following questions:

i. What is the effect of the loan processing fees on the sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya?
ii. How does interest rate affect sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya?
iii. What is the effect of credit rationing on sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya?
iv. Does business risk affect sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya?

1.5 Significance of the Study

Manufacturing SMEs are crucial economic boosters recognised in the economic pillar of Kenya's Vision 2030 and the Big Four Agenda. In addition to generating employment opportunities for 84% of the population, manufacturing SMEs also spur innovation and economic growth within the borders of the Kenyan nation (Mkalama et al., 2016; Muriithi, 2017). However, the ability to operate sustainably remains a nightmare among most of the manufacturing with most of them ceasing operations within the first five years of operation (Wakiaga, 2020). Despite the notable priority given to the growth of manufacturing SMEs, the clarity on how financial access affects the sustainability of manufacturing SMEs is lacking. Studies conducted previously focused on the general aspects of the performance of SMEs, but little attention has been given to the manufacturing SMEs operating in Nairobi County.

The study intends to provide empirical evidence relating to the influence of financial accessibility on the sustainability of manufacturing SMEs in Nairobi County, Kenya in the context of the current COVID-19 Pandemic. The findings from the study will provide crucial information that stakeholders in the manufacturing SMEs can use to make rational decisions about their business operations to maintain sustainability. Using the results from the study, policymakers especially those in government institutions will be able to make policies that are considerate of the manufacturing SMEs in order to enhance their levels of sustainability.

Fundamentally, the government benefits from the study because it focuses on sustainable manufacturing, which is part of the Kenya's vision 2030, Big Four Agenda and Kenya Kwanza government manifesto. The findings inform the government on the crucial elements of

financial accessibility that can significantly boost sustainability of manufacturing SMEs even as the depreciating Kenya shilling, geopolitical crises and coronavirus continues to stagnate the advancement of the economy. Practitioners in the manufacturing SME sector identifies how financial accessibility is affecting them relative to other firms within and without Nairobi County. Given this information, it is possible for them to collectively bargain for support and lobby for changing of laws and policies to create an environment that enables manufacturing SMEs in Nairobi County to thrive.

The study presented valuable information on financial accessibility and survival of manufacturing SMEs in Nairobi Kenya. This may enhance extensive research that has been carried in different continents. The study was limited to manufacturing companies in Nairobi County. The scholars are better informed on conformity with theoretical foundation on the link between financial accessibility and survival of manufacturing SMEs in Nairobi County, Kenya.

1.6 Scope of the Study

The current study determined effect of financial accessibility and survival of manufacturing SMEs in Nairobi County, Kenya. The target population was 752 manufacturing firms registered by KAM as at 2020 (KAM, 2020). Finance accessibility was operationalized loan processing fees, interest rate, credit rationing and business risk and sustainability. The study was limited to use of primary data sourced using questionnaires among 89 manufacturing SMEs.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This is the second chapter of this research proposal, which presents a critical analysis of extant literature. The chapter is organized into three major sections, namely, theoretical review, empirical review and summary of gaps in literature.

2.2 Theoretical Review

The theoretical review and discusses the theories that can be used to explain the relationship between financial access and sustainability of small and medium-sized enterprises. The most popular theories that explains this relationship include Delegated Monitoring Theory (DMT), Relationship Lending Theory (RLT) and Legitimacy Theory. Given that the study has more than one variable (a total of four variables), it is crucial to consider a multi-theoretical approach. A single theory could not provide a single explanation for all the variables, which necessitated taking a multi-theoretical approach.

2.2.1 Delegated Monitoring Theory

Delegated monitoring theory was brought forth by Diamond (1984). The theory depicts that the role of financial intermediaries in capital formation and policies that inhibits bank diversification. The theory defines financial intermediaries as agents who are mandated with

investment in financial assets. They issue securities and in return purchase others. Financial market operations are anchored on organization capacity to enforce debt contracts by incurring monitoring and enforcement costs. Debt contracts include those issued to borrowers and intermediaries as they borrow from investors. The need for portfolio diversification is anchored on the need to transform financial institutions to cut down on operational costs.

Diamond (1984) assumes that the odds of borrowers returning the money are higher with or without penalties. Further, for ease of monitoring loans there is a minimum level of profitability that ought to be achieved by commercial banks (Hellwig, 1991). Financial intermediation is aimed at providing access of secondary financial assets at lower monitoring and agency costs. Services provided by financial intermediaries can be categorized as asset and liability. Financial intermediaries providing assets are distinguished by the portfolio of their asset compositions. Liabilities services include ability of bank to demand deposits as means of payment and contingent contract personalization.

Liquidity services include cheque clearing and other micro economic aspects of money. Transformation services provided by financial intermediaries offers conversion of illiquid assets into liquid liabilities thus improving risk sharing and liquidity in comparison to investment in assets held by intermediaries (Diamond & Dybvig, 1991; Diamond, 1995). Asset services are provided to borrowers who issues them with assets. To an investor there is need for an intermediary to minimize level of risk exposure and information access costs. Cost borne by intermediaries as they issue securities mimics those incurred in deposits (Hellwig, 1991). To mitigate against losses there is need for collection of private information that would aid in decision making.

The theory is relevant for the study since manufacturing would be evaluated through examination of loan processing feesand business risk on survival of manufacturing SMEs. Manufacturing firms ought to examine the effect of loan processing fees, negotiation fees, cost of personal insurance and legal fees against benefits to be accrued from a loan. Further, there is need for examination of business risk; economic conditions/trends, history of non-performance, emerging technology and competitive forces.

2.2.2 Relationship Lending Theory

The Relationship Lending Theory (RLT) is founded on the tenet that there exist several parties in the lending system, including the legal, judicial, social and tax actors that influence the process (Namara, Murro & O'Donohoe, 2017). According to Berger (2006), SMEs do benefit from small institutions that rely on soft information when executing their relationship lending. Moreover, a multiplicity of factors that that contributes towards successful lending index were evident in the study by Retap, Abdullah & Hamali (2016), and they included trust, levels of commitment, closeness, extent of satisfaction, information sharing and quality of the relationship. If these critical elements are not met by SMEs looking for funding, the ability to access finance are reduced. Thus, there is need for SMEs to create a good relationship between the lending officer of a financial institution and the management teams of SMEs.

The SMEs' managers are tasked with a huge responsibility before they arrive at the final decision concerning external financing. It is worth noting that various risks are involved in each form of financing albeit the fact that each financing option has its own merits. Gupta & Ivanov (2020) argue that risk averse SMEs may opt for internal financing although it may not

necessarily raise enough funds for business expansion. This theory is relevant to this study because it examines how relationship in various bureaucracies that handle issuance of credit is important in ensuring better resource allocation to the manufacturing SMEs sector, hence, improving its levels of sustainability.

The theory is relevant for the study since there is need for examination on the effect of credit rationing on sustainability of manufacturing SMEs. In some instances, manufacturing SMEs may not be in a position to raise the required loan applied due to inability to raise required collateral and previous loan relationship history.

2.2.3 Legitimacy Theory

Legitimacy theory was developed by (Deegan et al., 2002). The theory explains organization behaviour in implementation and development of social responsibility policies and communication of their results. The theory treats corporate, social and environmental performance and its information disclosure as a strategy to fulfil the organization social objectives that aids in achievement of its goals. Burlea and Popa (2013) asserts that sustainability of legitimacy theory is anchored on management capacity to connect traditional norms and values with current professional ethics. The study concurred with legitimacy theory.

Legitimacy is a psychological state of partiality of individuals and group of people who are sensitive to surrounding environment symptoms. Community legitimacy is a strategic pillar for future company development. Legitimacy is symbiotic giving and receipt between community and a corporate organization. Ang and Marsella (2015) purports that corporate demands are not only limited to financial benefits but they also have to incorporate community

and environment due to benefits derived upon utilization of local resources. Furthermore, corporate entities may strengthen their legitimacy through disclosing their social responsibilities to potential investors.

Legitimacy theory is relevant to this study because it shows how manufacturing SMEs are not only on profit maximization principles but also social, environment and community needs. The theory shows that firms have competing demand from the community set up and they have to not only optimize profit but also enhance stakeholders' engagement. However, extant literature does not provide comprehensive details of the extent to which SMEs engaging in manufacturing respond to the tenets of the theory. From this study, it was possible to provide a comprehensive explanation and confirmation regarding whether the legitimacy holds for MSMEs in Nairobi County, Kenya.

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2.3 Empirical Review

The empirical review explores a range of recent empirical studies that have been conducted in in relation to financial accessibility and sustainability of manufacturing SMEs. In this section, studies from previous researchers that focus on any of the four aspects of financial accessibility in relation to sustainability of manufacturing SMEs were identified and critiqued in order to identify the gaps in literature. Although the studies do not give an account of what has been transpiring during the COVID-19 pandemic, they show ways through which cost of credit, interest rate, credit rationing and business risk affect sustainability of MSMEs. The empirical

review section is divided into four sections, each section presenting each independent variable in relation to the dependent variable.

2.3.1 Loan Processing Fees and Sustainability of Manufacturing SMEs

Loan processing feesaffects the affordability of finance that manufacturing SMEs get for purposes of starting and expanding their businesses. Wekesa Bunyasi, Bwisa & Namusonge (2017) recognised that SMEs account 95% of business population and access to finance is a key determinant of SMEs' development and growth. Similarly, Mutinda (2020) identified that SMEs require uninterrupted financial support for them to start, develop and grow. In order to address some of the factors that spur SMEs' non-performance, Wekesa et al., (2017) assessed the effect if entrepreneurial finance in terms of access to finance on the growth of SMEs in Kenya. Findings from the study confirmed that access to entrepreneurial finance (affordability, flexibility, grace period and availability) positively influences the growth of SMEs in Kenya. Collecting data using a hybrid of structured and unstructured questionnaires administered to the SMEs' owners and managers allowed to collect and analyse reliable and generalizable data. However, limiting the study to the SMEs that operate within Thika Municipal Council in Kiambu County means that it was conducted in a different geographical location different from the current study's Nairobi County. Furthermore, study did not specialize in manufacturing SMEs, which may exhibit varied experience from other types of SMEs.

Leasing is a form of business financing that helps SMEs to bridge the existing fixed asset financing gaps. Despite the concerted efforts that have been put in place to improve the competences of SMEs' managers in leasing, evidence of inefficient equipment and tools in use

in most of the SMEs as well as entry into unfavourable lease contracts are rampant. Nyaboga, Nyangosi & Mbunya (2015) investigated the extent to which leasing competence and structure affects performance of SMEs in Kisii Municipality, Kisii County. Findings from the study revealed that rental amounts paid have a significant influence on the lease structure that SMEs in Kisii County adopt. Notably, it was also evident from the study that majority of the SMEs are struggling to meet contractual obligations in lease agreements in the presence of limited competence in the preparation of expected cash flows. Although the study is contextualised in Kisii County that is dissimilar from Nairobi County in several micro and macro-economic aspects, it confirms that the loan processing fees can significantly affect SMEs' access to finance.

2.3.2 Interest Rate and Sustainability of Manufacturing SMEs

Interest rate reduces the amount that SMEs can get from the financial institutions. A study by Peshev & Beev (2016) showed that interest rates tend to scare low income generating SMEs from applying for credit from banks and financial institutions, thus, reducing the amount of credit extended to them. Mole & Namusonge (2016) pointed out that the amount of interest rate charged is affected by expected inflation, default risk, liquidity premium and maturity premium. This leads the SME's to the micro finance institution, who lend unsustainable interests short term loans. The high interest rates, discourages the entrepreneurs in this sector from borrowing. It's because the interest payment come out of profit and can be reduced by the borrowing business if profit and trading conditions are unfavourable (Thuranira, 2009). Although the study by Mole & Namusonge was based on Kitale town, it showed the implications that interest rate can have on MSMEs performance via ability to access credit.

However, the study cannot be readily generalised to Nairobi City because the macro and micro business aspects of Kitale may differ from those of the metropolitan Nairobi.

The interest capping that was introduced in September 2016 through the Banking (Amendment) Act 2016 set bounds on lending and deposit rates with the aim of lowering the loan processing feesand increasing access to finance. Contrary to this expectation, access to credit was reduced as banks shunned a number of borrowers since the commencement of the law. The period between October 2016 and June 2017 saw a significant reduction in the number of loan accounts. The rising value of loan size vis-à-vis a notable reduction in the number of loan accounts is a reflection of lower access to small borrowers and larger loans to established firms. Thus, interest capping failed to achieve its objective of increasing credit access to small businesses and was eventually removed in November 2019. During the period when the law was in effect, SMEs were denied loans worth ksh. 300 billion, and there was a decline of the percentage from 25% to about 15%. Although the intentions for the interest capping law were good, the cap reduced credit to the SMEs and damaged the growth of small businesses.

The interest on the effect of interest cap on Kenya's SMEs motivated Kiseu (2017) to investigate the effect of interest capping on the amount of credit issued by commercial banks in Kenya. Findings from the study revealed that there is no significant effect of the interest capping on the amount of credit that commercial banks in Kenya issue. This somehow contrasts the Central Bank of Kenya report that was released in 2019 showing a significant decline in the amount loans released by the commercial banks. Similarly, a more recent study by Adhiambo, Wafula & Christopher (2021) that endeavoured to analyse the relationship between interest rate cap and access to credit by SMEs in Kisumu County identified a significant

influence of interest rate cap on access to credit. Contrary to its expectation that it could promote access to credit by SMEs, interest rate cap has been consistently found to have reduced the ability of SMEs to secure credit, mostly due to banks becoming more restraint in extending credit to SMEs.

2.3.3 Credit Rationing and Sustainability of Manufacturing SMEs

Exclusion of SMEs from credit markets has been widely investigated in both developed and developing world (Cenni et al., 2015; Kirschenmann, 2016). Jin & Zhang (2019) observed that credit markets are usually characterised by rationing of borrowers in the amount that they can borrow. Thus, SMEs have a higher likelihood of being eliminated from borrowing compared to established enterprises when rationing occurs. In their theoretical analysis, Jin & Zhang (2019) studied the reasons why SMEs are more vulnerable to credit constraints and found out that the credit rationing that usually cuts off SMEs are results from banks' rational choices to maximize profits. While the mode that they generated provides important insights regarding the banks' choices in the processes of extending credit, Jin & Zhang (2019) based their study on secondary data, which means that it does not have empirical basis for its conclusions. Moreover, the study is not specified to the realities of the Kenyan context, thus, the conclusions cannot be directly borrowed to the Kenyan context unless validated using the current study.

The study by Alumasa & Muathe (2021) was intended to investigate the effect of mobile credit on performance of micro and small enterprises. One of the most obvious features of credit mobile credit is rationing. Although the study failed to focus entirely on manufacturing SMEs, the authors revealed that accessibility of mobile credit, the loan amount and the regulation are

positively related to performance. Although mobile credit is an essential source of credit for SMEs, Alumasa & Muathe (2021) exclaimed that the rationing that characterize its accessibility reduces its access to MSMEs, thus, jeopardizing their performance. Contrary to this finding, Musau, Muathe & Mwangi (2018) showed that utilization of digital finance improves access to finance because it cuts costs of issuing credit. This is similar to what Chen & Mazer (2016) had stated regarding increased ease to access credit by SMEs. However, the amount of credit that mobile loans offer are usually limited to certain amounts, hence, may not fully address the growth prospects of the Kenyan SMEs.

Yu & Fu (2021) observed that regardless of the existence of several studies that show the extent to which credit rationing hampers productivity, literature on the relationship among credit rationing, productivity of a firm, and innovation of SMEs in developing countries is lacking. This was consistent with the observation made by Musau, Muathe & Mwangi (2018) and Mkalama et al. (2018). In order to address this gap, it was necessary for Yu & Fu (2021) to directly measure credit rationing of the 13,656 Chinese firms. A dataset from January 2015 to December 2017 was used. Based on the findings from the study, there is a weak and strong credit rationing negatively influence productivity by restraining innovation. Similar to the assertion by Shah & Ahmad (2019), the negative effect of credit rationing becomes more evident for firs without real estate investment or less willingness to invest. Similar to the study by Jin & Zhang (2019), Yu & Fu (2021) neither used primary research nor based their study in the Kenyan context. Notwithstanding this, Yu & Fu (2021) generated informative data that can be used to inform credit decisions in the presence of credit rationing.

2.3.4 Business Risk and Sustainability of Manufacturing SMEs

Start-up SMEs are mostly exposed to greater business risk compared to established SMEs (Hoffmann & Shcherbakova-Stewen, 2011). Thus, this affects the amount of entrepreneurial finance that owners are willing to commit to SMEs. In is investigation of the financial factors that affect access to credit among SMEs operating in Machakos County, Kenya, Mutinda (2020) found out business risk affects access to credit, hence, reducing the performance of firms and curtailing their progress towards sustainable operations. However, the study was based on Machakos Township Sub- County, which is more remote compared to Nairobi's Industrial Area. Another study by Peshev & Beev (2016) revealed that business risk us a crucial consideration prior to providing any credit to SMEs. However, it has not been established whether limiting credit access to manufacturing SMEs significantly influences their sustainability. Closing this gap is core focus of the current study.

Lender use credit scoring to determine the risk of default of a credit applicant. As an automated statistical method, credit scoring involving analysing large amounts of historical data on borrowers with the aim of identifying certain characteristics that are predictive of the likelihood of the borrower defaulting on his or her loan sometime in the future. Smaller SMEs tend to lack the data on their financial operations. Even when available, these data maybe unreliable and missing certain crucial elements. Although personal data of the owners of SMEs may be an alternative source of credit scoring information, Mwirigi, Gakure & Otieno (2020) argue that this is limited to certain types of businesses and the law may limit lability depending on the nature of the business entity. As identified by Berg et al. (2020), credit scoring may be disadvantageous because in addition to overreliance on historical data, it may lead to unfair

lending practices, thus, adversely affecting some groups such as minorities and women who own SMEs, but do not fit the established risk profile.

Most of the funding for SMEs comes from financial institutions (Ye & Kulathunga, 2019; Maali, 2020). Financial institutions strive to improve the risk management of their SME portfolio by creating a wide pool of information that reduces information asymmetry faced when dealing with customers from the SME sector. However, Maali (2020) recognises that there are many issues that affect the reliability of financial information on SMEs, which lead to reluctance of banks to lend to SMEs. If banks are not able to evaluate the business risk because of lack of adequate information, it may be difficult for them to provide the required funding. Moreover, Afande (2015) identifies those creditors and investor in well-developed and stable financial markets usually demand and receive financial information characterized by transparency reliability and comparability for them to make rational lending decisions. In a developing world context such as Kenya, financial markets are neither well-developed nor stable, yet they demand transparent, reliable and comparable financial information, which some of the SMEs cannot satisfy (Myers & Majluf, 1984). Regardless of some degree of flexibility and compromise by funders, some of the banks are extremely rigid to provide finance at a time when some SMEs cannot access finance even when they struggle to meet the requirements. The cause of this discrepancy still remains largely unexplored in the context of extant literature.

2.4 Research Gap

Most of the previous studies on financial accessibility focused their studies on performance of SMEs (Nyaboga, Nyangosi & Mbunya, 2015; Chesang, 2017; Ombongi & Long, 2018; Shah & Ahmad, 2019). Researchers have not given the required attention to the aspect of SMEs' sustainability. Thus, most of the extant literature is only focusing on the aspect of access to finance and performance of SMEs. Performance has been overly researched, but sustainability remains a rarely researched element in the SME literature.

Another notable gap is that previous researchers conducted their studies on the general SME context (Matias & Serrasqueiro, 2017; Yacob, Wong & Khor, 2019). Unlike the current study that endeavored to give attention to manufacturing SMEs, majority of the studies did not specify the type of SMEs they were basing their studies on. This implies that adequate empirical focus on the manufacturing SMEs has not been achieved. Only two studies were found to have paid attention to manufacturing SMEs (Wandiri, Nyangau & Ochieng, 2020; Yacob, Wong & Khor, 2019). However, the two did not research on aspects of financial access and sustainability of manufacturing SMEs in Nairobi County.

Studies focusing on the aspect of credit rationing in relation to the sustainability of SMEs are not available. Studies such as Yu & Fu (2021) and Jin & Zhang (2019) are based on the Southeast Asian context that is an emerging market. The findings from these studies provide important insights regarding the influence of access to finance on sustainability of the MSMEs. However, the authors had geographically scoped their scope to the whole country; this is

different from this study, which is limited to only Nairobi County. Table 2.1 below presents a summary of research gaps.

Table 2.1 Summary of Empirical Literature

Author and Year	Findings	Gaps	Focus of Cu
Mole & Namusonge (2016),	Lending procedures, collateral requirement, credit bureau referencing policies and training offered by finance Institutions have a significant effect on access to credit facility by SMEs from financial institutions.	The study did not investigate the concept of sustainability and exhibits a conceptual gap because it is based on Kitale town,	Addresses including th and context City Count number of r
Nyaboga Nyangosi & Mbunya (2015).	Most SME managers lacks to competence to prepare the information required to access credit. Lack if long-term training limits the ability of SME managers to engage in lease agreements as a form of financing.	The study is limited to only leasing as a form of financing and contextualised to Kisii Municipality.	Widens foc financial a sustainabili
Wekesa Bunyasi, Bwisa & Namusonge (2017).	Access to entrepreneurial finance has a positive influence on the growth of SMEs	No mention of sustainability and manufacturing SMEs.	The study since it w manufacturi County.
Kiseu (2017)	Interest rate control does not have a significant effect on the uptake of loans by commercial banks.	The study is contextualized to the banking sector.	To address maintaining manufacturi
Adhiambo Wafula & Christopher (2021)	Cash reserve ratio has a significant effect on credit.	Limited to interest rate cap; no focus in sustainability of manufacturing SMEs; conducted in Kisumu County.	Holistic foc on the sus Nairobi Cou
Jin & Zhang (2019)	Credit rationing in SMEs is the result of the rational choice by banks for the purpose of profit maximization.	Used secondary data, hence, posing a methodological gap. Secondary data is blamed for being obsolete and possibly transmitting biases to current studies.	To address using first-h sources. Fu out diagnos
Alumasa & Muathe (2021).	Cost of credit, business risk and financial information affect access to credit by SMEs.	The study not focused on manufacturing SMEs and contextualised to Machakos County.	Since th regulatory resources th their surviv localized st
Yu & Fu (2021).	Weak and strong credit rationing hamper firm productivity through the innovation channel.	The study is contextualised in China, which may exhibit dissimilarities with Kenya's Nairobi City.	The study gaps since attributes th survivabilit companies.

Mutinda (2020).	Cost of credit, business risk, difficult to avail all financial information required and lack of conventional security affect access to credit by SMEs.	Contextually, the study was focused on Machakos County and did not focus on manufacturing SMEs.	To focus o Nairobi Cou
Peshev & Beev (2016).	Negative nominal lending rates commercial banks still can maintain a viable business model, and can increase access to credit by commercial banks.	Limited to lending rates and based on commercial banks as opposed to manufacturing SMEs.	Pays attenti access to f study to ma

Source: (Author, 2023)

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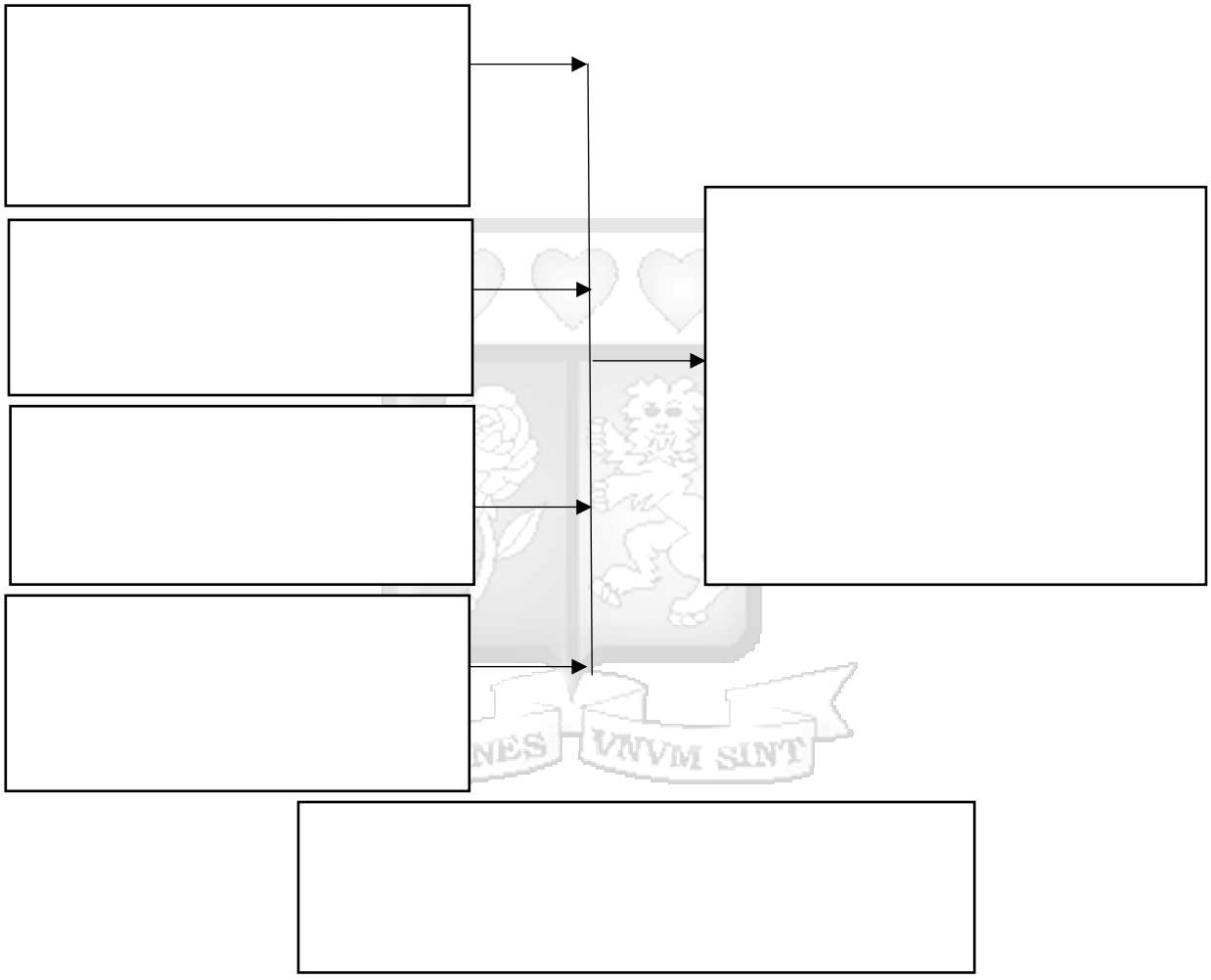
2.5 Conceptual Framework

The conceptual framework in figure 2.1 depicts the hypothesized relationship between the independent variable (financial accessibility) and the dependent variable (sustainability of manufacturing SMEs). The control variables were age, gender and level of education.



Control variables

Figure 2.1 Conceptual Framework

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2.6 Operationalization of Variables

The independent and dependent variable were operationalized as shown in Table 2.2 below.

Table 2.2 Operationalization of Variables

Name of variable	Description of the variable	Measurement	Scale	Analysis
Loan processing fees.	The amount of money the borrower pay in process of borrowing money from financial institutions	Loan processing charges Legal fees Insurance fees Negotiating fees	5-point likert scale	Descriptive Correlation Regression
Interest rates	Defined interest rate as the return on capital. Loan processing feescan be classified as gross and net interest. Interest rates are usually a percentage of the borrowed amount.	Total cost of credit Rate of inflation	5-point likert scale	Descriptive Correlation Regression
Credit rationing	The bank's credit rationing behavior may theoretically be influenced by a number of factors which include credit history, age and size of the firm, risk profile and collateral offered	No of Loan given to manufacturing sector Type of loan products Repayment period Collateral required	5-point likert scale	Descriptive Correlation Regression
Business risk	Financial risks occur when a firm makes use of debt. In such instances, the firm takes on additional responsibility of financing the debt which is paying interest payments on time	Price fluctuations Competition of the firms Emerging technology	5-point likert scale	Descriptive Correlation Regression
Demographic information	These are attributes that uniquely identifies the owner or manager of manufacturing entity.	Gender Age Level of education	Nominal scale	Descriptive regression

Sustainability of MSMEs	This refers to generating enough amount of profits to ensure business's perpetual continuity	Continuity of operations (Operational sustainability). Focus on the triple bottom-line (Social sustainability). Sustained profitability (financial sustainability) Business efficacy (operational sustainability)	5-point likert scale	Descriptive correlation Regression

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents an identification and justification of methods, approaches, and techniques that were adopted in data collection and analysis. A descriptive research design will be adopted. The population included the management staff of manufacturing SMEs in Nairobi County, Kenya. A questionnaire was used for data collection and its validity and reliability was determined using expert guidance and Cronbach's alpha respectively. Data collected was coded, entered into the SPSS software, and analysed to generate descriptive and inferential statistics. Ethical issues of confidentiality, informed consent and data safety will be taken into consideration.

3.2 Research Philosophy

This is a belief about the way in which data about a phenomenon should be gathered, analysed and used. It is the foundation of knowledge which assists the researcher to expose, understand and minimize research biases (Sekaran & Bougie, 2010). In determining the research philosophy to adopt, a researcher considers the epistemology and ontology of the paradigm. Three epistemological considerations exist in social sciences which include the positivism, post positivism/ realism and the constructivism /interpretivism (Saunders, Lewis & Thornhill, 2014). Ontology is concerned with the form and nature of reality and what there is to be known about it.

The study was guided by the philosophy of interpretivism. Interpretivism allude that only through subjective intervention of and intervention in reality can an issue be fully understood. The study should be carried out in an environment and scientists are not in control of the phenomena under study (Saunders, Lewis & Thornhill, 2014). Further, Wilson (2014) views that the philosophy is anchored on the analogy that though there are many realities interpretation, they themselves are subset of scientific knowledge they are in pursuit. This study aimed at developing quantitative data for analysis, which further develop knowledge concerning the effect of financial accessibility on the sustainability of manufacturing SMEs in Nairobi County. Thus, logical and mathematical manipulations of variables is necessary in order to discern the interaction among variables. An positivism philosophy was adopted because it enhances generalisability and objectivity of study findings.

3.3 Research Design

The step-by-step guideline stipulating how a research study will be undertaken to attain study objectives is known as research design (Sekaran & Bougie, 2013; Saunders et al., 2014). Research design's choice is pegged on research problem, resources endowment, study motivation and research ethics compliance (Sekaran & Bougie, 2013). Coopers & Schindler (2008) defined a research design as a blue print for the collection, measurement and analysis of data. A research design sets out a plan and structure that enabled the researcher to answer the research questions. This study adopted a descriptive research design.

Descriptive research is the process of collecting data in order to test hypothesis or to answer questions concerning the current status of the subjects in the study (Mugenda and Mugenda, 2003). Descriptive research design allows researchers to obtain information about the

characteristics of individuals, groups or situations. Thus, the researcher's interest is to obtain information about financial accessibility and sustainability of MSMEs in Nairobi County.

3.4 Target Population

Mugenda & Mugenda (2003) define population as an entire group individuals, events or objects that have a common observable characteristic that are of interest to a researcher. Thus, a population is what the researcher is interested in investigating so as to answer the research question. The target population for this study includes the manufacturing SMEs operating in Nairobi County, Kenya. Sekaran & Bougie (2011) define a sampling frame as a representation of all elements in the population that from which a representative sample is drawn. The target population will comprise of 29 building, mining and construction firms, 79 chemical and allied firms, 45 energies, electrical and electronics, 187 food and beverages, 9 leather and footwear firms, 83 from metal and allied sector, 51 from motor vehicle and accessories, 74 from paper and board, 24 pharmaceutical and medical equipment firms, 77 plastic and rubber firms, 11 fresh produce firms and 64 textile and apparel firms as tabulated in Table 3.1 (KAM, 2020).

Table 3.1 Target Population

Sector Members	Count	%
Building, Mining & Construction	29	4%
Chemical & Allied Sectors	79	11%

Energy, Electrical & Electronics	45	6%
Food & Beverages	187	25%
Leather & Footwear	9	1%
Metal & Allied Sector	83	11%
Motor Vehicle & Accessories	51	7%
Paper & Board	74	10%
Pharmaceutical & Medical Equipment	24	3%
Plastics & Rubber	77	10%
Fresh Produce	11	1%
Textiles & Apparels	64	9%
Timber, Wood & Furniture	19	3%
	752	**100%**

Source: (KAM 2020)

3.5 Sampling Technique and Sample Size

Sampling technique is the process of selecting a representative from the target population (Saunders, Lewis & Thornhill, 2014). In this study simple random sampling and stratified sampling was adopted. An appropriate random sample shall be picked from each sector to form a sample size of 89 manufacturing firms. Sample size was drawn using Nasuirma (2000) formula as shown below:

Sample size = $NCV^2/ (CV^2 + (N-1)\ \varepsilon^2)$

Where N is the population Targeted; CV^2 is co efficient of variation normally given at 0.5%; ε is the desired tolerance level of confidence usually given as 95% therefore taken at 0.05%.

Sample size = $(752*0.5^2)/ 0.5^2 + (752-1) *.05^2$

= 188/2.1275

= 88.4 = 89.

The sample for the study was as tabulated in Table 3.2.

Table 3.2 Sample Size

Sector Members	**No.**	**%**

Building, Mining & Construction	3	4%
Chemical & Allied Sectors	9	11%
Energy, Electrical & Electronics	5	6%
Food & Beverages	22	25%
Leather & Footwear	1	1%
Metal & Allied Sector	10	11%
Motor Vehicle & Accessories	6	7%
Paper & Board	9	10%
Pharmaceutical & Medical Equipment	3	3%
Plastics & Rubber	9	10%
Fresh Produce	1	1%
Textiles & Apparels	8	9%
Timber, Wood & Furniture	3	3%
	89	**100%**

3.6 Data Collection Methods

This study used a closed-ended questionnaire to collect quantitative data. Although the questionnaire is sometimes criticized for limiting collection of in-depth data based on respondents' feelings and emotions towards the phenomenon being investigated, Kankam (2019) recommends use of questionnaires because they allow for collection of data from several respondents at ago, which saves significant amounts of resources in terms of both time and finance.

Data collection is the process of administering the research instruments and getting data from the selected sample (Lune & Berg, 2016). Collection of data in this study involved the use of both online and print questionnaires. On the day of visiting each MSME, the researcher went with a print questionnaire and an online questionnaire prepared using google docs or survey monkey. The advantage of having both soft and hard questionnaire is that it gives the respondents choices to participate in the study based on their preferences. When interacting

with the respondents, COVID-19 restrictions such as social distancing will be observed to minimize chances of transmissions.

For each of the prospective respondent who accepts to cooperate, the researcher inquired from them if they are willing to fill in a printed or an online version of the questionnaire. Those who accepts to fill in a print questionnaire were given a copy and a pencil to participate. On the other hand, the respondents interested in filling in an online questionnaire was requested to provide their mobile phone number or email addresses to enable the researcher share a link to the questionnaire with them. This is important because the researcher may be able to increase the response rate.

3.7 Data Processing and Analysis

After data collection, the researcher had to put all questionnaires together and had their count to determine if the response rate warrants progress to data analysis. This was followed by coding and entry of the data into the Statistical Package for Social Sciences (SPSS). Data was then be cleaned to remove all outliers and ensure all details have been entered. Analysis was executed to generate descriptive and inferential statistics. Descriptive statistics showed the state of affairs of the variables as at the date of data collection. Inferential statistics, on the other hand, were used to analyze the effect of financial accessibility on sustainability of MSMEs in Nairobi County.

Variable reduction was conducted using exploratory factor analysis. The technique extracts maximum common variance from all variables and put them into a common score. However, it is worth noting that factor analysis is part of general linear model, which assumes a linear

relationship, no multi-collinearity, and a true correlation between variables. The principal component analysis method was used to reduce variables in this study. Variables correlation was determined using the correlation coefficient (r). If r>0.5, VAR1 and VAR2 will be said to strongly correlated. However, if r<0.5, VAR1 and VAR2 was said to weakly correlated. Significance levels (p-values) was used to determine if the relationship or association between two or more variables is significant. A p-value of less than 0.05 ($p<0.05$) indicate significance while a p-value greater than 0.05 ($p>0.05$) indicate lack of statistical significance. The p-values were used to test hypotheses with r $p<0.05$ leading to ejection of null hypothesis while $p>0.05$ leading to acceptance of the null hypothesis.

Spearman's rank correlation coefficient was applied to examine the strength of the effect of cost of credit, interest rates, credit rationing and business risks. Further, ordered logit regression equation was created to predict the effect of the variables. The regression model was of the form:

$$\text{Logit}\,(Y_i)=\beta_0+\beta_1 X_{1i}+\beta_2 X_{2i}+\beta_3 X_{3i}+\beta_4 X_{4i}+\beta_5 X_{5i}+\beta_6 X_{6i}+\beta_7 X_{7i}+\varepsilon_i$$

where:

Y=Sustainability of MSMEs (dependent variable),

β_0=the constant value,

X_1 = Cost of credit,

X_2 = Interest rate,

X_3 = Credit rationing

X_4=Business risk

X_5 = Gender

X_6= Age

X_7= Level of Education

β_1, β_2, β_3, and β_7 are the coefficients of the independent and control variables

ε=error term.

3.8 Diagnostic Tests

Ordered logit regression is based on four assumptions which are dependent variable was ordered, at least one or more independent variable is continuous, categorical or ordinal, no multicollinearity and proportional odds. In this study dependent variable was measured in ordinal scale that ranged from strongly disagree, disagree, neutral, agree and strongly agree. The second assumption that one or more predictor variables ought to be continuous, ordinal or categorical was complied with since the predictors cost of credit, interest rates, credit rationing and business risk were in ordinal scale that ranged from strongly disagree to strongly agree. The control variables; gender, age and education level were categorical.

Multicollinearity was evaluated through use of correlation matrix. From the correlation analysis none of the predictor variables was greater than 0.8, hence multicollinearity was not

an issue. Proportional odds assumption means that there is a common effect of the predictor variable for each cumulative logit. We should test for it with a null hypothesis that the slopes do not differ against an alternative that they differ. If they differ the dependent variable should be treated as nominal and multinomial logit fitted.

3.9 Research Quality

The researcher conducted a pilot study in 10% (10 MSMEs) of operating within Industrial Area. The MSMEs to participate in the pilot study were randomly selected from the list. Data collected from the participants will be used to confirm the suitability of the questionnaire for the targeted sample. The results informed the researcher in making error corrections and identifying and correcting possible ambiguities. Concerns raised during the pilot study were used to make improvement to the questionnaire administration.

3.9.1 Reliability of the Study

According to Sekaran and Bougie (2013) reliability is defined as the extent to which a research instrument can be relied upon to measure the desired objective. Data is said to be reliable if repeated measurements have similar findings. Reliability of researcher instruments is dependent on two errors which are random and measurement errors. Random errors are associated with eternal issues which are not within the control of the researcher while systematic errors can be managed in the study (Saunders et al., 2014). Reliability is the ability of a research instrument to measure what it is supposed to measure consistently (Peirce &

Dewey, 2017). It is used to determine the soundness dependability and authenticity of the research instrument. Reliability was determined using Cronbach Alpha. An alpha value of 0.7 and above provided evidence that the questionnaire is reliable (Spencer, 2010). All items that fail to meet this threshold may be removed from analysis.

Reliability analysis results in Table 3.3 indicates that all variables had Cronbach Alpha coefficient that was greater than 0.7. Hence, the research instrument was valid; loan processing fees0.735, interest rates 0.781, credit rationing 0.764, business risk 0.821 and sustainability 0.741.

Table 3.3 Reliability Analysis

Variable	Number of Items	Cronbach Alpha Coefficient	Conclusion
Cost of credit	5	0.735	Accepted
Interest rates	5	0.781	Accepted
Credit rationing	5	0.764	Accepted
Business risk	5	0.821	Accepted
Sustainability	5	0.741	Accepted

3.9.2 Validity of the Study

Validity of the research instrument is the capacity of research instrument to have underlying constructs that it should be measuring (Sekaran & Bougie, 2011). Further, research instrument construct is deemed to be skills, attributes, attitudes or knowledge under investigation. Saunders et al., (2014) argues that some constructs in a study are deemed to imaginary hence the need for development of measurement scale that would achieve desired objectives. Validity denotes the extent of relevance of a research instrument (Tesch, 2013). To determine validity, it may be necessary to consult with the experts in the field of finance and seek the assistance

of the supervisor to ensure that the content of the questionnaire is a true reflection of the variables of the study.

3.10 Ethical Considerations of the Research

Prior to engaging in data collection, the researcher sought data collection approval, which is used to secure a research license from the National Commission for Science, Technology and Innovation (NACOSTI). The approval from the university and NACOSTI license acted as a proof that the study is legal and it was intended for academic purposes. During the progress of data collection, confidentiality was ensured through the researcher not allowing the respondents to write their personal details on the face of questionnaires (Wildemuth, 2016). Each respondent signed an informed consent form after the researcher has disclosed all material facts about the study to their satisfaction. The researcher was required to explain the aim of the study, the intended use of data, and risks and benefits of participating in the study. To ensure data safety, the researcher stored all filled questionnaires under lock and key; all electronic data was saved in computers and backups secured by strong passwords to protect it from interference.

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CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

In this section primary data that was sourced using questionnaires from manufacturing small and medium enterprises is presented using figures and tables. The data was analyzed using descriptive and inferential statistics. In this chapter response rate, descriptive statistics on demographic information and study variables; cost of credit, interest rates, credit rationing, business risk and sustainability of manufacturing MSEs. Further, Product moment correlation and regression analysis will be presented.

4.1.2 Response Rate

The response rate was 79% because out of 89 issued questionnaires only 70 were correctly filled and returned. In agreement with Sekaran and Bougie (2013) the response rate was commendable because they allude that 70% is excellent. The response rate was achieved through participative and collective duty of research assistant and the researcher.

Table 4.1 Response Rate

	Frequency	**Percentage**
Filled and returned	70	79
Non returned	19	21
Total	**89**	**100**

4.2 Demographic Information

The study sought background information of respondents that included gender, age and level of education. Percentages were used for data analysis and presented in figures. Concerning

gender distribution of respondents Table 4.2 indicate that 51% were female and 49% were male. This indicate that there was an almost equal representation of male and female in entrepreneurship.

An examination of respondents age distribution indicates that 51.4% aged between 31 to 40 years followed by 30% aged between 21 to 30 years and 14.3% aged between 41 to 50 years. Since majority of the respondents aged below 40 years there is need for creation of business environment that would support entrepreneurship. This may ultimately minimize odds of unemployment among youths and develop innovative culture.

Concerning the level of education, pictorial presentation in Figure 4.3 indicates that 57% of respondents were undergraduate degree holders followed by 21% diploma graduates and 14% who are master's graduate. Since majority of those involved in management of MSEs had formal education qualifications then they would easily understand on measures to be undertaken to enhance their enterprises sustainability.

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Table 4.2 Demographic Information

Background Information		Frequency	Percent
Gender	Male	34	48.6
	Female	36	51.4
Age	Below 20	1	1.4
	21 to 30 years	21	30

	31 to 40 years	36	51.4
	41 to 50 years	10	14.3
	51 to 60 years	2	2.9
Level of Education	High school	5	7.1
	Diploma	15	21.4
	Undergraduate	40	57.1
	Masters	10	14.3
	Total	70	100

4.5 Descriptive Statistics on Loan Processing Fees

The first objective of the study examined the effect of loan processing feeson the sustainability of manufacturing enterprises in Nairobi County, Kenya. To achieve the study sought level of agreement on five-point Likert scale ranging strongly disagree (SD), disagree (D), Neutral (N), agree (A) and strongly agree (SA). Descriptive statistics that included mean and standard deviation analyzed the data as shown in Table 4.3.

The findings indicate that majority (mean=4) agreed that huge loan processing costs discourages manufacturing SMES from seeking credit. Secondly, mean =3.9 agreed that the negotiation fees charged during loan processing is a burden to most manufacturing SMEs. Thirdly, mean=3.8 agreed that during loan processing, manufacturing SMEs are required to meet legal fees which increases cost of credit. Moreover, mean =4 agreed that insurance fees for loan applied for is not sustainable to most manufacturing SMEs. Further, mean =4.3 agreed that high loan processing feeslimits some of the SMEs from accessing funding from financial institutions.

Table 4.3 Descriptive Statistics on Loan Processing Fees

	Mean	**Median**	**Std Dev**

The huge loan processing costs discourages manufacturing SMEs from seeking credit.	4	4	0.8
The negotiation fees charged during loan processing is a burden to most manufacturing SMEs.	3.9	4	1.2
The insurance fees for loan applied for is not sustainable to most manufacturing SMEs.	3.8	4	1
During loan processing, manufacturing SMEs are required to meet legal fees, which increases the cost of credit.	4	5	1.5
High loan processing feeslimits some of the SMEs from accessing funding from financial institutions.	4.3	5	0.9
Overall Average	**4**	**4**	**1.1**

4.6 Descriptive Statistics on Interest Rates

The second objective of the study sought to establish the effect of interest rate on the sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. Results in Table 4.4 indicates that majority agreed (mean =4.3) that in some instances interest rate on loans is quite high. Secondly, there was an agreement (mean =4.4) that it is necessary for funders of manufacturing MSEs to consider reducing interest rates. Further, there was an agreement that (mean = 3.6) that when interest rates are high, manufacturing SMEs desist from accessing loans and (mean = 3.5) agreed that interest rate capping is necessary to regulate the amount of interest charged on loans extended to SMEs.

Table 4.4 Descriptive Statistics on Interest Rates

	Mean	Median	Std Dev
The interest rate on loans is quite high	4.3	5	0.9
It is necessary for funders to consider reducing interest rates	4.4	5	0.9
When interest rates are high, manufacturing SMEs desist from accessing loans.	3.6	4	1.1

Banks' high interest rates excludes manufacturing SMEs from accessing credit.	3	3	1.1
Interest capping is necessary to regulate the amount of interest charged on loans extended to SMEs.	3.5	4	1.3
Overall average	**3.8**	**4**	**1.1**

4.7 Descriptive Statistics on Credit Rationing

The third objective determined the effect of credit rationing on sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. Results in Table 4.5 indicates mean =3.8 agreed that most manufacturing SMEs are intentionally excluded from financing. Secondly, mean =3.9 agreed that some banks extend loans in the amounts lower than what MSMEs apply for. Further, there was an agreement (mean = 4.0) that credit rationing reduces the amount of finance accessible by the MSMEs. Moreover, there was an agreement (mean = 3.7) that banks consider cash flow of a business when deciding the amount of finance to give. Finally, mean =3.8 agreed that MSMEs that have not managed large amounts of loans previously cannot be given loan amounts.

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Table 4.5 Descriptive Statistics on Credit Rationing

	Mean	Median	Std Dev
Most manufacturing SMEs are intentionally excluded from financing.	3.8	4	1.1
Some banks extend loans in the amounts lower than what MSMEs apply for.	3.9	4	1

Credit rationing reduces the amount of finance accessible by the MSMEs.	4	4	1
Banks consider cash flow of a business when deciding the amount of finance to give.	3.7	4	1.2
MSMEs that have not managed large amounts of loans previously cannot be given huge loan amounts.	3.8	4	1
Overall average	**3.9**	**4**	**1.1**

4.8 Descriptive Statistics on Business Risk

The third objective determined the effect of credit rationing on the sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. There was no agreement (mean = 3.2) that prevailing business circumstances affects the loan that a bank can offer. There was an agreement (mean =3.9) that MSMEs that are operating businesses that banks consider risky are excluded from financing. Further, mean =2.8 neither agreed nor disagreed that MSMEs that are operating business that banks consider risky are excluded from financing. In contrast, mean =3.7 agreed that the risky trends in the business environment reduces MSMEs chances of accessing finance. Finally, mean =4.4 agreed that business risk is given consideration by banks before providing finance.

Table 4.6 Descriptive Statistics on Business Risk

	Mean	Median	Std Dev
Prevailing business circumstances affects the loan that a bank can offer.	3.2	3	1.2
MSMEs with history of non-performance are denied finance.	3.9	4	1.1

MSMEs that are operating businesses that banks consider risky are excluded from financing.	2.8	2	1.3
The risky trends in the business environment reduces MSMEs' chances of accessing finance.	3.7	4	1.1
Business risk is given consideration by banks before providing finance.	4.4	5	0.9
Overall average	**3.6**	**4**	**1.1**

4.9 Descriptive Statistics on Sustainability of MSEs

The fourth objective sought to find out the effect of business risk on the sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. Results in Table 4.7, indicates mean =4 agreed that manufacturing SMEs have limited lifespans and tend to fail frequently. Secondly, mean =3.7 agreed that manufacturing SMEs experience difficulties to engage in social responsibility activities. Thirdly, mean=3.5 agreed that most manufacturing SMEs do not consider eco-friendly production process. Further, mean= 3.6 agreed that meeting the needs of the people in manufacturing SMEs is not guaranteed. Finally, mean =3.9 agreed that limited access to credit negatively affects the sustainability of manufacturing SMEs.

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Table 4.7 Descriptive Statistics on Sustainability of MSEs

	Mean	Median	Std Dev
Manufacturing SMEs have limited lifespans and tend to fail frequently.	4	4	1.1
Manufacturing SMEs experience difficulties to engage in social responsibility activities.	3.7	3	1.2

Most manufacturing SMEs do not consider eco-friendly production processes.	3.5	4	1.1
Meeting the needs of the people in manufacturing SMEs is not guaranteed.	3.6	3	1.2
Limited access to credit negatively affects the sustainability of manufacturing SMEs.	3.9	3	1.2
Overall average	**3.8**	**3**	**1.2**

4.10 Exploratory Factor Analysis

Exploratory factor analysis was carried and four factor were extracted as shown in Table 4.8. The factor with the highest factor loading was MSMEs that are operating businesses that banks that are considered risky are excluded from financing (0.7007), it was followed by banks consider cash flow of a business when deciding the amount of finance to give (0.646), the risky trends in the business environment reduces MSMES chances of accessing finance (0.619) and the lowest factor loading was 0.548 for when interest rates are high, manufacturing SMEs desist from accessing loans.

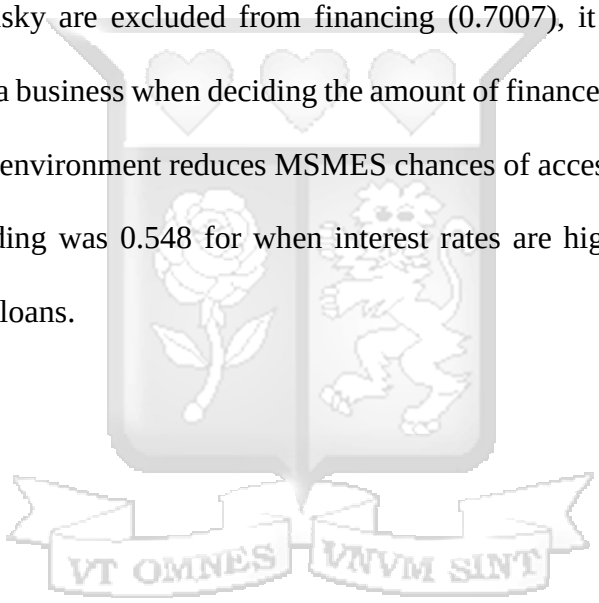

Table 4.8 Exploratory Factor Analysis

	1	2	3	4
MSMEs that are operating businesses that banks consider risky are excluded from financing.	0.707			
Banks consider cash flow of a business when deciding the amount of finance to give.	0.646			

The risky trends in the business environment reduces MSMEs' chances of accessing finance.	0.619			
Prevailing business circumstances affects the loan that a bank can offer.	0.584			
High loan processing feeslimits some of the SMEs from accessing funding from financial institutions.		0.608		
During loan processing, manufacturing SMEs are required to meet legal fees, which increases the cost of credit.		0.601		
It is necessary for funders to consider reducing interest rates		0.531		
The insurance fees for loan applied for is not sustainable to most manufacturing SMEs.		0.516		
The negotiation fees charged during loan processing is a burden to most manufacturing SMEs.			0.665	
The interest rate on loans is quite high			0.552	
The huge loan processing costs discourages manufacturing SMEs from seeking credit.			0.543	
Interest capping is necessary to regulate the amount of interest charged on loans extended to SMEs.			0.54	
When interest rates are high, manufacturing SMEs desist from accessing loans.				0.548
Total variance explained				36.33%
Extraction Method: Principal Component Analysis.				

4.11 Spearman's Rank Correlation Coefficient

Spearman's rank correlation coefficient was applied to examine the strength of the effect of cost of credit, interest rates, credit rationing and business risk on sustainability of manufacturing SMEs in Nairobi. Results in Table 4.9 indicate loan processing fees positively and significantly affected sustainability of MSEs of manufacturing (rho = 0.265, p value < 0.05). Secondly, interest rate has inverse and not significant effect on sustainability of MSEs manufacturing (rho = -0.11, p value> 0.05). Thirdly, credit rationing has positive and not significant on sustainability of MSEs manufacturing (rho = 0.132, p value >0.05). Finally, there

was positive and not significant effect of business risk on sustainability of MSEs manufacturing (rho = 0.096, p value > 0.05).

Table 4.9 Spearman's Rank Correlation Coefficient

		Sustainability	Loan processing fees	Interest rates	Credi rationing	Business Risk
Sustainability	Correlation Coefficient	1	.265*	-0.11	0.132	0.096
	Sig. (2-tailed)	.	0.027	0.365	0.275	0.43
	N		70	70	70	70
Loan processing fees	Correlation Coefficient		1	0.056	.259*	-0.189
	Sig. (2-tailed)		.	0.647	0.031	0.117
	N			70	70	70
Interest rates	Correlation Coefficient			1	0.157	0.129
	Sig. (2-tailed)			.	0.194	0.288
	N				70	70
Credi rationing	Correlation Coefficient				1	0.207
	Sig. (2-tailed)				.	0.086
	N					70
Business Risk	Correlation Coefficient					1

* Correlation is significant at the 0.05 level (2-tailed).

4.12 Proportional Odds Test

Prior to ordinal regression analysis proportional odds test was carried out with a null hypothesis that parallel regression models had similar coefficient against an alternative that there were not similar. Results in Table 4.10 indicates that with exception of Brant test the others had p values greater than 0.05. Hence, we can conclude that parallel regression had similar slope coefficient and the dependent variable was ordered.

Table 4.10 Proportional Odds Test

Test	Chi square	Df	P value
Wolfe Gould	13.87	12	0.309
Brant	22.98	12	0.028
Score	13.93	12	0.305
Likelihood ratio	16.95	12	0.152
Wald	6.566	12	0.855

4.13 Ordinal Regression Analysis

Ordinal regression was adopted to examine the effect of cost of credit, interest rates, credit rationing and business risk and the controlling effect of gender, age and level of education on sustainability of manufacturing MSEs in Nairobi. In the ordinal regression for model 1, the final likelihood is -80.780, likelihood chi square of 4.15, p value of 0.0418. This indicates that the whole model is statistically significant when compared with the null model with no predictors. The Pseudo R squared is 0.025. Loan processing fees has positive and significant effect on sustainability of manufacturing MSMEs in Nairobi County. Hence, we can conclude that unit increase in loan processing fees has resultant increase of 0.696 in the log odds of sustainability.

In model 2, the final likelihood is -81.946, likelihood chi square of 1.81, p value of 0.1782. This indicates that the whole model is not statistically significant when compared with the null model with no predictors. The Pseudo R squared is 0.0109. In model 3, the final likelihood is -79.1935, likelihood chi square of 7.32 p value of 0.0068. This indicates that the whole model is statistically significant when compared with the null model with no predictors. The Pseudo R squared is 0.0442. Credit rationing has positive and significant effect on sustainability of manufacturing MSMEs in Nairobi County. Hence, we can conclude that unit increase in credit

rationing has resultant increase of 0.944 in the log odds of sustainability. In model 4, the final likelihood is -82.244, likelihood chi square of 1.22, p value of 0.2700. This indicates that the whole model is not statistically significant when compared with the null model with no predictors. The Pseudo R squared is 0.0073.

In model 5, the final likelihood is -75.203, likelihood chi square of 15.30 p value of 0.0041. This indicates that the whole model is statistically significant when compared with the null model with no predictors. The Pseudo R squared is 0.0923. Interest rate has inverse and significant effect on sustainability of manufacturing MSMEs in Nairobi County when holding others factors constant. Hence, we can conclude that unit increase in interest rate has resultant decrease of 0.786 in the log odds of sustainability. In model 6, the final likelihood is -69.819, likelihood chi square of 26.07 and p value of 0.005. This indicates that the whole model is statistically significant when compared with the null model with no predictors. The Pseudo R squared is 0.1573. Loan processing feeshave positive and significant effect on sustainability of manufacturing MSMEs. Hence, we can conclude that unit increase in loan processing feeshas resultant increase in log odds of 0.857 in sustainability. There is of education has inverse and significant effect on sustainability of manufacturing MSMEs in Nairobi County when holding others factors constant. Hence, we can conclude that unit increase in level of education has resultant decrease of -0.625 in the log odds of sustainability.

Table 4.11 Ordinal Regression Analysis Results

	Sustainability					
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**

Loan processing fees	.696(.351)**				.649(.381)	.857(.390)**
Interest rate		-.476(.356)			-.786(.36)**	-.730(.385)
Credit rationing			.944(.36)**		.844(.377)	.976(.392)
Business risk				.335(.307)	.518(.305)	.546(.310)
Gender						-.735(.500)
Age						-.542(.330)
Education						-.63(.246)**
Cut1	-.759(1.526)	-5.37(1.6)	-.07(1.458)	-2.32(1.270)	.728(2.29)	-1.15(2.270)
Cut2	.908(1.424)	-3.75(1.46)	1.64(1.364)	-.691(1.125)	2.558(2.288)	.816(2.260)
Cut3	3.196(1.472)	-1.52(1.41)	4.01(1.441)	1.510(1.113)	5.065(2.357)	3.521(2.30)
Cut4	5.683(1.586)	.949(1.427)	6.532(1.57)	3.954(1.225)	7.809(2.451)	6.714(2.390)
Log likelihood	-80.780	-81.946	-79.1935	-82.244	-75.203	-69.819
LR chi square	4.15	1.81	7.32	1.22	15.30	26.07
P value	.0418	.1782	.0068	0.2700	0.0041	.005
Pseudo' R2	.0250	.0109	.0442	.0073	.0923	.1573

*** (P value< 0.05) * P value <0.1 *** P value <0.01;*

CHAPTER FIVE

DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary, discussion, recommendations and suggestions of future studies.

5.2 Discussion

The study arose from methodological, empirical, conceptual and contextual gaps. The study mainly investigated the effect of financial accessibility on the sustainability of manufacturing small and medium enterprises (SMEs) in Nairobi County, Kenya. Specifically, the study examined the effect of cost of credit, interest rate, credit rationing and business risk on sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. The study was anchored on trade off theory and pecking order theory. The study applied descriptive research design and sourced primary data through administration of questionnaires.

5.2.1 Loan Processing Fees and Sustainability

The first objective examined the effect of loan processing fees on sustainability of manufacturing small and medium enterprises in Nairobi, Kenya. The study documented positive effect of loan processing fees on sustainability of manufacturing small and medium enterprises in Nairobi, Kenya. The results were in disagreement with Bunyasi et al., (2017) who reported that credit access have effect on growth and development of SMEs. In addition,

Mutinda et al., (2020) argues that growth of SMEs is only sustainable if there is uninterrupted financial support. The results disagreed with Wekesa et al., (2017) who found that finance access have positive effect on SMEs growth. There is need to ease finance access to eradicate odds of not surviving due to inability to raise rental costs. The study confirmed delegated monitoring theory.

5.2.2 Interest Rate and Sustainability

The second objective examined the effect of interest rate on sustainability of small and medium enterprises manufacturing companies in Nairobi, Kenya. The study found that there was a negative and not significant effect of interest rate on sustainability of small and medium manufacturing companies in Nairobi County. The study findings were not in support of pecking order theory. The study disagreed with Peshev and Beecy (2016) who alluded that increase in interest rate discourages loan application among SMEs and eradicates odds of growth. Mole and Namusonge (2016) pointed out that changes in interest rate is dynamic to inflation rate, default risk and liquidity premium. There is need to eradicate strategies that minimize odds of credit access since this may deter odds of SMEs growth and development. The study confirmed relationship lending theory.

5.2.3 Credit Rationing and Sustainability

The third objective revealed positive and significant effect of credit rationing on sustainability of manufacturing small and medium enterprises. The results were in disagreement with Jin and Zhang (2019) who observed that credit rationing of borrower's limits odds of growth. The findings agreed with Alumasa and Muathe (2021) who found that accessibility to mobile credit

loan, loan amount and regulations have positive effect on performance. Further, Musau et al., (2019) argued that reliance on digital finance optimizes credit access by reducing cost of credit. Moreover, Chen and Mazer (2016) called for increased strategies of credit access.

5.2.4 Business Risk and Sustainability

The fourth objective of the study revealed positive and not significant effect business risk and sustainability of manufacturing small and medium enterprises in Nairobi, Kenya. The findings are in disagreement with trade off theory. Further the study is in agreement with Mutinda (2020) who reported inverse effect of business risk on credit access thus reducing performance. Further, Peshev and Beey (2016) indicated that business risk is a crucial consideration prior to credit provision. Moreover, Murigi et al., (2020) argued that the type of business risk has effect on access on alternative financing approaches.

5.3 Conclusion

From the findings that sustainability of manufacturing small and medium enterprises is contingent to cost of credit, interest rate, credit rationing and business risk. The first objective of the study revealed positive and significant effect on sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. It can be concluded that loan processing fees, legal fees, insurance fees and negotiating fees have inverse effect on sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya.

The second objective revealed inverse and not significant effect of interest rates and sustainability of small and medium enterprises in Nairobi County, Kenya. From the findings it

can be concluded that the sustainability of manufacturing small and medium enterprises is significantly affected by inflation rates and total cost of credit.

The third objective of the study revealed positive and significant effect of credit rationing on sustainability of small and medium enterprises in Nairobi County, Kenya. From the findings it can be concluded credit access was limited by number of loans applied by manufacturing companies, type of loan products applied for, repayment period and collateral required.

The fourth objective of the study revealed positive and not significant effect of business risk on sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. The inverse effect indicates that business risk and sustainability of manufacturing small and medium enterprises in Nairobi County, Kenya. Thus, it can be concluded the higher the price fluctuations, competition and emergence of technologies the hinders the odds of sustaining firms.

5.4 Recommendations

5.4.1 Policy Recommendations

Since sustainability of small and medium enterprises was contingent to cost of credit, interest rate, credit rationing and business risk. It can be recommended that there is need for evaluation of measures aimed at minimizing credit access costs through mitigation of loan processing fees, legal fees, insurance fees and negotiating fees. There is need for adoption of time series approaches while managing price fluctuations, competitiveness and emergence of new products. Through, time series analysis manufacturing companies would better understand

trends in their respective sectors and seasons. Further, there is need for consideration of seeking alternative sources of finance rather than rely on debt capital whose access is constrained by number of loans applied, type of loan, repayment period and collateral required.

5.4.2 Practical Recommendations

There is need for management of respective manufacturing companies to develop policies that may optimize access to finance so as to enhance their odds of sustainability. Since loan processing feesand credit rationing have significant contribution on sustainability of micro and small enterprises in Nairobi County there is need for corporate management to develop measures aimed at eradicating chances of not accessing credit. This can be achieved through registration of manufacturing SMEs, proper record keeping, enhanced internal controls and embracing technology. SMEs should also factor in business risks such as interest and exchange rates when pricing their manufactured goods to improve business margins.

The lenders continue to assign a higher risk profile to SMEs, which usually prices them out of credit market. There is need for financial institutions to use credit lending strategies that are guided by risk attributes of respective borrowers to enhance achievement of value benefits linked with ease access of credit. Financial institutions should embrace the use of fintech to develop credit facilities for SMEs. Use of technological enabled methods for credit management is cheap and efficient. This can lower the cost of credit.

There is need for government to have accurate data of all manufacturing SMEs. To have accurate data of SMEs the government should encourage formalization of business enterprises by easing regulatory procedures for SMEs such as license, statutory deductions, permit

systems, insolvency and taxation. Formalization will improve the potential of SMEs getting credit facilities from financial institutions. Government can use SMEs data in planning and implementation of cheap government sponsored funds to SMEs such as Uwezo and Hustlers Funds. This will ensure that SMEs access such funds with ease.

There is need for academic scholars to adopt ordinal logit or probit and/or multinomial logit when the dependent is not continuous. This approach would mitigate methodological shortcomings that may led to drawing of biased conclusions.

5.4.3 Areas of Further Studies

Since the current study was limited to manufacturing small and medium enterprises in Nairobi County, there is need for expansion of the unit of analysis and observations. The current study was limited to credit access by MSME, there is need for expansion to other factors such as high cost of electricity, labour, taxation as well as market access. The study applied primary quantitative data, subsequent studies may consider adopting qualitative data and/or secondary data to examine short and long run of selected attributes on sustainability of small and medium manufacturing enterprises in Nairobi County. The current study applied regression analysis there is need for consideration of structural equation modelling. Further, the study was limited to manufacturing companies in Nairobi County, there is need for drawing data from heterogenous parts of the country.

5.5 Limitations of the Study

The study was limited by the target population which was limited to micro and small enterprises that hailed from Nairobi County. There was a subjective selection of them, from the list available from Kenya Association of Manufacturers whose physical location is countywide. The study was limited to quantitative data, which was curtailed by challenges associated with corona virus pandemic. The study was limited to only four aspects that may have effect on financial sustainability; cost of credit, interest rate, credit rationing and business risk. Theoretically, the study was limited to delegated monitoring theory, legitimacy theory and relationship lending theory.

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APPENDICES

Appendix I: Introduction Letter

Dear Respondent,

RE: REQUEST TO HELP ME COMPLETE MY STUDY BY FILLING IN THE QUESTIONNAIRE

I am undertaking my Master's degree at Strathmore University. The institution requires me to conduct research as a partial requirement of the requirement for graduation. My research topic is ***the effect of financial accessibility on the sustainability of manufacturing small and medium sized enterprises in Nairobi County, Kenya.***

I am kindly requesting you to help me complete my degree program by filling in the attached questionnaire. I believe that you will maintain a desirable level of accuracy and candidness in your responses to support the achievement of the objective of this study.

For purposes of anonymity, please do not write your name on the face of this questionnaire. Information received will be kept confidentially; no detail will be disclosed to third parties. The information gathered using this questionnaire will be used solely for academic purposes to enhance the knowledge of profitability factors of deposit-taking microfinance institutions (MFIs). If you need the final report from this study, it will surely be presented to your organization for purposes of verification, information and record for future reference.

Thank you for your valuable time and willingness to participate in this study.

Best regards,

Martin Mengo

VT OMNES
VNVM SINT

Appendix II: Informed Consent

Study title: THE EFFECT OF FINANCIAL ACCESSIBILITY ON THE SUSTAINABILITY OF MANUFACTURING SMALL AND MEDIUM SIZED ENTERPRISES IN NAIROBI COUNTY, KENYA.

Institutions and Researchers

Researchers	Institution
Martin Kimondo	Strathmore University

Introduction

My name is Martin Kimondo, a doctorate student in Strathmore University. I am the principal researcher in the study on ***the effect of financial accessibility on the sustainability of manufacturing small and medium sized enterprises in Nairobi County, Kenya.***

You are being asked to participate in this study because you are eligible. The interview will last approximately 25 minutes only. You can ask any questions you have at any time.

This is a consent form that gives you information about the purpose, procedure, risks, benefits, confidentiality/privacy and the process that was expected during the study. If you agree to take part, please sign your name at the bottom of this form.

Purpose of the study

The general objective of the study will be examination of the effect of financial accessibility on the sustainability of manufacturing small and medium sized enterprises in Nairobi County, Kenya.

Procedure of Study

If you decide to join the study, you will be asked questions regarding background, financial accessibility and sustainability of manufacturing SMEs in Nairobi County.

Voluntariness

Study participation will be voluntary. Participation or non-participation would not affect any relationship you have with research institution. Partial participation is allowed and if you wish not to respond to all questions, just inform the research and no-consequences will affect you.

Risks of study participation

Although we shall write your details on paper, every effort was made to protect your privacy and confidentiality while you are participating in the study. The information that you will provide cannot be identified as belonging to you. The interviews will take place in private. Information that will need to be assessed by other persons will be coded such that you are not identified.

Benefits of participating in the study

You may get no direct benefit from the information you provide for this study. However, the information you provide will be used to assist in formulation of policies that may enhance sustainability of manufacturing MSEs.

Study Costs

There are no costs to you for participating in this study apart from your precious time.

Research Related Injury

It is unlikely that any form of injury could happen to you as a result of being part in this study. It is important that you tell the study staff if you feel that you have been irritated or annoyed because of taking part in this study.

Confidentiality

Every effort was made to keep the information you provide confidential. You will only be identified by a code and the personal information from the interview will not be released without your written permission. The information in the questionnaire cannot be identified as belonging to you. You will not be personally identified in any publication about this study.

Contacts and questions

This research will be approved and reviewed by the Strathmore University School of Graduate Studies. The graduate school will review this study in order to help protect participants. If you have any questions about your right as research participant, you may contact the researcher Martin Kimondo in his email address: XXXXXXX and the Strathmore University.

Your statement of consent and signature:

The above information has been read and explained to me. I have asked questions and received answers. I consent voluntarily to participate in this study. You will be given a copy of this signed form to take with you.

……	……..
Participant's initials	Signature/Thumb print and date
……	……
Interviewer's name	Interviewers' signature and date
……	……
Researcher's name	Researcher's signature and date

Appendix III: Questionnaire

Part A: Demographic Information

THE EFFECT OF FINANCIAL ACCESSIBILITY ON THE SUSTAINABILITY OF MANUFACTURING SMALL AND MEDIUM SIZED ENTERPRISES IN NAIROBI COUNTY.

Part A: Demographic Details

1. Gender
- Male
- Female
2. Age
- Below 20 years
- 21-30 years
- 31-40 years
- 41-50 years
- 51-60 years
- Above 60 years
3. What is your highest level of education?
- High school
- Diploma
- Undergraduate degree
- Master's
- PhD or above
- Other …….

Part B: Participants' Experience working with the Manufacturing SME

4. What is your current position in the organisation?
- Top level manager
- Middle level manager

- Operational employee

5. In which department do you work within the microfinance institution?

- Finance & Accounting
- Sales & Marketing
- Operations
- Information technology
- Audit
- Credit
- Other (please specify)……..

6. For how long have you been working with the current microfinance institution?

- Below 1 year
- 2-4 years
- 5-7 years
- 8-10 years
- Above 10 years

7. Indicate by ticking one option the period that your microfinance institution has been in operation.

- Less than 5 years
- 6-10 years
- 11-15 years
- 16-20 years
- More than 20 years

Part C: Loan processing fees

Given the statements in the table below, please indicate the extent to which you agree or disagree with them. Key: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, 5-strongly disagree.

Q.No.	Statement	1	2	3	4	5
12	The huge loan processing costs discourages manufacturing SMEs from seeking credit.					
13	The negotiation fees charged during loan processing is a burden to most manufacturing SMEs.					
14	The insurance fees for loan applied for is not sustainable to most manufacturing SMEs.					
15	During loan processing, manufacturing SMEs are required to meet legal fees, which increases the cost of credit.					
16	High loan processing feeslimits some of the SMEs from accessing funding from financial institutions.					

Part D: Interest Rate

Given the statements in the table below, please indicate the extent to which you agree or disagree with them. Key: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, 5-strongly disagree.

Q.No.	Statement	1	2	3	4	5
17	The interest rate on loans is quite high					
18	It is necessary for funders to consider reducing interest rates					
19	When interest rates are high, manufacturing SMEs desist from accessing loans.					
20	Banks' high interest rates excludes manufacturing SMEs from accessing credit.					
21	Interest capping is necessary to regulate the amount of interest charged on loans extended to SMEs.					

Part E: Credit Rationing

Given the statements in the table below, please indicate the extent to which you agree or disagree with them. Key: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, 5-strongly disagree.

Q.No.	Statement	1	2	3	4	5

22	Most manufacturing SMEs are intentionally excluded from financing.					
23	Some banks extend loans in the amounts lower than what MSMEs apply for.					
24	Credit rationing reduces the amount of finance accessible by the MSMEs.					
25	Banks consider cash flow of a business when deciding the amount of finance to give.					
26	MSMEs that have not managed large amounts of loans previously cannot be given huge loan amounts.					

Part F: Business Risk

Given the statements in the table below, please indicate the extent to which you agree or disagree with them. Key: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, 5-strongly disagree.

Q.No.	Statement	1	2	3	4	5
27	Prevailing business circumstances affects the loan that a bank can offer.					
28	MSMEs with history of non-performance are denied finance.					
29	MSMEs that are operating businesses that banks consider risky are excluded from financing.					
38	The risky trends in the business environment reduces MSMEs' chances of accessing finance.					
31	Business risk is given consideration by banks before providing finance.					

Part G: Sustainability of Manufacturing SMEs

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Given the statements in the table below, please indicate the extent to which you agree or disagree with them. Key: 1-strongly agree, 2-agree, 3-neutral, 4-disagree, 5-strongly disagree.

Q.No.	Statement	1	2	3	4	5
32	Manufacturing SMEs have limited lifespans and tend to fail frequently.					
33	Manufacturing SMEs experience difficulties to engage in social responsibility activities.					
34	Most manufacturing SMEs do not consider eco-friendly production processes.					
35	Meeting the needs of the people in manufacturing SMEs is not guaranteed.					
36	Limited access to credit negatively affects the sustainability of manufacturing SMEs.					

*****End of the questionnaire******

Thanks for participating in this study

Appendix IV: List of Companies Registered under KAM

	KAM Registered Manufacturing firms	27	H.B. Fuller Kenya ltd		**Textile and Apparels**
	Building, Mining and Construction	28	Henkel Kenya Company ltd	1	Adpack ltd
1	African Diatomite Industries	29	Henkel polymer Company ltd	2	Akinyi Odongo Kenya ltd
2	ARM cement ltd	30	Hi-Tech Inks and Coatings	3	Alltex EPZ ltd
3	Bamburi Cement ltd	32	Highchem East Africa Ltd	4	Alpha Knits ltd
4	Bamburi Special products ltd	33	IMCD kenya Ltd	5	Ashton Apparel EPZ ltd
5	Boyama Building Materials	34	Interconsumer Products ltd	6	Beberavi Collections ltd
6	Building Construction concepts	35	Jumbo Matress industries ltd	7	Bedi Investments ltd
7	Central Glass industries ltd	36	Kamili packers ltd	8	Blue Waves Enterprises ltd

8	East Africa Portland Cement	37	Kaolin Crowners Company ltd	9	Brilliant Garments EPZ ltd
9	Flamingo Tiles (Kenya) ltd	38	Kuza Project	10	Chalange Industries ltd
10	Glenn Investments Ltd C/o	39	Kapi ltd	11	Dharmashi & Co ltd
11	Homa Lime Company ltd	40	Kel Chemicals ltd	12	Ethical Fashion Artisons EPZ ltd
12	International Energy Technik ltd	41	Kemia International ltd	13	Fantex (k) ltd
13	International Green Structures M. LTD	42	Ken Nat Ink & Chemical ltd	14	Forces Equipment (kenya) ltd
14	Kay Salt Ltd	43	KIP machine Co. ltd	15	Gone Fishing ltd
15	Kemu Slat Packers Production ltd	44	Leatherlife (EPZ) ltd	16	Hantex Garments Epz ltd
16	Kenbro Industries ltd	45	Maroo polymers ltd	17	Insight Kenya
17	Kenya Builders and Concrete ltd	46	Match masters ltd	18	Kamyn Industries Ltd
18	Kurawa industries ltd	47	MEA ltd	19	Kapric Apparels EPZ ltd
19	Malindi Salt Works	48	Metoxide Africa ltd	20	Kavirondo Filments ltd
20	Manson Hart kenya ltd	49	Milly Glass Works ltd	21	Kema (EA) ltd
21	Mombasa Cement ltd	50	Murphy Chemicals ltd	22	Ken-Kit (Kenya) ltd
22	Orbit Enterprises ltd	51	Norbrook Kenya limited	23	Kenya Shirts Manufacturing Company
23	Pride Enterprises ltd	52	Odex Chemicals ltd	24	Kenya Tents ltd
24	Reliable Concrete Works ltd	53	Orbit Products Africa ltd	25	Kenya Trading (EPZ) ltd
25	Saj Ceramics Ltd	54	Pan Africa Chemical ltd	26	Kikoy Co. ltd
26	Sandblasting & Coatings (Kenya) ltd	55	Polychem East Africa ltd	27	Kikoy Mall
27	Savannah Cement ltd	56	Procter & Gamble East Africa ltd	28	Kikoy Mall EPZ ltd
28	Skylark Construction ltd	57	Proteac Chemicals Kenya ltd	29	Le Stud ltd
29	Space and Style ltd	58	Pyrethrum Board of Kenya	30	Leena Apparels ltd
30	Tana River Quarrying ltd	59	PZ Cussons EA ltd	31	Leeways Control Sytstems & Suppliers
31	Tile & Carpet Centre Ltd	60	Reckitt Benckiser EA ltd	32	Long-yun Garments Kenya EPZ ltd
32	Virji Vishram Patel & Sons	61	Revolution Stores ltd	33	Machester Outfitters
33	Wareng Ndovu enterprises 2005 Ltd	62	Rok Industries ltd	34	Mills industries
34	Vallem Construction Ltd	63	Rumorth group of Companies ltd	35	Mombasa Apparells
	Chemical and Allied Sector	64	Rutuba Bio Agri & Organic Fertilizers Co. ltd	36	New Wide Garments (k) ltd
1	Basco Products (K) ltd	65	Sanergy	37	Ngecha Industries ltd
2	Bayer East Africa ltd	66	Sanvoks Industries ltd	38	Oriental mills
3	Beiersdorf East Africa ltd	67	SC Johnson and Son kenya formerly Sara Lee	39	Panah ltd
4	Blue Ring Products Ltd	68	Seweco paints ltd	40	Penny Galore ltd
5	BOC kenya ltd	69	Shreeji Chemical ltd	41	Rivatesx (East Africa) ltd
6	Buyline industries ltd	70	Strategic Industries ltd	42	Royal Garment Industries ltd
7	Canon Chemical ltd	71	Supa Britle ltd	43	Long-yun ltd
8	Carbacid (C02) ltd	72	Superfoam ltd	44	Shin-Ace Garments Kenya (EPZ) ltd
9	Chemraw EA ltd	73	Synergy Gases (k) ltd	45	Simba Apparel EPZ ltd

10	Chrysal Africa ltd	74	Syngenta East Africa ltd	46	Soko EPZ ltd
11	Chryso East African ltd	75	Synersins ltd	47	Spin Knit ltd
12	Crop nurtrition laboratory services ltd	76	Tata Chemicals magandi ltd	48	Spinners & Spinners ltd
13	Cooper K brands ltd	77	Tri-Clover Industries (K) ltd	49	Squaredeal Uniforms Centre ltd
14	Coral Paints ltd	78	Tropikal Brand (Africa) ltd	50	Straightline Enteprises
15	Crown Gases ltd	79	Turea Ltd	51	Summit Fibres ltd
16	Crown Paints (Kenya) ltd	80	Twiga Chemical Industries ltd	52	Sunam Shakti
17	Darford Enterprises ltd	81	Unilever East Africa	53	Sunflag Textile &n Knitwear Mills ltd
18	Decase Chemical ltd	82	Valencia Cosmetics ltd	54	Tarpo Industries ltd
19	Deluxe inks ltd	83	Vitafoam products ltd	55	Teita Estate limited
20	Desbro Kenya ltd	84	Waridi Creations ltd	56	TSS spinning abd Weaving ltd
21	Diversey Eastern & Central Africa ltd	85	Westminister Paints and Resins ltd	57	Thika Cloth Mills ltd
22	Eastern Chemical Industries ltd	86	Haco Tiger Brands	58	Tulips Collections ltd
23	Elex Products ltd	87	Osho Chemicals ltd	59	United Aryan (EPZ) ltd
24	Enviro-Hub Holdings Ltd		**Food and Beverage**	60	Vajas Manufactures ltd
25	Flame Tree Africa	1	Aariva ltd	61	Wildlife Works (EPZ) ltd
26	Galaxy Paints & Coating Co. ltd	2	Africa Spirits ltd	62	World of kikoys
	Energy, Electricals and Electronics	3	Agricultural & Veterinary Supplies Ltd	63	Zaritex knitwear Kenya
1	Aial group ltd	4	Agriner Agricultural Development		**Timber Wood and Furniture**
2	Amedo Centre Kenya ltd	5	Agri Pro-Pak ltd	1	African Retail Traders
3	Asano International ltd	6	Agro Chemical and food company ltd	2	Biashara Master sawmills
4	Assa Abloy East Africa ltd	7	Alliance One Tobacco Kenya	3	Budget Furniture ltd
5	Aucma Digital Technology Africa ltd	8	Al-Mahra Industries ltd	4	Comply industries ltd
6	Avery East Africa ltd	9	Almasi Beverages ltd	5	Contrive Industries ltd
7	Baumann Engineering ltd	10	Alpha Fine Foods ltd	6	Economic Housing Group limited
8	Biogas Power Holdings (EA) ltd	11	Alpha Grain Millers ltd	7	Elburgit Enteprises ltd
9	Centurion Systems ltd	12	Alpine Coolers ltd	8	Fine Wood Works ltd
10	Daima Enegry Services ltd	13	Aquamist ltd	9	Fun kidz
11	Digitech East Africa ltd	14	Arkay industries ltd	10	Furniture International limited
12	East Africa Cables ltd	15	Aviano East Africa ltd	11	House of Sahara Enterprises limited
13	Farm refrigeration & Electrical Systems	16	Bakers Corner ltd	12	Kenya Wood Products limited
14	Holman Brothers (E. A) ltd	17	Bakex Millers ltd	13	Little Cribs ltd
15	Ibera Africa Power (EA) ltd	18	Belat Enterprises	14	Major Furniture
16	Kenwest Cables ltd	19	Besize Industries ltd		**Timber Wood and Furniture**
17	Kenya power ltd	20	Beverage Services (K) ltd	15	Newline Ltd
18	Libya oil Kenya ltd (Mobioil Kenya)	21	Bidco Africa ltd (Formely bidco Oil refirenies	16	Panesar's Kenya ltd
19	Manufacturers & suppliers (K) ltd	22	Bio food product ltd	17	PG Bison (k) ltd
20	Marshall Fowler (Engineers)	23	Bdelo ltd	18	Rai Plywoods (kenya) ltd
21	Metlex International ltd	24	Bouty ltd	19	Rosewood Furniture Manufacture ltd
22	Metsec Cables ltd	25	British American Tobacco Kenya ltd	20	Savannah Saw Mills
23	Muhoroni briquett Co ltd	26	Broadway Bakery ltd	21	Shamco Industries ltd

24	Mustek East Africa ltd	27	Brookside Dairy ltd	22	Shayona Timber ltd
25	National wide Electrical Industries ltd	28	Brown Biashara ltd	23	Timber Treatment International ltd
26	Oilzone (E. A) ltd	29	Bunge East Africa ltd	24	Timsales ltd
27	Optimum lubricants ltd	30	Butali Sugar Mills ltd	25	Turea ltd
28	Ouru power ltd	31	Burton and Mamber Company ltd	26	Wood Makers (k) ltd
29	Patronics Services ltd	32	Buuri Millers Enterprises	27	Woodtex Kenya ltd
30	PCTL Automation ltd	33	C. Dormans ltd		**Food and Beverage**
31	Pentagon Agencies	34	C.Czarnikow Sugar East Africa ltd	186	Spice World ltd
32	Philips EA ltd	35	Cadbury Kenya ltd	187	Stawi foods and fruits ltd
33	Scheider Electric ltd	36	Caffe Del Duca ltd	188	Umoja floor mills ltd
34	Powerex lubricants ltd	37	Candy kenya ltd	189	Umoja Maintainance Centre (k) ltd
35	Premier Solar Solutions ltd	38	Capel Food Ingridients	190	Unga Group ltd
36	Protel Studios	39	Capwell industries ltd	128	Kuguru Food Complex ltd
37	Repelectric (k) ltd	40	Centrofood Industries ltd	129	Kwality Candies & Sweets ltd
38	Rich Enviro Fuels Ltd	41	Chai Trading Company ltd	130	Mafuko Industries ltd
39	Roka Industries Ltd	42	Chemelil Sugar Company ltd	131	Mama Millers ltd
40	Scales & Software (k) ltd	43	Chirag Kenya ltd	132	Manji Food Industries ltd
41	Siera Cables East Africa	44	Coast Silos (k) ltd	133	Mastermind Tobacco (k) ltd
42	Socabelec (EA) Ltd	45	Coast Bottlers ltd	134	Mayfeeds Kenya ltd
43	Solar Power and Infrastructure Ltd	46	Coffee Agriworks ltd	135	MDI ltd
44	Soilatek Electronics (Kenya) ltd	47	CoffeeTea Agencies ltd	136	Megatech ltd
45	Solimpexs Africa ltd	48	Crown Beverages	137	Melvin Marsh International
46	Specialised Power systems ltd	49	Danone Baby Nutrition Africa and Overseas	138	Menengai Oil Refineries ltd
47	Synergy Lubricants Solutions	50	Del Monte Kenya ltd	139	Meru Water & Sewerage Services
48	Synergy Pro	51	Diamond Industries ltd	140	Milly Fruit Processors ltd
49	Virtual City ltd	52	Doinyo Lessos Creameries ltd	141	Mini Bakeries (NBI) ltd
50	Vivo Energy Kenya ltd	53	DPL Festive ltd	142	Miritini Kenya ltd
	Fresh Produce	54	Dutch Water ltd	142	Mjengo ltd
1	Aquilla Development Co ltd	55	East Africa Breweries ltd	143	Mombasa Maize Millers
2	Avoken ltd	56	East Africa Malt ltd	144	Monwalk Investments ltd
3	Dilpack Kenya ltd	57	East Africa Sea Food Ltd	145	Morani ltd
4	Fontana ltd	58	East Africa seed Co ltd	146	Mount Kenya Bottlers ltd
5	From Eden	59	Edible oil products ltd	147	Mumias Sugar Company ltd
6	Groove ltd	60	Eldoret Grains ltd	148	Munyiri Special Honey ltd
7	Imani flowers ltd	61	Elekea ltd	149	Mzuri Sweets ltd
8	Kankam Exporters ltd	62	Elle Kenya ltd	150	Nairobi Bottlers ltd
9	Mahee Flowers	63	Equator Bottlers ltd	151	NAS Airport Services ltd

10	Maridadi flowers ltd	64	Erdemann Co. (K) ltd	152	New Kenya Cooperative Cremaries ltd
11	Rainforest Farmlands (K) ltd	65	Europack industries ltd	153	Nesfoods industries ltd
12	Sunland Roses ltd	66	Excel Chemicals ltd	154	Nicey Nicey Maize Millers
	Food and Beverage	67	Farmers choice ltd	155	Njoro Canning Factory (Kenya) ltd
98	Eastern Produce (K) Kakuzi	68	Fresh Produce Exporters Association of Kenya	156	Norda Industries ltd
99	Kambu distillers ltd	69	Frigoken Ltd	157	Nzoia Sugar Company ltd
100	Kamili packers ltd	70	FRM EA packers ltd	158	Olivado EPZ
101	Kapa Oil refineries ltd	71	General Millers East Africa ltd	159	Palmhouse Diaries ltd
102	Karirana Estate ltd	72	Giloil Company ltd	160	Patco Industries ltd
103	Kedsta Investment ltd	73	Githunguri Dairy Farmers Cooperative Society	161	Pearly LLP
104	Kenafric Bakery	74	Glacier Products (Amor Mia, Dairyland, Mio)	162	Pernod Ricard Kenya ltd
105	Kenafric industries ltd	75	Global Fresh ltd	163	Pearl industries ltd
106	Kirinyaga Floor Mills ltd	76	Global Tea & Commodities (K) ltd	164	Pembe flour mills ltd
107	Kenblest ltd	77	Gold Brown Beverages (k) ltd	165	Platinum distillers ltd
108	Kenchic ltd	78	Gold Crown Foods (EPZ) ltd	166	Premier Flour Mills ltd
109	Mamboleo Distillers ltd	79	Golden Africa Kenya Limited	167	Premier Food Insdustries ltd
110	Kentaste Products ltd	80	Gonas Best ltd	168	Pride Industries ltd
111	Kenya Breweries ltd	81	Grain Bulk Handlers	169	Pristine International ltd
112	Kibos sugar refinery ltd	82	Grain Industries ltd	170	Proctor & Allan (E.A) ltd
113	Kwale International Company ltd	83	Green Forest Foods ltd	171	Promasidor Kenya ltd
114	Kenya Highland seed company ltd	84	Happy Cow ltd	172	Propack Kenya ltd
115	Kenya Horticultural exporters	85	Heritage Foods Kenya ltd	173	Purple Iris Africa
116	Kenya nut company ltd	86	Highland Canners ltd	174	Pwani Oil Products ltd
117	Kenya seed company ltd	87	Highland Mineral Water Company ltd	175	Rafiki Millers ltd
118	Kenya sweets ltd	88	Honey Care Africa ltd	176	Razco ltd
119	Kenya tea Development Agency	89	Insta Products (EPZ) ltd	177	Rift Valley Bottlers ltd
120	Kenya Tea Growers Association	90	Italiani Gelati and Food Produce ltd	178	Sameer Agricult & Livestock (K) ltd
121	Kenya Wine Agencies ltd	91	Jambo East Africa ltd	179	SBC Kenya ltd
122	Kevian Kenya ltd	92	James Finlay Kenya ltd	180	Scrumptious East ltd
123	Kibos Sugar and Allied Industries	93	Jetlak Foods Limited	181	Selecta Kenya Gmbh & sons KG
124	Kinangop Dairy ltd	94	Jjasm Mini-Distillery	182	Sky foods
125	Kisii Bottlers ltd	95	Juja Coffee Exporters	183	Spectre International ltd
126	Koba waters / Bromhill Springs Water	96	Kabianga Dairy ltd	184	Social bites ltd
127	Krish Commodities ltd	97	kerio Valley Development Authority	185	South Nyanza Sugar Company ltd
	Food and Beverage		**Metal and Allied Sector**		**Motor Vehicle & Accessories**
191	United distillers and Vinters	48	Mecol ltd	36	Mutsimoto Motor Company ltd
192	United millers ltd	49	Meru Greens Horticulture ltd	37	Pipe Manufacturers ltd

193	Usafi services ltd	50	Metal Crowns ltd	38	Plateau Motors Ltd
194	Valuepak foods	51	Mitsubishi Corporation Nairobi Liason	39	Rockey Africa limited
195	Valley Confectionary ltd	52	Modulec Engineering Systems ltd	40	R.T. (East Africa) ltd
196	Vert ltd	53	Nail & Steel Products Ltd	41	Ruidu (Kenya) Company ltd
197	Vinepack ltd	54	Naline Steel Works ltd	42	Scania East Africa ltd
198	Vava Coffee ltd	55	Nampack Kenya ltd	43	Scania Group ltd
199	Victory Farms Ltd 106 Thigiri lane	56	Napro Industries ltd	44	Simba Corporation limited
200	W.E. Tilley (Muthaiga) ltd	57	Narcol Aluminium Rolling Mills Ltd	45	Sohansons ltd
201	Wanji Food Industries ltd	58	Ndume ltd	46	Songyi Motocycles International ltd
202	West African Seasoning Co. ltd	59	Orbit Engineering ltd	47	Soroya Motor Spares ltd
203	West Kenya Sugar Company ltd	60	Patnet Steel Makers Manufacturers	48	Theevan Enterprises ltd
204	Winnie's pure Health	61	Richfield Engineering ltd	49	Turaco ltd
205	Wrigley Company (E.A) ltd	62	Rolmil Kenya ltd	50	Toyota Tshusho East Africa ltd
206	Xpressions Flora ltd	63	Safal Mitek ltd	51	Transtraillers ltd
207	Zeelandia East Africa limited	64	Sheffeld kitchen & Laundry solutions	52	Unifilters Kenya ltd
208	Zheng Hong (k) ltd	65	Sierra Flora	53	Uni-truck world ltd
	Leather and Footwear	66	Silverspread Hardware ltd	54	Varsani Brakelinings ltd
1	Alpharama ltd	67	Siya Industries (k) ltd		**Paper and Board**
2	Athi river Tanneries ltd	68	Skyline Holdings ltd	1	Adpak International ltd
3	Azus Leather ltd	69	Southern Engineering Co ltd	2	Allpack industries ltd
4	Budget Shoes ltd	70	Specialised Engineering Co. (EA) ltd	3	Andika Industries ltd
5	C & P Shoes industries ltd	71	St. Theresa Industries	4	ASL packaging ltd
6	Leather industries of Kenya ltd	72	Standard Rolling Mills ltd	5	Associated paper & Stationery ltd
7	Macquin Shoes ltd	73	Steel Structures ltd	6	Autolitho ltd
8	Maridadi Seasons Handcraft	74	Steelmakers ltd	7	Avery Dennisson Kenya ltd
9	Sandstorm Africa ltd	75	Steelwool (Africa) ltd	8	Bag and Envelope Converters
10	Umoja Rubber Products ltd	76	Sufuria World ltd	9	Brand Printers ltd
11	Zingo Investments ltd	77	Tarmal Wire Products ltd	10	Cartoon Manufacturers ltd
	Metal and Allied Sector	78	Technoconstruct Kenya Ltd	11	Cartubox Industries (E.A) ltd
1	African Marine & General Eng. Co. ltd	79	Technosteel industries ltd	12	Cempack solutions ltd
2	Agro irrigation and Pump	80	Tononoka Rolling Mills ltd	13	Chandaria industries ltd
3	Allied East Africa ltd	81	Tononoka Steel ltd	14	Colour Labels ltd
4	Alloy Steel Casting ltd	82	Top Steel kenya ltd	15	Colour Packaging ltd
5	Apex Steel ltd	83	Towertech Africa ltd	16	Colourprint ltd
6	Arvind Engineering ltd	84	Varoma Tech ltd	17	De La Rue Currency Security Print ltd
7	ASL ltd- steel Division	85	Vicensa Investments ltd	18	Digital Hub ltd
8	ASP company ltd	86	Viking industries ltd	19	D.L. Patel Press Kenya Ltd

9	Ashut Engineers ltd	87	Warren Enteprises ltd	20	Dodhia Packaging ltd
10	Athi Rive Steel plant ltd	88	Welding Alloys ltd	21	Dune Packaging ltd
11	Atlantic ltd	89	Wire products ltd	22	East Africa Packaging Industries ltd
12	Blue Nile Wire Products ltd	90	Zenith Steel Fabricators ltd	23	East Africa Paper Mills ltd
13	Booth Extrusions ltd		**Motor Vehicle & Accessories**	24	Economic Industries ltd
14	Brollo Kenya ltd	1	Ace Motors ltd	25	Elegant Printing Works ltd
15	City Engineering Works (k) ltd	2	Alamdar Training Company ltd	26	Ellams products ltd
16	Container Technology ltd	3	Associated Battery Manufactures (EA) ltd	27	Elite Offset ltd
17	Cook 'N lite ltd	4	Associated Vehicle Assemblers ltd	28	English press ltd
18	Corrugated Sheets ltd	5	Auto Ancillaries ltd	29	Essential Manufacturing
19	Crystal Industries ltd	6	Auto Industries ltd	30	Euro Packaging ltd
20	Davis & Shirtliff ltd	7	Auto fine Filters & Seals ltd	31	Fortune Printers & Stationers ltd
21	Devki Steel Mills ltd	8	Banbros ltd	32	General Printers ltd
22	Doshi & Company Hardware ltd	9	Bhachu Industries ltd	33	Green Pencils ltd
23	East Africa Spectre ltd	10	BMG holdings ltd	34	Guaca Stationers ltd
24	East Africa Foundry (k) ltd	12	Choda Fabricators ltd	35	Ubuntu Paper Mills ltd
25	East Africa Glassware Mart ltd	13	Chui Autospring industries ltd	36	International Paper Board Supplies ltd
26	Easy Clean Africa ltd	14	Cica motors	37	Juja Pulp & Paper ltd
27	Elite Tools ltd	15	CMC Motors Group ltd	38	Karatasi Industries ltd
28	Fine Engineering Works ltd	16	Dodi Autotech (k) ltd	39	Kenafric Diaries Manufactures ltd
29	Farm Engineering Industries ltd	17	Foton East Africa ltd	40	Kenya Stationers ltd
30	Friendship Container Manu. ltd	18	General Motors East Africa ltd	41	Kim-Fay East Africa ltd
31	Ganglong International Company ltd	19	Handa (k) ltd	42	Kul Graphics ltd
32	Greif Kenya ltd	20	Honda Motorcycle Kenya ltd	44	L.A.B International kenya ltd
33	Harvey Bus Body builders	21	Igo Holdings ltd	45	Mainstream Bookshop
34	Heavy Engineering ltd	22	Impala Glass industries ltd	46	Manipal International Printing Press
35	Hebatullah brothers ltd	23	Kenya Coach Industries ltd	47	MfI ultra Print ltd
36	Insteel ltd	24	Kenya Vehicel Manufacturers ltd	48	Modern Lithographic (k) ltd
37	Iron Art ltd	25	Kenyon ltd	49	Nation Media Group ltd _
38	Kaluworks ltd	26	King-Bird (k) ltd	50	National printint Press ltd
39	Kenya General Industries ltd	27	King Finn Kenya ltd	51	Ndalex Digital Technology
40	Kenya United Steel Company ltd	28	Kibo Africa ltd	52	Packaging Manufacturers (1976) ltd
41	Khestshi Dharamshi & Co ltd	29	Labh Signh Harnam Singh ltd	53	Palmay enteprises
42	Kitchen King ltd	30	Makindu Motors ltd	54	Paper House of Kenya ltd
43	Laminate Tube Industries ltd	31	Mann Manufacturing Co. ltd	55	Paperbags ltd
44	Load Trailers	32	Mash East Africa ltd	56	Press master ltd
45	Mabati Rolling Mills ltd	33	Master Fabricators ltd	57	Prime Catons limited
46	Marine Crafts & Boat Repairs	34	Megh Cushion Industries ltd	58	Pinting Services ltd
47	Marvel lifestyle ltd	35	Mobius Motors Kenya ltd	59	Printpak Multipackaging ltd
	Paper and Board		**Plastic and Rubber**		**Services and Consultancy**
60	Printwell industries ltd	32	Kenrub ltd	20	Capital Colours Creati Designers Ltd
61	Punclines ltd	33	Kentainers ltd	21	Ceven ltd

62	Ramco Prininting works ltd	34	Kenya Suitcase Manufacturers ltd	22	CFL Advocates
63	Regal Press Kenya ltd	35	Kinpash Enterprises ltd	23	Chase bank (k) ltd
64	Rushabh Industries ltd	36	Kwality Packaging House ltd	24	Chemtech International ltd
65	Shri Krishana Overseas ltd	37	L.G. Harris & Co. ltd	25	City Clock (k) limited
66	Skanem Interlabels Nairobi ltd	38	lahhir Plastics ltd	26	Cityscape Trends services ltd
67	Sintel security Print Solutions ltd	39	Laneeb Plastic Industries ltd	27	Commercial bank of Africa
68	Soloh Worldwide Inter-Enterprises ltd	40	Malplast Industries ltd	28	Compulynx Ltd
69	Standard group ltd	41	Mega (EA) Plastics	29	Control Risks East Africa
70	Statpack Industries ltd	42	Metro Plastics Kenya ltd	30	Consumer Options ltd
71	Taws ltd	43	Mombasa Polythene Bags ltd	31	Danish Cleantech group
72	Tetra Pak ltd	44	Nairobi Plastics ltd	32	Delegation of G Industry & Com
73	The Print Exchange	45	Nakuru plastics ltd	33	Deloitte & Touche
74	The Rodwell Press ltd	46	Ombi Rubber Rollers limited	34	DNV GL kenya limited
75	Tissue Kenya ltd	47	Packaging Industries ltd	35	Diverse Management Consultancy ltd
76	Uneeco Paper Products ltd	48	Packaging Masters ltd	36	East Africa Development Bank
77	United Bags Manufacturers ltd	49	Plast Packaging Industries ltd	37	E management Africa
	Pharmaceutical and Medical Equipment	50	Plastic Electicons	38	E Momentum Interactive Systems ltd
1	African Cotton Industries ltd	51	Plastics & Rubber Industries ltd	39	Ernst 7 Young
2	Alpha Medical Manufacturers ltd	52	Polly Propein Bags ltd	40	Express Communications ltd
3	Autosterile (EA)	53	Polyblend ltd	41	Flexi Personnel ltd
4	Benmed Pharmaceuticals ltd	54	Polyflex Industries ltd	42	GE East Africa Services Ltd
5	Beta Healthcare International ltd	55	Polythene Industries ltd	43	Gems Skills (Kenya) ltd
6	Biodeal Laboratories ltd	56	Premier Industries ltd	44	Grain Bulk Handlers
7	Biopharma ltd	57	Prospel ltd	45	Grant Thornton Consulting ltd
8	Cosmos ltd	58	Pyramid Packaging ltd	46	GS1 Kenya
9	Dawa ltd	59	Raffia bags (k) ltd	47	Halliday Finch ltd
10	Elys Chemical industries ltd	60	RitePak ltd	48	Hotpoint Appliances Limited
11	Essential Drugs ltd	61	Rubber Products ltd	49	House of Major
12	Glaxo Smithkline Kenya ltd	62	Rushabh Industries ltd	50	HTM Capital ltd
13	KAM industries	63	Safepak ltd	51	IDB Capital ltd
14	Laboratory & Allied ltd	64	Sammer Africa ltd	52	Ikapamedia East Africa
15	Medivet Products ltd	65	Sanpac Africa ltd	53	Industrial & Commercial Dev Corp.
16	Njimia (k) ltd	66	Scandic ltd	54	Industrial and Scientific Support Ser
17	Osschemie ltd	67	Shiv Enterprises (E) ltd	55	Industrial Promotion Services (K) ltd
18	Pharm Access Africa ltd	68	Signode Packaging Systems ltd	56	International Energy Technik ltd
19	Pharmaceutical Manufacturing Co. (K)	69	Silafrica Kenya ltd	57	Intraspeed Arcpro Kenya ltd
20	Questra Care ltd	70	Silpack Industries ltd	58	Insight Management Consultants Ltd

21	Regal Pharmaceuticals ltd	71	Silver Coin Imports ltd	59	Institute of Packaging Professionals
22	Revital Healthcare (EPZ) ltd	72	Singh Retread ltd	60	International Supply Chain Solutions
23	Skylight chemical ltd	73	Sols Inclination ltd	61	Intersoft ltd
24	Sosure Afripads ltd	74	Solvochem East Africa ltd	62	Intertek International ltd
25	Universal Corporation ltd	75	Smartpack limited	63	Intertek testing Services (EA) (PTY) ltd
26	Vetcare Kenya ltd	76	Springbox Kenya ltd	64	Ipay ltd
27	Zain Pharmaceuticals	77	Styroplast ltd	65	Josper Occupational Health & Safety
	Plastic and Rubber	78	Super Manufacturers ltd	66	Kaizen Institute Africa
1	ACME Containers ltd	79	Techpak Industries ltd	67	Kanaga & Associate Advocates
2	Africa PVC Industries ltd	80	Techno plast ltd	68	Karcher ltd
3	Afro Plastics (k) ltd	81	Thermopak ltd	69	Kensil ltd
4	Betatrad (k) ltd	82	Top Pak ltd	70	Kenya Flower Council
5	Blueskty Industries ltd	83	Torrent East Africa ltd	71	Kenya Fire Appliances Co. ltd
6	Bobmil Industries ltd	84	Treadsetters Tyres ltd	72	Kenya National Cleaner Production C
7	Brush manufacturers ltd	85	Umoja Rubber Product ltd	73	Kenya Ports Authority
8	Canaaneast Company ltd	86	Uni- Plastics ltd	74	Knights & Apps ltd
9	Cocorico Investment ltd	87	Vectus Kenya ltd	75	Kuza Project
10	Complast Industries ltd	88	Vyatu ltd	76	Lab Works East Africa ltd
11	Coninx Industries ltd	89	Zaverchand Punja ltd	77	Lean Energy Solutions ltd
12	Dune Packaging ltd		**Services and Consultancy**	78	Lori Systems ltd
13	Darshan Plastics ltd	1	AAM Resources	79	Louis Dreyfus Kenya ltd
14	Dynaplas ltd	2	Access Alliance ltd	80	Lynxbits Global ltd
15	Elgitread (Kenya) ltd	3	Adafric Communications ltd	81	Machinery and Equipment Consult
16	Elgon Kenya ltd	4	African Banking Corporations ltd (ABC Bank)	82	Magnate Ventures ltd
17	Eslon Plastics of Kenya ltd	5	Africote ltd	83	Marubeni Corporation Nairobi Office
18	Finlay Brushware ltd	6	Agricultural Employees Association	84	Matengo Githae & Associates
19	Five Star Industries ltd	7	Alexander Forbes Risk Insurance Brokers	85	Mckay and Company Advocates
20	Flair Kenya ltd	8	Analabs ltd	86	meghraj Capital ltd
21	Foam mattress ltd	9	Andrais Energy ltd	87	Millenium Management Consultants
22	General Plastics ltd	10	Andest Bites ltd	88	Mount Elgon Orchards ltd
23	Hi-tech Poly ltd	11	Ascent Capital Advisory Services LLP	89	Multivac North Africa Kenya
24	Hi-Plast ltd	12	ASKADOC	90	Muri Mwaniki & Wamiti Assocaites
25	Jamlam Industries ltd	13	Bank of Africa	91	Muthaura Mugambi & Njonjo Advocates
26	Jay Giriraj Industries	14	Basf East Africa ltd	92	Muriu Mungai & Advocates
27	Jumbo Chem Kenya ltd	15	Bluekey Software Solution (k) ltd	93	Murumba & Awele Advocates
28	Jumbo Quality Products	16	Bold ltd	94	Naushad Trading Company ltd
29	Just Plastics ltd	17	Brand ID Technologies (EA) ltd	95	Negawatt ltd
30	Kamba Manufacturing (1986) ltd	18	Broadcast Solution International	96	NIC Bank ltd
31	kenpoly Manufacturers ltd	19	Bureau Veritas Kenya ltd	97	Nkemi Consulting
	Services and Consultancy				
98	Nokia Siemens Networks Kenya ltd				
99	Novastar ventures				

100	Origicheck Company ltd
101	Panal Freighters ltd
102	Passion Profit ltd
103	PKF Consulting
104	Polucon Services (k) ltd
105	Premier Training Services
106	Raiser Resources ltd
107	Red lands Roses ltd
108	Rentco East Africa ltd
109	Rongai Workshop and Transport ltd
110	Safaricom ltd
111	Safechem (k) ltd
112	Sagissa Process Engineering (k) ltd
113	Samco Holdings ltd
114	Sperkjet East Africa ltd
115	Service Shoes Africa ltd
116	Sevenseas Technology
117	SGS Kenya limited
118	Siemens Ltd Kenya
119	Spectrum Network ltd
120	Sproxil East Africa
121	Standard Chartered Bank (k) ltd
122	Stanlib Kenya ltd
123	Strategic Value ltd
124	Stratostaff EA ltd
125	Swivel Marketing ltd
126	Symbiotic Media Consortium
127	Syspro Kenya
128	Techno Brain ltd
129	The Cooperative Bank of Kenya ltd
130	The Copy Cat ltd
131	The Helios Group
132	The Leadership Group ltd
133	Trace Soft ltd
134	Transcoceanic Project Deve. (K)
135	Umati Capital (Kenya) ltd
136	Underwriting Africa Insurance Brokers

137	Vehicle and Equipment Leasing ltd
138	Viscar Industrial Capacity ltd
139	Warriors Insight ltd
140	Wotech Kenya ltd
141	Zaki llc

(KAM, 2021)

Appendix V: Ethical Approval

Strathmore UNIVERSITY

24th August 2022

Mr Kimondo, Martin
mkimondo4055@gmail.com

Dear Mr Kimondo,

RE: The Effect of Financial Accessibility on the Sustainability of Manufacturing

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU- master's** researc proposal. Your application reference number is **SU-IERC1402/22**. The approval period is from **24th August 2022 to 23rd August 2023**.

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be use
ii. All changes including (amendments, deviations, and violations) are submitted for review an approval by SU-ISERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse event whether related or unrelated to the study must be reported to SU-ISERC within 48 hours o notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfar of study participants and others or affect the integrity of the research must be reported to SU ISERC within 48 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approva period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study t SU-ISERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and obtain other clearances needed.

Yours sincerely,

for: **Dr Ben Ngoye,**
Secretary; SU-ISERC

Cc: Prof Fred Were,
Chairperson; SU-ISERC

STRATHMORE UNIVERSITY INSTITUTIONAL SCIENTIFIC AND ETHICAL REVIEW COMMITTEE
(SU-ISERC)
24-Aug-2022
Email:ethicsreview@strathmore.edu
P.O BOX 59857-00200
NAIROBI-KENYA

Appendix VI: NACOSTI Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 992120

Date of Issue: 13/July/2022

RESEARCH LICENSE

This is to Certify that Mr.. Martin Mengo Kimondo of Strathmore University, has been licensed to conduct research in Nairobi on the topic: THE EFFECT OF FINANCIAL ACCESSIBILITY ON THE SUSTAINABILITY OF MANUFACTURING SMALL AND MEDIUM ENTERPRISES IN NAIROBI COUNTY, KENYA for the period ending : 13/July/2023.

License No: NACOSTI/P/22/18717

992120

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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